

**TRANSURANIC WASTE
BASELINE INVENTORY REPORT – 2004
Revision 0**



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1 1.0 INTRODUCTION

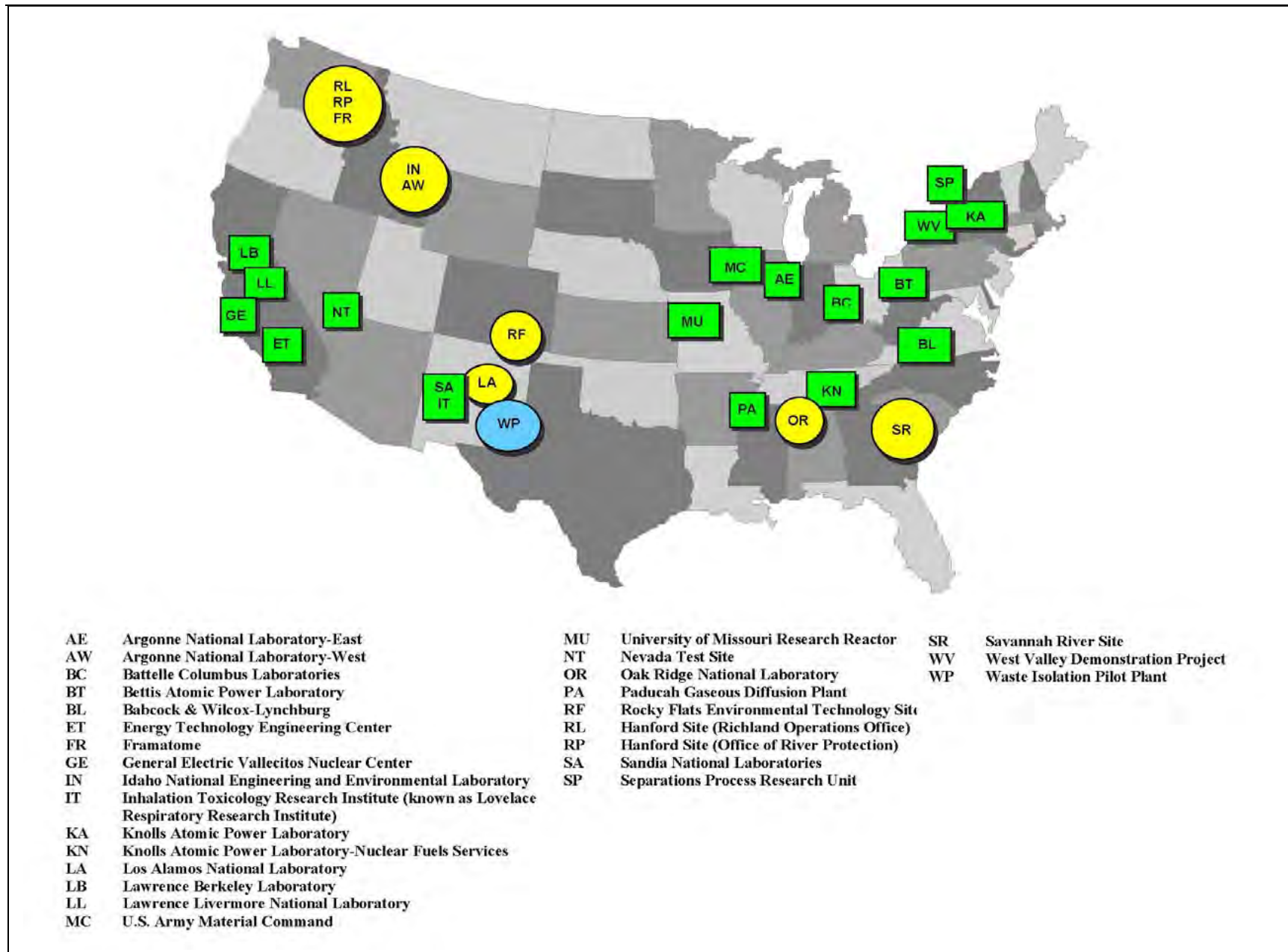
2 1.1 Background

3 The U.S. Department of Energy's (DOE's) Waste Isolation Pilot Plant (WIPP) opened on March
4 26, 1999, becoming the nation's first deep geologic repository for the permanent disposal of
5 defense-generated transuranic (TRU) waste. At the time of data cut off for the Compliance
6 Recertification Application 2004 (CRA-2004) (September 30, 2002), the waste was in
7 retrievable storage at 27 sites across the country (see Figure 1), pending disposal at the WIPP.
8 From the WIPP's opening through the inventory cut off date (September 30, 2002), 1,255
9 shipments of TRU waste were safely characterized, transported, and disposed in the WIPP.

10 TRU waste is defined as "...waste containing more than 100 nanocuries of alpha-emitting
11 transuranic isotopes per gram of waste, with half-lives greater than 20 years..." (Public Law No.
12 102-579, 110 Stat. 2422 [1992], as amended by 104-201 [1996]) (U.S. Congress 1996). TRU
13 wastes are classified as either contact-handled (CH) or remote-handled (RH), depending on the
14 dose rate at the surface of the waste container. CH-TRU wastes are packaged TRU wastes with
15 an external surface dose rate less than 200 millirem (mrem) per hour, while RH-TRU wastes are
16 packaged TRU wastes with an external surface dose rate of 200 mrem or greater per hour (U.S.
17 Congress 1996). Unless otherwise indicated, for the purpose of this document, all references to
18 TRU waste include TRU waste and mixed TRU waste (waste that contains both radioactive and
19 hazardous components, as defined by the Atomic Energy Act [U.S. Congress 1954] and the
20 Resource Conservation and Recovery Act [RCRA] as codified in Title 40 Code of Federal
21 Regulations [CFR] Part 261.3 [EPA 1980]).

22 The DOE is committed to demonstrating compliance with all applicable regulations for the
23 permanent disposal of TRU defense wastes in the WIPP repository. These regulations are the
24 environmental standards for management and disposal of TRU defense wastes as mandated in 40
25 CFR Part 191 (EPA 1993) and Part 194 (EPA 1996), and the RCRA regulations. Compliance
26 demonstration through performance assessment (PA) calculations for the CRA-2004 (DOE
27 2004c) is based on the estimated inventory of existing and currently projected waste streams
28 compiled in this document.

29 The purpose of the *WIPP TRU Waste Baseline Inventory Report* (WTWBIR) Revision 0 (DOE
30 1994) and Revision 1 (DOE 1995a) was to provide data to be included in the PA modeling
31 calculations for the WIPP. The *Transuranic Waste Baseline Inventory Report*, Revision 2
32 (hereafter referred to as TWBIR Revision 2) (DOE 1995b) expanded the original purpose of
33 Revisions 0 and 1 to include support for the WIPP Land Withdrawal Act (LWA) (U.S. Congress
34 1996) by providing an estimate of the total DOE TRU waste inventory. The TWBIR Revision 2
35 included a chapter and an appendix that discussed the total estimated DOE TRU waste inventory,
36 including non-defense, commercial, polychlorinated biphenyl (PCB)-contaminated, and buried
37 (predominately pre-1970) TRU wastes that were not planned at the time for disposal in WIPP.
38 Since that time, Idaho National Engineering and Environmental Laboratory (INEEL), now the
39 Idaho National Laboratory (INL), is preparing to ship pre-1970 buried waste to WIPP.



Ovals and circles represent large quantity sites; squares represent small quantity sites; WIPP is shown in blue.

Figure 1. U.S. Department of Energy TRU Waste Sites

The *Transuranic Waste Baseline Inventory Report*, Revision 3 (hereafter referred to as TWBIR Revision 3) (DOE 1996a) was based on the TWBIR Revision 2 (DOE 1995b) data, which were supplemented by data in several memoranda issued during early calendar year (CY) 1996. These memoranda summarize additional data requested by the DOE to support PA modeling calculations.

The primary purpose of TWBIR Revision 3 (DOE 1996a) was to provide the summary data from TWBIR Revision 2 (DOE 1995b) and the supplemental information used in the PA for the development of the Compliance Certification Application (CCA) (DOE 1996b) that was delivered to the Environmental Protection Agency (EPA), to comply with the LWA (U.S. Congress 1996). The supplemental information was generated from specific data requests to the TRU waste sites since the publication of the TWBIR Revision 2. These supplemental data included estimates for complexing agents, oxyanions, and cement content in solidified waste that were first included in the 2003 Update Report, Appendix DATA Attachment F of the *Compliance Recertification Application 2004* (DOE 2004c).

The purpose of this *Transuranic Waste Baseline Inventory Report - 2004*, for the 2004 WIPP Compliance Recertification Application (hereafter referred to as the TWBIR - 2004) is to document the total estimated inventory of DOE TRU waste as defined by the DOE TRU waste sites. This document is a revision of Attachment F found in the Appendix DATA of the CRA-2004 (DOE 2004c). The primary purpose of this document is to provide the summary data required for the PA modeling calculations in support of the CRA-2004 that were used in the Performance Assessment Baseline Calculation (PABC) (Leigh et al. 2005a; Leigh et al. 2005b). Knowing that the WIPP waste inventory information has changed as a result of characterization activities, improved estimation processes, and emplacement of waste in WIPP, the EPA requested that an update to the CCA (DOE 1996b) inventory be included in the CRA-2004. This information was subsequently updated at EPA's request (Cotsworth 2005). TWBIR - 2004 provides the changes that were made to the inventory estimate that was submitted as part of the PABC.

1.2 Purpose and Objectives

The TWBIR Revision 2 (DOE 1995b) contained the TRU Waste Baseline Inventory Waste Profiles (waste profiles) for all waste stream identifications (ID) (referred to waste stream in this report) reported by the TRU waste sites at that time, including some TRU waste streams that were unacceptable for disposal at WIPP. The waste profiles resided in two appendices in TWBIR Revision 2 (DOE 1995b). Appendix O reported the "Non-WIPP" waste streams and Appendix P reported the "WIPP" waste streams. For the TWBIR - 2004, Appendix I reports the "non-WIPP" waste streams, Appendix J reports the "WIPP" waste streams, and Appendix K reports the "emplaced waste." Although all TRU waste streams currently reported by the sites are accounted for in the current database (TWBID Revision 2.1, see Section 2.1.3) and are reported in the TWBIR - 2004, the non-WIPP waste streams do not contribute to the volume and scaling calculations. Hence, the non-WIPP waste streams did not contribute to the estimated TRU waste inventory for the PABC (Leigh et al. 2005a; Leigh et al. 2005b).

The objectives of the TWBIR - 2004 are to:

1. Estimate and describe the DOE TRU waste inventory;
2. Provide the required CRA information (Appendix DATA Attachment F and specific information requested by the EPA [Cotsworth 2005]) that were used to support the March 2006 WIPP recertification in a stand alone document; and
3. Provide updated information used in the PABC inventory.

To effectively keep track of the changes in the TRU waste inventory, site TRU waste inventory information will be monitored for changes as an ongoing process and will be reflected in subsequent issues of this document.

1.3 Sources of Transuranic Waste Information

For this revision, the TRU waste inventory estimate was developed using existing information about the waste, which was provided by the TRU waste sites. In addition, information obtained from site Acceptable Knowledge (AK) Summary Reports was incorporated to provide the most current information on waste streams being characterized and shipped to WIPP. Particular focus on data collection involved discussion with TRU waste sites about changes to the inventory since the certification of WIPP in 1998. Site visits and onsite interviews facilitated data collection and ensured data were accurately represented.

This report includes information taken from the TWBIR Revisions 2 and 3, the WIPP Waste Information System (WWIS), and information provided by the TRU waste sites. The information found in the TWBIR Revision 2 (DOE 1995b) has not been updated since the publication of that document. The TWBIR Revision 3 (DOE 1996a) used the same data plus other supplemental data that were needed for the CCA PA calculations. The WIPP has been open and receiving waste since March 1999. Therefore, data from the emplaced waste through September 30, 2002, as obtained from the WWIS are included in this report.

1.4 Document Organization

TWBIR - 2004 is organized to be consistent with the TWBIR Revision 3 (DOE 1996a). The contents of remaining sections in this document are summarized below.

- Section 2.0 presents the approach and methods used for gathering and compiling the WIPP waste disposal estimated inventory information, including data entry into the *Transuranic Waste Baseline Inventory Database Revision 2.1, Version 3.13, Data Version D.4.16* (LANL 2005) (hereafter referred to as TWBID Revision 2.1) and a description of the records system used to document the data, as well as analysis methods and results.
- Section 3.0 presents summaries of inventory information including the waste volumes, waste material parameters (WMPs), packaging materials, chemical components, radiological components, discussion regarding the non-WIPP and future potential TRU waste, and discussion regarding the materials used to emplace the waste in the WIPP.

2.0 METHODS AND APPROACH

This document provides the information that was first reported as part of the WIPP CRA-2004 (DOE 2004c) and includes, as requested by the EPA, selected 2004 updates (Cotsworth 2005). The work was performed by Los Alamos National Laboratory – Carlsbad Operations (LANL-CO) and Sandia National Laboratories (SNL). The role of LANL-CO was to provide the updated inventory estimate and associated analyses using inventory information to support the PABC (Leigh et al. 2005a; Leigh et al. 2005b). The role of SNL was to perform the PA calculations, and provide documented results for the PABC. The technical work performed and documentation produced was governed by the SNL WIPP Quality Assurance (QA) Program developed for the SNL Nuclear Waste Management Program (NWMP). Under the SNL QA Program, LANL-CO Inventory personnel:

1. Collected TRU waste stream information from the TRU waste sites via site visits and additional communication, as needed;
2. Entered the information into the Transuranic Waste Baseline Inventory Database (TWBID) Revision 2.1 (LANL 2005), a quality assured electronic database;
3. Performed analyses of the information in support of the CRA-2004 (DOE 2004c) PA and PABC; and
4. Submitted the above results as official WIPP records acceptable for use in WIPP PA calculations.

The following sections describe the four basic process steps leading to the issuance of this report. Section 2.1 discusses information collection, compilation, verification, and validation. Section 2.2 explains the analyses that were performed to provide the information needed to support the PABC calculations (DOE 2004c; Leigh et al. 2005a; Leigh et al. 2005b). An extensive discussion on the evolution of the TWBID, a detailed discussion of the analyses and topics required supporting the PA, and listings of the supporting documents in the SNL WIPP Records Center are given in Appendix M.

2.1 Collection, Compilation, Verification, and Validation of Inventory Information

The sections that follow describe the process of information collection, entry, verification, and validation used to ensure quality was maintained throughout the TRU waste inventory process. The information provided in Section 2.1.1 was specifically called out by SNL to address the PA information needs (Giambalvo 2002). The information was then collected from the TRU waste sites, entered into the TWBID Revision 2.1 (LANL 2005), and independently reviewed and verified by inventory personnel and validated by the sites. The process, by which information was collected, entered, reviewed, verified, and validated is described in Sections 2.1.2 through 2.1.4.

All of the activities described in this section were governed by SNL Procedure SP 9-6, *Baseline Inventory Report (BIR) Change Report Data Collection and Entry* (SNL 2003b). A collection of the documents compiled for each site is provided in Appendix M, including their respective Electronic Records Management System number (ERMS #).

2.1.1 Information Requested for the Performance Assessment

The information requested for the TWBIR - 2004 were called out in a series of communications shown in Appendices G and H. The specific information needs for PA were given in Giambalvo (2002) and include the following:

- Waste stream volumes, broken down into categories of stored, projected, and anticipated waste (sum of stored and projected);
- Inventory of radionuclides by waste stream for both CH- and RH-TRU waste with the requirement that the radionuclides reported be decayed to a common base year;
- Inventory of all non-radioactive waste material parameters that were previously tracked in the TWBIR Revision 3 (DOE 1996a). In addition, identification of all waste streams containing pyrochemical salts;
- Inventory of any other non-radioactive waste materials that are discovered to account for a significant portion of a waste stream as a result of changes to the inventory;
- Inventory of cellulose, plastics, and rubber (CPR) and other biodegradable materials used to facilitate emplacement of waste and magnesium oxide (MgO) in the WIPP;
- Inventory of organic complexing agents and oxyanions (sulfate, nitrate, and phosphate); and
- Waste-stream level inventories of radionuclides and non-radioactive waste material parameters for waste currently emplaced in the WIPP.

2.1.2 Collection Method

For purposes of recertification, the EPA was primarily concerned with changes in the TRU waste inventory since the initial WIPP CCA (DOE 1996b) and certification. Each TRU waste site was sent a copy of their inventory information originally submitted in 1995 for the CCA, in the form of waste profiles from the TWBIR Revision (DOE 1995b). Guidance was included describing the information that each site needed to provide for the PA.

The sites were requested to indicate changes on the waste profiles, including any necessary explanation. The information from the updated waste profiles was entered into the TWBIR Revision 2.1 (LANL 2005), independently verified, and were qualified under SNL NP 19-1, *Software Requirements* (SNL 2004). Upon completion, each site's update waste profile was returned to the appropriate DOE site representative for verification and signature.

Figure 2 illustrates the steps involved in data collection, processing, and reporting.

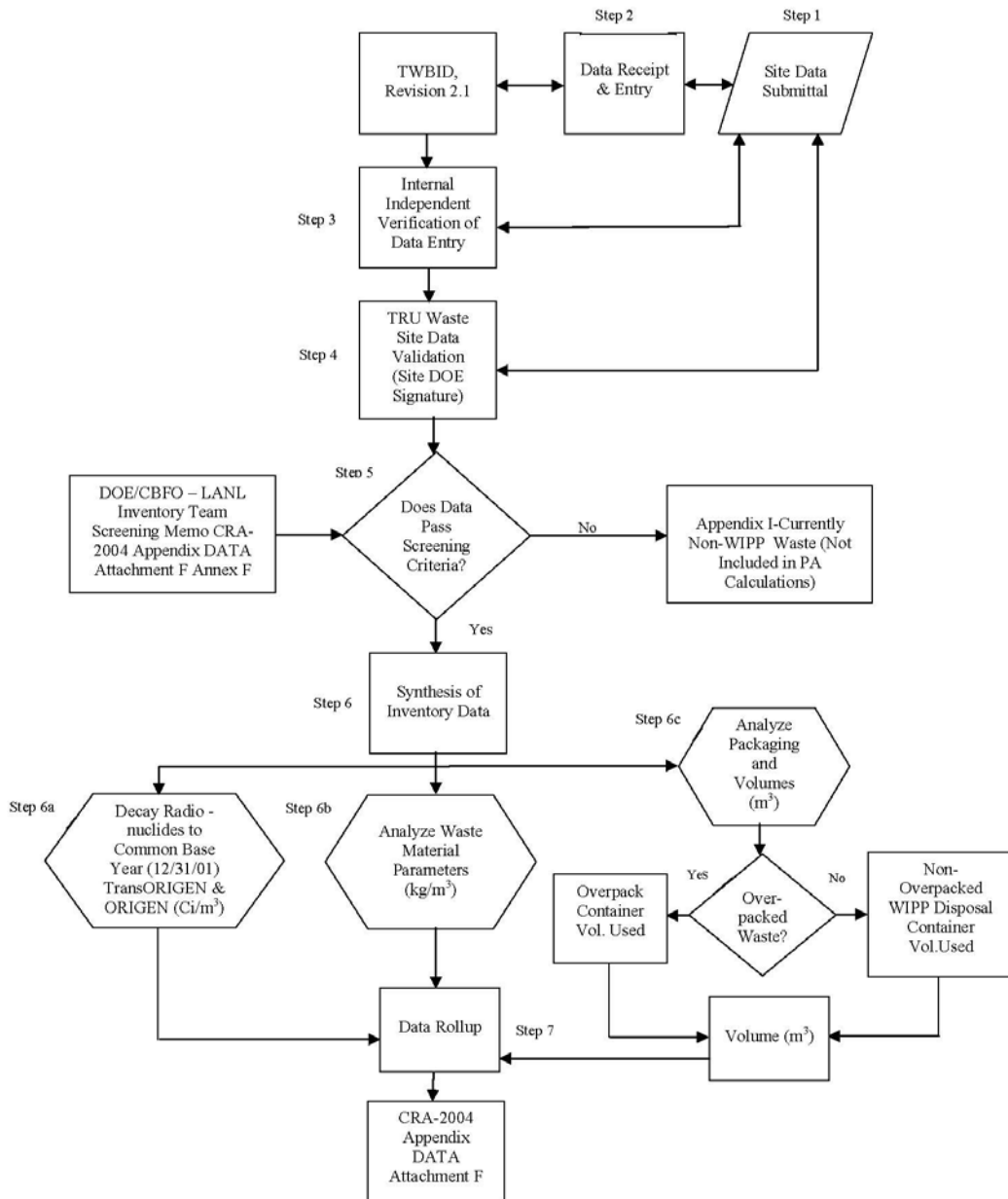


Figure 2. TRU Waste Inventory Process Flow Chart

The methodology used to collect information from the TRU waste sites and to enter this information into the TWBID Revision 2.1 (LANL 2005) is captured in procedure SP-9-6, *Baseline Inventory Report (BIR) Change Report Data Collection and Entry* (SNL 2003b). The process described in this procedure was initiated by a data call based on a request for updating the waste profile information that was included in the TWBIR Revision 2 (DOE 1995b). A second data call specifically requested information required by SNL (Giambalvo 2002). During this time, LANL-CO visited sites to facilitate collection of inventory information, and assist with questions and issues.

As a result of EPA's Completeness Review in 2003, the information from two large quantity sites was subsequently updated with new information and processing. This occurred during the review of the inventory information that was submitted as Attachment F to Appendix DATA of the CRA-2004 (DOE 2004c). An email from Hanford Richland Operations Office (Hanford RL) identified several waste profiles and associated waste streams that they failed to delete when this information was initially submitted. An analysis was performed (Lott 2004a) for these waste profiles, which were subsequently deleted, and therefore supporting the basis for this report.

In addition to the changes in the Hanford information, INL began processing pre-1970 buried waste for shipment to WIPP. Inventory information was collected from the site to update waste stream information on the IN-Z001 buried waste that had been included in the inventory update for the CRA-2004 as possible future waste but "non-WIPP shippable." The site responded to an email request for direction on how the waste stream would be reported in final form. Subsequent discussion and email exchanges resulted in the determination of the IN-Z001 to be separated into five waste streams by expected content based on AK documentation being collected at the site (Lott 2004b).

2.1.3 Implementation of the Transuranic Waste Baseline Inventory Database, Revision 2.1

Inventory information collected from the sites included electronic media containing inventory information, notes from discussions with site waste management personnel, email correspondence, and site literature. The collected inventory information was then compiled and used to update the TWBID Revision 2.1 (LANL 2005) by deletion of waste profiles and associated waste streams that were no longer maintained and/or assimilated into other waste profiles, modification of waste streams, and addition of new waste streams. This information was submitted to the SNL WIPP Records Center.

Waste stream profile information was modified for sites that either had additional information or had modified TWBIR Revision 2 (DOE 1995b) waste streams. When discrepancies were found or sites requested changes to inventory information after preliminary inventory information was entered into the database, change information was documented on forms found in Procedure SP-9-6, *Baseline Inventory Report (BIR) Change Report Data Collection and Entry* (SNL 2003b). The inventory information in the database was updated to reflect this new information and the documentation supporting the changes was submitted to the SNL Records Center.

2.1.4 Inventory Information Verification and Validation

After inventory information was entered and/or updated into the TWBID, an independent review was conducted of all changes that were made to the database. This review was tracked and documented in the database. When all changes were completed, the database record (waste profiles) were sent back to the sites for final verification and validation, and authentication by the DOE site representative. Documentation of validation was submitted to the SNL WIPP Records Center.

Additional records were collected from sites after the inventory was validated and authenticated by DOE site representatives. Records were received from each site explaining changes that had occurred with their inventory since the baseline data collection was performed in 1995. These records were also entered into the SNL WIPP Records Center and excerpts from these records are provided in Appendix C to this report.

2.2 Analysis Methods

In addition to collecting and processing information from the TRU waste sites and securing the site information in a qualified database for future use, analyses were performed on the information to support the CRA-2004 (DOE 2004c) PA and PABC (Leigh et al. 2005a; Leigh et al. 2005b). For example, volume data from waste streams were rolled up into stored, projected, and anticipated categories; WMPs were rolled up to provide average waste material densities in the repository; radionuclides were decay-corrected to the end of calendar year 2001; and radionuclide activities were scaled for the full repository. Appendix M provides a detailed listing of all of the analyses that were required to produce the report that was submitted to EPA as Attachment F to Appendix DATA of the CRA-2004 (DOE 2004c), as well as the reports that supported the PABC.

The analyses were performed in accordance with AP-092, *Analysis Plan for the Transuranic Waste Inventory Update Report, 2003* (SNL 2003a), and two additional analysis plans: AP-112 *Analysis Plan for CRA Response Activities* (SNL 2005a), and AP-113 *Analysis Plan for Inventory Reconciliation: Compliance Recertification Application* (SNL 2005b). AP-112 was written to respond to EPA questions during the CRA-2004 Completeness Review. AP-113 was written to address internal review comments on the document but that have had no impact on PA calculation (Crawford and Leigh 2004). AP-113 was updated as necessary as the information in TWBID Revision 2.1 (LANL 2005) was updated. Section 3.2.3, Chemical Components in Transuranic Waste, including cement analysis and revisions to oxyanions and complexing agents, and Section 3.5, Emplacement Materials, have been revised as needed according to AP-113.

2.2.1 Radionuclide Decay Calculations

One of the needs for the radionuclide inventory information (see Section 2.1.1) for the PA is that all radionuclides reported by waste stream in TWBID Revision 2.1 (LANL 2005) be decayed to a common time frame. However, the site data provided consisted of radionuclide activity concentrations at the date of assay (if the waste stream was assayed) or at the date that the site calculated the activity concentrations. In order to make the radionuclide information complete,

the radionuclide activity concentration reported by the sites was exported from the TWBID Revision 2.1 into an external application (ORIGEN, ORNL 2002) where the radionuclide decay calculations were performed, and then imported back into the TWBID Revision 2.1. See Appendix M for more discussion concerning radionuclide decay calculation and reporting.

2.2.2 Roll-up and Scaling Calculations

The roll-up and scaling calculations performed in support of this report were performed in the TWBID Revision 2.1 (LANL 2005). The computational methods that apply to the roll-up and scaling calculations were defined in the Computational Methodology (LANL 2003). This methodology document was used as the basis for drafting the design documentation required for software qualification of TWBID Revision 2.1. The queries that have been qualified for use in TWBID Revision 2.1 produce the data that are tabulated throughout this report and are documented in records submitted to the SNL WIPP Records Center.

2.2.3 Chemical Component Calculations

A final request for information set forth in Giambalvo (2002) was that this report supply information about the chemical components of the waste such as that supplied in support of the CCA PA in the TWBIR Revision 3 (DOE 1996a). This included a calculation of the mass of organic ligands (complexing agents), the mass of oxyanions (nitrate, sulfate, and phosphate), and the mass of cement expected in the disposal volume for WIPP including the breakout of these components by waste stream.

The calculation of the estimated mass of organic ligands, oxyanions, and cement in the disposal volume for WIPP was governed by SNL Procedure NP 9-1, *Analyses* (SNL 2001). The reports are discussed in Sections 3.2.3.1, 3.2.3.2, and 3.2.3.3. Appendix A contains the results of an analysis of the inventory for pyrochemical salts. The waste streams containing the specific chemical components can be found in Appendix L.

2.3 Records

The entire process of data collection, database development, and analysis leading up to the publication of this report has been documented and submitted to the SNL WIPP Records Center in accordance with SNL Procedure NP 17-1, *Records* (SNL 2003c). A detailed discussion of the records that have been used to generate this report can be found in Appendix M.

3.0 TRANSURANIC WASTE INVENTORY ESTIMATES

This section presents the estimated TRU waste inventory that was collected on behalf of the DOE in support of CRA-2004 (2004c) and was subsequently updated for the PABC (Leigh et al. 2005a; Leigh et al. 2005b). The inventory information is stored in an electronic database, the TWBID Revision 2.1, Version 3.13, Data Version D.4.16 (LANL 2005), which has been qualified as discussed generally in Section 2 and in detail in Appendix M of this report.

This presentation of the TRU waste inventory consists of summaries of the inventory information collected from the TRU waste sites and the information calculated from the data submitted by the sites. Section 3.1 presents the volume information provided by the sites for

CH- and RH-TRU waste and the volume roll-ups to the WIPP repository capacity needed for PA. Section 3.2 presents the non-radiological waste inventory as reported by the sites and as needed for PA. This includes roll-ups of the waste materials (Section 3.2.1), roll-ups of the packaging materials (Section 3.2.2), and information about the chemical components of the waste (Section 3.2.3). Section 3.3 presents the radionuclide inventory reported by the sites and WIPP-level roll-ups of the radionuclide data needed for PA.

Section 3.4 presents a discussion of the non-WIPP and future potential waste, and provides the total volumes of the non-WIPP wastes. Section 3.10 provides information for the materials used to facilitate waste emplacement at the WIPP. The complete TRU waste inventory for all waste streams at all of the sites has been prepared in support of the CRA-2004 (DOE 2004c) and the PABC (Leigh et al. 2005a; Leigh et al. 2005b). That inventory is presented by site by waste stream in Appendices I, J, and K. Appendix I presents individual waste stream profiles for all of the waste streams that have been designated as non-WIPP waste streams, as discussed in Section 3.7. Appendix J presents individual waste stream profiles for all WIPP waste streams planned for emplacement in the WIPP. Appendix K presents individual waste stream profiles for all WIPP waste streams that were emplaced in the WIPP as of September 30, 2002.

3.1 Transuranic Waste Volume Inventory Estimates

The volume information requested from the sites was broken down as follows:

- stored waste – waste that currently exists at the TRU waste site, regardless of whether it is in its final form,
- projected waste – waste that will be generated in the future, and
- anticipated waste – stored plus projected.

Information for emplaced wastes was obtained from the WWIS. The total waste stream volume collected from the sites included stored (v_s) and projected (v_p) components as applicable for each TRU waste stream. The sites also reported both “As Generated” and “Final Form” (as opposed to “Final Waste Form”) waste volumes for their waste streams (see Glossary for definitions). The “Final Form” volume accounts for the payload container (the volume the waste container occupies in the repository). Since PA only considers the waste volume that will be disposed in the WIPP, only the “Final Form” volumes were used of actual (reported by the site) and scaled (used in PA) waste volumes.

Table 1 presents the CH-TRU waste anticipated inventory volumes reported by the sites. Table 2 presents the RH-TRU waste anticipated inventory volume reported by the sites. The data presented in Tables 1 and 2 were derived by summing the waste-stream-level data into a site-level roll-up. For each site, all stored waste stream volumes (v_s) were summed to arrive at the total stored volume for the site, V_s . All projected waste stream volumes (v_p) were summed to arrive at the total projected volume for the site, V_p . The sum of the total stored volume and the total projected volume is the anticipated volume, V_a .

$$V_a = V_s + V_p \quad (1)$$

Where

V_a is the total anticipated volume

V_s is the total stored volume

V_p is the total projected volume.

Table 1. WIPP CH-TRU Waste Anticipated Inventory By Site

TRU Waste Site	Stored Volumes (Cubic Meters)	Projected Volumes (Cubic Meters)	Anticipated Volumes (Cubic Meters)
Argonne National Laboratory - East	1.1E+02	8.0E+01	1.9E+02
Argonne National Laboratory - West	6.0E+00	3.8E+01	4.4E+01
Battelle Columbus Laboratories	5.2E+00	0.0E+00	5.2E+00
Bettis Atomic Power Laboratory	1.9E+01	0.0E+00	1.9E+01
Energy Technology Engineering Center	2.3E+00	0.0E+00	2.3E+00
Hanford (Richland) Site	1.3E+04	5.5E+03	1.8E+04
Hanford (River Protection) Site	3.9E+03	0.0E+00	3.9E+03
Idaho National Engineering and Environmental Laboratory	6.1E+04	1.8E+04	7.8E+04
Knolls Atomic Power Laboratory - Nuclear Fuel Services	5.5E+01	1.7E+02	2.3E+02
Lawrence Livermore National Laboratory	3.5E+02	2.1E+03	2.4E+03
Los Alamos National Laboratory	1.2E+04	3.3E+03	1.5E+04
Nevada Test Site	6.2E+02	4.6E+02	1.1E+03
Oak Ridge National Laboratory	0.0E+00	4.5E+02	4.5E+02
Paducah Gaseous Diffusion Plant	5.7E+00	5.7E+00	1.1E+01
Rocky Flats Environmental Technology Site	5.4E+03	2.8E+03	8.1E+03
Sandia National Laboratories - Albuquerque	2.4E+01	0.0E+00	2.4E+01
Savannah River Site	1.3E+04	2.4E+03	1.5E+04
U.S. Army Material Command	2.5E+00	0.0E+00	2.5E+00
University of Missouri Research Reactor	1.5E+00	0.0E+00	1.5E+00
Totals	1.1E+05	3.5E+04	1.4E+05
Emplaced Volume			
Waste Isolation Pilot Plant	7.7E+03		7.7E+03
Grand Totals	1.2E+05	3.5E+04	1.5E+05

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 2. WIPP RH-TRU Waste Anticipated Inventory By Site

TRU Waste Site	Stored Volumes (Cubic Meters)	Projected Volumes (Cubic Meters)	Anticipated Volumes (Cubic Meters)
Argonne National Laboratory - East	1.5E+01	1.0E+02	1.2E+02
Argonne National Laboratory - West	2.4E+01	6.9E+01	9.3E+01
Battelle Columbus Laboratories	4.4E+01	1.8E+00	4.6E+01
Bettis Atomic Power Laboratory	2.0E+00	0.0E+00	2.0E+00
Energy Technology Engineering Center	5.0E+00	0.0E+00	5.0E+00
Hanford (Richland) Site	3.8E+02	1.1E+03	1.5E+03
Hanford (River Protection) Site	4.5E+03	0.0E+00	4.5E+03
Idaho National Engineering and Environmental Laboratory	2.2E+02	0.0E+00	2.2E+02
Knolls Atomic Power Laboratory - Schenectady	0.0E+00	1.4E+02	1.4E+02
Los Alamos National Laboratory	1.3E+02	0.0E+00	1.3E+02
Oak Ridge National Laboratory	0.0E+00	6.6E+02	6.6E+02
Sandia National Laboratories - Albuquerque	4.6E+00	0.0E+00	4.6E+00
Savannah River Site	0.0E+00	2.3E+01	2.3E+01
Totals	5.3E+03	2.1E+03	7.4E+03

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

3.1.1 Waste Isolation Pilot Plant-Level Roll-Up of Waste Inventory for Performance Assessment

The PA conducted in support of the WIPP recertification was predicated on the assumption that the WIPP repository will be filled to its design capacity at the time of closure. The design capacity for WIPP is 175,564 m³ (6,200,000 ft³) (U.S. Congress 1996) with a limit of 7,079 m³ (250,000 ft³) for RH-TRU waste as imposed by the Consultation and Cooperation Agreement (C&C Agreement) (DOE and State of New Mexico 1988), therefore the CH-TRU disposal limit is 168,485 m³ (5,950,000 ft³). The volume of anticipated plus emplaced waste (CH-TRU and RH-TRU) reported by the sites in support of the CRA-2004 (DOE 2004c) and the PABC (Leigh et al. 2005a; Leigh et al. 2005b) is less than the design capacity for the WIPP for CH-TRU waste, but more than the WIPP design capacity for RH-TRU waste. Therefore, scaling the CH- and RH-TRU waste volumes (up and down, respectively) to the design capacity for CH- and RH-TRU waste in the WIPP is necessary for PA. The scaled inventory for PA is referred to as the disposal volume as described in the Glossary. The CH-TRU waste was scaled up since the anticipated volume is less than the allowable capacity. The RH-TRU waste was scaled down because the anticipated volume of RH-TRU waste exceeded the allowable limit. Scaling is performed only on projected waste.

Table 3 presents the volume scaling factors. The following sections discuss the calculation of the WIPP-level roll-up for CH- and RH-TRU waste.

Table 3. Volume Scaling Factors

CH WASTE	
WIPP capacity for waste	1.68E+05 m ³
Total stored volume	1.09E+05 m ³
Total projected volume	3.47E+04 m ³
Total emplaced volume	7.72E+03 m ³
Volume scaling factor (SF CH)	1.48E+00
Note: $\frac{1.68E+05 - (1.09E+05 + 7.72E+03)}{(3.47E+04)} = 1.48E+00$	

RH WASTE	
WIPP capacity for waste	7.08E+03 m ³
Total stored volume	5.29E+03 m ³
Total projected volume	2.08E+03 m ³
Total emplaced volume	0.00E+00 m ³
Volume scaling factor (SF RH)	8.61E-01
Note: $\frac{7.08E+03 - (5.29E+03 + 0.00E+00)}{(2.08E+03)} = 8.61E-01$	

Data Source: TWBID Revision 2.1, Version 3.1, Data Version D.4.16, LANL 2005.

3.1.1.1 Calculation of Waste Isolation Pilot Plant-Level Roll-Up for Contact-Handled Transuranic Waste

The WIPP disposal limit for CH-TRU waste is 168,485 m³ (5,950,000 ft³). Since the total reported volume of CH-TRU waste is less than the WIPP limit, the projected volume was scaled so the total volume equaled the CH-TRU waste disposal limit for WIPP. The scaling factor for CH-TRU waste was calculated using the following equation applied to WIPP waste streams.

The CH-TRU waste volume scaling factor was calculated as follows:

$$SF_{CH} = (CH-TRU \text{ Design Capacity Volume in } m^3 - V_s - V_e) / V_p \quad (2)$$

Where

- SF_{CH} is the scaling factor for the CH-TRU waste volume as of September 30, 2002
 V_s is the total stored volume over all waste streams and all sites for CH-TRU waste
 V_e is the total emplaced volume over all waste streams and all sites for CH-TRU waste
 V_p is the total projected volume over all waste streams and all sites for CH-TRU waste

The disposal inventory for a single CH-TRU waste stream was obtained by multiplying the CH-TRU waste projected volume by the appropriate scaling factor and adding that value to the stored and emplaced volumes for each waste stream.

$$V_{CH-Disposal} = SF_{CH} (v_p) + v_s + v_e \quad (3)$$

Where

- $v_{CH-Disposal}$ is the disposal volume for CH-TRU waste for a single waste stream
 SF_{CH} is the scaling factor for the CH-TRU waste volume
 v_p is the projected inventory volume for a single CH-TRU waste stream before scaling
 v_s is the stored inventory volume for a single CH-TRU waste stream
 v_e is the emplaced inventory volume for a CH-TRU single waste stream

The total CH-TRU waste disposal inventory, $V_{CH-Disposal}$, is the sum of the scaled CH-TRU waste stream volumes. The scaled waste stream volumes for the CH-TRU waste streams included in the estimate of volume for the PABC are given in Appendix E, Table E-1. All volume and scaling calculated results were derived from the information that was reported in the updated TWBID Revision 2.1 (LANL 2005) for each CH-TRU waste stream. The volume rollups and scaling calculations were performed under the SNL QA program as described in the Computational Methodology (LANL 2003).

3.1.2 Calculation of Waste Isolation Pilot Plant-Level Roll-up for Remote-Handled Transuranic Waste

The WIPP disposal limit for RH-TRU waste is 7,079 m³ (250,000 ft³) (U.S. DOE and State of New Mexico 1988). The reported volume of stored RH-TRU waste is less than the disposal limit but the sum of the stored and projected volumes is greater than the disposal limit. Since the total reported volume of RH-TRU waste is greater than the WIPP limit, the projected volume was scaled down so the total volume for PA equaled the RH-TRU waste disposal limit for WIPP. The scaling factor for RH-TRU waste was obtained after RH-TRU waste streams designated as non-WIPP waste streams (Appendix I) were removed for WIPP waste streams.

The scaling factor for RH-TRU waste was calculated using the following equation:

$$SF_{RH} = (RH-TRU \text{ Design Capacity Volume in } m^3 - V_s - V_e) / V_p \quad (4)$$

Where

SF_{RH}	is the scaling factor for the RH-TRU waste volume as of September 30, 2002
V_s	is the total stored volume over all waste streams and all sites for RH-TRU waste
V_e	is the total emplaced volume over all waste streams and all sites for RH-TRU waste
V_p	is the total projected volume over all waste streams and all sites for RH waste

There is currently no RH-TRU waste emplaced in the WIPP, so the total RH-TRU waste emplaced volume, V_e , is zero.

The disposal inventory for a single RH-TRU waste stream was then obtained by multiplying the RH-TRU waste projected volume by the appropriate scaling factor and adding that value to the stored and emplaced volumes for each waste stream.

$$v_{RH-Disposal} = SF_{RH} (v_p) + v_s + v_e \quad (5)$$

Where

$v_{RH-Disposal}$	is the disposal volume for RH-TRU waste for a single waste stream
SF_{RH}	is the scaling factor for the RH-TRU waste volume
v_s	is the stored inventory volume for a single RH-TRU waste stream
v_e	is the emplaced inventory volume for a single RH-TRU waste stream
v_p	is the projected inventory volume for a single RH-TRU waste stream before scaling

Table 3 shows the calculation for the RH-TRU waste scaling factor and the RH-TRU waste volumes. The total RH-TRU waste disposal inventory, $V_{RH-Disposal}$, is the sum of the scaled RH-TRU waste stream inventories. The scaled waste stream volumes for the RH-TRU waste streams included in the estimate of volume for the PABC is given in Appendix E, Table E-2. All volume and scaling calculated results were derived from the information that was reported in the updated TWBID Revision 2.1 (LANL 2005) for each RH-TRU waste stream. The volume rollups and scaling calculations were performed under the SNL QA program as described in the Computational Methodology (LANL 2003).

The total disposal inventory for the WIPP repository is the sum of the disposal volumes for CH- and RH-TRU wastes for all waste streams after scaling ($V_{CH-Disposal}$ and $V_{RH-Disposal}$).

3.2 Non-Radiological Aspects of the Transuranic Waste Inventory Estimate

This section presents the non-radiological aspects of the TRU waste inventory that was collected on behalf of the DOE in support of the CRA-2004 (DOE 2004c) and the PABC (Leigh et al. 2005a; Leigh et al. 2005b). Section 3.2.1 presents the estimated inventory of waste materials. Section 3.2.2 presents the estimated inventory of packaging materials, and Section 3.2.3 presents the estimated inventory of chemical components.

The DOE has many reasons for obtaining and tracking non-radiological information about the TRU waste inventory destined for WIPP. For example, the DOE tracks the waste materials that go into the repository (i.e., CPR materials) because they may affect gas generation in the

repository. As another example, the DOE tracks the chemical components of the waste going into the repository because they affect the solubility of actinides in the waste. The DOE needs to know the non-radiological properties of the waste not only for PA but also to support safe transportation of the waste and operation of the facility.

The DOE has established a system of tracking the non-radiological waste parameters of the waste destined for WIPP. It involves a description of the waste streams in terms of their waste matrix codes (WMCs) and associated final waste forms, and their WMPs.

The WMPs, final waste forms, and WMCs are defined in the Glossary, and were previously described in the TWBIR Revision 2 (DOE 1995b). The final waste forms and WMCs are also described in detail in the DOE Waste Treatability Group Guidance (DOE 1995c).

The following WMP descriptions were excerpted from the TWBIR Revision 2 (DOE 1995b) and are operative in this document:

- Iron-base metal/alloys – This designation is meant to include iron and steel alloys in the waste and does not include the waste container materials. This also includes an iron-base metallic phase associated with any vitrification process, if applicable;
- Aluminum-base metal/alloys – Aluminum or aluminum-base alloys in the waste materials;
- Other metal/alloys – All other metals found in the waste materials (such as copper, lead, zirconium, and tantalum). The lead portion of lead rubber gloves/aprons is also included in this category;
- Other inorganic material – Includes inorganic non-metal waste materials such as concrete, glass, firebrick, ceramics, graphite, sand, and inorganic sorbents;
- Vitrified material – This refers to waste that has been melted or fused at high temperatures with glass-forming additives such as soil or silica in appropriate proportions to result in a homogeneous glass-like matrix (note that any unoxidized metallic phases, if present, are included in the iron-base metal/alloys waste material parameter);
- Cellulosic material – Includes those materials generally derived from high polymer plant carbohydrates. Examples are paper, cardboard, kimwipes, wood, cellophane, and cloth;
- Rubber material – Includes natural or manmade elastic latex materials. Examples are Hypalon®, neoprene, surgeons' gloves, and leaded-rubber gloves (rubber part only);
- Plastic material – Includes generally manmade materials, often derived from petroleum feedstock. Examples are polyethylene, polyvinylchloride, Lucite®, and Teflon®;
- Solidified inorganic material – Includes any homogeneous materials consisting of sludge or aqueous-base liquids that are solidified with cement, Envirostone®, or other solidification agents. Examples are wastewater treatment sludge, cemented aqueous liquids, and inorganic particulates. If a TRU waste site has not reported cement used as part of the solidification

process in the cement (solidified) waste material parameter, the density of the cement may be included in this field;

- Solidified organic material – Includes cemented organic resins, solidified organic liquids, and sludges;
- Cement (solidified) – Includes the cement used in solidifying liquids, particulates, and sludges. If the field for a solidified final waste form is left blank, it means that either cement is not the solidifying agent or that the cement is included in another waste material parameter field such as solidified inorganic material or other inorganic materials; and
- Soil – Generally consists of naturally occurring soils that have been contaminated with radioactive waste materials at a high enough level to be considered TRU waste.

Packaging material parameters are described in further detail in Section 3.2.2 and Appendix D. Packaging material parameters were reported from the material parameter descriptions described in the TWBIR Revision 2 (DOE 1995b). These parameters were determined by weights defined as follows:

- Steel – The weight of the steel part of the packaging from container information provided by the TRU waste sites. Any necessary overpacking is included in the weight;
- Plastic – The weight of any plastic packaging submitted by the TRU waste sites. When the weight of a rigid liner is not given, a 90-mil high density polyethylene (HDPE) liner is assumed; and
- Lead – The weight of the lead shielding in an RH-TRU canister is assumed if not provided by the TRU waste sites (see Appendix D for details).

Final waste form refers to the expected physical and chemical form of a waste stream after it is ready for disposal (i.e., once the waste has been processed, treated, or repackaged as necessary and is ready for shipment to WIPP). Each final waste form consists of one or more WMCs. The WMCs associated with each of the final waste forms listed below are included in the TWBIR Revision 3 (DOE 1996a, Table 1-2). The purpose of the final waste form is to group waste streams that are expected to have similar physical and chemical properties at the time of disposal. A final waste form was assigned to all reported WIPP waste streams by each of the sites. The final waste forms are:

- Solidified inorganic material,
- Salt,
- Solidified organic material,
- Soil,
- Uncategorized metal (metal waste other than lead and/or cadmium),

- Lead/cadmium metal,
- Inorganic non-metal,
- Combustible material,
- Graphite,
- Heterogeneous debris,
- Filter material,
- Excluded waste streams (excluded from disposal at WIPP), and
- Unknown (excluded from disposal at WIPP).

The purpose of the WMCs is to aid in categorizing mixed waste streams into groups based on their different physical and chemical characteristics. The sites assign the WMCs for all of their mixed waste streams and generally assign them for their non-mixed waste streams as well. The WMC system description and terminology used by the sites and the DOE is detailed in the *DOE Waste Treatability Group Guidance* (DOE 1995c). The WMCs are numerous and are therefore not all listed here. However, the summary category groups (referred to as matrix parameter categories in the “DOE Waste Treatability Group Guidance”) are debris (S5000), homogeneous solids (S3000), and soil/gravel (S4000).

There are several WMCs in each of these summary category groups. For example, the debris (S5000) summary category group is divided into inorganic debris (S5100), organic debris (S5300), heterogeneous debris (S5400), and unknown/other debris (S5900). The inorganic debris group (S5100) is divided into metal debris (S5110), inorganic nonmetal debris (S5120), and unknown/other inorganic debris (S5190). The metal debris (S5110) group is divided into metal debris without lead or cadmium (S5111), and so on. These are detailed in DOE 1995c.

3.2.1 Waste Materials

As part of the data call for TWBIR - 2004, the sites were asked to provide information about the materials contained in the waste. For each waste stream, they were asked to designate a final waste form and to provide the average density of each of the WMPs in the waste stream. In some cases, the sites provided minimum and maximum WMP densities.

For those waste streams where the site did not provide information regarding WMPs, the WMPs were estimated using the methods described in the Computational Methodology (LANL 2003) and in the WMP correction packages as identified in Appendix M. In summary, when partial information was provided (i.e., the minimum value or maximum value but not the average), it was used to calculate the average WMP densities (which were needed for PABC). When WMP density information was not provided for a waste stream, the average density was inferred by identifying an analogous waste stream, and mapping the WMP densities from that waste stream into the waste stream that lacked WMPs. For some sites such as LANL, where WMPs were reported in TWBIR Revision 2 (DOE 1995b), WMPs were traced back to that document. If this

historic information was not available, the other waste streams from that site were reviewed to identify waste streams with similar final waste forms, WMCs, and waste stream descriptions. If a similar waste stream was identified, the WMP densities from that waste stream (source) were attributed to the waste stream that lacked WMP densities (destination waste stream). In both cases, the packaging material parameters were edited using the waste packaging densities discussed in Section 3.2.2 as appropriate for the type of container(s) in the assigned waste stream.

Waste streams were sometimes comprised of more than one container type (for example, 55-gallon drums and standard waste boxes [SWBs]). In these instances, when the site provided only one set of WMP densities, those WMP densities were used for both container types, except for the packaging material parameters, which were modified for the container type using the waste packaging densities given in Section 3.2.2. The waste profiles in Appendices I and J (non-WIPP and WIPP waste streams, respectively) have a weighted average of the WMP densities for all container types used in a waste stream. If the site provided a WMP list for each container type, those lists were maintained in the TWBID Revision 2.1 and a weighted average of the WMPs for all container types was used in the waste profiles generated by TWBID, Revision 2.1, Data Version D.4.16 (LANL 2005).

In some cases, the sites provided incomplete WMP information from which the needed densities could be inferred. Specifically, the WMP average densities were inferred from minimum and maximum WMP data. However, the minimum and maximum values were not used for the CRA-2004 (DOE 2004c) PA or for the PABC (Leigh et al. 2005a; Leigh et. al. 2005b) and they were not reported in the TRU waste inventory estimate.

3.2.1.1 Roll-Up of Final Waste Form Volumes

Table 4 presents a roll-up of the final waste form volumes for CH- and RH-TRU waste. Every WIPP waste stream in the TWBID Revision 2.1 (LANL 2005) has been assigned a final waste form. The total volume for each of the final waste form categories is calculated by summing the unscaled waste stream volume components (emplaced, stored, and projected) with the same final waste form designation for all waste streams, from all sites, destined for WIPP.

Table 4. Transuranic Waste Inventory for WIPP

Final Waste Forms	Stored Volumes	Projected Volumes	Emplaced Volumes	Anticipated Volumes
Contact Handled Waste (cubic meters)				
Combustible	4.3E+03	1.9E+03	6.1E+02	6.8E+03
Filter	9.9E+02	5.9E+02	3.4E+02	1.9E+03
Graphite	1.2E+02	1.3E+00	0.0E+00	1.3E+02
Heterogeneous Debris	4.9E+04	1.4E+04	5.7E+02	6.3E+04
Inorganic Non-Metal	1.2E+04	6.8E+01	9.7E+02	1.2E+04
Lead/Cadmium Metal	1.4E+02	3.2E+01	8.1E+01	2.6E+02
Salt	1.6E+02	1.9E+02	1.5E+03	1.8E+03
Soils	3.0E+02	9.7E+01	0.0E+00	4.0E+02
Solidified Inorganics	3.9E+04	9.0E+03	3.3E+03	5.1E+04
Solidified Organics	1.3E+03	3.9E+03	0.0E+00	5.2E+03
Uncategorized Metal	2.4E+03	5.1E+03	3.6E+02	7.9E+03
Total CH Volumes	1.1E+05	3.5E+04	7.7E+03	1.5E+05
Remote Handled Waste (cubic meters)				
Combustible	1.8E+01	8.9E-01	0.0E+00	1.9E+01
Filter	8.9E+00	8.9E+00	0.0E+00	1.8E+01
Heterogeneous Debris	6.1E+02	9.5E+02	0.0E+00	1.6E+03
Inorganic Non-Metal	4.3E+01	4.4E+01	0.0E+00	8.6E+01
Lead/Cadmium Metal	1.2E+01	7.1E+00	0.0E+00	1.9E+01
Soils	0.0E+00	2.0E+02	0.0E+00	2.0E+02
Solidified Inorganics	4.5E+03	3.3E+02	0.0E+00	4.8E+03
Solidified Organics	9.5E+00	0.0E+00	0.0E+00	9.5E+00
Uncategorized Metal	8.4E+01	5.4E+02	0.0E+00	6.2E+02
RH Total Volumes	5.3E+03	2.1E+03	0.0E+00	7.4E+03
Total TRU Waste Volumes	1.1E+05	3.7E+04	7.7E+03	1.6E+05

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

3.2.1.2 Waste Material Parameter Average Densities for Each Final Waste Form

Tables 5 through 24 present the WMP average densities for each final waste form in CH-TRU and RH-TRU waste. Tables 5 through 15 present CH-TRU waste. Tables 16 through 24 present RH-TRU waste. These tables include the rolled up WMP average densities for each final waste form and the rolled up waste volumes by site that contributed to the total final waste form volume. These volumes are broken out into stored and projected volumes, and the total volume of waste by site for each final waste form. The emplaced volume is shown separately. The final waste forms that have an emplaced waste CH-TRU waste volume are combustible, filter, heterogeneous, inorganic non-metal, lead/cadmium metal, salt, solidified inorganics, and uncategorized metal. No RH-TRU waste is emplaced at the WIPP at this time.

For example, Table 5 presents the WMP average densities for all CH-TRU waste streams with the combustible final waste form designation. The table shows roll-ups for stored, projected, and emplaced CH-TRU waste with the combustible final waste form designation for each site. This information is derived by summing the component volumes for each CH-TRU waste stream in the combustible category at each site.

Calculation of the WMP average densities in a final waste form requires combining data from the individual waste streams with the same final waste form designation as follows:

$$\begin{aligned} {}^{WM}m_i^j &= ({}^{WM}p_i^j)(v_i^j) \\ {}^{WM}M^j &= \sum {}^{WM}m_i^j \\ {}^{WM}P^j &= {}^{WM}M^j / V^j \end{aligned} \quad (6)$$

Where

${}^{WM}m_i^j$	is the mass of the waste material (WM) in waste stream i with a final form designation j
${}^{WM}p_i^j$	is the average density of the WM in waste stream i with a final form designation j
v_i^j	is the volume of waste stream i (stored + projected + emplaced) with a final form designation j
${}^{WM}M^j$	is the total mass of WM in all waste streams with a final form designation j
V^j	is the total volume of all waste streams with a final form designation j
${}^{WM}P^j$	is the average density of the WM in all waste streams with a final form designation j.

At the time of the inventory cutoff date (September 30, 2002, portions of some waste streams had been shipped to the WIPP and emplaced and others were yet to be characterized and shipped. If there was no emplaced waste for a waste stream as of the inventory date, then the emplaced volume in the equation above for that waste stream was zero. If there was no emplaced waste for any of the waste streams within the final waste forms considered, the total emplaced volume for the final waste form was also zero.

There are several notable differences in the WMP average densities for the roll-ups by final waste form when compared to the TWBIR Revision 3 (DOE 1996a). These changes are tabulated and discussed in Appendix B.

3.2.1.3 WIPP-Scale Waste Material Parameter Densities

Performance assessments conducted in support of the WIPP have been predicated on the assumption that waste materials are distributed homogeneously throughout the repository. As a result, a WIPP-scale average estimated value for waste material densities is needed for PA. The estimated WIPP-scale WMP average densities for CH- and RH-TRU wastes in support of the PABC (Leigh et al. 2005a; Leigh et al. 2005b) are presented in Tables 25 and 26, respectively. These are equivalent to CRA-2004 (DOE 2004c) Tables F25 and F26 in Attachment F to Appendix DATA of TWBIR Revision 3 (DOE 1996a) Tables 2-2 and 2-3, respectively. Note also that the TWBIR Revision 3 (DOE 1996a) Tables 2-2 and 2-3 are the same as TWBIR Revision 2 (DOE 1995b, Tables 3-2 and 3-3, respectively). Although these tables in TWBIR Revisions 2 and 3 contain the minimum, maximum, and average densities for the WMP, this report contains only one value of density of the waste representing the best estimate for the WMP.

The WMP densities were combined, or “rolled up,” for the whole repository according to the Computational Methodology (LANL 2003). Specifically, the roll-up of WMP densities required summing the WMP densities from all of the WIPP waste streams reported by the sites. A weighted average value for the WMP based on the individual waste stream volumes in the total inventory was calculated from the WMP densities provided by the sites as shown below:

$$\begin{aligned} {}^{WM}m_i &= ({}^{WM}p_i) (v_i) \\ {}^{WM}M &= \sum {}^{WM}m_i \\ {}^{WM}P &= {}^{WM}M / V \end{aligned} \quad (7)$$

Where

${}^{WM}m_i$	is the mass of the WM in waste stream i
${}^{WM}p_i$	is the density of the WM in waste stream i
v_i	is the unscaled volume of waste stream i (stored + projected + emplaced)
${}^{WM}M$	is the total mass of WM in all waste streams
V	is the unscaled volume of all waste streams
${}^{WM}P$	is the average density of the WM in all waste streams

Table 5. WIPP Contact-Handled TRU Waste Profiles - Combustible

Final Waste Form: Combustible			
Generator Site Waste	Stored	Projected	Total
Site	(cubic meters)	(cubic meters)	(cubic meters)
Argonne National Laboratory - East	9.0E+01	6.6E+01	1.6E+02
Argonne National Laboratory - West	5.4E+00	4.4E+00	9.8E+00
Battelle Columbus Laboratories	5.2E+00	0.0E+00	5.2E+00
Hanford (Richland) Site	9.8E+01	0.0E+00	9.8E+01
Los Alamos National Laboratory	2.9E+03	1.4E+03	4.3E+03
Rocky Flats Environmental Technology Site	1.2E+03	4.5E+02	1.6E+03
Generator Site Waste Total	4.3E+03	1.9E+03	6.2E+03
Emplaced Waste	Stored	Projected	Total
Site	(cubic meters)	(cubic meters)	(cubic meters)
Waste Isolation Pilot Plant	6.1E+02	0.0E+00	6.1E+02
Emplaced Waste Total	6.1E+02	0.0E+00	6.1E+02
Total Waste Volume	4.9E+03	1.9E+03	6.8E+03
Waste Material Parameters	Average Density (kg/m³)		
Iron-Base Metal/Alloys	6.2E+01		
Aluminum-Base Metal/Alloys	6.9E-01		
Other Metal/Alloys	1.4E+01		
Other Inorganic Materials	1.0E+01		
Cellulosics	3.0E+01		
Rubber	1.2E+01		
Plastics	4.4E+01		
Solidified, Inorganic Matrix	6.6E-01		
Cement (Solidified)	4.8E-02		
Vitrified	0.0E+00		
Solidified, Organic Matrix	1.2E+01		
Soils	6.9E-01		

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 6. WIPP Contact Handled TRU Waste Profiles - Filter			
Final Waste Form: Filter			
Generator Site Waste	Stored (cubic meters)	Projected (cubic meters)	Total (cubic meters)
Site			
Hanford (Richland) Site	2.2E+01	0.0E+00	2.2E+01
Lawrence Livermore National Laboratory	1.9E+02	4.5E+02	6.4E+02
Los Alamos National Laboratory	3.3E+02	0.0E+00	3.3E+02
Rocky Flats Environmental Technology Site	4.5E+02	1.4E+02	5.8E+02
Generator Site Waste Total	9.9E+02	5.9E+02	1.6E+03
Emplaced Waste			
Site	Stored (cubic meters)	Projected (cubic meters)	Total (cubic meters)
Waste Isolation Pilot Plant	3.4E+02	0.0E+00	3.4E+02
Emplaced Waste Total	3.4E+02	0.0E+00	3.4E+02
Total Waste Volume	1.3E+03	5.9E+02	1.9E+03
Waste Material Parameters	Average Density (kg/m³)		
Iron-Base Metal/Alloys	8.5E+01		
Aluminum-Base Metal/Alloys	1.8E+01		
Other Metal/Alloys	5.1E+01		
Other Inorganic Materials	1.7E+01		
Cellulosics	4.7E+01		
Rubber	6.2E+00		
Plastics	1.5E+01		
Solidified, Inorganic Matrix	5.9E-01		
Cement (Solidified)	0.0E+00		
Vitrified	0.0E+00		
Solidified, Organic Matrix	3.3E-01		
Soils	4.7E+00		

Data Source: TWBID Revision 2.1, Version 3.13, Data Version 4.1.16, LANL 2005

Table 7. WIPP Contact Handled TRU Waste Profiles - Graphite			
Final Waste Form: Graphite			
Generator Site Waste	Stored (cubic meters)	Projected (cubic meters)	Total (cubic meters)
Site			
Rocky Flats Environmental Technology Site	1.2E+02	1.3E+00	1.3E+02
Generator Site Waste Total	1.2E+02	1.3E+00	1.3E+02
Total Waste Volume	1.2E+02	1.3E+00	1.3E+02
Waste Material Parameters	Average Density (kg/m³)		
Iron-Base Metal/Alloys	1.9E+01		
Aluminum-Base Metal/Alloys	0.0E+00		
Other Metal/Alloys	0.0E+00		
Other Inorganic Materials	1.7E+02		
Cellulosics	8.6E+01		
Rubber	0.0E+00		
Plastics	2.3E+01		
Solidified, Inorganic Matrix	7.1E+00		
Cement (Solidified)	0.0E+00		
Vitrified	0.0E+00		
Solidified, Organic Matrix	0.0E+00		
Soils	0.0E+00		

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 8. WIPP Contact Handled TRU Waste Profiles - Heterogeneous Debris

Final Waste Form:		Heterogeneous Debris			
Generator Site Waste		Stored (cubic meters)	Projected (cubic meters)	Total (cubic meters)	
Site					
Argonne National Laboratory - West		6.2E-01	3.4E+01	3.4E+01	
Bettis Atomic Power Laboratory		1.9E+01	0.0E+00	1.9E+01	
Energy Technology Engineering Center		1.5E+00	0.0E+00	1.5E+00	
Hanford (Richland) Site		1.2E+04	6.8E+02	1.3E+04	
Idaho National Engineering and Environmental Laboratory		2.0E+04	5.6E+03	2.5E+04	
Knolls Atomic Power Laboratory - Nuclear Fuel Services		5.5E+01	1.7E+02	2.3E+02	
Lawrence Livermore National Laboratory		1.3E+02	1.4E+03	1.6E+03	
Los Alamos National Laboratory		2.1E+03	1.4E+03	3.5E+03	
Nevada Test Site		6.1E+02	4.6E+02	1.1E+03	
Oak Ridge National Laboratory		0.0E+00	4.5E+02	4.5E+02	
Rocky Flats Environmental Technology Site		1.0E+03	1.2E+03	2.2E+03	
Sandia National Laboratories - Albuquerque		2.4E+01	0.0E+00	2.4E+01	
Savannah River Site		1.3E+04	2.4E+03	1.5E+04	
U.S. Army Material Command		2.5E+00	0.0E+00	2.5E+00	
University of Missouri Research Reactor		1.5E+00	0.0E+00	1.5E+00	
Generator Site Waste Total		4.9E+04	1.4E+04	6.3E+04	
Emplaced Waste					
Site		Stored (cubic meters)	Projected (cubic meters)	Total (cubic meters)	
Waste Isolation Pilot Plant		5.7E+02	0.0E+00	5.7E+02	
Emplaced Waste Total		5.7E+02	0.0E+00	5.7E+02	
Total Waste Volume		4.9E+04	1.4E+04	6.3E+04	
Waste Material Parameters		Average Density (kg/m³)			
Iron-Base Metal/Alloys		2.4E+02			
Aluminum-Base Metal/Alloys		3.1E+01			
Other Metal/Alloys		5.7E+01			
Other Inorganic Materials		5.3E+01			
Cellulosics		1.2E+02			
Rubber		3.0E+01			
Plastics		8.4E+01			
Solidified, Inorganic Matrix		3.5E+00			
Cement (Solidified)		1.5E-01			
Vitrified		0.0E+00			
Solidified, Organic Matrix Soils		3.4E+00			
Soils		8.7E+01			

Data Source: TWBID Revision 2.1, Version 3.13 Data Version D.4.16, LANL 2005.

Table 9. WIPP Contact Handled TRU Waste Profiles - Inorganic Non-Metal			
Final Waste Form: Inorganic Non-Metal			
Generator Site Waste	Stored (cubic meters)	Projected (cubic meters)	Total (cubic meters)
Site			
Hanford (Richland) Site	1.1E+01	3.0E+01	4.1E+01
Idaho National Engineering and Environmental Laboratory	1.1E+04	0.0E+00	1.1E+04
Paducah Gaseous Diffusion Plant	5.7E+00	5.7E+00	1.1E+01
Rocky Flats Environmental Technology Site	6.5E+02	3.2E+01	6.8E+02
Generator Site Waste Total	1.2E+04	6.8E+01	1.2E+04
Emplaced Waste	Stored (cubic meters)	Projected (cubic meters)	Total (cubic meters)
Site			
Waste Isolation Pilot Plant	9.7E+02	0.0E+00	9.7E+02
Emplaced Waste Total	9.7E+02	0.0E+00	9.7E+02
Total Waste Volume	1.3E+04	6.8E+01	1.3E+04
Waste Material Parameters	Average Density (kg/m³)		
Iron-Base Metal/Alloys	4.2E+00		
Aluminum-Base Metal/Alloys	1.2E-02		
Other Metal/Alloys	5.0E+00		
Other Inorganic Materials	5.5E+01		
Cellulosics	1.9E+01		
Rubber	1.1E-01		
Plastics	2.7E+00		
Solidified, Inorganic Matrix	9.0E-01		
Cement (Solidified)	0.0E+00		
Vitrified	7.1E+01		
Solidified, Organic Matrix	2.7E-05		
Soils	1.8E-03		

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 10. WIPP Contact Handled TRU Waste Profiles - Lead/Cadmium Metal			
Final Waste Form: Lead/Cadmium Metal			
Generator Site Waste	Stored	Projected	Total
Site	(cubic meters)	(cubic meters)	(cubic meters)
Hanford (Richland) Site	1.7E+01	1.4E+01	3.1E+01
Los Alamos National Laboratory	3.7E+00	0.0E+00	3.7E+00
Rocky Flats Environmental Technology Site	1.2E+02	1.8E+01	1.4E+02
Generator Site Waste Total	1.4E+02	3.2E+01	1.8E+02
Emplaced Waste	Stored	Projected	Total
Site	(cubic meters)	(cubic meters)	(cubic meters)
Waste Isolation Pilot Plant	8.1E+01	0.0E+00	8.1E+01
Emplaced Waste Total	8.1E+01	0.0E+00	8.1E+01
Total Waste Volume	2.2E+02	3.2E+01	2.6E+02
Waste Material Parameters	Average Density (kg/m³)		
Iron-Base Metal/Alloys	9.3E+02		
Aluminum-Base Metal/Alloys	1.8E+01		
Other Metal/Alloys	1.5E+02		
Other Inorganic Materials	1.7E+01		
Cellulosics	4.8E+00		
Rubber	3.3E+00		
Plastics	9.1E+00		
Solidified, Inorganic Matrix	8.2E-01		
Cement (Solidified)	0.0E+00		
Vitrified	0.0E+00		
Solidified, Organic Matrix	1.1E-02		
Soils	1.6E-01		

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 11. WIPP Contact Handled TRU Waste Profiles - Salt			
Final Waste Form: Salt			
Generator Site Waste	Stored	Projected	Total
Site	(cubic meters)	(cubic meters)	(cubic meters)
Lawrence Livermore National Laboratory	1.2E+00	1.5E+01	1.6E+01
Los Alamos National Laboratory	1.3E+02	1.7E+02	3.0E+02
Rocky Flats Environmental Technology Site	2.5E+01	0.0E+00	2.5E+01
Generator Site Waste Total	1.6E+02	1.9E+02	3.4E+02
Emplaced Waste	Stored	Projected	Total
Site	(cubic meters)	(cubic meters)	(cubic meters)
Waste Isolation Pilot Plant	1.5E+03	0.0E+00	1.5E+03
Emplaced Waste Total	1.5E+03	0.0E+00	1.5E+03
Total Waste Volume	1.7E+03	1.9E+02	1.8E+03
Waste Material Parameters	Average Density (kg/m³)		
Iron-Base Metal/Alloys	9.7E+00		
Aluminum-Base Metal/Alloys	5.7E-02		
Other Metal/Alloys	3.6E+00		
Other Inorganic Materials	2.1E+02		
Cellulosics	1.4E+02		
Rubber	4.1E-02		
Plastics	8.9E-01		
Solidified, Inorganic Matrix	9.7E+00		
Cement (Solidified)	0.0E+00		
Vitrified	0.0E+00		
Solidified, Organic Matrix	1.2E+01		
Soils	1.5E+00		

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 12. WIPP Contact Handled TRU Waste Profiles - Soils

Table 12. WIPP Contact Handled TRU Waste Profiles - Soils			
Final Waste Form:	Soils		
Generator Site Waste	Stored (cubic meters)	Projected (cubic meters)	Total (cubic meters)
Site			
Hanford (Richland) Site	1.1E+02	0.0E+00	1.1E+02
Idaho National Engineering and Environmental Laboratory	0.0E+00	9.7E+01	9.7E+01
Los Alamos National Laboratory	1.9E+02	0.0E+00	1.9E+02
Generator Site Waste Total	3.0E+02	9.7E+01	4.0E+02
Total Waste Volume	3.0E+02	9.7E+01	4.0E+02
Waste Material Parameters	Average Density (kg/m³)		
Iron-Base Metal/Alloys	7.2E+01		
Aluminum-Base Metal/Alloys	0.0E+00		
Other Metal/Alloys	8.8E+00		
Other Inorganic Materials	1.5E+01		
Cellulosics	1.8E+01		
Rubber	2.9E-01		
Plastics	2.4E+00		
Solidified, Inorganic Matrix	2.4E+01		
Cement (Solidified)	2.9E+01		
Vitrified	0.0E+00		
Solidified, Organic Matrix	5.5E+01		
Soils	5.8E+02		

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 13. WIPP Contact Handled TRU Waste Profiles - Solidified Inorganics			
Final Waste Form: Solidified Inorganics			
Generator Site Waste	Stored	Projected	Total
Site	(cubic meters)	(cubic meters)	(cubic meters)
Argonne National Laboratory - East	2.4E+01	1.3E+01	3.7E+01
Hanford (Richland) Site	1.9E+02	3.0E+01	2.2E+02
Hanford (River Protection) Site	3.9E+03	0.0E+00	3.9E+03
Idaho National Engineering and Environmental Laboratory	2.9E+04	8.3E+03	3.8E+04
Lawrence Livermore National Laboratory	1.4E+01	1.8E+02	1.9E+02
Los Alamos National Laboratory	4.5E+03	2.4E+02	4.7E+03
Nevada Test Site	5.7E+00	0.0E+00	5.7E+00
Rocky Flats Environmental Technology Site	8.1E+02	2.7E+02	1.1E+03
Savannah River Site	2.4E+01	0.0E+00	2.4E+01
Generator Site Waste Total	3.9E+04	9.0E+03	4.8E+04
Emplaced Waste	Stored	Projected	Total
Site	(cubic meters)	(cubic meters)	(cubic meters)
Waste Isolation Pilot Plant	3.3E+03	0.0E+00	3.3E+03
Emplaced Waste Total	3.3E+03	0.0E+00	3.3E+03
Total Waste Volume	4.2E+04	9.0E+03	5.1E+04
Waste Material Parameters	Average Density (kg/m³)		
Iron-Base Metal/Alloys	3.6E+00		
Aluminum-Base Metal/Alloys	2.6E-02		
Other Metal/Alloys	2.9E+00		
Other Inorganic Materials	2.7E+01		
Cellulosics	6.1E+00		
Rubber	2.1E-02		
Plastics	3.2E+00		
Solidified, Inorganic Matrix	2.4E+02		
Cement (Solidified)	1.1E+02		
Vitrified	3.5E-02		
Solidified, Organic Matrix	1.0E+01		
Soils	1.6E+02		

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 14. WIPP Contact Handled TRU Waste Profiles -Solidified Organics			
Final Waste Form: Solidified Organics			
Generator Site Waste	Stored (cubic meters)	Projected (cubic meters)	Total (cubic meters)
Site			
Energy Technology Engineering Center	8.4E-01	0.0E+00	8.4E-01
Hanford (Richland) Site	2.3E+00	3.4E+02	3.4E+02
Idaho National Engineering and Environmental Laboratory	1.1E+03	3.5E+03	4.7E+03
Lawrence Livermore National Laboratory	8.1E+00	4.8E+00	1.3E+01
Los Alamos National Laboratory	2.9E+01	2.7E+01	5.6E+01
Rocky Flats Environmental Technology Site	1.4E+02	4.4E+00	1.4E+02
Generator Site Waste Total	1.3E+03	3.9E+03	5.2E+03
Total Waste Volume	1.3E+03	3.9E+03	5.2E+03
Waste Material Parameters	Average Density (kg/m³)		
Iron-Base Metal/Alloys	7.9E-01		
Aluminum-Base Metal/Alloys	6.1E-02		
Other Metal/Alloys	3.5E-01		
Other Inorganic Materials	2.9E+01		
Cellulosics	1.3E-01		
Rubber	3.5E-02		
Plastics	1.2E+02		
Solidified, Inorganic Matrix	6.6E+02		
Cement (Solidified)	4.3E+01		
Vitrified	0.0E+00		
Solidified, Organic Matrix	7.9E+02		
Soils	6.4E+02		

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 15. WIPP Contact Handled TRU Waste Profiles - Uncategorized Metal			
Final Waste Form: Uncategorized Metal			
Generator Site Waste	Stored	Projected	Total
Site	(cubic meters)	(cubic meters)	(cubic meters)
Hanford (Richland) Site	1.1E+02	4.4E+03	4.5E+03
Idaho National Engineering and Environmental Laboratory	9.4E+00	0.0E+00	9.4E+00
Los Alamos National Laboratory	1.5E+03	3.2E+01	1.5E+03
Rocky Flats Environmental Technology Site	7.9E+02	6.7E+02	1.5E+03
Generator Site Waste Total	2.4E+03	5.1E+03	7.5E+03
Emplaced Waste	Stored	Projected	Total
Site	(cubic meters)	(cubic meters)	(cubic meters)
Waste Isolation Pilot Plant	3.6E+02	0.0E+00	3.6E+02
Emplaced Waste Total	3.6E+02	0.0E+00	3.6E+02
Total Waste Volume	2.8E+03	5.1E+03	7.9E+03
Waste Material Parameters	Average Density (kg/m³)		
Iron-Base Metal/Alloys	1.1E+02		
Aluminum-Base Metal/Alloys	5.3E+00		
Other Metal/Alloys	1.0E+02		
Other Inorganic Materials	2.4E+00		
Cellulosics	1.1E+01		
Rubber	1.6E+00		
Plastics	7.4E+00		
Solidified, Inorganic Matrix	7.7E+00		
Cement (Solidified)	0.0E+00		
Vitrified	0.0E+00		
Solidified, Organic Matrix	6.4E-01		
Soils	8.7E-03		

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 16. WIPP Remote Handled TRU Waste Profiles - Combustible

Final Waste Form: Combustible			
Generator Site Waste	Stored (cubic meters)	Projected (cubic meters)	Total (cubic meters)
Site			
Battelle Columbus Laboratories	1.7E+01	8.9E-01	1.8E+01
Hanford (Richland) Site	8.9E-01	0.0E+00	8.9E-01
Generator Site Waste Total	1.8E+01	8.9E-01	1.9E+01
Total Waste Volume	1.8E+01	8.9E-01	1.9E+01
Waste Material Parameters	Average Density (kg/m³)		
Iron-Base Metal/Alloys	8.7E+00		
Aluminum-Base Metal/Alloys	7.6E+00		
Other Metal/Alloys	6.3E+00		
Other Inorganic Materials	9.2E+00		
Cellulosics	3.9E+01		
Rubber	2.3E+01		
Plastics	9.2E+01		
Solidified, Inorganic Matrix	0.0E+00		
Cement (Solidified)	1.7E+01		
Vitrified	0.0E+00		
Solidified, Organic Matrix	1.5E+00		
Soils	1.4E+00		

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 17. WIPP Remote Handled TRU Waste Profiles - Filter

Final Waste Form: Filter			
Generator Site Waste	Stored (cubic meters)	Projected (cubic meters)	Total (cubic meters)
Site			
Argonne National Laboratory - West	1.8E+00	8.9E+00	1.1E+01
Battelle Columbus Laboratories	5.3E+00	0.0E+00	5.3E+00
Hanford (Richland) Site	1.8E+00	0.0E+00	1.8E+00
Generator Site Waste Total	8.9E+00	8.9E+00	1.8E+01
Total Waste Volume	8.9E+00	8.9E+00	1.8E+01
Waste Material Parameters	Average Density (kg/m³)		
Iron-Base Metal/Alloys	3.3E+01		
Aluminum-Base Metal/Alloys	1.7E+01		
Other Metal/Alloys	4.3E+01		
Other Inorganic Materials	1.1E+02		
Cellulosics	7.3E+01		
Rubber	1.9E+01		
Plastics	6.3E+00		
Solidified, Inorganic Matrix	0.0E+00		
Cement (Solidified)	7.7E+00		
Vitrified	0.0E+00		
Solidified, Organic Matrix	1.2E+01		
Soils	0.0E+00		

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 18. WIPP Remote Handled TRU Waste Profiles - Heterogeneous Debris

Final Waste Form: Heterogeneous Debris			
Generator Site Waste	Stored (cubic meters)	Projected (cubic meters)	Total (cubic meters)
Site			
Argonne National Laboratory - East	1.5E+01	1.0E+02	1.2E+02
Argonne National Laboratory - West	6.2E+00	3.6E+01	4.3E+01
Bettis Atomic Power Laboratory	2.0E+00	0.0E+00	2.0E+00
Energy Technology Engineering Center	8.9E-01	0.0E+00	8.9E-01
Hanford (Richland) Site	2.6E+02	3.8E+02	6.5E+02
Idaho National Engineering and Environmental Laboratory	2.0E+02	0.0E+00	2.0E+02
Knolls Atomic Power Laboratory -Schenectady	0.0E+00	1.4E+02	1.4E+02
Los Alamos National Laboratory	1.2E+02	0.0E+00	1.2E+02
Oak Ridge National Laboratory	0.0E+00	2.7E+02	2.7E+02
Sandia National Laboratories - Albuquerque	4.6E+00	0.0E+00	4.6E+00
Savannah River Site	0.0E+00	2.3E+01	2.3E+01
Generator Site Waste Total	6.1E+02	9.5E+02	1.6E+03
Total Waste Volume	6.1E+02	9.5E+02	1.6E+03
Waste Material Parameters	Average Density (kg/m³)		
Iron-Base Metal/Alloys	1.7E+02		
Aluminum-Base Metal/Alloys	2.2E+01		
Other Metal/Alloys	4.5E+01		
Other Inorganic Materials	1.7E+01		
Cellulosics	4.2E+01		
Rubber	3.0E+01		
Plastics	3.5E+01		
Solidified, Inorganic Matrix	5.6E+00		
Cement (Solidified)	0.0E+00		
Vitrified	0.0E+00		
Solidified, Organic Matrix	2.6E+00		
Soils	7.0E+01		

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 19. WIPP Remote Handled TRU Waste Profiles - Inorganic Non-Metal			
Final Waste Form: Inorganic Non-Metal			
Generator Site Waste	Stored (cubic meters)	Projected (cubic meters)	Total (cubic meters)
Site			
Battelle Columbus Laboratories	1.4E+01	8.9E-01	1.5E+01
Hanford (Richland) Site	2.8E+01	4.3E+01	7.1E+01
Generator Site Waste Total	4.3E+01	4.4E+01	8.6E+01
Total Waste Volume	4.3E+01	4.4E+01	8.6E+01
Waste Material Parameters	Average Density (kg/m³)		
Iron-Base Metal/Alloys	1.6E+02		
Aluminum-Base Metal/Alloys	2.1E+01		
Other Metal/Alloys	4.8E+01		
Other Inorganic Materials	9.9E+02		
Cellulosics	3.9E+00		
Rubber	1.8E+00		
Plastics	2.4E+01		
Solidified, Inorganic Matrix	1.5E+01		
Cement (Solidified)	3.1E+00		
Vitrified	0.0E+00		
Solidified, Organic Matrix	2.8E-01		
Soils	7.1E+00		

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 20. WIPP Remote Handled TRU Waste Profiles - Lead/Cadmium Metal

Final Waste Form: Lead/Cadmium Metal			
Generator Site Waste	Stored (cubic meters)	Projected (cubic meters)	Total (cubic meters)
Site			
Hanford (Richland) Site	1.2E+01	7.1E+00	1.9E+01
Generator Site Waste Total	1.2E+01	7.1E+00	1.9E+01
Total Waste Volume	1.2E+01	7.1E+00	1.9E+01
Waste Material Parameters	Average Density (kg/m³)		
Iron-Base Metal/Alloys	5.4E+03		
Aluminum-Base Metal/Alloys	0.0E+00		
Other Metal/Alloys	7.4E+01		
Other Inorganic Materials	0.0E+00		
Cellulosics	0.0E+00		
Rubber	0.0E+00		
Plastics	0.0E+00		
Solidified, Inorganic Matrix	0.0E+00		
Cement (Solidified)	0.0E+00		
Vitrified	0.0E+00		
Solidified, Organic Matrix	0.0E+00		
Soils	0.0E+00		

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 21. WIPP Remote Handled TRU Waste Profiles - Soils

Final Waste Form: Soils			
Generator Site Waste	Stored (cubic meters)	Projected (cubic meters)	Total (cubic meters)
Site			
Oak Ridge National Laboratory	0.0E+00	2.0E+02	2.0E+02
Generator Site Waste Total	0.0E+00	2.0E+02	2.0E+02
Total Waste Volume	0.0E+00	2.0E+02	2.0E+02
Waste Material Parameters	Average Density (kg/m³)		
Iron-Base Metal/Alloys	0.0E+00		
Aluminum-Base Metal/Alloys	0.0E+00		
Other Metal/Alloys	0.0E+00		
Other Inorganic Materials	0.0E+00		
Cellulosics	0.0E+00		
Rubber	0.0E+00		
Plastics	0.0E+00		
Solidified, Inorganic Matrix	0.0E+00		
Cement (Solidified)	0.0E+00		
Vitrified	0.0E+00		
Solidified, Organic Matrix	0.0E+00		
Soils	1.3E+03		

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 22. WIPP Remote Handled TRU Waste Profiles - Solidified Inorganics			
Final Waste Form: Solidified Inorganics			
Generator Site Waste	Stored (cubic meters)	Projected (cubic meters)	Total (cubic meters)
Site			
Argonne National Laboratory - West	1.6E+01	2.3E+01	3.9E+01
Battelle Columbus Laboratories	1.8E+00	0.0E+00	1.8E+00
Hanford (Richland) Site	1.5E+01	1.2E+02	1.3E+02
Hanford (River Protection) Site	4.5E+03	0.0E+00	4.5E+03
Idaho National Engineering and Environmental Laboratory	8.9E-01	0.0E+00	8.9E-01
Oak Ridge National Laboratory	0.0E+00	1.9E+02	1.9E+02
Generator Site Waste Total	4.5E+03	3.3E+02	4.8E+03
Total Waste Volume	4.5E+03	3.3E+02	4.8E+03
Waste Material Parameters	Average Density (kg/m³)		
Iron-Base Metal/Alloys	6.8E+00		
Aluminum-Base Metal/Alloys	0.0E+00		
Other Metal/Alloys	3.4E-02		
Other Inorganic Materials	6.9E-01		
Cellulosics	3.5E-03		
Rubber	0.0E+00		
Plastics	1.6E-02		
Solidified, Inorganic Matrix	9.2E+01		
Cement (Solidified)	2.4E+00		
Vitrified	1.8E-01		
Solidified, Organic Matrix	3.1E-02		
Soils	4.1E-03		

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 23. WIPP Remote Handled TRU Waste Profiles - Solidified Organics			
Final Waste Form: Solidified Organics			
Generator Site Waste	Stored	Projected	Total
Site	(cubic meters)	(cubic meters)	(cubic meters)
Battelle Columbus Laboratories	5.3E+00	0.0E+00	5.3E+00
Energy Technology Engineering Center	4.1E+00	0.0E+00	4.1E+00
Generator Site Waste Total	9.5E+00	0.0E+00	9.5E+00
Total Waste Volume	9.5E+00	0.0E+00	9.5E+00
Waste Material Parameters	Average Density (kg/m³)		
Iron-Base Metal/Alloys	4.9E+01		
Aluminum-Base Metal/Alloys	0.0E+00		
Other Metal/Alloys	0.0E+00		
Other Inorganic Materials	1.2E+01		
Cellulosics	2.0E+01		
Rubber	4.2E+00		
Plastics	2.0E+01		
Solidified, Inorganic Matrix	0.0E+00		
Cement (Solidified)	1.4E+02		
Vitrified	0.0E+00		
Solidified, Organic Matrix	1.7E+02		
Soils	0.0E+00		

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 24. WIPP Remote Handled TRU Waste Profiles - Uncategorized Metal			
Final Waste Form: Uncategorized Metal			
Generator Site Waste	Stored (cubic meters)	Projected (cubic meters)	Total (cubic meters)
Site			
Battelle Columbus Laboratories	8.9E-01	0.0E+00	8.9E-01
Hanford (Richland) Site	6.1E+01	5.4E+02	6.0E+02
Idaho National Engineering and Environmental Laboratory	2.2E+01	0.0E+00	2.2E+01
Generator Site Waste Total	8.4E+01	5.4E+02	6.2E+02
Total Waste Volume	8.4E+01	5.4E+02	6.2E+02
Waste Material Parameters	Average Density (kg/m³)		
Iron-Base Metal/Alloys	3.6E+01		
Aluminum-Base Metal/Alloys	4.5E-03		
Other Metal/Alloys	5.6E+02		
Other Inorganic Materials	4.3E-01		
Cellulosics	7.4E-01		
Rubber	5.1E-01		
Plastics	7.8E-01		
Solidified, Inorganic Matrix	3.1E-02		
Cement (Solidified)	0.0E+00		
Vitrified	0.0E+00		
Solidified, Organic Matrix	0.0E+00		
Soils	6.1E-01		

Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 25. WIPP CH-TRU Waste Material Parameter Disposal Inventory	
Waste Material Parameters	Average Density (kg/m ³)
Iron-Base Metal/Alloys	1.1E+02
Aluminum-Base Metal/Alloys	1.4E+01
Other Metal/Alloys	3.2E+01
Other Inorganic Materials	4.0E+01
Cellulosics	6.0E+01
Rubber	1.3E+01
Plastics	4.3E+01
Solidified, Inorganic Matrix	1.1E+02
Cement (Solidified)	3.9E+01
Vitrified	5.8E+00
Solidified, Organic Matrix	3.3E+01
Soils	1.1E+02
Container Materials	
Steel	1.7E+02
Plastic	1.7E+01
Lead	1.3E-02

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 26. WIPP RH-TRU Waste Material Parameter Disposal Inventory	
Waste Material Parameters	Average Density (kg/m ³)
Iron-Base Metal/Alloys	5.9E+01
Aluminum-Base Metal/Alloys	5.0E+00
Other Metal/Alloys	5.7E+01
Other Inorganic Materials	1.6E+01
Cellulosics	9.3E+00
Rubber	6.7E+00
Plastics	8.0E+00
Solidified, Inorganic Matrix	6.2E+01
Cement (Solidified)	1.9E+00
Vitrified	1.2E-01
Solidified, Organic Matrix	8.3E-01
Soils	5.0E+01
Container Materials	
Steel	5.4E+02
Plastic	3.1E+00
Lead	4.2E+02

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

3.2.2 Packaging Materials

The PA assumption that materials are distributed homogeneously throughout the repository also applies to packaging materials. As a result, a WIPP-scale average value for packaging material densities is needed for PA. The WIPP-scale packaging (container) material densities for CH- and RH-TRU wastes in support of the PABC (Leigh et al. 2005a; Leigh et al. 2005b) are presented in Table 27. This information is equivalent to that presented in Table 1-3 in TWBIR Revision 2 (DOE 1995b).

Analysis of the packaging material information submitted by the sites identified inconsistencies in reporting among the sites. Therefore, adjustments were made at the waste-stream level to achieve consistency among the waste streams. In particular, a consistent set of densities for packaging materials for different types of containers was used unless otherwise reported by the site. Table 1-3 of the TWBIR Revision 2 (DOE 1995b) identified the packaging materials and packaging material densities for the waste containers that were being used at that time. These values were also used in TWBIR - 2004. Since the time of the TWBIR Revision 2, the sites have begun using ten-drum overpacks (TDOPs) for packaging waste. The calculated packaging material densities for TDOPs are presented in Appendix D, Packaging Materials.

In addition, sites have also reported that they use 85- and 100-gallon drum overpacks. The CH Transuranic Package Transporter-II (TRUPACT-II) Authorized Methods for Payload Control (TRAMPAC) document (DOE 2004b) has been revised to add the 85-gallon drum as an authorized payload container for shipment in the TRUPACT-II, and to add the 100-gallon drum as an authorized payload container in the HalfPACT and the TRUPACT-II. The applicable section of the TRAMPAC document has also been revised to specify a range of sizes (75 to 88 gallons) for a container identified as an "85-gallon drum."

Development of the TRUPACT-III is underway, which will allow shipment of standard large boxes (SLBs) to WIPP for disposal. The CPR estimates for SLBs have not been included in this inventory estimate, but will be included in the next update where applicable.

3.2.3 Chemical Components in Transuranic Waste

As part of the data call for TWBIR - 2004, the sites were asked to provide information about the chemical components of the waste. The sites were asked about complexing agents (acetate, citrate, oxylate, ethylenediaminetetraacetic acid (EDTA), oxyanions (nitrate, sulfate, and phosphate), cement, and pyrochemical salts.

Table 27. Assumed Packaging Material Densities¹

Container Configuration	Steel (kg/m ³)	Plastic (kg/m ³)	Lead (kg/m ³)	Volume (m ³) ²
55-gallon drum	131	37	0	0.208
SWB (direct load)	154	1.2	0	1.89
SWB (overpack 4 55-gallon drums)	211	16	0	1.89
RH-TRU Waste Canister (direct load)	434	0	464	0.89
RH-TRU Waste Canister (overpack 3 55-gallon drums)	525	26	464	0.89
85-gallon drum	114	0	0	0.322
100-gallon drum	114	0	0	0.379
Ten-Drum Overpacks	218	16	0	4.79

¹ This table was used when sites did not report container volumes. Information in this table was taken from DOE (1995) and Appendix D of this document.

² Container volumes differ from WWIS container volumes.

This section presents the summary of the chemical components that are present in the solidified TRU waste inventory in support of the PABC (Leigh et al. 2005a; Leigh; et al. 2005b). Specifically, complexing agents, oxyanions, and cement are calculated as the sum of the constituents found in anticipated waste scheduled for delivery to WIPP and any waste that has already been placed in the repository. The information provided is based on input from the TWBIR Revision 3 (DOE 1996a), TWBID Revision 2.1 (DOE 1995b), and analyses of this information. The methods used to estimate the masses of cement, complexing agents, and oxyanions are discussed in Howard (2005) for cement, Crawford and Leigh (2003) for complexing agents, and Crawford (2005) for oxyanions, respectively. A brief discussion of pyrochemical salts is presented in Appendix A.

3.2.3.1 Cement Content in Solidified Transuranic Waste

The PA for the CRA-2004 (DOE 2004c) and the PABC (Leigh et al. 2005a; Leigh et al. 2005b) required an estimate of the mass of cement in waste expected for disposal in the repository. This estimate was updated for the PABC and is reported in this report. An estimate of the cement mass for the CCA (DOE 1996b) was given in Appendix B-7 of the TWBIR Revision 3 (DOE 1996a). While the waste stream volumes reported by the TRU waste sites in TWBIR - 2004 have changed when compared to the TWBIR Revision 3 volumes, the waste streams identified by the sites at the time of the TWBIR Revision 3 as containing cement have not changed. However, the sites have not reported cement densities consistently over time. Therefore an analysis (Howard 2005) was performed to identify waste streams that contained cement using newly reported cement densities where they were available and assigning cement densities to waste streams where cement was listed in waste descriptions but not reported as waste material parameters. The total estimated mass of cement in the scaled solidified waste streams for TWBIR - 2004 is 8.80×10^6 kg (1.94×10^7 lb) (see Table 29). This estimate of cement mass in the WIPP repository is slightly larger than the estimate made for the CCA (DOE 1996b) (8.54×10^6 kg [1.88×10^7 lb]).

3.2.3.2 Complexing Agents (Organic Ligands) in Transuranic Waste

The DOE tracks the mass of complexing agents going into the repository because of their impact on solubility of actinides in the waste. In the latest request by DOE for data from the sites, none of the sites updated or modified their estimates of complexing agents in the waste streams that had been reported previously in the TWBIR Revision 3 (DOE 1996a). When applicable, the sites did report the expected masses of complexing agents in waste streams added to their inventory since publication of the TWBIR Revision 3.

The TWBIR Revision 3 (DOE 1996a) contained information on complexing agents that was used in the PA in support of the CCA (DOE 1996b). TWBIR Revision 3 presented two estimates for complexing agents in the WIPP repository: one assuming reduction of complexing agents due to thermal treatment and one without that assumption. Since publication of the TWBIR Revision 3, the DOE's strategy for wastes at the INL has changed, and incineration operations for INL TRU waste did not occur as planned. Therefore, the data reported in Appendix B-4 of the TWBIR Revision 3 without the thermal treatment assumption was used in the calculation of mass of complexing agents for the CRA-2004 (DOE 2004c) and the PABC (Leigh et al. 2005a; Leigh et al. 2005b) as reported in Table 28.

The inventory information reported in TWBIR Revision 3 (DOE 1996a) did not provide a breakout of the waste streams that contained complexing agents. Therefore, an analysis was completed (Crawford 2004) to delineate this waste stream information. Appendix L, Table L-1, includes the waste streams containing complexing agents with the waste-stream specific information supplied by the sites for the CRA-2004 (DOE 2004c) and the PABC inventory (Crawford 2004).

Only two sites reported complexing agents in waste streams: Rocky Flats Environmental Technology Site (RFETS) and Hanford Office of River Protection (Hanford RP). For their new waste streams, RFETS reported that EDTA might be present at trace levels (< 1 wt%) in their waste. Hanford RP identified sodium acetate and sodium oxalate in their new waste streams. The total mass of acetic acid, sodium acetate, citric acid, sodium citrate, oxalic acid, sodium oxalate, and sodium EDTA estimated for the WIPP repository are reported in Table 28.

Table 28. Mass of Potential Complexing Agents in the WIPP Repository

Compound	RFETS (kg)	LANL (kg)	Hanford RP (kg)	Total (kg)
Acetic Acid	132	10	---	142
Sodium Acetate	1,110	---	7,400	8,510
Citric Acid	90	1,100.5	---	1,190.5
Sodium Citrate	400	---	---	400
Oxalic Acid	90	13,706	---	13,796
Sodium Oxalate	---	---	33,940	33,940
EDTA	25.6	---	---	25.6

Data Source: Crawford and Leigh (2003)

Only a slight increase in EDTA was reported with this updated information over that reported in TWBIR Revision 3 (DOE 1996a). The increase comes from one waste stream at RFETS that contains trace

amounts of EDTA and is reported as the upper limit of expected concentration. Waste from Hanford RP waste tanks is also included in Table 28, and represents a significant increase in sodium acetate and sodium oxalate that had not been reported for the TRU inventory in TWBIR Revision 3.

3.2.3.3 Mass of Oxyanions in Transuranic Waste

The PABC (Leigh et al. 2005a; Leigh et al. 2005b) required an estimate of the mass of nitrate, sulfate, and phosphate in waste expected for disposal in the repository. An estimate of the oxyanion masses for the CCA (DOE 1996b) was given in Appendix B-6 of the TWBIR Revision 3 (DOE 1996a). The TRU waste sites did not report any new information about oxyanions for TWBIR - 2004, with the exception of waste streams reported by Hanford RP and LANL, and revised values for a waste stream at RFETS. An analysis was completed to determine the oxyanions by waste stream (Crawford 2005). The mass of nitrate, sulfate, and phosphate in the repository was calculated for the PABC as the sum of the mass of nitrate, sulfate, and phosphate in the TWBIR Revision 3 (DOE 1996a) adjusted for the new waste stream volumes from this update plus the mass of these elements reported by the sites for their new waste streams. Appendix L, Table L-2, includes the waste streams with the waste-stream specific information about the mass of nitrate, sulfate, and phosphate that was supplied by the sites for TWBIR - 2004. Table 29 presents the mass of nitrate, sulfate, phosphate and cement for disposal in the WIPP repository for the PABC.

The estimate of nitrate mass in the WIPP repository (2.67×10^6 kg [5.88×10^6 lb]) is larger than the estimate made for the CCA (DOE 1996b) which was 1.62×10^6 kg (3.57×10^6 lb). The increase in nitrate mass is due primarily to larger volumes projected for existing waste streams and the added waste streams from Hanford RP. The estimate of sulfate mass in the WIPP repository (4.43×10^5 kg [9.76×10^5 lb]) is less than the estimate made for the CCA, which was 6.33×10^5 kg (1.39×10^6 lb). The estimate of phosphate mass in the WIPP repository (1.05×10^5 kg [2.31×10^5 lb]) is significant when compared to the CCA. There was no phosphate of reportable quantity given by the generator sites in the TWBIR Revision 3 (DOE 1996a). The primary source of phosphate in the current estimate is the tank waste from Hanford RP.

Table 29. Mass of Oxyanions and Cement In the WIPP Disposal Inventory

Chemical Component	Mass Contained in the Disposal Inventory (kg)
Nitrate	2.67×10^6
Sulfate	4.43×10^5
Phosphate	1.05×10^5
Cement	8.80×10^6

Data Sources: Crawford (2005) and Howard (2005)

3.2.3.4 Pyrochemical Salts in Waste Isolation Pilot Plant Transuranic Waste

Five waste streams at LANL, one waste stream at Lawrence Livermore National Laboratory (LLNL), and seven waste streams at RFETS have been identified as containing pyrochemical salts. The pyrochemical salt waste streams are reported in Appendix A.

3.3 Transuranic Waste Radionuclide Inventory

The sites were asked to provide information about the radiological components in the waste they intend to ship to WIPP. For each waste stream they were asked to specify the radionuclide activity concentrations (in Ci/m³) and to provide the generation or last assay date for each waste stream. In some cases, the sites provided all of the information required; in other cases, they did not.

Where the sites did not provide adequate information regarding the radiological components of a waste stream, radionuclide activities were estimated using the methods described in the Computational Methodology (LANL 2003) and in the radionuclide correction package as identified in Table M.5 in Appendix M. As more information became available regarding TWBIR Revision 2 (DOE 1995b) waste streams and how they had been reassigned for TWBIR - 2004, the historic radionuclide data were used to define radionuclide activity concentrations (Sparks 2004; Trone 2004; Leigh and Trone 2004).

When no other radionuclide information was available, radionuclide data for comparable waste streams at the same site were mapped into waste streams with missing data. For 73 waste streams without data, this mapping was accomplished by first matching handling (RH and CH) and then the WMC for each site. Then, if there were no matches, the waste description was used to find a comparable waste stream. In this way, a waste stream requiring radionuclide data was matched to a waste stream that was generated by the same or very similar process.

All of the radionuclide data were decayed to a common base year of CY 2001 (December 31, 2001) using Oak Ridge National Laboratory Isotope Generation and Depletion Code, Version 2.2 (hereafter referred to as ORIGEN 2.2) (Croff 1983; Croff 1980). ORIGEN 2.2 is a computer code that calculates the buildup and decay of radionuclides. ORIGEN 2.2 uses a matrix exponential method to solve a large system of coupled, linear, first-order ordinary differential equations with constant coefficients.

The ORIGEN 2.2 half-life data are identical to the half-life data used (via ORIGEN 2.1; ORNL 2002) for the TWBIR Revision 3 (DOE 1996a) in 1996. The results obtained for data in 1996 using ORIGEN 2.1 and those obtained using the current version of ORIGEN 2.2 for 1996 data would be identical. Therefore, the only differences expected between the data obtained in 1996 using ORIGEN 2.1 and those reported for TWBIR - 2004 using ORIGEN 2.2 are those related to time.

Updated waste stream volumes were used to calculate waste stream radionuclide activity from the decayed ORIGEN 2.2 radionuclide activity concentrations as shown in the following equation:

$$a(RN)_{Disposal} = \alpha(RN) \cdot v_{Disposal} \quad (8)$$

Where

$a(RN)_{Disposal}$ is the activity of the radionuclide RN in the scaled waste stream volume
 $\alpha(RN)$ is the decayed radionuclide activity in Ci/m³ from ORIGEN 2.2 for radionuclide RN
 $v_{Disposal}$ is the waste stream disposal volume for CH-TRU or RH-TRU waste

More information on how $v_{Disposal}$ was calculated can be found in Section 3.1.

The WIPP-scale (see section 3.1.1 for discussion on WIPP-Level roll-up scaling) radionuclide activities were calculated as shown in the following equations for both CH- and RH-TRU wastes. In the first step, the activities of each radionuclide in the scaled waste stream volumes ($a(RN)_{Disposal}$) are summed for all

waste streams to give the total activity for each radionuclide in CH- and RH-TRU waste in the repository. In the second step, the total activity for each radionuclide in CH- and RH-TRU waste in the repository is divided by the volume limit (168,485 m³ [5,950,000 ft³] for CH-TRU waste and 7,079 m³ [250,000 ft³] for RH-TRU waste) to give the activity concentration for a radionuclide in CH- or RH-TRU waste in the repository.

$$A(RN) = \Sigma a(RN)_{Disposal}$$

$$\hat{A}(RN) = A(RN)/Limit \quad (9)$$

Where

$A(RN)$	is the total activity (Ci) for a radionuclide in CH- or RH-TRU waste in the repository (after scaling)
$\hat{A}(RN)$	is the activity concentration for a radionuclide in CH- or RH-TRU waste in the repository (Ci/m ³)
$a(RN)_{Disposal}$	is the activity (Ci) of the radionuclide RN in the scaled waste stream volume
$Limit$	is 168,485 m ³ (5,950,000 ft ³) for CH-TRU waste and 7,079 m ³ (250,000 ft ³) for RH-TRU waste

3.4 Site-Level Roll-up of Radionuclide Activities

Tables 30 and 31 provide the site-specific radionuclide inventory estimates in total curies decayed through CY 2001 for CH- and RH-TRU waste, respectively. The data shown in Tables 30 and 31 are the radionuclide inventories as the sum of the actual stored and projected volumes (not scaled) reported by the sites.

3.5 Waste-Stream-Level Radionuclide Activities

The radionuclide activities (Ci) in the scaled waste stream volumes for the CH-TRU waste streams included in the estimate of volume for the PABC (Leigh et al. 2005a; Leigh et al. 2005b) are given in Appendix E, Table E-1. The radionuclide activities (Ci) in the scaled waste stream volumes for the RH-TRU waste streams included in the estimate of volume for PABC are given in Appendix E, Table E-2.

3.6 Waste Isolation Pilot Plant-Level Roll-up of Radionuclide Activities

The waste profiles in Appendices I, J, and K include radionuclide concentrations for each waste stream. These radionuclide concentrations have been decayed to a common base year, but are not scaled for a full repository.

Table 32 presents the WIPP-level roll-up of radionuclide activities for the disposal inventory (scaled for a full WIPP repository) in Ci/m³ and total Ci decayed through CY 2001 for both CH-TRU and RH-TRU waste. Table 32 corresponds to Table 3-1 in TWBIR Revision 3 (DOE 1996a).

A comparison of TWBIR Revision 3, Table 3-1 (DOE 1996a) radionuclide information to the radionuclide information reported in Table 32 is given in Appendix B, Table B-27 for CH-TRU waste and Table B-28 for RH-TRU waste. The overall activity for all radionuclides has decreased by nearly 25 percent. Five radionuclides made up 99 percent of the CH-TRU waste curies in the TWBIR Revision 3 and the same five make up 97 percent of the total CH-TRU waste curies in this report. The results for

RH-TRU waste show substantial variations in individual radionuclide activity. An overall increase in activity of 60 percent was observed with this update. The five most abundant RH-TRU waste isotopes in the TWBIR Revision 3 (^{137m}Ba , ^{137}Cs , ^{241}Pu , ^{90}Sr , and ^{90}Y) are still the most abundant in the TWBIR - 2004. These five radionuclides made up 96 percent of the RH-TRU waste curies in the TWBIR Revision 3 and make up 98 percent of the total RH-TRU waste curies in TWBIR - 2004.

Table 30. CH-TRU Waste Curies on a Site-by-Site Basis*

Nuclide	AE	AW	Army	Battelle	Bettis	ETEC	INEEL	K-NFS	LANL	LLNL
Ac-225	1.6E-04	1.0E-09	1.7E-15	—	—	1.2E-14	1.0E+00	—	8.3E-04	—
Ac-227	2.1E-07	2.5E-11	3.2E-15	—	—	5.3E-14	4.4E-04	—	1.3E-03	—
Ac-228	4.9E-05	—	—	—	—	3.8E-18	1.8E+00	—	9.4E-07	—
Ag-109m	—	—	—	—	—	—	—	—	—	—
Ag-110	—	—	—	—	—	—	—	—	—	—
Ag-110m	—	—	—	—	—	—	—	—	—	—
Am-241	6.2E+01	1.0E-01	1.6E-01	6.5E+00	8.4E-03	2.3E-01	2.4E+05	7.8E+01	5.7E+03	2.5E+03
Am-242	—	—	—	—	—	—	—	—	—	—
Am-242	—	—	—	—	—	—	—	—	—	—
Am-243	—	—	—	—	4.0E-05	—	4.2E+01	—	3.8E-03	—
Am-245	—	—	—	—	—	—	—	—	2.0E-13	—
At-217	1.6E-04	1.0E-09	1.7E-15	—	—	1.3E-14	1.0E+00	—	8.3E-04	—
Ba-137m	3.4E+00	2.8E-01	—	—	2.1E+01	1.5E-02	—	—	1.1E-02	—
Bi-210	6.2E-10	1.7E-14	—	—	—	9.3E-12	1.1E-05	—	7.4E-06	—
Bi-211	2.1E-07	2.4E-11	3.2E-15	—	—	5.3E-14	4.3E-04	—	1.3E-03	—
Bi-212	4.2E-01	—	—	—	—	2.3E-18	1.6E+00	—	1.7E-06	—
Bi-213	1.6E-04	1.0E-09	1.7E-15	—	—	1.2E-14	1.0E+00	—	8.2E-04	—
Bi-214	4.3E-09	1.8E-12	—	—	—	7.6E-11	4.2E-05	—	2.8E-05	—
Bk-249	—	—	—	—	—	—	—	—	1.4E-08	—
Bk-250	—	—	—	—	—	—	—	—	—	—
C-14	—	—	—	—	5.3E-04	—	—	—	—	—
Cd-109	—	—	—	—	—	—	—	—	—	—
Ce-144	—	—	—	—	—	—	—	—	—	—
Cf-249	—	—	—	—	7.6E-13	—	—	—	1.3E-04	—
Cf-250	—	—	—	—	—	—	—	—	—	—
Cf-251	—	—	—	—	3.6E-14	—	—	—	—	—
Cf-252	—	—	—	—	—	—	3.1E-03	—	—	—
Cm-242	—	—	—	—	—	—	—	—	—	—
Cm-243	—	—	—	—	4.5E-05	—	—	—	—	—
Cm-244	—	—	—	—	2.5E-03	—	—	—	2.8E+01	2.7E+03
Cm-245	—	—	—	—	2.7E-07	—	—	—	2.5E-07	—
Cm-246	—	—	—	—	4.6E-08	—	—	—	—	—
Cm-247	—	—	—	—	1.1E-13	—	—	—	—	—
Cm-248	—	—	—	—	1.9E-13	—	6.8E-07	—	—	—
Cm-250	—	—	—	—	—	—	—	—	—	—
Co-60	—	—	—	—	9.3E-01	—	—	—	8.2E-08	—
Cs-134	—	—	—	—	—	—	—	—	2.2E-10	—
Cs-137	3.6E+00	3.0E-01	—	—	2.1E+01	1.6E-02	—	—	1.1E-02	—
Eu-152	—	—	—	—	9.3E-01	—	—	—	6.8E-08	—
Eu-154	—	—	—	—	9.3E-01	—	—	—	3.0E-07	—
Eu-155	—	—	—	—	—	—	—	—	2.7E-05	—
Fr-221	1.6E-04	1.0E-09	1.7E-15	—	—	1.2E-14	1.0E+00	—	8.3E-04	—

* Data decayed through December 31, 2001. Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 30. CH-TRU Waste Curies on a Site-by-Site Basis*—Continued

Nuclide	MURR	NTS	ORNL	Pad	RFETS	Hanford	Hanf-RP	SNL	SRS	WIPP	Total
Ac-225	1.5E-12	2.7E-03	2.3E-01	1.4E-09	5.4E-09	—	—	1.1E-06	1.9E-09	9.9E-05	1.2E+00
Ac-227	3.6E-16	2.0E-04	2.4E-01	6.0E-14	3.9E-06	—	—	8.3E-04	2.4E-07	3.7E-04	2.4E-01
Ac-228	—	1.9E-15	1.1E-03	—	5.4E-13	—	—	3.7E-03	9.1E-13	8.8E-07	1.8E+00
Ag-109m	—	—	—	—	—	—	—	1.3E-04	—	—	1.3E-04
Ag-110	—	—	2.1E-11	—	—	—	—	—	—	—	2.1E-11
Ag-110m	—	—	1.6E-09	—	—	—	—	—	—	—	1.6E-09
Am-241	2.2E+00	3.7E+02	2.5E+03	—	2.6E+04	3.0E+04	5.2E+02	9.1E+00	8.7E+03	1.2E+05	4.3E+05
Am-242	—	—	—	—	—	—	—	4.7E-02	—	—	4.7E-02
Am-242	—	—	—	—	—	—	—	4.8E-02	—	—	4.8E-02
Am-243	—	1.2E+00	9.4E+00	—	—	—	—	1.4E-02	—	4.8E-03	5.2E+01
Am-245	—	—	6.2E-11	—	—	—	—	—	—	—	6.2E-11
At-217	1.5E-12	2.7E-03	2.3E-01	1.4E-09	5.4E-09	—	—	1.1E-06	1.9E-09	9.9E-05	1.2E+00
Ba-137m	—	2.6E-02	3.5E+03	—	1.5E-02	3.3E+02	1.3E+03	7.3E+01	—	3.6E-04	5.2E+03
Bi-210	—	9.8E-02	1.2E+00	5.5E-05	2.6E-08	—	—	1.1E-02	5.2E-06	2.4E-07	1.3E+00
Bi-211	3.6E-16	2.0E-04	2.4E-01	6.0E-14	3.8E-06	—	—	8.2E-04	2.4E-07	3.7E-04	2.4E-01
Bi-212	—	1.6E-02	5.0E-01	—	3.1E-13	—	—	8.5E-03	8.7E-13	4.4E-07	2.5E+00
Bi-213	1.5E-12	2.7E-03	2.2E-01	1.4E-09	5.4E-09	—	—	1.1E-06	1.9E-09	9.8E-05	1.2E+00
Bi-214	2.7E-20	2.5E-01	2.8E+00	3.1E-04	2.3E-07	—	—	5.0E-02	2.8E-05	7.8E-06	3.1E+00
Bk-249	—	—	4.3E-06	—	—	—	—	—	—	—	4.3E-06
Bk-250	—	—	1.7E-12	—	—	—	—	—	—	—	1.7E-12
C-14	—	2.5E-04	2.1E-04	—	—	1.1E+00	9.9E-02	—	—	—	1.2E+00
Cd-109	—	—	—	—	—	—	—	1.3E-04	—	—	1.3E-04
Ce-144	—	—	1.2E-07	—	—	—	—	3.6E-04	—	—	3.6E-04
Cf-249	—	1.1E-02	3.1E-02	—	—	—	—	—	—	—	4.2E-02
Cf-250	—	1.4E-01	1.9E-02	—	—	—	—	—	—	—	1.6E-01
Cf-251	—	—	1.7E-04	—	—	—	—	—	—	—	1.7E-04
Cf-252	—	8.3E-02	5.7E-02	—	—	—	—	—	—	—	1.4E-01
Cm-242	—	—	4.3E-10	—	—	—	—	3.9E-02	—	—	3.9E-02
Cm-243	—	4.6E-04	—	—	—	—	—	4.0E-01	—	—	4.0E-01
Cm-244	—	2.3E+00	1.7E+03	—	—	—	—	4.8E+00	—	—	4.4E+03
Cm-245	—	1.5E-05	4.0E-03	—	—	—	—	—	—	—	4.0E-03
Cm-246	—	5.2E-04	7.4E-01	—	—	—	—	—	—	—	7.4E-01
Cm-247	—	—	1.3E-10	—	—	—	—	—	—	—	1.3E-10
Cm-248	—	4.1E-05	4.3E-02	—	—	—	—	—	—	—	4.3E-02
Cm-250	—	—	3.2E-11	—	—	—	—	—	—	—	3.2E-11
Co-60	—	—	3.5E-03	—	—	—	—	4.8E-02	—	1.5E-07	9.8E-01
Cs-134	—	—	8.1E-04	—	—	—	—	1.9E-02	—	—	2.0E-02
Cs-137	—	2.8E-02	3.7E+03	—	1.6E-02	3.3E+02	1.4E+03	7.8E+01	—	3.9E-04	5.5E+03
Eu-152	—	9.2E-01	4.1E-02	—	—	—	—	—	—	—	1.9E+00
Eu-154	—	3.4E-01	1.2E-01	—	—	—	—	1.3E-01	—	—	1.5E+00
Eu-155	—	—	3.1E-02	—	—	—	—	1.8E-03	—	—	3.3E-02
Fr-221	1.5E-12	2.7E-03	2.3E-01	1.4E-09	5.4E-09	—	—	1.1E-06	1.9E-09	9.8E-05	1.2E+00

* Data decayed through December 31, 2001. Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 30. CH-TRU Waste Curies on a Site-by-Site Basis*—Continued

Nuclide	AE	AW	Army	Battelle	Bettis	ETEC	INEEL	K-NFS	LANL	LLNL
Fr-223	2.9E-09	3.3E-13	4.4E-17	—	—	7.3E-16	6.0E-06	—	1.7E-05	—
Gd-152	—	—	—	—	—	—	—	—	4.1E-21	—
H-3	—	—	—	—	—	—	—	—	2.1E+02	—
I-129	—	—	—	—	7.0E-06	—	—	—	—	—
Kr-85	—	—	—	—	—	—	—	—	—	—
Na-22	—	—	—	—	—	—	—	—	—	—
Ni-59	—	—	—	—	7.6E-02	—	—	—	—	—
Ni-63	—	—	—	—	3.7E+00	—	—	—	—	—
Np-237	6.9E-01	3.3E-08	4.0E-07	—	5.6E-05	9.9E-07	2.4E+00	—	4.3E-02	—
Np-238	—	—	—	—	—	—	—	—	—	—
Np-239	—	—	—	—	—	—	4.1E+01	—	3.7E-03	—
Np-240m	—	—	—	—	—	—	5.1E-14	—	1.8E-07	—
Pa-231	9.9E-07	1.6E-09	4.0E-14	—	—	4.1E-13	1.2E-03	—	9.5E-07	—
Pa-233	6.9E-01	3.3E-08	4.0E-07	—	—	9.8E-07	2.3E+00	—	4.3E-02	—
Pa-234	6.7E-05	3.5E-10	—	—	—	5.4E-18	4.7E-02	—	2.4E-04	—
Pa-234m	5.2E-02	2.7E-07	—	—	—	4.1E-15	3.6E+01	—	1.9E-01	—
Pb-209	1.6E-04	1.0E-09	1.7E-15	—	—	1.2E-14	1.0E+00	—	8.3E-04	—
Pb-210	6.3E-10	1.7E-14	—	—	—	9.4E-12	1.1E-05	—	7.5E-06	—
Pb-211	2.1E-07	2.4E-11	3.2E-15	—	—	5.3E-14	4.3E-04	—	1.3E-03	—
Pb-212	4.2E-01	—	—	—	—	2.3E-18	1.6E+00	—	1.7E-06	—
Pb-214	4.3E-09	1.8E-12	—	—	—	7.7E-11	4.2E-05	—	2.8E-05	—
Pm-147	—	—	—	—	9.3E-01	—	—	—	—	—
Po-210	6.3E-10	5.5E-15	—	—	—	9.4E-12	1.1E-05	—	7.5E-06	—
Po-211	6.4E-10	7.4E-14	9.7E-18	—	—	1.6E-16	1.3E-06	—	3.9E-06	—
Po-212	2.7E-01	—	—	—	—	1.5E-18	9.9E-01	—	1.1E-06	—
Po-213	1.6E-04	9.8E-10	1.7E-15	—	—	1.2E-14	9.9E-01	—	8.1E-04	—
Po-214	4.3E-09	1.8E-12	—	—	—	7.7E-11	4.2E-05	—	2.8E-05	—
Po-215	2.1E-07	2.4E-11	3.2E-15	—	—	5.3E-14	4.3E-04	—	1.3E-03	—
Po-216	4.2E-01	—	—	—	—	2.3E-18	1.5E+00	—	1.7E-06	—
Po-218	4.2E-09	1.7E-12	—	—	—	7.5E-11	4.1E-05	—	2.8E-05	—
Pr-144	—	—	—	—	—	—	—	—	—	—
Pu-236	2.1E-07	—	—	—	—	—	3.3E-03	—	—	—
Pu-238	1.4E+01	1.5E+02	—	1.8E+03	9.3E-01	1.2E-02	7.7E+04	1.3E+01	9.6E+04	5.5E+02
Pu-239	1.9E+02	1.2E+02	6.1E-02	2.9E+01	7.3E-04	2.1E-01	6.6E+04	1.6E+02	3.8E+03	3.1E+03
Pu-240	1.0E+02	7.0E-01	—	7.5E+00	1.5E-03	8.2E-02	1.6E+04	5.3E+01	3.1E+02	1.4E+03
Pu-241	2.6E+02	6.2E-01	1.9E-01	3.6E+02	1.6E-01	8.9E-01	1.3E+05	2.8E+02	2.3E+03	4.3E+04
Pu-242	6.9E-02	8.8E-06	—	1.2E-03	1.2E-05	2.0E-06	1.2E+00	4.1E-04	1.8E-01	—
Pu-243	—	—	—	—	—	—	—	—	—	—
Pu-244	—	—	—	—	6.6E-13	—	5.0E-14	—	1.8E-07	—
Ra-223	2.1E-07	2.5E-11	3.2E-15	—	—	5.3E-14	4.4E-04	—	1.3E-03	—
Ra-224	4.2E-01	—	—	—	—	2.3E-18	1.5E+00	—	1.7E-06	—
Ra-225	1.6E-04	1.0E-09	1.7E-15	—	—	1.3E-14	1.0E+00	—	8.3E-04	—

*Data decayed through December 31, 2001. Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 30. CH-TRU Waste Curies on a Site-by-Site Basis*—Continued

Nuclide	MURR	NTS	ORNL	Pad	RFETS	Hanford	Hanf-RP	SNL	SRS	WIPP	Total
Fr-223	4.9E-18	2.8E-06	3.3E-03	8.2E-16	5.3E-08	—	—	1.1E-05	3.3E-09	5.1E-06	3.3E-03
Gd-152	—	3.9E-14	1.9E-15	—	—	—	—	—	—	—	4.1E-14
H-3	—	5.2E-02	—	—	—	3.4E+00	—	1.8E-02	—	—	2.2E+02
I-129	—	—	—	—	—	—	5.1E-04	—	—	—	5.1E-04
Kr-85	—	1.4E-01	—	—	—	—	—	3.2E-01	—	—	4.6E-01
Na-22	—	—	—	—	—	—	—	—	—	3.9E-07	3.9E-07
Ni-59	—	—	—	—	—	—	—	—	—	—	7.6E-02
Ni-63	—	—	1.2E-04	—	—	—	—	—	—	—	3.7E+00
Np-237	4.7E-04	6.5E-03	8.0E-01	4.1E-02	2.5E-01	—	3.2E-03	1.4E-01	4.8E-02	5.4E-01	4.9E+00
Np-238	—	—	—	—	—	—	—	2.4E-04	—	—	2.4E-04
Np-239	—	1.2E+00	9.3E+00	—	—	—	—	1.4E-02	—	4.8E-03	5.2E+01
Np-240m	—	1.0E-06	5.7E-09	—	—	—	—	—	—	—	1.2E-06
Pa-231	8.8E-15	5.1E-04	5.7E-01	4.8E-13	2.3E-05	—	—	5.6E-03	1.0E-06	5.0E-04	5.8E-01
Pa-233	4.7E-04	6.4E-03	7.9E-01	4.1E-02	2.5E-01	—	—	1.4E-01	4.8E-02	5.4E-01	4.9E+00
Pa-234	3.1E-10	2.0E-07	8.7E-05	—	2.3E-04	—	—	1.2E-05	—	8.4E-03	5.6E-02
Pa-234m	2.4E-07	1.6E-04	6.7E-02	—	1.8E-01	—	—	8.9E-03	—	6.5E+00	4.3E+01
Pb-209	1.5E-12	2.7E-03	2.3E-01	1.4E-09	5.4E-09	—	—	1.1E-06	1.9E-09	9.8E-05	1.2E+00
Pb-210	—	9.9E-02	1.2E+00	5.5E-05	2.6E-08	—	—	1.1E-02	5.3E-06	2.4E-07	1.3E+00
Pb-211	3.6E-16	2.0E-04	2.4E-01	6.0E-14	3.8E-06	—	—	8.2E-04	2.4E-07	3.7E-04	2.4E-01
Pb-212	—	1.6E-02	5.0E-01	—	3.1E-13	—	—	8.5E-03	8.7E-13	4.4E-07	2.5E+00
Pb-214	2.7E-20	2.5E-01	2.9E+00	3.1E-04	2.3E-07	—	—	5.0E-02	2.8E-05	7.8E-06	3.2E+00
Pm-147	—	—	9.5E-02	—	—	—	—	6.9E-01	—	—	1.7E+00
Po-210	—	9.9E-02	1.2E+00	5.5E-05	2.6E-08	—	—	1.1E-02	5.3E-06	1.3E-07	1.3E+00
Po-211	1.1E-18	6.1E-07	7.2E-04	1.8E-16	1.2E-08	—	—	2.5E-06	7.2E-10	1.1E-06	7.3E-04
Po-212	—	1.0E-02	3.2E-01	—	2.0E-13	—	—	5.4E-03	5.6E-13	2.8E-07	1.6E+00
Po-213	1.5E-12	2.7E-03	2.2E-01	1.4E-09	5.3E-09	—	—	1.1E-06	1.8E-09	9.6E-05	1.2E+00
Po-214	2.7E-20	2.5E-01	2.9E+00	3.1E-04	2.3E-07	—	—	5.0E-02	2.8E-05	7.8E-06	3.2E+00
Po-215	3.6E-16	2.0E-04	2.4E-01	6.0E-14	3.8E-06	—	—	8.2E-04	2.4E-07	3.7E-04	2.4E-01
Po-216	—	1.6E-02	5.0E-01	—	3.1E-13	—	—	8.5E-03	8.7E-13	4.4E-07	2.5E+00
Po-218	2.7E-20	2.5E-01	2.8E+00	3.0E-04	2.3E-07	—	—	4.9E-02	2.7E-05	7.7E-06	3.1E+00
Pr-144	—	—	1.1E-07	—	—	—	—	3.5E-04	—	—	3.5E-04
Pu-236	—	—	—	—	—	—	—	—	—	—	3.3E-03
Pu-238	—	1.7E+02	5.3E+03	—	2.7E+03	1.1E+05	2.2E+01	1.7E+00	1.0E+06	5.4E+03	1.3E+06
Pu-239	5.3E-02	2.9E+03	1.3E+03	2.7E-01	7.4E+04	4.8E+04	3.3E+03	4.6E+00	2.0E+05	1.4E+05	5.4E+05
Pu-240	—	6.3E+01	1.3E+03	—	1.7E+04	1.4E+04	2.7E+02	5.0E-01	4.9E+03	3.1E+04	8.6E+04
Pu-241	—	1.4E+03	4.3E+04	—	1.8E+05	9.7E+05	5.5E+02	6.7E+00	9.7E+04	3.4E+05	1.8E+06
Pu-242	—	8.9E-02	3.8E-01	—	1.7E+00	3.7E+00	7.7E-03	7.7E-08	—	3.0E+00	1.0E+01
Pu-243	—	—	1.3E-10	—	—	—	—	—	—	—	1.3E-10
Pu-244	—	1.0E-06	5.7E-09	—	—	—	—	—	—	—	1.2E-06
Ra-223	3.6E-16	2.0E-04	2.4E-01	6.0E-14	3.9E-06	—	—	8.3E-04	2.4E-07	3.7E-04	2.4E-01
Ra-224	—	1.6E-02	4.9E-01	—	3.1E-13	—	—	8.5E-03	8.7E-13	4.4E-07	2.5E+00
Ra-225	1.5E-12	2.7E-03	2.3E-01	1.4E-09	5.4E-09	—	—	1.1E-06	1.9E-09	9.9E-05	1.2E+00

*Data decayed through December 31, 2001. Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 30. CH-TRU Waste Curies on a Site-by-Site Basis*—Continued

Nuclide	AE	AW	Army	Battelle	Bettis	ETEC	INEEL	K-NFS	LANL	LLNL
Ra-226	4.3E-09	1.8E-12	—	—	—	7.7E-11	4.2E-05	—	2.8E-05	—
Ra-228	5.8E-05	—	—	—	—	4.4E-18	2.1E+00	—	1.1E-06	—
Rh-106	—	—	—	—	—	—	—	—	8.5E-11	—
Rn-219	2.1E-07	2.4E-11	3.2E-15	—	—	5.3E-14	4.3E-04	—	1.3E-03	—
Rn-220	4.2E-01	—	—	—	—	2.3E-18	1.6E+00	—	1.7E-06	—
Rn-222	4.3E-09	1.8E-12	—	—	—	7.7E-11	4.2E-05	—	2.8E-05	—
Ru-106	—	—	—	—	—	—	—	—	8.6E-11	—
Sb-125	—	—	—	—	—	—	—	—	2.9E-06	—
Se-79	—	—	—	—	1.3E-04	—	—	—	—	—
Sm-147	—	—	—	—	—	—	—	—	—	—
Sm-151	—	—	—	—	1.0E-01	—	—	—	—	—
Sr-90	2.6E+00	1.5E+00	—	—	2.1E+01	1.2E-02	—	—	7.4E-03	—
Tc-99	5.8E+00	—	—	—	4.7E-03	—	—	2.5E-02	—	—
Te-123	—	—	—	—	—	—	—	—	—	—
Te-123m	—	—	—	—	—	—	—	—	—	—
Te-125m	—	—	—	—	—	—	—	—	7.1E-07	—
Th-227	2.1E-07	2.4E-11	3.1E-15	—	—	5.2E-14	4.3E-04	—	1.2E-03	—
Th-228	4.2E-01	—	—	—	—	2.3E-18	1.6E+00	1.7E-04	1.7E-06	—
Th-229	1.6E-04	1.0E-09	1.7E-15	—	—	1.3E-14	1.0E+00	—	8.3E-04	—
Th-230	1.3E-06	8.9E-09	—	—	—	2.8E-08	6.3E-03	—	4.1E-03	—
Th-231	2.9E-03	7.3E-05	4.7E-10	—	—	2.8E-09	1.8E+00	—	2.6E-03	—
Th-232	6.2E-05	5.1E-19	—	—	5.6E-14	1.1E-17	2.4E+00	2.9E-05	1.1E-06	—
Th-234	5.2E-02	2.7E-07	—	—	—	4.1E-15	3.6E+01	—	1.9E-01	—
Tl-207	2.1E-07	2.4E-11	3.2E-15	—	—	5.3E-14	4.3E-04	—	1.3E-03	—
Tl-208	1.5E-01	—	—	—	—	8.2E-19	5.6E-01	—	6.1E-07	—
Tl-209	3.5E-06	2.2E-11	3.8E-17	—	—	2.7E-16	2.2E-02	—	1.8E-05	—
U-232	4.1E-01	—	—	—	1.3E-05	—	2.7E-03	1.7E-04	7.3E-07	—
U-233	1.1E-01	1.1E-05	6.9E-12	—	—	2.9E-11	8.3E+02	1.5E-02	3.1E-01	—
U-234	9.1E-03	1.2E-03	—	—	2.0E-03	2.4E-04	2.4E+01	1.1E-03	1.6E+01	—
U-235	2.9E-03	7.4E-05	4.8E-10	—	2.6E-05	2.8E-09	1.8E+00	5.1E-05	2.7E-03	—
U-236	6.7E-05	2.1E-08	—	—	3.0E-04	3.3E-08	9.0E-01	—	4.2E-04	—
U-237	6.3E-03	1.5E-05	4.6E-06	—	—	2.2E-05	3.1E+00	—	5.7E-02	—
U-238	5.2E-02	2.7E-07	—	—	1.2E-07	4.2E-15	3.7E+01	4.0E-03	1.9E-01	—
U-240	—	—	—	—	—	—	5.0E-14	—	1.8E-07	—
Y-90	2.6E+00	1.5E+00	—	—	2.1E+01	1.2E-02	—	—	7.3E-03	—
Zn-65	—	—	—	—	—	—	—	—	—	—
Zr-93	—	—	—	—	1.1E-03	—	—	—	—	—
TOTAL	6.5E+02	2.7E+02	4.1E-01	2.2E+03	9.3E+01	1.5E+00	5.2E+05	5.8E+02	1.1E+05	5.3E+04

*Data decayed through December 31, 2001. Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 30. CH-TRU Waste Curies on a Site-by-Site Basis*—Continued

Nuclide	MURR	NTS	ORNL	Pad	RFETS	Hanford	Hanf-RP	SNL	SRS	WIPP	Total
Ra-226	2.8E-20	2.5E-01	2.9E+00	3.1E-04	2.3E-07	—	—	5.1E-02	2.8E-05	7.9E-06	3.2E+00
Ra-228	—	2.2E-15	1.3E-03	—	6.4E-13	—	—	4.3E-03	1.1E-12	1.0E-06	2.1E+00
Rh-106	—	—	2.4E-05	—	—	—	—	1.1E-04	—	—	1.3E-04
Rn-219	3.6E-16	2.0E-04	2.4E-01	6.0E-14	3.8E-06	—	—	8.2E-04	2.4E-07	3.7E-04	2.4E-01
Rn-220	—	1.6E-02	5.0E-01	—	3.1E-13	—	—	8.5E-03	8.7E-13	4.4E-07	2.5E+00
Rn-222	2.7E-20	2.5E-01	2.9E+00	3.1E-04	2.3E-07	—	—	5.0E-02	2.8E-05	7.9E-06	3.2E+00
Ru-106	—	—	2.4E-05	—	—	—	—	1.1E-04	—	—	1.3E-04
Sb-125	—	—	2.4E-03	—	—	—	—	—	—	—	2.4E-03
Se-79	—	—	—	—	—	—	—	—	—	—	1.3E-04
Sm-147	—	—	2.1E-10	—	—	—	—	4.6E-11	—	—	2.5E-10
Sm-151	—	—	—	—	—	—	5.6E+01	2.7E-01	—	—	5.7E+01
Sr-90	—	9.5E-05	2.2E+03	—	—	1.2E+02	5.3E+04	7.4E+01	—	—	5.5E+04
Tc-99	—	—	3.1E+01	3.0E+00	—	6.8E-04	8.9E+01	1.6E-03	—	—	1.3E+02
Te-123	—	—	3.2E-05	—	—	—	—	—	—	—	3.2E-05
Te-123m	—	—	2.4E-19	—	—	—	—	—	—	—	2.4E-19
Te-125m	—	—	5.8E-04	—	—	—	—	—	—	—	5.8E-04
Th-227	3.5E-16	2.0E-04	2.3E-01	5.9E-14	3.8E-06	—	—	8.1E-04	2.3E-07	3.6E-04	2.4E-01
Th-228	—	1.6E-02	5.0E-01	—	3.2E-13	—	—	8.6E-03	8.8E-13	4.4E-07	2.5E+00
Th-229	1.5E-12	2.7E-03	2.3E-01	1.4E-09	5.4E-09	—	—	1.1E-06	1.9E-09	9.9E-05	1.2E+00
Th-230	4.8E-17	1.2E-06	3.2E-03	5.6E-02	9.1E-05	—	—	8.5E-06	7.0E-03	4.9E-05	7.6E-02
Th-231	2.1E-10	1.5E-04	1.0E-02	3.5E-09	9.0E-02	—	—	1.2E-02	3.9E-03	1.2E-01	2.0E+00
Th-232	—	4.9E-15	1.3E-03	—	1.8E-12	4.4E-02	—	4.0E-03	1.8E-12	2.6E-06	2.5E+00
Th-234	2.4E-07	1.6E-04	6.7E-02	—	1.8E-01	—	—	8.9E-03	—	6.5E+00	4.3E+01
Tl-207	3.6E-16	2.0E-04	2.4E-01	5.9E-14	3.8E-06	—	—	8.1E-04	2.3E-07	3.7E-04	2.4E-01
Tl-208	—	5.8E-03	1.8E-01	—	1.1E-13	—	—	3.1E-03	3.1E-13	1.6E-07	8.9E-01
Tl-209	3.3E-14	6.0E-05	4.9E-03	3.1E-11	1.2E-10	—	—	2.4E-08	4.1E-11	2.2E-06	2.7E-02
U-232	—	1.6E-02	4.9E-01	—	—	—	—	—	—	—	9.2E-01
U-233	8.0E-09	1.8E+00	1.4E+02	2.3E-06	1.0E-05	5.3E+01	1.1E-05	2.4E-03	2.4E-06	2.7E-01	1.0E+03
U-234	2.7E-12	1.2E-02	2.1E+01	—	8.9E-01	3.3E+01	1.3E+01	1.9E-01	6.3E+01	1.3E+00	1.7E+02
U-235	2.1E-10	1.5E-04	1.0E-02	3.5E-09	9.1E-02	3.9E-01	5.8E-01	1.2E-02	4.0E-03	1.2E-01	3.0E+00
U-236	—	1.3E-05	8.1E-04	—	6.0E-03	1.6E-05	1.1E-01	7.4E-08	3.0E-03	4.5E-03	1.0E+00
U-237	—	6.0E-03	1.1E+00	—	4.4E+00	—	—	1.7E-04	2.4E+00	8.5E+00	1.9E+01
U-238	2.4E-07	1.6E-04	6.8E-02	—	1.8E-01	4.0E+00	1.3E+01	9.0E-03	—	6.5E+00	6.1E+01
U-240	—	1.0E-06	5.6E-09	—	—	—	—	—	—	—	1.2E-06
Y-90	—	9.4E-05	2.2E+03	—	—	1.2E+02	5.3E+04	7.3E+01	—	—	5.5E+04
Zn-65	—	—	1.1E-10	—	—	—	—	—	—	—	1.1E-10
Zr-93	—	—	—	—	—	—	—	—	—	—	1.1E-03
TOTAL	2.2E+00	4.9E+03	6.7E+04	3.4E+00	3.0E+05	1.2E+06	1.1E+05	3.3E+02	1.3E+06	6.4E+05	4.3E+06

*Data decayed through December 31, 2001. Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 31. RH-TRU Waste Curies on a Site-by-Site Basis*

Nuclide	AE	AW	Battelle	Bettis	ETEC	INEEL	KAPL
Ac-225	4.6E-07	1.2E-04	—	—	3.2E-14	2.2E-13	9.6E-10
Ac-227	2.9E-08	6.5E-08	—	—	1.8E-08	2.1E-08	4.9E-08
Ac-228	1.1E-15	1.2E-14	—	—	9.2E-18	2.4E-16	3.5E-11
Ag-110	—	—	—	—	—	—	—
Ag-110m	—	—	—	—	—	—	—
Am-241	1.0E+01	1.2E+01	8.6E+01	2.5E+00	6.5E-01	3.0E+01	3.0E-02
Am-242	—	5.0E-03	—	—	—	—	—
Am-242m	—	5.1E-03	2.0E-01	—	—	—	—
Am-243	3.2E-05	5.4E-04	6.7E-01	1.2E-02	—	—	5.3E-05
At-217	4.6E-07	1.2E-04	—	—	3.2E-14	2.2E-13	9.6E-10
Ba-137m	4.3E+01	1.2E+04	—	6.2E+03	9.2E+00	1.9E+02	7.2E+01
Bi-210	7.0E-11	4.3E-11	—	—	9.8E-16	9.2E-11	2.5E-09
Bi-211	2.9E-08	6.5E-08	—	—	1.8E-08	2.1E-08	4.8E-08
Bi-212	1.1E-15	5.6E-15	—	—	5.5E-18	9.8E-17	1.0E-05
Bi-213	4.6E-07	1.2E-04	—	—	3.2E-14	2.2E-13	9.6E-10
Bi-214	3.8E-10	7.2E-10	—	—	1.7E-14	1.8E-09	9.5E-09
C-14	—	—	—	1.6E-01	—	—	1.9E-03
Cd-113m	5.9E-01	—	—	—	—	—	—
Ce-141	—	4.3E-19	—	—	—	—	—
Ce-144	2.0E-09	7.3E+00	—	—	—	—	—
Cf-249	—	—	—	2.3E-10	—	—	4.0E-12
Cf-250	—	—	—	—	—	—	—
Cf-251	—	—	—	1.1E-11	—	—	5.0E-14
Cf-252	—	—	—	—	—	—	1.9E-15
Cm-242	1.5E-21	4.2E-03	—	—	—	—	—
Cm-243	—	1.4E-04	4.6E-01	1.3E-02	—	—	1.5E-05
Cm-244	1.9E-01	4.4E-03	6.8E+01	7.6E-01	—	—	1.5E-03
Cm-245	—	—	1.1E-02	8.1E-05	—	—	4.9E-07
Cm-246	—	—	1.6E-04	1.4E-05	—	—	6.4E-08
Cm-247	—	—	—	3.2E-11	—	—	1.5E-13
Cm-248	—	—	—	5.8E-11	—	—	3.0E-13
Co-60	2.2E-01	1.9E+01	5.0E+02	2.8E+02	—	—	—
Cs-134	8.8E-05	1.1E+02	2.7E-04	—	—	—	—
Cs-135	—	—	—	—	—	—	4.0E-04
Cs-137	4.5E+01	1.3E+04	2.3E+03	6.4E+03	9.8E+00	2.0E+02	7.7E+01
Eu-152	1.7E-04	—	1.4E-02	2.8E+02	—	—	—
Eu-154	8.2E-03	1.6E+02	3.8E-01	2.8E+02	—	—	—
Eu-155	1.0E-02	3.2E+02	—	—	—	—	—
Fe-55	1.5E-01	—	—	—	—	—	—
Fr-221	4.6E-07	1.2E-04	—	—	3.2E-14	2.2E-13	9.6E-10
Fr-223	4.0E-10	8.9E-10	—	—	2.4E-10	2.9E-10	6.6E-10
Gd-152	1.8E-17	—	—	—	—	—	—

*Data decayed through December 31, 2001. Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 31. RH-TRU Waste Curies on a Site-by-Site Basis*—Continued

Nuclide	LANL	ORNL	Hanford	Hanf-RP	SNL	SRS	Total
Ac-225	6.1E-15	2.1E-01	—	—	4.6E-12	—	2.1E-01
Ac-227	2.4E-08	2.3E-05	—	—	4.4E-09	—	2.3E-05
Ac-228	1.0E-16	8.3E-01	—	—	1.2E-18	—	8.3E-01
Ag-110	—	1.1E-10	—	—	—	—	1.1E-10
Ag-110m	—	8.5E-09	—	—	—	—	8.5E-09
Am-241	2.5E-02	3.2E+02	2.1E+03	1.1E+04	2.1E+01	—	1.4E+04
Am-242	—	—	—	—	—	—	5.0E-03
Am-242m	—	—	—	—	—	—	2.1E-01
Am-243	—	3.3E-01	—	—	—	4.1E-02	1.1E+00
At-217	6.1E-15	2.1E-01	—	—	4.6E-12	—	2.1E-01
Ba-137m	1.5E+01	1.5E+04	2.5E+05	1.2E+05	4.6E+02	5.8E+01	4.1E+05
Bi-210	9.1E-12	1.2E-06	—	—	1.8E-11	2.1E-13	1.2E-06
Bi-211	2.4E-08	2.2E-05	—	—	4.3E-09	—	2.3E-05
Bi-212	1.0E-16	1.6E+01	—	—	3.2E-19	—	1.6E+01
Bi-213	6.1E-15	2.1E-01	—	—	4.6E-12	—	2.1E-01
Bi-214	3.6E-11	7.9E-06	—	—	3.5E-10	3.5E-12	7.9E-06
C-14	—	4.8E-04	—	1.1E+00	—	—	1.2E+00
Cd-113m	—	—	—	—	—	—	5.9E-01
Ce-141	—	—	—	—	—	—	4.3E-19
Ce-144	—	6.2E-07	—	—	—	—	7.3E+00
Cf-249	—	4.9E-03	—	—	—	—	4.9E-03
Cf-250	—	8.7E-02	—	—	—	—	8.7E-02
Cf-251	—	9.3E-04	—	—	—	—	9.3E-04
Cf-252	—	1.0E-01	—	—	—	—	1.0E-01
Cm-242	—	8.9E-12	—	—	—	—	4.2E-03
Cm-243	—	3.1E-07	—	—	3.8E-02	—	5.1E-01
Cm-244	—	1.2E+03	—	—	4.2E-01	—	1.3E+03
Cm-245	—	6.9E-06	—	—	—	—	1.1E-02
Cm-246	—	3.9E+00	—	—	—	—	3.9E+00
Cm-247	—	7.1E-10	—	—	—	5.5E+01	5.5E+01
Cm-248	—	1.1E-02	—	—	—	—	1.1E-02
Co-60	—	1.7E+02	8.8E+02	—	3.3E-02	—	1.9E+03
Cs-134	—	4.5E-03	—	—	1.6E+01	—	1.2E+02
Cs-135	—	—	—	—	—	—	4.0E-04
Cs-137	1.6E+01	1.6E+04	2.8E+05	1.2E+05	4.9E+02	6.2E+01	4.4E+05
Eu-152	—	2.4E+03	—	—	—	—	2.7E+03
Eu-154	—	8.2E+02	—	—	1.3E+00	—	1.3E+03
Eu-155	7.9E-03	8.2E+01	—	—	—	—	4.1E+02
Fe-55	—	—	—	—	—	—	1.5E-01
Fr-221	6.1E-15	2.1E-01	—	—	4.6E-12	—	2.1E-01
Fr-223	3.3E-10	3.1E-07	—	—	6.0E-11	—	3.1E-07
Gd-152	—	1.1E-10	—	—	—	—	1.1E-10

*Data decayed through December 31, 2001. Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 31. RH-TRU Waste Curies on a Site-by-Site Basis*—Continued

Nuclide	AE	AW	Battelle	Bettis	ETEC	INEEL	KAPL
H-3	—	6.8E-04	—	—	—	—	—
I-129	—	—	—	2.1E-03	—	—	3.7E-05
Kr-85	4.1E-01	—	—	—	—	—	—
Mn-54	2.5E-09	2.1E+00	—	—	—	—	—
Na-22	—	3.4E-01	—	—	—	—	—
Nb-93m	9.2E-04	—	—	—	—	—	1.2E-04
Nb-95	—	2.4E-13	—	—	—	—	—
Nb-95m	—	8.1E-16	—	—	—	—	—
Ni-59	—	—	—	2.3E+01	—	—	1.8E-04
Ni-63	—	—	—	1.1E+03	—	—	1.9E-02
Np-237	1.7E-03	1.9E-03	1.2E-02	1.7E-02	2.7E-06	6.8E-05	8.5E-04
Np-238	—	2.5E-05	—	—	—	—	—
Np-239	3.1E-05	5.3E-04	—	—	—	—	5.2E-05
Np-240m	—	—	—	—	—	—	1.7E-12
Pa-231	8.9E-08	7.3E-07	—	—	1.5E-07	2.0E-07	9.7E-08
Pa-233	1.6E-03	1.9E-03	—	—	2.6E-06	6.8E-05	8.4E-04
Pa-234	7.8E-08	5.9E-07	—	—	2.9E-06	1.4E-15	4.1E-10
Pa-234m	6.0E-05	4.6E-04	—	—	2.2E-03	1.1E-12	3.1E-07
Pb-209	4.6E-07	1.2E-04	—	—	3.2E-14	2.2E-13	9.6E-10
Pb-210	7.0E-11	4.3E-11	—	—	9.9E-16	9.3E-11	2.5E-09
Pb-211	2.9E-08	6.5E-08	—	—	1.8E-08	2.1E-08	4.8E-08
Pb-212	1.1E-15	5.6E-15	—	—	5.4E-18	9.8E-17	1.0E-05
Pb-214	3.9E-10	7.2E-10	—	—	1.7E-14	1.8E-09	9.5E-09
Pd-107	—	—	—	—	—	—	1.7E-05
Pm-147	3.0E-02	3.7E+02	—	2.8E+02	—	—	5.9E-02
Po-210	7.0E-11	4.3E-11	—	—	9.9E-16	9.3E-11	2.0E-09
Po-211	8.8E-11	2.0E-10	—	—	5.4E-11	6.3E-11	1.5E-10
Po-212	6.8E-16	3.6E-15	—	—	3.5E-18	6.3E-17	6.6E-06
Po-213	4.5E-07	1.2E-04	—	—	3.1E-14	2.2E-13	9.4E-10
Po-214	3.9E-10	7.2E-10	—	—	1.7E-14	1.8E-09	9.5E-09
Po-215	2.9E-08	6.5E-08	—	—	1.8E-08	2.1E-08	4.8E-08
Po-216	1.1E-15	5.6E-15	—	—	5.4E-18	9.8E-17	1.0E-05
Po-218	3.8E-10	7.1E-10	—	—	1.6E-14	1.7E-09	9.3E-09
Pr-144	2.0E-09	7.2E+00	—	—	—	—	—
Pu-238	9.2E+00	1.2E+00	7.8E+01	2.8E+02	1.5E-02	2.7E+03	2.8E+00
Pu-239	1.8E+01	2.5E+01	1.0E+01	2.2E-01	1.1E+00	3.5E+01	7.6E-03
Pu-240	3.8E+00	2.3E+01	1.6E+01	4.5E-01	2.7E-01	3.3E+01	1.9E-03
Pu-241	3.0E+01	7.2E+02	1.3E+03	4.8E+01	2.2E+00	6.6E+01	2.7E-01
Pu-242	—	5.5E-04	4.8E-02	3.5E-03	—	1.0E-03	7.2E-06
Pu-243	—	—	—	—	—	—	1.5E-13
Pu-244	—	—	—	2.0E-10	—	—	1.7E-12
Ra-223	2.9E-08	6.5E-08	—	—	1.8E-08	2.1E-08	4.9E-08

*Data decayed through December 31, 2001. Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 31. RH-TRU Waste Curies on a Site-by-Site Basis*—Continued

Nuclide	LANL	ORNL	Hanford	Hanf-RP	SNL	SRS	Total
H-3	—	2.6E-01	—	—	—	—	2.6E-01
I-129	—	—	—	8.0E-02	—	—	8.2E-02
Kr-85	—	—	—	—	—	—	4.1E-01
Mn-54	—	—	—	—	—	—	2.1E+00
Na-22	—	—	—	—	—	—	3.4E-01
Nb-93m	—	—	—	—	—	—	1.0E-03
Nb-95	—	—	—	—	—	—	2.4E-13
Nb-95m	—	—	—	—	—	—	8.1E-16
Ni-59	—	—	—	—	—	—	2.3E+01
Ni-63	—	—	—	—	—	—	1.1E+03
Np-237	1.6E-07	1.8E-03	—	6.4E-01	9.0E-04	—	6.7E-01
Np-238	—	—	—	—	—	—	2.5E-05
Np-239	—	3.2E-01	—	—	—	4.1E-02	3.7E-01
Np-240m	—	6.5E-03	—	—	—	—	6.5E-03
Pa-231	6.6E-08	9.9E-05	—	—	5.8E-08	5.3E-19	1.0E-04
Pa-233	1.6E-07	1.8E-03	—	—	9.0E-04	—	7.2E-03
Pa-234	5.7E-10	1.6E-02	—	—	2.4E-07	—	1.6E-02
Pa-234m	4.4E-07	1.3E+01	—	—	1.8E-04	—	1.3E+01
Pb-209	6.1E-15	2.1E-01	—	—	4.6E-12	—	2.1E-01
Pb-210	9.2E-12	1.2E-06	—	—	1.8E-11	2.1E-13	1.2E-06
Pb-211	2.4E-08	2.2E-05	—	—	4.3E-09	—	2.3E-05
Pb-212	1.0E-16	1.6E+01	—	—	3.2E-19	—	1.6E+01
Pb-214	3.6E-11	7.9E-06	—	—	3.5E-10	3.5E-12	7.9E-06
Pd-107	—	—	—	—	—	—	1.7E-05
Pm-147	—	—	—	—	7.0E+00	2.2E+00	6.6E+02
Po-210	9.2E-12	1.2E-06	—	—	1.8E-11	2.1E-13	1.2E-06
Po-211	7.2E-11	6.8E-08	—	—	1.3E-11	—	6.9E-08
Po-212	6.6E-17	1.0E+01	—	—	2.1E-19	—	1.0E+01
Po-213	6.0E-15	2.1E-01	—	—	4.5E-12	—	2.1E-01
Po-214	3.6E-11	7.9E-06	—	—	3.5E-10	3.5E-12	7.9E-06
Po-215	2.4E-08	2.2E-05	—	—	4.3E-09	—	2.3E-05
Po-216	1.0E-16	1.6E+01	—	—	3.2E-19	—	1.6E+01
Po-218	3.5E-11	7.8E-06	—	—	3.5E-10	3.5E-12	7.8E-06
Pr-144	—	6.1E-07	—	—	—	—	7.2E+00
Pu-238	1.3E-02	2.5E+02	5.3E+02	1.0E+01	4.2E+00	3.6E+00	3.9E+03
Pu-239	2.5E+00	1.4E+02	8.6E+02	4.2E+03	2.8E+00	4.8E-06	5.3E+03
Pu-240	2.7E-02	3.4E+01	4.6E+02	1.0E+03	4.3E-01	—	1.6E+03
Pu-241	2.2E-01	1.5E+02	1.2E+05	1.8E+04	2.5E-02	—	1.4E+05
Pu-242	1.6E-05	7.1E-02	1.5E-01	2.2E-01	—	—	4.9E-01
Pu-243	—	7.0E-10	—	—	—	5.4E+01	5.4E+01
Pu-244	—	6.4E-03	—	—	—	—	6.4E-03
Ra-223	2.4E-08	2.3E-05	—	—	4.4E-09	—	2.3E-05

*Data decayed through December 31, 2001. Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 31. RH-TRU Waste Curies on a Site-by-Site Basis*—Continued

Nuclide	AE	AW	Battelle	Bettis	ETEC	INEEL	KAPL
Ra-224	1.1E-15	5.5E-15	—	—	5.4E-18	9.8E-17	1.0E-05
Ra-225	4.6E-07	1.2E-04	—	—	3.2E-14	2.2E-13	9.6E-10
Ra-226	3.9E-10	7.3E-10	—	—	1.7E-14	1.8E-09	9.6E-09
Ra-228	1.3E-15	1.4E-14	—	—	1.1E-17	2.8E-16	4.1E-11
Rh-106	3.6E-07	—	—	—	—	—	—
Rn-219	2.9E-08	6.5E-08	—	—	1.8E-08	2.1E-08	4.8E-08
Rn-220	1.1E-15	5.6E-15	—	—	5.4E-18	9.8E-17	1.0E-05
Rn-222	3.9E-10	7.2E-10	—	—	1.7E-14	1.8E-09	9.5E-09
Ru-106	3.6E-07	—	—	—	—	—	—
Sb-125	3.7E-03	5.0E+00	2.8E-03	—	—	—	—
Sb-126	1.2E-04	—	—	—	—	—	4.7E-05
Sb-126m	8.7E-04	—	—	—	—	—	3.4E-04
Se-79	—	—	—	4.0E-02	—	—	1.0E-04
Sm-147	9.3E-10	3.5E-08	—	—	—	—	4.4E-13
Sm-151	2.0E+00	3.5E+01	—	3.1E+01	—	—	1.2E+00
Sn-121m	—	—	—	—	—	—	3.0E-03
Sn-126	8.7E-04	—	—	—	—	—	3.4E-04
Sr-90	2.6E+01	1.3E+04	1.5E+03	6.4E+03	9.5E+00	—	7.3E+01
Tc-99	1.1E-02	—	4.4E-01	1.4E+00	—	—	2.1E-02
Te-125m	8.9E-04	1.2E+00	—	—	—	—	—
Th-227	2.8E-08	6.4E-08	—	—	1.7E-08	2.0E-08	4.7E-08
Th-228	1.1E-15	5.6E-15	—	—	5.5E-18	9.9E-17	1.1E-05
Th-229	4.7E-07	1.2E-04	—	—	3.2E-14	2.2E-13	9.6E-10
Th-230	9.8E-08	5.6E-07	—	—	1.4E-11	1.8E-06	1.4E-06
Th-231	1.5E-04	5.7E-03	—	—	8.9E-04	1.4E-03	7.1E-05
Th-232	2.1E-15	4.7E-14	—	1.7E-11	2.9E-17	1.2E-15	4.1E-11
Th-234	6.0E-05	4.6E-04	—	—	2.2E-03	1.1E-12	3.1E-07
Tl-207	2.9E-08	6.4E-08	—	—	1.8E-08	2.1E-08	4.8E-08
Tl-208	3.8E-16	2.0E-15	2.3E-03	—	2.0E-18	3.5E-17	3.7E-06
Tl-209	1.0E-08	2.6E-06	—	—	7.1E-16	4.9E-15	2.1E-11
U-232	—	—	7.4E-04	4.0E-03	—	—	3.4E-05
U-233	1.8E-04	2.1E-01	1.3E-06	—	7.6E-11	1.0E-09	3.9E-07
U-234	7.8E-04	1.0E-02	2.8E-02	6.0E-01	4.0E-07	5.5E-02	4.8E-03
U-235	1.6E-04	5.7E-03	4.1E-04	7.8E-03	9.0E-04	1.4E-03	7.2E-05
U-236	3.1E-06	1.6E-04	5.4E-03	8.9E-02	9.4E-08	6.8E-06	6.8E-04
U-237	7.3E-04	1.8E-02	—	—	5.4E-05	1.6E-03	6.6E-06
U-238	6.1E-05	4.6E-04	8.0E-03	3.6E-05	2.3E-03	1.1E-12	3.2E-07
U-240	—	—	—	—	—	—	1.7E-12
Y-90	2.5E+01	1.3E+04	—	6.4E+03	9.4E+00	—	7.3E+01
Y-91	—	4.7E-12	—	—	—	—	—
Zr-93	1.3E-03	—	—	3.4E-01	—	—	2.6E-03
Zr-95	—	1.1E-13	—	—	—	—	—
TOTAL	2.1E+02	5.2E+04	5.8E+03	2.8E+04	4.2E+01	3.3E+03	3.0E+02

*Data decayed through December 31, 2001. Date Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 31. RH-TRU Waste Curies on a Site-by-Site Basis*---Continued

Nuclide	LANL	ORNL	Hanford	Hanf-RP	SNL	SRS	Total
Ra-224	1.0E-16	1.6E+01	—	—	3.2E-19	—	1.6E+01
Ra-225	6.1E-15	2.1E-01	—	—	4.6E-12	—	2.1E-01
Ra-226	3.6E-11	8.0E-06	—	—	3.6E-10	3.6E-12	8.0E-06
Ra-228	1.2E-16	9.8E-01	—	—	1.4E-18	—	9.8E-01
Rh-106	1.3E-10	2.2E-03	—	—	—	—	2.2E-03
Rn-219	2.4E-08	2.2E-05	—	—	4.3E-09	—	2.3E-05
Rn-220	1.0E-16	1.6E+01	—	—	3.2E-19	—	1.6E+01
Rn-222	3.6E-11	7.9E-06	—	—	3.5E-10	3.5E-12	7.9E-06
Ru-106	1.3E-10	2.3E-03	—	—	—	—	2.3E-03
Sb-125	5.5E-04	1.3E-02	—	—	—	—	5.0E+00
Sb-126	—	—	—	—	—	—	1.7E-04
Sb-126m	—	—	—	—	—	—	1.2E-03
Se-79	—	—	—	—	—	—	4.0E-02
Sm-147	—	—	—	—	4.7E-10	4.0E-10	3.7E-08
Sm-151	—	—	3.0E+02	2.4E+02	—	—	6.0E+02
Sn-121m	—	—	—	—	—	—	3.0E-03
Sn-126	—	—	—	—	—	—	1.2E-03
Sr-90	1.5E+01	5.6E+04	1.8E+05	7.5E+04	4.9E+02	5.8E+01	3.4E+05
Tc-99	—	6.5E-09	6.6E-03	1.6E+02	—	—	1.6E+02
Te-125m	1.3E-04	3.1E-03	—	—	—	—	1.2E+00
Th-227	2.3E-08	2.2E-05	—	—	4.3E-09	—	2.2E-05
Th-228	1.1E-16	1.6E+01	—	—	3.3E-19	—	1.6E+01
Th-229	6.1E-15	2.1E-01	—	—	4.6E-12	—	2.1E-01
Th-230	5.5E-09	2.2E-03	—	—	3.3E-07	3.1E-09	2.2E-03
Th-231	9.9E-05	2.7E-01	—	—	5.4E-04	1.2E-14	2.8E-01
Th-232	1.5E-16	1.0E+00	4.3E-02	—	7.8E-18	—	1.1E+00
Th-234	4.4E-07	1.3E+01	—	—	1.8E-04	—	1.3E+01
Tl-207	2.4E-08	2.2E-05	—	—	4.3E-09	—	2.3E-05
Tl-208	3.7E-17	5.6E+00	—	—	1.2E-19	—	5.7E+00
Tl-209	1.4E-16	4.7E-03	—	—	1.0E-13	—	4.7E-03
U-232	—	1.5E+01	—	—	—	—	1.5E+01
U-233	7.9E-12	1.4E+02	8.5E+00	2.3E+00	1.9E-08	—	1.5E+02
U-234	2.0E-05	1.4E+01	2.9E+00	1.5E+01	7.4E-03	8.4E-05	3.2E+01
U-235	1.0E-04	2.8E-01	2.8E-01	5.6E-01	5.5E-04	1.3E-14	1.1E+00
U-236	1.1E-07	4.9E-02	2.1E-04	1.2E+00	6.3E-08	—	1.3E+00
U-237	5.5E-06	3.7E-03	—	—	6.1E-07	—	2.4E-02
U-238	4.4E-07	1.3E+01	2.7E-02	1.3E+02	1.8E-04	—	1.4E+02
U-240	—	6.4E-03	—	—	—	—	6.4E-03
Y-90	1.5E+01	5.6E+04	1.8E+05	7.5E+04	4.8E+02	5.7E+01	3.3E+05
Y-91	—	—	—	—	—	—	4.7E-12
Zr-93	—	—	—	—	—	—	3.4E-01
Zr-95	—	—	—	—	—	—	1.1E-13
TOTAL	6.4E+01	1.5E+05	1.0E+06	4.3E+05	2.0E+03	3.5E+02	1.7E+06

*Data decayed through December 31, 2001. Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

Table 32. WIPP Disposal Radionuclide Inventory for the CRA^{1,2}

Nuclide	CH-TRU Waste Concentration (Ci/m ³)	RH-TRU Waste Concentration (Ci/m ³)	CH-TRU Waste (Total Curies)	RH-TRU Waste (Total Curies)
Ac-225	8.0E-06	2.6E-05	1.4E+00	1.8E-01
Ac-227	2.2E-06	2.8E-09	3.6E-01	2.0E-05
Ac-228	1.1E-05	1.0E-04	1.8E+00	7.2E-01
Ag-109m	7.5E-10	NR	1.3E-04	NR
Ag-110	1.9E-16	1.4E-14	3.1E-11	9.6E-11
Ag-110m	1.4E-14	1.0E-12	2.4E-09	7.3E-09
Am-241	2.8E+00	2.0E+00	4.8E+05	1.4E+04
Am-242	2.8E-07	6.0E-07	4.7E-02	4.3E-03
Am-242m	2.8E-07	2.9E-05	4.8E-02	2.1E-01
Am-243	4.6E-04	1.4E-04	7.8E+01	9.9E-01
Am-245	5.6E-16	NR	9.4E-11	NR
At-217	8.1E-06	2.6E-05	1.4E+00	1.9E-01
Ba-137m	4.1E-02	5.6E+01	6.9E+03	3.9E+05
Bi-210	1.1E-05	1.5E-10	1.9E+00	1.1E-06
Bi-211	2.1E-06	2.8E-09	3.6E-01	1.9E-05
Bi-212	1.7E-05	1.9E-03	2.8E+00	1.4E+01
Bi-213	8.0E-06	2.6E-05	1.4E+00	1.8E-01
Bi-214	2.7E-05	9.6E-10	4.6E+00	6.8E-06
Bk-249	3.8E-11	NR	6.5E-06	NR
Bk-250	1.5E-17	NR	2.6E-12	NR
C-14	7.2E-06	1.7E-04	1.2E+00	1.2E+00
Cd-109	7.6E-10	NR	1.3E-04	NR
Cd-113m	NR	7.4E-05	NR	5.2E-01
Ce-141	NR	5.9E-23	NR	4.2E-19
Ce-144	2.1E-09	9.1E-04	3.6E-04	6.4E+00
Cf-249	3.4E-07	5.9E-07	5.8E-02	4.2E-03
Cf-250	1.0E-06	1.1E-05	1.7E-01	7.5E-02
Cf-251	1.5E-09	1.1E-07	2.6E-04	8.0E-04
Cf-252	1.0E-06	1.3E-05	1.7E-01	8.9E-02
Cm-242	2.3E-07	5.1E-07	3.9E-02	3.6E-03
Cm-243	2.4E-06	7.1E-05	4.0E-01	5.1E-01
Cm-244	3.7E-02	1.5E-01	6.2E+03	1.1E+03
Cm-245	3.6E-08	1.6E-06	6.0E-03	1.1E-02

NR=Not reported by sites. Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

¹ Data decayed through 2001.

² Total curies estimated by assuming a volume of 5,950,000 cubic feet for CH-TRU waste and 250,000 cubic feet for RH-TRU waste.

Table 32. WIPP Disposal Radionuclide Inventory for the CRA^{1,2}— Continued

Nuclide	CH-TRU Waste Concentration (Ci/m ³)	RH-TRU Waste Concentration (Ci/m ³)	CH-TRU Waste (Total Curies)	RH-TRU Waste (Total Curies)
Cm-246	6.6E-06	4.8E-04	1.1E+00	3.4E+00
Cm-247	1.2E-15	6.7E-03	2.0E-10	4.7E+01
Cm-248	3.9E-07	1.3E-06	6.5E-02	9.2E-03
Cm-250	2.8E-16	NR	4.7E-11	NR
Co-60	5.8E-06	2.6E-01	9.8E-01	1.8E+03
Cs-134	1.2E-07	1.5E-02	2.0E-02	1.1E+02
Cs-135	NR	4.9E-08	NR	3.5E-04
Cs-137	4.4E-02	6.0E+01	7.4E+03	4.3E+05
Eu-152	1.1E-05	3.3E-01	1.9E+00	2.4E+03
Eu-154	9.4E-06	1.6E-01	1.6E+00	1.1E+03
Eu-155	2.9E-07	4.9E-02	4.9E-02	3.5E+02
Fe-55	NR	1.9E-05	NR	1.3E-01
Fr-221	8.0E-06	2.6E-05	1.4E+00	1.8E-01
Fr-223	2.9E-08	3.8E-11	4.9E-03	2.7E-07
Gd-152	2.5E-19	1.4E-14	4.3E-14	9.8E-11
H-3	1.3E-03	3.2E-05	2.2E+02	2.3E-01
I-129	3.0E-09	1.2E-05	5.1E-04	8.2E-02
Kr-85	2.7E-06	5.1E-05	4.6E-01	3.6E-01
Mn-54	NR	2.9E-04	NR	2.0E+00
Na-22	2.3E-12	4.6E-05	3.9E-07	3.3E-01
Nb-93m	NR	1.3E-07	NR	9.1E-04
Nb-95	NR	3.0E-17	NR	2.2E-13
Nb-95m	NR	1.0E-19	NR	7.2E-16
Ni-59	4.5E-07	3.3E-03	7.6E-02	2.3E+01
Ni-63	2.2E-05	1.6E-01	3.7E+00	1.1E+03
Np-237	3.7E-05	9.5E-05	6.2E+00	6.7E-01
Np-238	1.4E-09	3.0E-09	2.4E-04	2.2E-05
Np-239	4.6E-04	4.5E-05	7.7E+01	3.2E-01
Np-240m	7.4E-12	7.9E-07	1.3E-06	5.6E-03
Pa-231	5.1E-06	1.2E-08	8.7E-01	8.7E-05
Pa-233	3.7E-05	9.0E-07	6.2E+00	6.3E-03
Pa-234	4.7E-07	2.0E-06	8.0E-02	1.4E-02
Pa-234m	3.6E-04	1.5E-03	6.1E+01	1.1E+01

NR=Not reported by sites. Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

¹ Data decayed through 2001.

² Total curies estimated by assuming a volume of 5,950,000 cubic feet for CH-TRU waste and 250,000 cubic feet for RH-TRU waste.

Table 32. WIPP Disposal Radionuclide Inventory for the CRA^{1,2}— Continued

Nuclide	CH-TRU Waste Concentration (Ci/m ³)	RH-TRU Waste Concentration (Ci/m ³)	CH-TRU Waste (Total Curies)	RH-TRU Waste (Total Curies)
Pb-209	8.0E-06	2.6E-05	1.4E+00	1.8E-01
Pb-210	1.1E-05	1.5E-10	1.9E+00	1.1E-06
Pb-211	2.1E-06	2.8E-09	3.6E-01	2.0E-05
Pb-212	1.7E-05	1.9E-03	2.8E+00	1.4E+01
Pb-214	2.7E-05	9.6E-10	4.6E+00	6.8E-06
Pd-107	NR	2.0E-09	NR	1.5E-05
Pm-147	1.0E-05	8.6E-02	1.8E+00	6.1E+02
Po-210	1.1E-05	1.5E-10	1.9E+00	1.1E-06
Po-211	6.5E-09	8.4E-12	1.1E-03	5.9E-08
Po-212	1.1E-05	1.2E-03	1.8E+00	8.6E+00
Po-213	7.9E-06	2.6E-05	1.3E+00	1.8E-01
Po-214	2.7E-05	9.6E-10	4.6E+00	6.8E-06
Po-215	2.1E-06	2.8E-09	3.6E-01	2.0E-05
Po-216	1.7E-05	1.9E-03	2.8E+00	1.4E+01
Po-218	2.7E-05	9.5E-10	4.5E+00	6.7E-06
Pr-144	2.1E-09	8.9E-04	3.5E-04	6.3E+00
Pu-236	2.0E-08	NR	3.3E-03	NR
Pu-238	8.6E+00	5.4E-01	1.5E+06	3.8E+03
Pu-239	3.4E+00	7.4E-01	5.8E+05	5.2E+03
Pu-240	5.6E-01	2.2E-01	9.4E+04	1.6E+03
Pu-241	1.2E+01	1.8E+01	2.0E+06	1.3E+05
Pu-242	7.2E-05	6.8E-05	1.2E+01	4.8E-01
Pu-243	1.2E-15	6.6E-03	2.0E-10	4.7E+01
Pu-244	7.4E-12	7.8E-07	1.2E-06	5.5E-03
Ra-223	2.2E-06	2.8E-09	3.6E-01	2.0E-05
Ra-224	1.7E-05	1.9E-03	2.8E+00	1.4E+01
Ra-225	8.1E-06	2.6E-05	1.4E+00	1.9E-01
Ra-226	2.8E-05	9.8E-10	4.6E+00	6.9E-06
Ra-228	1.3E-05	1.2E-04	2.1E+00	8.5E-01
Rh-106	8.5E-10	2.7E-07	1.4E-04	1.9E-03
Rn-219	2.1E-06	2.8E-09	3.6E-01	1.9E-05
Rn-220	1.7E-05	1.9E-03	2.8E+00	1.4E+01

NR=Not reported by sites. Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

¹ Data decayed through 2001.

² Total curies estimated by assuming a volume of 5,950,000 cubic feet for CH-TRU waste and 250,000 cubic feet for RH-TRU waste.

Table 32. WIPP Disposal Radionuclide Inventory for the CRA^{1,2}— Continued

Nuclide	CH-TRU Waste Concentration (Ci/m ³)	RH-TRU Waste Concentration (Ci/m ³)	CH-TRU Waste (Total Curies)	RH-TRU Waste (Total Curies)
Rn-222	2.7E-05	9.7E-10	4.6E+00	6.8E-06
Ru-106	8.6E-10	2.7E-07	1.5E-04	1.9E-03
Sb-125	2.1E-08	6.9E-04	3.6E-03	4.9E+00
Sb-126	NR	2.1E-08	NR	1.5E-04
Sb-126m	NR	1.5E-07	NR	1.1E-03
Se-79	7.8E-10	5.6E-06	1.3E-04	4.0E-02
Sm-147	2.1E-15	4.5E-12	3.5E-10	3.2E-08
Sm-151	3.4E-04	8.4E-02	5.7E+01	6.0E+02
Sn-121m	NR	3.7E-07	NR	2.6E-03
Sn-126	NR	1.5E-07	NR	1.1E-03
Sr-90	3.3E-01	4.6E+01	5.6E+04	3.2E+05
Tc-99	8.7E-04	2.3E-02	1.5E+02	1.6E+02
Te-123	2.9E-10	NR	4.8E-05	NR
Te-123m	2.1E-24	NR	3.6E-19	NR
Te-125m	5.2E-09	1.7E-04	8.7E-04	1.2E+00
Th-227	2.1E-06	2.7E-09	3.5E-01	1.9E-05
Th-228	1.7E-05	1.9E-03	2.9E+00	1.4E+01
Th-229	8.1E-06	2.6E-05	1.4E+00	1.9E-01
Th-230	5.7E-07	2.7E-07	9.5E-02	1.9E-03
Th-231	1.7E-05	3.4E-05	2.9E+00	2.4E-01
Th-232	1.5E-05	1.3E-04	2.5E+00	9.2E-01
Th-234	3.6E-04	1.5E-03	6.1E+01	1.1E+01
Tl-207	2.1E-06	2.7E-09	3.6E-01	1.9E-05
Tl-208	6.0E-06	6.9E-04	1.0E+00	4.9E+00
Tl-209	1.8E-07	5.7E-07	3.0E-02	4.1E-03
U-232	7.4E-06	1.8E-03	1.3E+00	1.3E+01
U-233	6.5E-03	1.8E-02	1.1E+03	1.3E+02
U-234	1.2E-03	4.3E-03	2.0E+02	3.0E+01
U-235	2.3E-05	1.5E-04	3.9E+00	1.1E+00
U-236	8.7E-06	1.9E-04	1.5E+00	1.3E+00
U-237	1.2E-04	3.2E-06	2.1E+01	2.3E-02
U-238	4.7E-04	2.0E-02	7.9E+01	1.4E+02

NR=Not reported by sites. Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

¹ Data decayed through 2001.

² Total curies estimated by assuming a volume of 5,950,000 cubic feet for CH-TRU waste and 250,000 cubic feet for RH-TRU waste.

Table 32. WIPP Disposal Radionuclide Inventory for the CRA^{1,2}— Continued

Nuclide	CH-TRU Waste Concentration (Ci/m ³)	RH-TRU Waste Concentration (Ci/m ³)	CH-TRU Waste (Total Curies)	RH-TRU Waste (Total Curies)
U-240	7.3E-12	7.7E-07	1.2E-06	5.5E-03
Y-90	3.3E-01	4.5E+01	5.6E+04	3.2E+05
Y-91	NR	5.8E-16	NR	4.1E-12
Zn-65	9.8E-16	NR	1.7E-10	NR
Zr-93	6.7E-09	4.8E-05	1.1E-03	3.4E-01
Zr-95	NR	1.4E-17	NR	9.8E-14
TOTALS	2.8E+01	2.3E+02	4.7E+06	1.6E+06

NR=Not reported by sites. Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

¹ Data decayed through 2001.

² Total curies estimated by assuming a volume of 5,950,000 cubic feet for CH-TRU waste and 250,000 cubic feet for RH-TRU waste.

3.7 Non-Waste Isolation Pilot Plant and Future Potential Waste

This section identifies waste streams not included in the WIPP inventory used for the PABC (Leigh et al. 2005a; Leigh et al. 2005b). The waste permitted to come to WIPP is restricted by radionuclide activity limits, volume, and purpose of generation (i.e., waste generated only from defense activities). Non-WIPP waste streams are summarized in Section 3.8 and waste profiles and waste streams are presented in Appendix I.

Other restrictions to the waste result from how the waste has been managed at the TRU waste sites. Some materials that have not been declared TRU waste by the DOE TRU waste sites at this time may become TRU waste in the future. Some waste has been identified in the TRU inventory but the option for processing has not been determined at this time. These possible future waste streams may ultimately become eligible for shipment to WIPP and are discussed in Section 3.9.

3.8 Non-Defense TRU Waste and Waste Isolation Pilot Plant Future Potential Waste

The DOE has several categories of waste that are currently not acceptable for disposal in WIPP. These are summarized below:

- Non-Defense Waste—The National Security Program (Public Law 96-164, 1980, National Security and Military Applications of Nuclear Energy Authorization Act of 1980, 93 Stat. 1259), which authorized the construction of the WIPP, states that the WIPP is to be a defense waste repository. Therefore, wastes that are identified as non-defense can not be disposed in the WIPP. Some waste streams from sites for which a defense determination has not been made are identified in Table 33.
- Pre-1970 buried TRU Waste—Several sites (i.e., LANL, Savannah River Site (SRS), SNL, Hanford Site, INL, ORNL, and West Valley Demonstration Project) have TRU wastes that were buried prior to 1970. INL is currently preparing pre-1970 buried waste for shipment to WIPP. Only INL has included pre-1970 buried waste in the WIPP shippable inventory at this time.

- **Classified Waste**—Some classified TRU waste, such as TRU-contaminated classified materials (materials used in weapons production), is now acceptable for disposal at WIPP. These materials are classified for security and national defense purposes due to their physical shape or form and may include graphite, metal, tooling, and plastic materials. The same characterization and associated QA activities currently required under the WIPP program will be implemented for the characterization of classified waste using selected personnel.
- **Polychlorinated Biphenyl (PCB) waste**—The EPA Region 6 approved the disposal of non-liquid PCB-contaminated TRU waste (PCB/TRU waste) and PCB/TRU waste mixed with hazardous waste (PCB/TRU mixed waste) at the WIPP in May 2003. However, at the time the inventory estimate was prepared for the PABC (Leigh et al. 2005a; Leigh et al. 2005b), this approval had not been received. Therefore PCB/TRU waste > 50 ppm was not included in this updated inventory.
- **RH-TRU waste that exceeds 23,000 Ci/m³ (650 Ci/ft³)**—This limit is from the LWA (U.S. Congress 1996).

Table 33. Possible Future TRU Waste for WIPP

CH TRU Waste Streams				
Waste Stream ID	Waste Stream Name	Stored Volumes (m³)	Projected Volumes (m³)	Anticipated Volumes (m³)
BL-001	Reactor Fuel Test Specimens	4.5E+01	0.0E+00	4.5E+01
FM-MOX-MT0	Framatome MOX Fuel Plant D&D Mixed TRU Waste	4.2E-01	0.0E+00	4.2E-01
FM-MOX-T01	Framatome MOX Fuel Plant D&D TRU Waste	6.9E+00	0.0E+00	6.9E+00
LA-OS-00-02	Isotopic sources waiting determination of eligibility for WIPP disposal	0.0E+00	1.6E+02	1.6E+02
LA-TA-00-01	Containers waiting assignment to waste streams	7.7E+01	0.0E+00	7.7E+01
LA-TA-00-02	Containers waiting assignment to waste streams	1.1E+02	0.0E+00	1.1E+02
LA-TA-00-03	Containers waiting assignment to waste streams	7.7E+00	0.0E+00	7.7E+00
LA-TA-00-04	Containers waiting assignment to waste streams	2.1E+02	0.0E+00	2.1E+02
LA-TA-00-05	Containers waiting assignment to waste streams	4.2E+02	0.0E+00	4.2E+02
LA-TA-00-06	Containers waiting assignment to waste streams	4.5E+01	0.0E+00	4.5E+01
LA-TA-00-07	Containers waiting assignment to waste streams	1.8E+01	0.0E+00	1.8E+01
LB-T001	LBL Waste	6.2E-01	1.0E+00	1.6E+00
PA-B015	Transuranic and Technetium Wastes - Liquid	2.5E+00	0.0E+00	2.5E+00
PA-W014	Transuranic Waste Liquid	4.2E-01	0.0E+00	4.2E-01
RF-MT0503	Un-named Waste Stream	1.7E+00	0.0E+00	1.7E+00
RF-MT0505	Un-named Waste Stream	2.1E-01	0.0E+00	2.1E-01
RF-MT0529	Un-named Waste Stream	2.1E-01	0.0E+00	2.1E-01
RF-MT0533	Un-named Waste Stream	3.1E+00	0.0E+00	3.1E+00
RF-MT0535	Un-named Waste Stream	6.3E-01	0.0E+00	6.3E-01
RF-TT0533	Un-named Waste Stream	8.3E-01	0.0E+00	8.3E-01
RL-W284	201C Unknown form CH RCRA MTRU w/ met	4.2E-01	0.0E+00	4.2E-01
RL-W332	2345Z Unknown form CH St MTRU	1.9E+00	0.0E+00	1.9E+00
RL-W357	KAPL Unknown form CH/r TRU	2.1E-01	0.0E+00	2.1E-01
RL-W366	202A Unknown form CH TRU	1.5E+00	8.3E-01	2.3E+00
RL-W382	2345Z Unknown form CH TRU	1.9E+01	6.1E+01	8.0E+01
RL-W391	308 Combustible unknown form CH TRU	4.2E-01	0.0E+00	4.2E-01
RL-W471	202A MTRU CH unknown forms S9000 Mixed RCRA w/ org, met, Hg	1.9E+00	0.0E+00	1.9E+00
RL-W472	202A MTRU CH unknown forms S9000 Mixed RCRA w/ met	2.1E-01	0.0E+00	2.1E-01
RL-W556	2345Z MTRU CH unknown forms S9000 Mixed RCRA w/ org, met, Hg	4.2E-01	0.0E+00	4.2E-01
RL-W557	2345Z MTRU CH unknown forms S9000 Mixed RCRA w/ org, ign	2.1E-01	0.0E+00	2.1E-01
RL-W558	2345Z MTRU CH unknown forms S9000 Mixed RCRA w/ org	2.1E-01	0.0E+00	2.1E-01

Table 33. Possible Future TRU Waste for WIPP – Continued

CH TRU Waste Streams				
Waste Stream ID	Waste Stream Name	Stored Volumes (m³)	Projected Volumes (m³)	Anticipated Volumes (m³)
RL-W561	2345Z MTRU CH unknown forms S9000 Mixed RCRA w/ met, Hg, cor	2.1E-01	0.0E+00	2.1E-01
RL-W562	2345Z MTRU CH unknown forms S9000 Mixed RCRA w/ met, Hg	1.0E+00	0.0E+00	1.0E+00
RL-W609	324 MTRU CH unknown forms S9000 Mixed RCRA w/org, met, Hg	2.1E-01	0.0E+00	2.1E-01
RL-W650	325 TRU CH unknown forms S9000 Non-mixed	2.1E-01	0.0E+00	2.1E-01
RL-W651	325 MTRU CH unknown forms S9000 Mixed RCRA w/org, met	1.0E+00	0.0E+00	1.0E+00
RL-W652	325 MTRU CH unknown forms S9000 Mixed RCRA w/org	3.8E+00	0.0E+00	3.8E+00
RL-W722	MCGEE TRU CH unknown forms S9000 Non-mixed	2.1E-01	0.0E+00	2.1E-01
RL-W756	PFP Residues - Mixed Oxides Wastes in POCs: MTRU CH solidified inorganic S3150 Mixed	0.0E+00	2.9E+02	2.9E+02
SP-T001	Un-named Waste Stream	0.0E+00	5.0E+01	5.0E+01
SR-T001-WSB-1	Unknown	0.0E+00	4.3E+03	4.3E+03
SR-W026-MFFF-1	Unknown	0.0E+00	2.6E+03	2.6E+03
SR-W026-PDCF-1	Unknown	0.0E+00	1.8E+03	1.8E+03
SR-W026-WSB-2	Unknown	0.0E+00	6.7E+02	6.7E+02
SR-T001-WSB-3	Unknown	0.0E+00	1.4E+02	1.4E+02
VN-CHT001	Un-named Waste Stream	0.0E+00	2.0E+01	2.0E+01
WV-M007	TRU General Waste	1.1E+01	0.0E+00	1.1E+01
WV-T004	Fissile Material – Other	6.2E-01	0.0E+00	6.2E-01
WV-T020	PPC/XC2 PPE and DAW	0.0E+00	2.3E+02	2.3E+02
WV-M008	TRU Concrete	2.1E-01	0.0E+00	2.1E-01
WV-M010	TRU Spent Absorbents	8.3E-01	0.0E+00	8.3E-01
WV-M013	Sweeping Compound	1.9E+00	0.0E+00	1.9E+00
WV-T001	Fissile Material –Solids	3.7E+01	0.0E+00	3.7E+01
WV-T006	TRU General Waste	1.0E+01	1.0E+01	2.0E+01
WV-T009	TRU General Laboratory Waste	1.0E+01	2.1E+01	3.1E+01
WV-T011	TRU Glove Boxes	1.0E+01	0.0E+00	1.0E+01
WV-T017	Spent Filter Media	2.5E+00	0.0E+00	2.5E+00
WV-T021	RHWF Process	0.0E+00	8.1E+01	8.1E+01
WV-W024	TRU Lead	1.9E+01	0.0E+00	1.9E+01
TOTALS		1.1E+03	1.1E+04	1.2E+04

Table 33. Possible Future TRU Waste For WIPP -- Continued

RH TRU Waste Streams				
Waste Stream ID	Waste Stream Name	Stored Volumes (m³)	Projected Volumes (m³)	Anticipated Volumes (m³)
IN-SBW-01A	SBW Treatment Option 1 - Calcine Process - Calcine	0.0E+00	1.1E+03	1.1E+03
IN-SBW-01B	SBW Treatment Option 1 - Calcine Process - Grouted Scrub	0.0E+00	3.0E+01	3.0E+01
IN-TRA-BE-01	TRA Beryllium Blocks	1.2E+01	1.3E+01	2.4E+01
RL-W475	202A TRU CH combustible S5319 Non-mixed	6.2E+00	0.0E+00	6.2E+00
RL-W477	202A TRU RH heterogeneous S5420 Non-mixed	1.8E+00	0.0E+00	1.8E+00
RL-W478	202A TRU RH heterogeneous S5440 Non-mixed	2.3E+01	0.0E+00	2.3E+01
RL-W479	202A TRU RH heterogeneous S5900 Non-mixed	9.0E-01	0.0E+00	9.0E-01
RL-W577	2345Z TRU RH unknown forms S9000 Non-mixed	2.7E+00	0.0E+00	2.7E+00
RL-W578	2345Z TRU RH unknown forms U9999 Non-mixed	5.3E+00	0.0E+00	5.3E+00
RL-W667	325 TRU RH unknown forms S9000 Non-mixed	8.9E-01	0.0E+00	8.9E-01
RL-W684	327 TRU RH heterogeneous S5420 Non-mixed	9.0E-01	0.0E+00	9.0E-01
VN-RHT001	Un-named Waste Stream	0.0E+00	1.2E+01	1.2E+01
WV-M005	TRU Filters	6.0E+01	4.6E+01	1.1E+02
WV-M015	Chemical Process Cell General Waste	6.0E+00	0.0E+00	6.0E+00
WV-T014	Chemical Process Cell Vessels	1.1E+01	0.0E+00	1.1E+01
WV-T016	Chemical Process Cell Miscellaneous Equipment	8.5E+00	0.0E+00	8.5E+00
WV-T018	Head End Cell Debris	5.4E+01	2.6E+01	8.0E+01
WV-T019	FRS Pool Filters	0.0E+00	2.1E+01	2.1E+01
TOTALS		1.9E+02	1.2E+03	1.4E+03

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16, LANL 2005.

3.9 Possible Future Waste Isolation Pilot Plant Waste

Categories of waste that eventually may become acceptable for disposal at WIPP include the following:

- Unknown - Potential future waste may come from waste streams currently declared “unknown.” (see Table 33). These wastes have not been characterized adequately to determine the final waste form and/or other significant parameters. If these wastes are characterized and meet the WIPP Waste Acceptance Criteria (WAC) (DOE 2004a), they will be included in the WIPP inventory in the future.
- Defense determination pending – Only one waste stream has been identified as requiring a defense determination. Babcock and Wilcox in Lynchburg, VA, currently has approximately 45 m³ (1,590 ft³) of TRU waste in on-site storage silos. Virtually all of the material was generated from the Light Water Reactor Extended Burn-Up Program. That program was responsible for sending test elements of reactor fuel to various hot cells, including the one at Lynchburg. The waste consists mostly of cellulose, rubber, and lead-lined gloves.
- Newly identified TRU waste - Brookhaven National Laboratory (BNL) has identified an existing legacy 17,500-lb concrete vault stored at the Hazardous Waste Management Facility as TRU waste based on recalculation of ²³⁹Pu curie content. The vault holds five plutonium foils (TRU waste) and other non-TRU waste constituents including Brookhaven Linear Isotope Production (BLIP) waste, and cesium and cobalt sources embedded in concrete. The vault must now be managed as TRU waste.
- The Beryllium Block waste stream at INL includes beryllium blocks and outer shim control cylinders from the Advanced Test Reactor. The radionuclide concentrations are too great to be considered in this update, but may be considered in the future.

3.10 Emplacement Materials

The inventory of CPR materials used by WIPP Waste Handling Operations (WHO) to facilitate waste emplacement was estimated to support the PABC (Leigh et al. 2005a; Leigh et al. 2005b). This information was not used for the CRA-2004 PA but has been calculated as a best estimate based on current knowledge of the packaging expected to be used by the sites for shipment (Burns 2005). The TRAMPAC (DOE 2004b) allows certain container types to be transported in the TRUPACT-II. These are 55-gallon drums, 85-gallon drums, 100-gallon drums, SWB, and TDOPs. One standard large box container type (5 ft x 5 ft x 8 ft box) was also added as a possible future transportation container to these calculations (Burns 2005).

The WIPP was designed to receive both CH- and RH-TRU waste. CH-TRU waste emplaced in the WIPP is in seven-packs of 55-gallon drums and/or pipe overpack components (POCs), SWBs, and TDOPs. RH-TRU waste has not been shipped to the WIPP to date.

The WIPP WHO uses several materials to facilitate the emplacement of TRU waste, and magnesium oxide (MgO) is used as an engineered barrier. The amount of MgO emplaced is based on a safety factor and is subject to change based on the amount of CPR in the repository. The CPR, however, has been estimated for each payload configuration expected to be emplaced in the repository (Burns 2005). Plastic and cellulosic materials are used to emplace CH-TRU waste. The MgO is placed on top of the containers

and comes in a woven plastic bag called a “supersack.” RH-TRU waste will be emplaced in boreholes in the salt. Currently, there is no CPR materials used for RH-TRU waste emplacement.

The materials used to emplace CH-TRU waste are:

- Polyethylene (PE) slip-sheets for the seven-packs of 55-gallon drums and/or POCs, four-packs of 85-gallon drums, three-packs of 100-gallon drums, and the MgO supersacks (plastics);
- Fiberboard slip-sheet for the SWB and TDOP (cellulosic material);
- Woven polypropylene supersacks containing MgO (plastic material/MgO);
- Cardboard stabilizers for the supersacks (cellulosic material); and
- Stretch wrap for the seven-packs (plastic material).

There is no rubber materials used for CH- or RH-TRU waste emplacement. For CH-TRU waste, the total mass of each of the emplacement materials (plastic, cellulosic, and MgO) was calculated as of the inventory date. The WWIS was modified in March 2005 to begin tracking the emplaced quantities of MgO, as well as the added emplacement materials (e.g., slip sheets and shrink wrap). The relevant information is provided in Table 34.

Table 34. Estimates of Materials Used to Facilitate Emplacement of Waste in the WIPP

CPR Component	From Supersacks (kg)	From Emplacement Packs (kg)	Total Emplacement Materials (kg)
Cellulose	1.17×10^5	8.98×10^4	2.07×10^5
Plastic	3.85×10^5	1.10×10^6	1.48×10^6
Rubber	0	0	0

Data Source: Burns 2005

REFERENCES

- Burns 2005. *Estimation of Cellulose, Plastic, and Rubber Based on TWBID, Revision 2.1, Data Version D.4.16*, Los Alamos National Laboratory, Carlsbad NM. ERMS# 538664.
- Crawford 2005. *Determination of Waste Stream Oxyanions using TWBID, Revision 2.1 Version 3.13 Data Version 4.1*, Los Alamos National Laboratory, Carlsbad, NM. ERMS# 538811.
- Crawford 2004. *Determination of Waste Streams in TWBIR Revision 3 Containing Complexing Agents in Preparation for Response C-24-5*, Los Alamos National Laboratories, Carlsbad, NM. ERMS # 537915.
- Crawford and Leigh 2004. *Inventory Reassessment Summary for the CRA-2004 TRU Waste Inventory*, Los Alamos National Laboratory, Carlsbad, NM. ERMS # 534059.
- Crawford and Leigh 2003. *Estimate of Complexing Agents in TRU Waste for Disposal in WIPP for the Compliance Recertification Application Routine Calculation*, Los Alamos National Laboratory, Carlsbad, NM. ERMS #531107.
- Croff, A. G. 1983. *ORIGEN2: A Versatile Computer Code for Calculating the Nuclide Compositions and Characteristics of Nuclear Materials*, Nuclear Technology, Vol. 62, pp. 335-352, November 1983. ERMS #241147.
- Croff, A. G. 1980. *A User's Manual for the ORIGEN2 Code*, ORNL/TM-7175, Oak Ridge National Laboratory, July 1980. ERMS #246642.
- Cotsworth, E. 2005. EPA Letter on Conduction the Performance Assessment Baseline Change (PABC) Verification Test. U.S. EPA, Office of Radiation and Indoor Air, Washington, DC. ERMS# 538858, Docket A-98-49, Item II-B3-80.
- Department of Energy (DOE) 2004a. *Contact-Handled Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant*, Revision 2, DOE/WIPP-02-3122, November 15, 2004.
- Department of Energy (DOE) 2004b. *CH TRUPACT II Authorized Methods of Payload Control (TRAMPAC)*, Revision 1, July 2004.
- Department of Energy (DOE) 2004c. Title 40 CFR Part 191, Subparts B and C, *Compliance Recertification Application 2004*, DOE/WIPP-2004-3231, March 2004, Carlsbad, NM.
- Department of Energy (DOE) 1996a. *Transuranic Waste Baseline Inventory Report*, Revision 3, DOE/CAO-95-1121, June 1996. ERMS #243330.
- Department of Energy (DOE) 1996b. Title 40 CFR Part 191, *Compliance Certification Application for the Waste Isolation Pilot Plant*, DOE/CAO-1996-2184, 1996, Carlsbad, NM.
- Department of Energy (DOE) 1995a. *Waste Isolation Pilot Plant Transuranic Waste Baseline Inventory Report*, CAO-94-1005, Revision 1, February 1995. ERMS #243201.
- Department of Energy (DOE) 1995b. *Transuranic Waste Baseline Inventory Report*, Revision 2, DOE/CAO-95-1121, December 1995. ERMS #531643.

Department of Energy (DOE) 1995c. *DOE Waste Treatability Group Guidance*, DOE/LLW-217, Revision 0, January 1995.

Department of Energy (DOE) 1994. *Waste Isolation Pilot Plant Transuranic Waste Baseline Inventory Report*, CAO-94-1005, Revision 0, June 1994. ERMS #503921.

Department of Energy (DOE) and State of New Mexico 1988. *Modification to the Agreement for Consultation and Cooperation Between the Department of Energy and the State of New Mexico on the Waste Isolation Pilot Plant*, July 1, 1981 (dated April 18, 1988). ERMS #308659.

Environmental Protection Agency (EPA) 2002. *Additional Guidance to Clarify the EPA's Expectations for the WIPP CRA*. Letter from Frank Marcinowski, Director, Radiation Protection Division to Dr. Inés Triay, Manager, Carlsbad Field Office, August 6, 2002. ERMS #533337.

Environmental Protection Agency (EPA) 1996. *Criteria for the Certification and Recertification of the Waste Isolation Pilot Plant's Compliance With the 40 CFR Part 191 Disposal Regulations, Final Rule*, 40 CFR 194, Federal Register, February 9, 1996. ERMS #239133.

Environmental Protection Agency (EPA) 1993. *Environmental Radiation Protection Standards for the Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes*, 40 CFR 191, Federal Register, Vol. 58, Page 66398, December 20, 1993.

Environmental Protection Agency (EPA) 1980. *Listing of Hazardous Waste*, 40 CFR, Part 261, May 19, 1980.

Giambalvo, E. 2002. *Sandia's WIPP Inventory Data Needs for Performance Assessment*, Letter to J. Harvill, April 22, 2002, Sandia National Laboratories, Carlsbad, NM. ERMS # 522011.

Howard 2005. *Estimate of Portland Cement in TRU Waste For Disposal in WIPP Based on TWBID Revision 2.1 Data Version 4.16*, Los Alamos National Laboratory, Carlsbad, NM. ERMS# 538934.

Leigh, C., J.F. Kanney, L.H. Brush, J.W. Garner, G.R Kirkes, T.S. Lowry, M.B. Nemer, J.S. Stein, E.D. Vugrin, S. Wagner, and T.B. Kirchner 2005a. *2004 Compliance Recertification Application Performance Assessment Baseline Calculation*, Revision 0, Sandia National Laboratories, Carlsbad, NM. ERMS# 541521.

Leigh, C., J. Trone, and B. Fox 2005b. *TRU Waste Inventory for the 2004 Compliance Recertification Application Performance Assessment Baseline Calculation*, Sandia National Laboratories, Carlsbad, NM. ERMS# 541118.

Leigh and Trone 2004. *Recalculation of Radionuclide Concentrations for Non-debris AMWTF Waste Streams at INEEL for the Compliance Recertification Application*, Revision 0, Routine Calculation, Sandia National Laboratories, Carlsbad, NM. ERMS# 536471.

Los Alamos National Laboratory (LANL) 2005. *Transuranic Waste Baseline Inventory Database, Revision 2.1, Version 3.13, Data Version D.4.16*, Los Alamos National Laboratory, Carlsbad, NM ERMS#538934.

Los Alamos National Laboratory (LANL) 2003. *Transuranic Waste Inventory 2003 Update Report, Computational Methodology*, Revision 2, Los Alamos National Laboratory, Carlsbad, NM. ERMS# 527821.

Lott 2004a. *Analysis of the Deletion of Waste Streams from Hanford Richland Operations Office (RL)*, ERMS# 537695, Los Alamos National Laboratory, Carlsbad, NM. October 2004.

Lott 2004b. Inventory Data Change Control Form, [Waste that Was Placed in Non-WIPP Profiles and Moved to WIPP Profiles with Additional Information Added], November 2004, Los Alamos National Laboratory, Carlsbad, NM. ERMS# 537966.

Oak Ridge National Laboratory (ORNL) 2002. RSICC Computer Code Collection ORIGEN 2.2, CCC-371 ORIGEN 2.2, June, 2002. Radiation Safety Information Computational Center at the Oak Ridge National Laboratory. ERMS #525791.

Sandia National Laboratories (SNL) 2005a. AP-112, *Analysis Plan For CRA Response Activities*, Revision 1. Sandia National Laboratories Nuclear Waste Management Program Analysis Plan, March 8, 2005. ERMS # 538835.

Sandia National Laboratories (SNL) 2005b. AP-113, *Analysis Plan For Inventory Reconciliation: Compliance Recertification Application*. Revision 2. Sandia National Laboratories Nuclear Waste Management Program Analysis Plan, February 3, 2005. Sandia National Laboratories, Carlsbad, NM. ERMS #538590.

Sandia National Laboratories (SNL) 2004. NP 19-1, *Software Requirements*, Revision 11, Sandia National Laboratories Nuclear Waste Management Program Procedure, August 9, 2004, Sandia National Laboratories, Carlsbad, NM. ERMS #536357

Sandia National Laboratories (SNL) 2003a. AP-092, *Analysis Plan for Transuranic Waste Inventory Update Report, 2003*, Revision 2. Sandia National Laboratory Nuclear Waste Management Program Analysis Plan, January 8, 2003, Sandia National Laboratories, Carlsbad, NM. ERMS#525797.

Sandia National Laboratories (SNL) 2003b. *Baseline Inventory Report (BIR) Change Report Data Collection and Entry*, Revision 2, SP 9-6, Sandia National Laboratories Nuclear Waste Management Program Procedure, March 10, 2003, Sandia National Laboratories, Carlsbad, NM. ERMS #526390.

Sandia National Laboratories (SNL) 2003c. NP 17-1, *Records*, Revision 5, Sandia National Laboratories Nuclear Waste Management Program Procedure, January 14, 2003, Sandia National Laboratories, Carlsbad, NM. ERMS #535627.

Sandia National Laboratories (SNL) 2001. NP 9-1, *Analyses*, - 2004, Sandia National Laboratories Nuclear Waste Management Program Procedure, August 29, 2001, Sandia National Laboratories, Carlsbad, NM. ERMS #519375.

Sparks 2004. *Recalculation of Radionuclide Concentrations for Waste Streams: LA-TA-03-31, LA-TA-21-43, LA-TA-21-44, AND LA-TA-49-01*, Revision 0. Routine Calculation, Los Alamos National Laboratory, Carlsbad, NM. ERMS# 536606.

Trone 2004. *Recalculation of Radionuclide Concentrations for Supercompacted Waste (IN-BN510) Coming from INEEL*, Revision 1, Routine Calculation, Sandia National Laboratories, Carlsbad, NM. ERMS# 538210.

U.S. Congress 1996. Public Law 102-579. 1992. *Waste Isolation Pilot Plant Land Withdrawal Act*, as amended by Public Law 104-201, 1996. ERMS #239105.

U.S. Congress 1979. Public Law 96-164, 1980, National Security and Military Applications of Nuclear Energy Authorization Act of 1980, 93 Stat. 1259. ERMS #239103.

U.S. Congress 1954. Public Law 83-703, 1954, Atomic Energy Act of 1954, August 15, 1954

EXECUTIVE SUMMARY

The U.S. Department of Energy's (DOE's) Waste Isolation Pilot Plant (WIPP) opened on March 26, 1999, becoming the nation's first deep geologic repository for the permanent disposal of defense-generated transuranic (TRU) waste. This waste is currently retrievably stored at 27 sites across the country (see Figure 1, Section 1.0). From the WIPP's opening through the inventory date (September 30, 2002), 1,255 shipments of TRU waste were safely characterized, transported, and disposed in the WIPP.

DOE complex-wide TRU waste inventory information has been collected, analyzed, and published in several reports. The *WIPP Transuranic Waste Baseline Inventory Report (WTWBIR)*, Revision 0, published in June 1994 (DOE 1994), was the first attempt made by the DOE complex to report all of its TRU waste at the waste-stream level. The TRU waste data reported in Revision 0 were considered preliminary until the DOE TRU waste sites completed quality checks of the data. Data changes resulting from the quality checks were contained in the *WTWBIR*, Revision 1, (DOE 1995a). *Transuranic Waste Baseline Inventory Report (TWBIR)* Revisions 2 and 3 (DOE 1995b and DOE 1996a) were published in 1995 and 1996 to include WIPP and non-WIPP wastes and other additional waste stream characteristic information. Data from Revision 2 and 3 supplemental information provided the inventory that Sandia National Laboratories (SNL) used to perform the necessary calculations for the Performance Assessment (PA) for the initial certification of the WIPP [Compliance Certification Application (CCA)] (DOE 1996b). To effectively keep track of the changes in the TRU waste inventory, site inventory information will be monitored for changes.

The WIPP Land Withdrawal Act (LWA) (Public Law No. 102-579, 110 Stat.2422, [1992], as amended by 104-201 [1996]) required that the U.S. Environmental Protection Agency (EPA) certify the WIPP site every five years after the first receipt of TRU waste. The first recertification application (the Compliance Recertification Application, referred to hereafter as the CRA-2004) was submitted to the EPA on March 26, 2004. The CRA-2004 included the inventory data collected in 2003 to support the waste estimate that would fill the repository for the Performance Assessment (PA). Subsequently, this document is a revision of Attachment F found in Appendix DATA of the CRA-2004 (DOE 1996b) and the *Performance Assessment Baseline Calculation (PABC)* (Leigh et al. 2005a; Leigh et al. 2005b) and will be referred to as the *Transuranic Waste Baseline Inventory Report – 2004 (TWBIR-2004)* throughout this document. The TWBIR-2004 primarily focuses on inventory information needed for the PA for the CRA-2004 and PABC and has been revised to include changes to the Hanford and Idaho National Engineering and Environmental Laboratory (INEEL), now the Idaho National Laboratory (INL) data as described in more detail below. The information in this report summarizes the DOE's TRU waste inventory, projections, and characteristics; reports emplaced waste; and is an update to the previously published TRU waste inventory that was used for the CRA-2004 PA. This update is also known as the PABC inventory. The TWBIR-2004 includes estimates for : 1) waste volumes (stored, projected, and emplaced); 2) radionuclides; 3) the 12 waste material parameters; 4) complexing agents; 5) oxyanions; 6) cement; 7) pyrochemical salts; and 8) the materials used to emplace the waste in the WIPP.

The primary differences between previous inventory data submittals (TWBIR Revisions 2 and 3) and the TWBIR-2004 are:

- This report accounts for the INEEL Advanced Mixed Waste Treatment Facility process by which 55-gallon drums are compacted and placed into 100-gallon drums, and disregards those calculations related to the proposed waste incineration process that was described in the TWBIR

Revision 3 (DOE 1996a). The Advanced Mixed Waste Treatment Facility is planning to do supercompaction rather than incineration.

- In addition, INEEL inventory has been revised to include buried waste identified for WIPP shipment that was originally reported in waste stream IN-Z001. This waste has been reported under four waste stream designations: IN-ICP-002, IN-ICP-003, IN-ICP-004, and IN-ICP-005. IN-Z001 still identifies the unknown portion of the waste stream.
- This report includes approximately 8,400 m³ (296,688 ft³) of stored Hanford tank waste that was added to the inventory in December 2002.
- This report accounts for the site-requested deletion of several waste streams from Hanford Richland Operations inventory after the original CRA-2004 submittal.
- This report also addresses the waste that has been emplaced since the WIPP opened in 1999.

Finally, this report includes updates to site TRU Waste Baseline Inventory Waste Profiles (Waste Profiles) that were reported in TWBIR Revision 2 (DOE 1995b). The TRU waste sites provided updated Waste Profiles, which contain parameters that are important to the PA. The updated Waste Profiles for non-WIPP, WIPP, and emplaced waste streams are given in Appendices I, J, and K, respectively. The information contained in these profiles is considered the best estimate as of the inventory date, September 30, 2002, because more TRU waste characterization data are now available. The TRU Waste Baseline Inventory Waste Profile forms reflect the data as reported by the TRU waste sites. Some information that the sites have provided may have been changed to accommodate assumptions that are used in PA (for example, expansion of reported waste volumes for waste streams containing over-packed containers). In addition, the radionuclides have been decayed to a common time frame. References to the methodologies used for these adjustments are provided by Electronic Record Management System (ERMS) numbers in Appendix M of this document.

A comprehensive reference to the TWBIR-2004, entitled the *Transuranic Waste Inventory Update Report 2003, Computational Methodology* (LANL 2003), provides descriptions of the computations used to produce the inventory information that was used by SNL in the CRA-2004 and the PABC. Correction methodologies were used to analyze data provided by the sites, to correct inconsistencies, and to estimate waste material parameter densities and radionuclide activities where these data were not provided.

The following tables summarize the main aspects from the body of the text of the *Transuranic Waste Baseline Inventory Report-2004*:

- Table ES-1. WIPP Contact-Handled TRU (CH-TRU) Waste Material Parameter Disposal Inventory
- Table ES-2. WIPP Remote-Handled TRU (RH-TRU) Waste Material Parameter Disposal Inventory
- Table ES-3. WIPP CH-TRU Waste Anticipated Inventory by Site
- Table ES-4. WIPP RH-TRU Waste Anticipated Inventory by Site
- Table ES-5. WIPP Summary Radionuclide Inventory

Table ES-1. WIPP CH-TRU Waste Material Parameter Disposal Inventory

Waste Material Parameters	Average Density (Kg/m3)
Iron-Base Metal/Alloys	1.1E+02
Aluminum-Base Metal/Alloys	1.4E+01
Other Metal/Alloys	3.2E+01
Other Inorganic Materials	4.0E+01
Cellulosics	6.0E+01
Rubber	1.3E+01
Plastics	4.3E+01
Solidified, Inorganic Matrix	1.1E+02
Cement (Solidified)	3.9E+01
Vitrified	5.8E+00
Solidified, Organic Matrix	3.3E+01
Soils	1.1E+02
Container Materials	
Steel	1.7E+02
Plastic	1.7E+01
Lead	1.3E-02

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16 (LANL 2005).

Table ES-2. WIPP RH-TRU Waste Material Parameter Disposal Inventory

Waste Material Parameters	Average Density (Kg/m3)
Iron-Base Metal/Alloys	5.9E+01
Aluminum-Base Metal/Alloys	5.0E+00
Other Metal/Alloys	5.7E+01
Other Inorganic Materials	1.6E+01
Cellulosics	9.3E+00
Rubber	6.7E+00
Plastics	8.0E+00
Solidified, Inorganic Matrix	6.2E+01
Cement (Solidified)	1.9E+00
Vitrified	1.2E-01
Solidified, Organic Matrix	8.3E-01
Soils	5.0E+01
Container Materials	
Steel	5.4E+02
Plastic	3.1E+00
Lead	4.2E+02

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16 (LANL 2005).

Table ES-3. WIPP CH-TRU Waste Anticipated Inventory By Site

Storage/Generator Site	Stored Volumes (Cubic Meters)	Projected Volumes (Cubic Meters)	Anticipated Volumes (Cubic Meters)
Argonne National Laboratory - East	1.1E+02	8.0E+01	1.9E+02
Argonne National Laboratory - West	6.0E+00	3.8E+01	4.4E+01
Battelle Columbus Laboratories	5.2E+00	0.0E+00	5.2E+00
Bettis Atomic Power Laboratory	1.9E+01	0.0E+00	1.9E+01
Energy Technology Engineering Center	2.3E+00	0.0E+00	2.3E+00
Hanford (Richland) Site	1.3E+04	5.5E+03	1.8E+04
Hanford (River Protection) Site	3.9E+03	0.0E+00	3.9E+03
Idaho National Engineering and Environmental Laboratory	6.1E+04	1.8E+04	7.8E+04
Knolls Atomic Power Laboratory - Nuclear Fuel Services	5.5E+01	1.7E+02	2.3E+02
Lawrence Livermore National Laboratory	3.5E+02	2.1E+03	2.4E+03
Los Alamos National Laboratory	1.2E+04	3.3E+03	1.5E+04
Nevada Test Site	6.2E+02	4.6E+02	1.1E+03
Oak Ridge National Laboratory	0.0E+00	4.5E+02	4.5E+02
Paducah Gaseous Diffusion Plant	5.7E+00	5.7E+00	1.1E+01
Rocky Flats Environmental Technology Site	5.4E+03	2.8E+03	8.1E+03
Sandia National Laboratories - Albuquerque	2.4E+01	0.0E+00	2.4E+01
Savannah River Site	1.3E+04	2.4E+03	1.5E+04
U.S. Army Material Command	2.5E+00	0.0E+00	2.5E+00
University of Missouri Research Reactor	1.5E+00	0.0E+00	1.5E+00
Totals	1.1E+05	3.5E+04	1.4E+05
Emplaced Volume			
Waste Isolation Pilot Plant	7.7E+03		7.7E+03
Grand Totals	1.2E+05	3.5E+04	1.5E+05

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16 (LANL 2005).

Table ES-4. WIPP RH-TRU Waste Anticipated Inventory By Site

Storage/Generator Site	Stored Volumes (Cubic Meters)	Projected Volumes (Cubic Meters)	Anticipated Volumes (Cubic Meters)
Argonne National Laboratory - East	1.5E+01	1.0E+02	1.2E+02
Argonne National Laboratory - West	2.4E+01	6.9E+01	9.3E+01
Battelle Columbus Laboratories	4.4E+01	1.8E+00	4.6E+01
Bettis Atomic Power Laboratory	2.0E+00	0.0E+00	2.0E+00
Energy Technology Engineering Center	5.0E+00	0.0E+00	5.0E+00
Hanford (Richland) Site	3.8E+02	1.1E+03	1.5E+03
Hanford (River Protection) Site	4.5E+03	0.0E+00	4.5E+03
Idaho National Engineering and Environmental Laboratory	2.2E+02	0.0E+00	2.2E+02
Knolls Atomic Power Laboratory - Schenectady	0.0E+00	1.4E+02	1.4E+02
Los Alamos National Laboratory	1.3E+02	0.0E+00	1.3E+02
Oak Ridge National Laboratory	0.0E+00	6.6E+02	6.6E+02
Sandia National Laboratories - Albuquerque	4.6E+00	0.0E+00	4.6E+00
Savannah River Site	0.0E+00	2.3E+01	2.3E+01
Totals	5.3E+03	2.1E+03	7.4E+03

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16 (LANL 2005).

Table ES-5. WIPP Summary Radionuclide Inventory^{1,2}

Nuclide	CH-TRU Waste (Ci/m³)	RH-TRU Waste (Ci/m³)
Am-241	2.8E+00	2.0E+00
Ba-137m	4.1E-02	5.6E+01
Cm-244	3.7E-02	1.5E-01
Co-60	5.8E-06	2.6E-01
Cs-137	4.4E-02	6.0E+01
Eu-152	1.1E-05	3.3E-01
Pu-238	8.6E+00	5.4E-01
Pu-239	3.4E+00	7.4E-01
Pu-240	5.6E-01	2.2E-01
Pu-241	1.2E+01	1.8E+01
Sr-90	3.3E-01	4.6E+01
Y-90	3.3E-01	4.5E+01

Data Source: TWBID Revision 2.1, Version 3.13, Data Version D.4.16 (LANL 2005).

¹ Summary shows the ten radionuclides with the highest concentration in curies per cubic meter for both CH-TRU and RH-TRU waste. The list includes twelve radionuclides because the ten radionuclides with the highest concentration are different for CH-TRU and RH-TRU waste.

² Decayed through December 31, 2001.

REFERENCES

- Department of Energy (DOE) 2004. *Title 40 CFR Part 191, Subparts B and C, Compliance Recertification Application 2004*, DOE/WIPP-2004-3231, March 2004, Carlsbad, NM.
- Department of Energy (DOE) 1996a. *Transuranic Waste Baseline Inventory Report*, Revision 3, DOE/CAO-95-1121, June 1996. ERMS #243330.
- Department of Energy (DOE) 1996b. *Title 40 CFR Part 191, Compliance Certification Application for the Waste Isolation Pilot Plant*, DOE/CAO-1996-2184, 1996, Carlsbad, NM.
- Department of Energy (DOE) 1995a. *Waste Isolation Pilot Plant Transuranic Waste Baseline Inventory Report*, Revision 1, CAO-94-1005, February 1995. ERMS #243201.
- Department of Energy (DOE) 1995b. *Transuranic Waste Baseline Inventory Report*, Revision 2, DOE/CAO-95-1121, December 1995. ERMS #531643.
- Department of Energy (DOE) 1994. *Waste Isolation Pilot Plant Transuranic Waste Baseline Inventory Report*, Revision 0, CAO-94-1005, June 1994. ERMS #503921.
- Leigh, C., J.F. Kanney, L.H. Brush, J.W. Garner, G.R Kirkes, T.S. Lowry, M.B. Nemer, J.S. Stein, E.D. Vugrin, S. Wagner, and T.B. Kirchner 2005a. *2004 Compliance Recertification Application Performance Assessment Baseline Calculation*, Revision 0, Sandia National Laboratories, Carlsbad, NM. ERMS# 541521.
- Leigh, C., J. Trone, and B. Fox 2005b. *TRU Waste Inventory for the 2004 Compliance Recertification Application Performance Assessment Baseline Calculation*. Sandia National Laboratories, Carlsbad, NM. ERMS# 541118.
- Los Alamos National Laboratory (LANL) 2005. *Transuranic Waste Baseline Inventory Database*, Revision 2.1, Version 3.13, Data Version D.4.16, Carlsbad, NM: Los Alamos National Laboratory. ERMS#538934.
- Los Alamos National Laboratory (LANL) 2003. *Transuranic Waste Inventory Update Report 2003, Computational Methodology*, Revision 2, Carlsbad, NM: Los Alamos National Laboratory. ERMS# 527821.

ACRONYMS AND ABBREVIATIONS

AE	Argonne National Laboratory – East (site identifier)
AK	Acceptable Knowledge
AMWTF(P)	Advanced Mixed Waste Treatment Facility (Project)
ANL-E	Argonne National Laboratory East
ANL-W	Argonne National Laboratory West
AL	Ames Laboratory (site identifier)
AM	ARCO Medical Products Company (site identifier)
AW	Argonne National Laboratory - West (site identifier)
BC	Battelle Columbus Laboratory (site identifier)
BAPL	Bettis Atomic Power Laboratory
BCL	Battelle Columbus Laboratories
BIR	Baseline Inventory Report
BL	Babcock and Wilcox-Lynchburg (site identifier)
BLIP	Brookhaven Linear Isotope Production
BNL	Brookhaven National Laboratory
BT	Bettis Atomic Power Laboratory (site identifier)
C&C Agreement	Agreement for Consultation and Cooperation between the Department of Energy and the State of New Mexico on the Waste Isolation Pilot Plant
CAO	Carlsbad Area Office
CBFO	Carlsbad Field Office
CCA	Compliance Certification Application
CCP	Central Characterization Project
CFR	Code of Federal Regulations
CH	Contact-Handled
CNS	ChemNuclear Systems
CPR	Cellulosic, Plastic, and Rubber Materials
CRA-2004	Compliance Recertification Application
CY	Calendar Year
D&D	Decontamination and Decommissioning
DOE	U.S. Department of Energy
DOE-ORO	U.S. Department of Energy Oak Ridge Office
DOR	Direct Oxide Reduction
EDTA	ethylenediaminetetraacetic acid
EPA	U.S. Environmental Protection Agency
ER	Environmental restoration or electro-refining (salts)
ERMS	Electronic Records Management System
ET	Energy Technology Engineering Center (site identifier)
ETEC	Energy Technology Engineering Center
FFCAct	Federal Facilities Compliance Act
FM	Framatome (Richland) (site identifier)
FRP	Fiberglass-reinforced plywood
HDPE	High density polyethylene
HEPA	High Efficiency Particulate Air
ICP	Idaho Completion Project
IDB	Integrated Database
IDC	Item Description Code

IN	Idaho National Laboratory (site identifier)
INL	Idaho National Laboratory
IT	Inhalation Toxicology Research Institute (now known as Lovelace Respiratory Research Institute, LRRI) (site identifier)
ITRI	Inhalation Toxicology Research Institute (now known as Lovelace Respiratory Research Institute, LRRI)
JASPER	Joint Actinide Shock Physics Experimental Research
KA	Knolls Atomic Power Laboratory-Schenectady (site identifier)
KAPL	Knolls Atomic Power Laboratory
KN	Knolls Atomic Power Laboratory – Nuclear Fuels Service (site identifier)
LA	Los Alamos National Laboratory (site identifier)
LANL	Los Alamos National Laboratory
LANL-CO	Los Alamos National Laboratory – Carlsbad Operations
LB	Lawrence Berkeley National Laboratory (site identifier)
LBNL	Lawrence Berkeley National Laboratory
LECO	Trade name for manufacturer of crucibles, furnaces and analytical instrumentation
LL	Lawrence Livermore National Laboratory (site identifier)
LLNL	Lawrence Livermore National Laboratory
LLW	Low-level radioactive waste
LRRI	Lovelace Respiratory Research Institute
LWA	Land Withdrawal Act
MC	U.S. Army Material Command (site identifier)
MgO	Magnesium Oxide
mrem	Millirem
MSE	Molten Salt Extraction
MT	Mixed-TRU
MU	University of Missouri Research Reactor (site identifier)
MURR	University of Missouri Research Reactor
NT	Nevada Test Site (site identifier)
NTS	Nevada Test Site
NWMP	Nuclear Waste Management Program
OP	Overpack
OR	Oak Ridge National Laboratory (site identifier)
ORIGEN2	Oak Ridge Isotope Generation and Depletion Code
ORNL	Oak Ridge National Laboratory
OSR	Offsite Source Recovery
ORP	Office of River Protection
PA	Performance Assessment
PA	Paducah Gaseous Diffusion Plant (site identifier, in waste profiles only)
PABC	Performance Assessment Baseline Calculations
PCB	Polychlorinated Biphenyls
PE	Polyethylene
PGDP	Paducah Gaseous Diffusion Plant
POC	Pipe Overpack Component
PX	Pantex Plant (site identifier)
QA	Quality Assurance
RCRA	Resource Conservation and Recovery Act

RF	Rocky Flats Environmental Technology (site identifier)
RFETS	Rocky Flats Environmental Technology Site
RH	Remote-Handled
RHWF	Remote-handled Waste Facility
RL	Hanford (Richland Operations Office) (site identifier)
RP	Hanford (Office of River Protection) (site identifier)
RTR	Real-time radiography
SA	Sandia National Laboratories (site identifier)
SLB	Standard large boxes
SNL	Sandia National Laboratories
SP	Separations Process Research Unit (site identifier)
SPRU	Separations Process Research Unit
SQAP	Software Quality Assurance Plan
SR	Savannah River Site (site identifier)
SRS	Savannah River Site
STTP	Source Term Test Program
SWB	Standard Waste Box
TB	Teledyne-Brown
TDOP	Ten Drum Overpack
TOC	Total Organic Carbon
TRAMPAC	Transuranic Waste Authorized Methods for Payload Control
TRU	Transuranic
TRUCON	TRU Waste Content Codes
TRUPACT II	Transuranic Package Transporter – II
TWBID	Transuranic Waste Baseline Inventory Database, Rev. 2.1
TWBIR	Transuranic Waste Baseline Inventory Report
USAMC	U.S. Army Material Command
VN	General Electric Vallecitos Nuclear Center (site identifier)
WAC	Waste Acceptance Criteria
WAP	Waste Analysis Plan
WHO	Waste Handling Operations
WIPP	Waste Isolation Pilot Plant
WM	Waste Material
WMC	Waste Matrix Code
WMP	Waste Material Parameter
WP	WIPP repository (site identifier)
WTWBIR	WIPP Transuranic Waste Baseline Inventory Report
WV	West Valley Demonstration Project (site identifier)
WVDP	West Valley Demonstration Project
WWIS	WIPP Waste Information System

ABBREVIATED TITLES

TWBIR Revision 2	Transuranic Waste Baseline Inventory Report, Revision 2 (DOE 1995b)
TWBID Revision 2.1	Transuranic Waste Baseline Inventory Database (LANL 2005)
TWBIR Revision 3	Transuranic Waste Baseline Inventory Report, Revision 3 (DOE 1996a)
TWBIR-2004 Revision 0	Transuranic Waste Baseline Inventory Report - 2004, Revision 0 (this document)
Computational Methodology	Transuranic Waste Inventory Update Report – 2003 Computational methodology (LANL 2003b)

APPENDIX A
PYROCHEMICAL SALTS

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A-1.0 PYROCHEMICAL SALTS

A list of waste streams that contain pyrochemical salts was requested for the Performance Assessment Baseline Calculations (PABC) (Leigh et al. 2005a; Leigh et. al. 2005b) in support of the Compliance Recertification Application (CRA) (Giambalvo 2002). These waste streams were reported in a letter (Crawford 2003). Pyrochemical salt-containing waste streams were reported by LANL, LLNL, and RFETS and are shown in Table A-1.

Table A-1. Waste Streams Containing Pyrochemical Salts

Generator Site	Waste Stream Identification
Los Alamos National Laboratory	LA-TA-03-24
	LA-TA-21-12
	LA-TA-50-15
	LA-TA-55-39
	LA-TA-55-53
Lawrence Livermore National Laboratory	LL-T004
Rocky Flats Environmental Technology Site	RF-TT0360
	RF-TT0368
	RF-TT411R
	RF-TT429R
	RF-TT433X
	RF-TT436R
	RF-TT454X
Waste Isolation Pilot Plant	WP-RF005.01 ¹
	WP-RF005.02 ¹
	WP-RF009.01 ¹

¹ These are waste streams from RFETS that are already emplaced in WIPP.

REFERENCES

Crawford. 2003. Letter to Dr. Leigh, regarding pyrochemical salts for the 2003 Update Report August 20, 2003, Carlsbad, NM. ERMS# 530237.

Giambalvo, E. 2002. *Sandia's WIPP Inventory Data Needs for Performance Assessment*, Letter to J. Harvill, April 22, 2002, Sandia National Laboratories, Carlsbad, NM. ERMS # 522011.

Leigh, C., J.F. Kanney, L.H. Brush, J.W. Garner, G.R Kirkes, T.S. Lowry, M.B. Nemer, J.S. Stein, E.D. Vugrin, S. Wagner, and T.B. Kirchner 2005a. *2004 Compliance Recertification Application Performance Assessment Baseline Calculation*, Revision 0, Sandia National Laboratories, Carlsbad, NM. ERMS# 541521.

Leigh, C., J. Trone, and B. Fox 2005b. *TRU Waste Inventory for the 2004 Compliance Recertification Application Performance Assessment Baseline Calculation*, Sandia National Laboratories, Carlsbad, NM. ERMS# 541118.

APPENDIX B

**COMPARISON OF TWBIR – 2004
TO TWBIR REVISION 2 INFORMATION**

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B-1.0 VOLUME ESTIMATES

B-1.1 Waste Inventory Volume Comparison

This explanation applies to Tables B.1-1 through B.1-3. Tables B.1-1 and B.1-2 contain the volume comparisons for contact-handled (CH-) and remote-handled (RH-) TRU waste, respectively. Table B.1-3 contains the volume comparisons for the total CH-TRU, total RH-TRU, and emplaced waste. The current volume estimates for the Transuranic Waste Baseline Inventory Report - 2004 (TWBIR - 2004) are stored in the Transuranic Waste Baseline Inventory Database Revision 2.1 (TWBID Revision 2.1) (LANL 2005). The previous volume estimates are from the Transuranic Waste Baseline Inventory Report, Revision 2 (TWBIR Revision 2) (DOE 1995). The site name is given in the first column of Table B.1-1. Volume estimates for the TWBIR - 2004, the TWBIR Revision 2 (DOE 1995), and for the difference between the TWBIR - 2004 and TWBIR Revision 2 (DOE 1995) stored volumes for each site are given in the next three columns, respectively (columns 2, 3, and 4). Volume estimates for the TWBIR - 2004, TWBIR Revision 2, and for the difference between the TWBIR - 2004 and TWBIR Revision 2 projected volumes for each site are given in columns 5, 6, and 7, respectively. Finally, volume estimates for the TWBIR - 2004, TWBIR Revision 2, and for the difference between the TWBIR - 2004 and TWBIR Revision 2 anticipated volumes for each site are given in the last three columns, respectively (columns 8, 9, and 10). The total volumes for columns 2-10 are then given near the bottom of Table B.1-1.

Table B.1-2 is similar to Table B.1-1 except that it contains the comparison of stored (columns 2-4), projected (columns 5-7), and anticipated (columns 8-10) RH-TRU waste volumes by site (column 1) and gives the total volumes of RH-TRU waste. There was no RH-TRU waste emplaced as of the inventory date, September 30, 2002.

The TWBIR Revision 2 (DOE 1995) reported total CH and RH-TRU waste volume was $1.4\text{E}+05 \text{ m}^3$. This is an increase of $2.0\text{E}+04 \text{ m}^3$ total volume of TRU waste estimated by TWBIR - 2004. The TWBIR - 2004 and TWBIR Revision 2 (DOE 1995) inventory information in Tables B.1-1 through B.1-3 were analyzed for differences in stored, projected, and anticipated volumes. The CH-TRU waste volume information will be discussed first (Section B-1.3), followed by a discussion of the RH-TRU waste volume information (Section B-1.5).

Table B.1-3 has the same column structure as Tables B.1-1 and B.1-2, but contains the total volumes for the comparison of stored, projected, and anticipated CH- and RH-TRU waste volumes and provides the total waste volume. The emplaced CH-TRU waste volume, $7.7\text{E}+03 \text{ m}^3$, is added to the anticipated volumes for a current total TRU waste volume of $1.6\text{E}+05 \text{ m}^3$.

Table B.1-1. Comparison of Stored, Projected, and Anticipated CH-TRU Waste Volumes Between the TWBIR - 2004 and TWBIR Revision 2 (DOE 1995) (m³)¹

TRU Waste Site	TWBIR - 2004 Stored	TWBIR Rev. 2 Stored	Difference in Stored ²	TWBIR - 2004 Projected	TWBIR Rev. 2 Projected	Difference in Projected ²	TWBIR - 2004 Anticipated	TWBIR Rev. 2 Anticipated	Difference in Anticipated ²
Ames Laboratory-Iowa St. University	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.2E-01	-4.2E-01	0.0E+00	4.2E-01	-4.2E-01
Argonne National Laboratory - East	1.1E+02	1.1E+01	1.0E+02	8.0E+01	1.3E+02	-5.1E+01	1.9E+02	1.4E+02	5.0E+01
Argonne National Laboratory - West	6.0E+00	6.5E+00	-5.0E-01	3.8E+01	7.4E+02	-7.0E+02	4.4E+01	7.5E+02	-7.1E+02
Battelle Columbus Laboratories	5.2E+00	0.0E+00	5.2E+00	0.0E+00	0.0E+00	0.0E+00	5.2E+00	0.0E+00	5.2E+00
Bettis Atomic Power Laboratory	1.9E+01	0.0E+00	1.9E+01	0.0E+00	1.2E+02	-1.2E+02	1.9E+01	1.2E+02	-1.0E+02
Energy Technology Engineering Center	2.3E+00	1.7E+00	6.0E-01	0.0E+00	0.0E+00	0.0E+00	2.3E+00	1.7E+00	6.0E-01
Hanford (Richland-RL)	1.3E+04	1.2E+04	1.0E+03	5.5E+03	3.3E+04	-2.7E+04	1.8E+04	4.6E+04	-2.8E+04
Hanford (River Protection-RP)	3.9E+03	0.0E+00	3.9E+03	0.0E+00	0.0E+00	0.0E+00	3.9E+03	0.0E+00	3.9E+03
Idaho National Laboratory	6.1E+04	2.9E+04	3.2E+04	1.8E+04	0.0E+00	1.8E+04	7.8E+04	2.9E+04	4.9E+04
Knolls Atomic Power Laboratory - Nuclear Fuel Services	5.5E+01	0.0E+00	5.5E+01	1.7E+02	0.0E+00	1.7E+02	2.3E+02	0.0E+00	2.3E+02
Lawrence Livermore National Laboratory	3.5E+02	2.3E+02	1.2E+02	2.1E+03	7.1E+02	1.4E+03	2.4E+03	9.4E+02	1.5E+03
Los Alamos National Laboratory	1.2E+04	1.1E+04	1.0E+03	3.3E+03	7.4E+03	-4.1E+03	1.5E+04	1.8E+04	-3.1E+03
Nevada Test Site	6.2E+02	6.2E+02	0.0E+00	4.6E+02	9.0E+00	4.5E+02	1.1E+03	6.3E+02	4.7E+02
Oak Ridge National Laboratory	0.0E+00	1.3E+03	-1.3E+03	4.5E+02	2.6E+02	1.9E+02	4.5E+02	1.6E+03	-1.2E+03
Paducah Gaseous Diffusion Plant	5.7E+00	0.0E+00	5.7E+00	5.7E+00	1.9E+00	3.8E+00	1.1E+01	1.9E+00	9.1E+00
Pantex	0.0E+00	6.2E-01	-6.2E-01	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.2E-01	-6.2E-01
Rocky Flats Environmental Technology Site	5.4E+03	7.1E+02	4.6E+03	2.8E+03	4.4E+03	-1.7E+03	8.1E+03	5.1E+03	3.0E+03
Sandia National Laboratories - Albuquerque	2.4E+01	6.7E+00	1.7E+01	0.0E+00	7.5E+00	-7.5E+00	2.4E+01	1.4E+01	1.0E+01
Savannah River Site/Mound	1.3E+04	2.9E+03	1.0E+04	2.4E+03	6.8E+03	-4.4E+03	1.5E+04	9.6E+03	5.4E+03
Teledyne Brown	0.0E+00	2.1E-01	-2.1E-01	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.1E-01	-2.1E-01
U.S. Army Material Command	2.5E+00	2.5E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.5E+00	2.5E+00	0.0E+00
University of Missouri Research Reactor	1.5E+00	2.1E-01	1.3E+00	0.0E+00	8.3E-01	-8.3E-01	1.5E+00	1.0E+00	5.0E-01
Totals³	1.1E+05	5.8E+04	5.2E+04	3.5E+04	5.4E+04	-1.9E+04	1.4E+05	1.1E+05	3.1E+04

¹ See page 1 for discussion.

² Some numbers represented on this table have been rounded in the TWBID Revision 2.1 (LANL 2005) database prior to reporting.

³ Does not account for emplaced waste.

Table B.1-2. Comparison of Stored, Projected, and Anticipated RH-TRU Waste Volumes Between the TWBIR - 2004 and TWBIR Revision 2 (m³)¹

Storage/Generator Site	TWBIR - 2004 Stored	TWBIR Rev. 2 Stored	Difference in Stored ²	TWBIR - 2004 Projected	TWBIR Rev. 2 Projected	Difference in Projected ²	TWBIR - 2004 Anticipated	TWBIR Rev. 2 Anticipated	Difference in Anticipated ²
Argonne National Laboratory - East	1.5E+01	0.0E+00	1.5E+01	1.0E+02	0.0E+00	1.0E+02	1.2E+02	0.0E+00	1.2E+02
Argonne National Laboratory - West	2.4E+01	1.9E+01	5.0E+00	6.9E+01	1.3E+03	-1.2E+03	9.3E+01	1.3E+03	-1.2E+03
Battelle Columbus Laboratories	4.4E+01	5.8E+02	-5.4E+02	1.8E+00	0.0E+00	1.8E+00	4.6E+01	5.8E+02	-5.3E+02
Bettis Atomic Power Laboratory	2.0E+00	0.0E+00	2.0E+00	0.0E+00	6.7E+00	-6.7E+00	2.0E+00	6.7E+00	-4.7E+00
Energy Technology Engineering Center	5.0E+00	8.9E-01	4.1E+00	0.0E+00	0.0E+00	0.0E+00	5.0E+00	8.9E-01	4.1E+00
Hanford (Richland) Site	3.8E+02	2.0E+02	1.8E+02	1.1E+03	2.2E+04	-2.1E+04	1.5E+03	2.2E+04	-2.1E+04
Hanford (River Protection) Site	4.5E+03	0.0E+00	4.5E+03	0.0E+00	0.0E+00	0.0E+00	4.5E+03	0.0E+00	4.5E+03
Idaho National Laboratory	2.2E+02	2.2E+02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.2E+02	2.2E+02	0.0E+00
Knolls Atomic Power Laboratory-NY	0.0E+00	0.0E+00	0.0E+00	1.4E+02	0.0E+00	1.4E+02	1.4E+02	0.0E+00	1.4E+02
Los Alamos National Laboratory	1.3E+02	9.4E+01	3.6E+01	0.0E+00	9.9E+01	-9.9E+01	1.3E+02	1.9E+02	6.0E+01
Oak Ridge National Laboratory	0.0E+00	2.5E+03	-2.5E+03	6.6E+02	4.5E+02	2.1E+02	6.6E+02	2.9E+03	-2.2E+03
Sandia National Laboratory - Albuquerque	4.6E+00	0.0E+00	4.6E+00	0.0E+00	0.0E+00	0.0E+00	4.6E+00	0.0E+00	4.6E+00
Savannah River Site / Mound	0.0E+00	0.0E+00	0.0E+00	2.3E+01	0.0E+00	2.3E+01	2.3E+01	0.0E+00	2.3E+01
Totals³	5.3E+03	3.6E+03	1.7E+03	2.1E+03	2.4E+04	-2.2E+04	7.4E+03	2.7E+04	-2.0E+04

1. See page 1 for discussion.

2. Some numbers represented on this table have been rounded in the TWBIR Revision 2.1 (LANL 2005) database prior to reporting.

3. Does not account for emplaced waste.

Table B.1-3 Comparison of Stored, Projected, and Anticipated Total TRU Waste Volumes Between the TWBIR - 2004 and TWBIR Revision 2 (m³)¹

Storage/Generator Site	TWBIR - 2004 Stored	TWBIR Rev. 2 Stored	Difference in Stored²	TWBIR - 2004 Projected	TWBIR Rev. 2 Projected	Difference in Projected²	TWBIR - 2004 Anticipated	TWBIR Rev. 2 Anticipated	Difference in Anticipated²
CH TRU Waste Volumes	1.1E+05	5.8E+04	5.1E+04	3.5E+04	5.4E+04	-1.9E+04	1.4E+05	1.1E+05	3.1E+04
CH Emplaced TRU Waste Volumes	7.7E+03	0.0E+00	7.7E+03	0.0E+00	0.0E+00	0.0E+00	7.7E+03	0.0E+00	7.7E+03
Total CH TRU Waste Volumes	1.2E+05	5.8E+04	5.9E+04	3.5E+04	5.4E+04	-1.9E+04	1.5E+05	1.1E+05	3.9E+04
Total RH TRU Waste Volumes	5.3E+03	3.6E+03	1.7E+03	2.1E+03	2.3E+04	-2.1E+04	7.4E+03	2.7E+04	-2.0E+04
Total TRU Waste Volumes	1.2E+05	6.2E+04	6.1E+04	3.7E+04	7.7E+04	-4.0E+04	1.6E+05	1.4E+05	2.0E+04

¹See page 1 for discussion.

²Some numbers represented on this table have been rounded in the TWBIR Revision 2.1 (LANL 2005) database prior to reporting.

B-1.2 Waste Inventory Comparison by Final Waste Form

Tables B.1-4 through B.1-23 contain two parts, the top portion of each table shows the volume estimates, and the lower portion of each table shows the waste material parameter (WMP) estimates. These tables compare the TWBIR - 2004 and TWBIR Revision 2 (DOE 1995) volumes and WMPs for the roll-ups by final waste form. There is one table for each final waste form for each CH- and RH-TRU waste type.

The first part of Tables B.1-4 through B.1-23 contains rolled-up final waste form volume estimates by site, and was compiled using the TWBID Revision 2.1 (LANL 2005). In the upper portion of each table, there are nine columns if waste of that final form has been emplaced, and eight columns if no waste of that final form has emplaced. The first column contains the site identification. Column 2 contains the volume of emplaced waste, if any, for the sites listed. Columns 3 and 4 contain the TWBIR - 2004 and TWBIR Revision 2 (DOE 1995) stored volumes, respectively. Columns 5 and 6 contain the TWBIR - 2004 and TWBIR Revision 2 projected volumes, respectively. Columns 7 and 8 contain the TWBIR - 2004 and TWBIR Revision 2 total volumes, respectively. The 8th or 9th and last column, depending on whether or not there is any emplaced waste of that final form, contain the volume difference between the total (anticipated) TWBIR - 2004 and TWBIR Revision 2 volumes (columns 7 and 8, respectively). This volume difference is the result of subtracting TWBIR Revision 2 volumes from TWBIR - 2004 volumes. The sum of each column is shown in the "TRU Waste Site Total" row.

TWBIR - 2004 and TWBIR Revision 2 (DOE 1995) stored and projected waste volumes by site that contributed to the final waste form are given for the applicable sites and for emplaced waste. No waste was emplaced at the time of the TWBIR Revision 2. Sections B-1.4 and B-1.6 explain the volume information in these tables.

The second part of Tables B.1-4 through B.1-23 contains the WMP densities in units of kilograms per cubic meter (kg/m^3) and shows the comparison of TWBIR - 2004 and TWBIR Revision 2 (DOE 1995) WMPs for the roll-ups by final waste form. The last column of the WMP table gives the difference between TWBIR Revision 2 density from the TWBIR - 2004 density. TWBIR - 2004 WMP estimates were compiled using TWBID Revision 2.1 (LANL 2005). Sections B-2.1 and B-2.2 explain the WMP estimates in these tables. Section B-2.3 discusses the waste container (packaging) materials.

B-1.3 Analysis of CH-TRU Waste Volume Differences by Site

Table B.1-1 compares the stored, projected, and anticipated CH-TRU waste volumes between the TWBIR Revision 2 (DOE 1995) and TWBIR - 2004 inventory estimates by site. Table B.1-3 gives the total CH-TRU waste, RH-TRU waste, and emplaced waste volumes.

The total difference (excludes emplaced waste) in stored CH-TRU waste at the sites is $5.1\text{E}+04 \text{ m}^3$, or an 89.7 percent increase from the TWBIR Revision 2 (DOE 1995) inventory. The bulk of this additional stored volume came from the Idaho National Laboratory (INL), $3.2\text{E}+04 \text{ m}^3$; the Savannah River Site (SRS), $1.0\text{E}+04 \text{ m}^3$; Hanford Office of River Protection (Hanford RP) $3.9\text{E}+03 \text{ m}^3$; Hanford Richland Operations (Richland RL), $1.0\text{E}+03 \text{ m}^3$; Los Alamos National

Laboratory (LANL), $1.0\text{E}+03\text{ m}^3$; and the Rocky Flats Environmental Technology Site (RFETS) $4.6\text{E}+03\text{ m}^3$. The sites adjusted their existing inventory data based on new information (since the TWBIR Revision 2 inventory) about the waste and/or increased accessibility to the waste. The Hanford River Protection (RP) stored waste ($3.9\text{E}+03\text{ m}^3$) was recently added to the inventory. Several small-quantity generator sites have also added small volumes of CH-TRU stored waste to the inventory that were not previously reported (Battelle Columbus Laboratories (BCL), Bettis Atomic Power Laboratory (BAPL), Knolls Atomic Power Laboratory Nuclear Fuels Services (KAPL-NFS), and Paducah Gaseous Diffusion Plant (PGDP)).

The total projected CH-TRU waste volume has decreased by $1.9\text{E}+04\text{ m}^3$, or a 35 percent decrease from the TWBIR Revision 2 (DOE 1995) inventory. The largest decrease in projected CH-TRU waste volume is $2.7\text{E}+04\text{ m}^3$ reported by Hanford RL. Changes in future forecast planning volumes based on better knowledge about the waste, on-site burial of non-TRU waste, or re-designation into the stored waste category as a result of waste operations resulted in this decrease.

The anticipated CH-TRU waste is simply the sum of the stored and projected wastes. It follows that the overall change is an increase of $3.1\text{E}+04\text{ m}^3$, or nearly a 27 percent increase for the anticipated volumes.

The emplaced CH-TRU waste volume as of the inventory date (September 30, 2002) is $7.7\text{E}+03\text{ m}^3$. As of the inventory date, only CH-TRU waste has been emplaced. Table B.1-3 shows the sum of the stored, projected, anticipated, and emplaced CH-TRU waste volumes as $1.5\text{E}+05\text{ m}^3$. The total CH-TRU waste volume from the TWBIR Revision 2 (DOE 1995) was $1.1\text{E}+05\text{ m}^3$, giving a difference of $3.9\text{E}+04\text{ m}^3$.

B-1.4 CH-TRU Waste Volumes by Final Waste Form by Site

Tables B.1-4 through B.1-14 indicates that 6 of the 11 CH-TRU wastes final waste form total volumes increased (filter material, graphite, heterogeneous debris, inorganic non-metal, solidified inorganic material, and solidified organic material). Of these, the heterogeneous debris and solidified inorganic material volumes had the largest increases of $2.2\text{E}+04\text{ m}^3$ and $3.4\text{E}+04\text{ m}^3$, respectively. The solidified organic material increased by $4.3\text{E}+03\text{ m}^3$ and the inorganic non-metal increased by $7.7\text{E}+03\text{ m}^3$. The filter material and final waste form volumes increased by $1.3\text{E}+03\text{ m}^3$. The graphite material increased by $4.3\text{E}+02\text{ m}^3$.

Five of the 11 CH-TRU waste final waste form total volumes decreased (combustible material, graphite, lead/cadmium metal, salt, soil, and uncategorized metal). These decreases ranged from less than $1.9\text{E}+02\text{ m}^3$ for lead/cadmium metal, and $1.4\text{E}+01$ for salt, to $4.2\text{E}+03\text{ m}^3$ for combustible material and $2.7\text{E}+04\text{ m}^3$ for uncategorized metal.

Table B.1-4 WIPP CH-TRU Waste Profile Differences Between TWBIR - 2004 and TWBIR Revision 2—Combustible Material¹

TRU Waste Site Volumes (m ³)								
Site	Emplaced Waste Volume	TWBIR - 2004 Stored	TWBIR Rev. 2 Stored	TWBIR - 2004 Projected	TWBIR Rev. 2 Projected	TWBIR - 2004 Total	TWBIR Rev. 2 Total	Total Diff. ²
Argonne National Laboratory - East	0.0E+00	9.0E+01	0.0E+00	6.6E+01	0.0E+00	1.6E+02	0.0E+00	1.6E+02
Argonne National Laboratory - West	0.0E+00	5.4E+00	0.0E+00	4.4E+00	1.0E+02	9.8E+00	1.0E+02	-9.2E+01
Battelle Columbus Laboratories	0.0E+00	5.2E+00	0.0E+00	0.0E+00	0.0E+00	5.2E+00	0.0E+00	5.2E+00
Hanford (Richland-RL)	0.0E+00	9.8E+01	4.6E+02	0.0E+00	1.2E+03	9.8E+01	1.7E+03	-1.6E+03
Idaho National Laboratory	6.2E+01	0.0E+00	3.3E+03	0.0E+00	0.0E+00	0.0E+00	3.3E+03	-3.3E+03
Los Alamos National Laboratory	5.9E+00	2.9E+03	1.8E+03	1.4E+03	2.4E+03	4.3E+03	4.2E+03	1.0E+02
Mound Plant	6.2E+01	0.0E+00	7.1E+00	0.0E+00	0.0E+00	0.0E+00	7.1E+00	-7.1E+00
Rocky Flats Environmental Technology Site	4.8E+02	1.2E+03	1.9E+02	4.5E+02	8.6E+02	1.6E+03	1.0E+03	6.0E+02
TRU Waste Site Total	6.1E+02	4.3E+03	5.8E+03	1.9E+03	4.6E+03	6.2E+03	1.0E+04	-4.2E+03
Waste Material Parameter	TWBIR - 2004 Density (kg/m ³)		TWBIR Rev. 2 Density (kg/m ³)		Difference (kg/m ³) ²			
Iron Base Metal/Alloys	6.2E+01		1.1E+02		-4.7E+01			
Aluminum Base Metal/Alloys	6.9E-01		2.0E-01		4.9E-01			
Other Metal/Alloys	1.4E+01		1.0E+01		4.0E+00			
Other Inorganic Material	1.0E+01		8.7E+00		1.3E+00			
Cellulosic Material	3.0E+01		1.9E+02		-1.6E+02			
Rubber Material	1.2E+01		3.0E+01		-1.8E+01			
Plastic Material	4.4E+01		6.0E+01		-1.5E+01			
Solidified Inorganic Material	6.6E-01		0.0E+00		6.6E-01			
Cement (Solidified)	4.8E-02		0.0E+00		4.8E-02			
Vitrified Material	0.0E+00		0.0E+00		0.0E+00			
Solidified Organic Material	1.2E+01		0.0E+00		1.2E+01			
Soil	6.9E-01		0.0E+00		6.9E-01			

¹ See pages 1 and 27 - 29 for discussion.

² Some numbers represented on this table have been rounded in the TWBIR Revision 2.1 (LANL 2005) database prior to reporting.

Table B.1-5 WIPP CH-TRU Waste Profile Differences Between TWBIR - 2004 and TWBIR Revision 2—Filter Material¹

TRU Waste Site Volumes (m ³)								
Site	Emplaced Waste Volume	TWBIR - 2004 Stored	TWBIR Rev. 2 Stored	TWBIR - 2004 Proj.	TWBIR Rev. 2 Proj.	TWBIR - 2004 Total	TWBIR Rev. 2 Total	Total Diff. ²
Hanford (Richland-RL)	0.0E+00	2.2E+01	0.0E+00	0.0E+00	0.0E+00	2.2E+01	0.0E+00	2.2E+01
Idaho National Laboratory	2.9E+02	0.0E+00	1.3E+02	0.0E+00	0.0E+00	0.0E+00	1.3E+02	-1.3E+02
Lawrence Livermore National Laboratory	0.0E+00	1.9E+02	1.6E+01	4.5E+02	3.2E+01	6.4E+02	4.8E+01	5.9E+02
Los Alamos National Laboratory	0.0E+00	3.3E+02	0.0E+00	0.0E+00	0.0E+00	3.3E+02	0.0E+00	3.3E+02
Mound Plant	0.0E+00	0.0E+00	8.3E-01	0.0E+00	0.0E+00	0.0E+00	8.3E-01	-8.3E-01
Rocky Flats Environmental Technology Site	5.6E+01	4.5E+02	7.2E+01	1.4E+02	4.8E+02	5.8E+02	5.5E+01	5.3E+02
TRU Waste Site Total	3.4E+02	9.9E+02	2.2E+02	5.9E+02	5.1E+02	1.6E+03	2.3E+02	1.3E+03

Waste Material Parameter	TWBIR - 2004 Density (kg/m ³)	TWBIR Rev. 2 Density (kg/m ³)	Difference (kg/m ³) ²
Iron Base Metal/Alloys	8.5E+01		-4.5E+02
Aluminum Base Metal/Alloys	1.8E+01	1.3E+01	5.0E+00
Other Metal/Alloys	5.1E+01	8.0E-01	5.0E+01
Other Inorganic Material	1.7E+01	1.5E+01	2.0E+00
Cellulosic Material	4.7E+01	5.6E+01	-9.0E00
Rubber Material	6.2E+00	3.3E+00	2.9E+00
Plastic Material	1.5E+01	4.6E+00	1.0E+01
Solidified Inorganic Material	5.9E-01	0.0E+00	5.9E-01
Cement (Solidified)	0.0E+00	0.0E+00	0.0E+00
Vitrified Material	0.0E+00	0.0E+00	0.0E+00
Solidified Organic Material	3.3E-01	0.0E+00	3.3E-01
Soil	4.7E+00	0.0E+00	4.7E+00

¹ See pages 1 and 27 - 29 for discussion.

² Some numbers represented on this table have been rounded in the TWBID Revision 2.1 (LANL 2005) database prior to reporting.

Table B.1-6 WIPP CH-TRU Waste Profile Differences Between TWBIR - 2004 and TWBIR Revision 2 - Graphite¹

TRU Waste Site Volumes (m ³)							
Site	TWBIR - 2004 Stored	TWBIR Rev. 2 Stored	TWBIR - 2004 Proj.	TWBIR Rev. 2 Proj.	TWBIR - 2004 Total	TWBIR Rev. 2 Total	Total Diff.
Idaho National Laboratory	0.0E+00	5.0E+02	0.0E+00	0.0E+00	0.0E+00	5.0E+02	5.0E+02
Rocky Flats Environmental Technology Site	1.2E+02	1.4E+01	1.3E+00	4.8E+01	1.3E+02	6.1E+01	6.9E+01
TRU Waste Site Total	1.2E+02	5.1E+02	1.3E+00	4.8E+01	1.3E+02	5.6E+02	4.3E+02

Waste Material Parameters	TWBIR - 2004 Density (kg/m ³)	TWBIR Rev. 2 Density (kg/m ³)	Difference (kg/m ³)
Iron Base Metal/Alloys	1.9E+01	1.4E+00	1.8E+01
Aluminum Base Metal/Alloys	0.0E+00	0.0E+00	0.0E+00
Other Metal/Alloys	0.0E+00	0.0E+00	0.0E+00
Other Inorganic Material	1.7E+02	3.0E+02	-1.3E+02
Cellulosic Material	8.6E+01	4.8E+00	8.1E+01
Rubber Material	0.0E+00	0.0E+00	0.0E+00
Plastic Material	2.3E+01	5.6E+00	1.7E+01
Solidified Inorganic Material	7.1E+00	0.0E+00	7.1E+00
Cement (Solidified)	0.0E+00	0.0E+00	0.0E+00
Vitrified Material	0.0E+00	0.0E+00	0.0E+00
Solidified Organic Material	0.0E+00	0.0E+00	0.0E+00
Soil	0.0E+00	0.0E+00	0.0E+00

1 See pages 1 and 27 - 29 for discussion.

2 Some numbers represented on this table have been rounded in the TWBIR Revision 2.1 (LANL 2005) database prior to reporting.

Table B.1-7 WIPP CH-TRU Waste Profile Differences Between TWBIR - 2004 and TWBIR Revision 2 - Heterogeneous¹

TRU Waste Site Volumes (m ³)								
Site	Emplaced Waste Volume	TWBIR - 2004 Stored	TWBIR Rev. 2 Stored	TWBIR - 2004 Proj.	TWBIR Rev. 2 Proj.	TWBIR - 2004 Total	TWBIR Rev. 2 Total	Total Diff. ²
Argonne National Laboratory - West	0.0E+00	6.2E-01	6.5E+00	3.4E+01	3.5E+02	3.4E+01	3.5E+02	-3.2E+02
Bettis Atomic Power Laboratory	0.0E+00	1.9E+01	0.0E+00	0.0E+00	1.2E+02	1.9E+01	1.2E+02	-1.0E+02
Energy Technology Engineering Center	0.0E+00	1.5E+00	1.7E+00	0.0E+00	0.0E+00	1.5E+00	1.7E+00	-2.0E-01
Hanford (Richland-RL)	9.8E+01	1.2E+04	1.1E+04	6.8E+02	6.3E+03	1.3E+04	1.7E+04	-4.0E+03
Idaho National Laboratory	0.0E+00	2.0E+04	1.1E+04	5.6E+03	0.0E+00	2.5E+04	1.1E+04	1.4E+04
Knolls Atomic Power Laboratory-Nuclear Fuel Services	0.0E+00	5.5E+01	0.0E+00	1.7E+02	0.0E+00	2.3E+02	0.0E+00	2.3E+02
Lawrence Livermore National Laboratory	0.0E+00	1.3E+02	2.0E+02	1.4E+03	6.6E+02	1.6E+03	8.6E+02	7.4E+02
Los Alamos National Laboratory	2.7E+02	2.1E+03	1.6E+01	1.4E+03	2.9E+01	3.5E+03	4.5E+01	3.5E+03
Mound Plant	0.0E+00	0.0E+00	6.2E-01	0.0E+00	0.0E+00	0.0E+00	6.2E-01	-6.2E-01
Nevada Test Site	0.0E+00	6.1E+02	6.1E+02	4.6E+02	9.0E+00	1.1E+03	6.2E+02	4.8E+02
Oak Ridge National Laboratory	0.0E+00	0.0E+00	1.3E+03	4.5E+02	2.6E+02	4.5E+02	1.6E+03	-1.1E+03
Pantex Plant	0.0E+00	0.0E+00	6.2E-01	0.0E+00	0.0E+00	0.0E+00	6.2E-01	-6.2E-01
Rocky Flats Environmental Technology Site	6.8E+01	1.0E+03	3.9E+00	1.2E+03	0.0E+00	2.2E+03	3.9E+00	2.2E+03
Sandia National Laboratories-Albuquerque	0.0E+00	2.4E+01	6.7E+00	0.0E+00	7.5E+00	2.4E+01	1.4E+01	1.0E+01
Savannah River Site	1.4E+02	1.3E+04	2.6E+03	2.4E+03	5.5E+03	1.5E+04	8.1E+03	6.9E+03
U.S. Army Materiel Command	0.0E+00	2.5E+00	2.5E+00	0.0E+00	0.0E+00	2.5E+00	2.5E+00	0.0E-01
University of Missouri Research Reactor	0.0E+00	1.5E+00	2.1E-01	0.0E+00	8.3E-01	1.5E+00	1.0E+00	5.0E-01
TRU Waste Site Total	5.7E+02	4.9E+04	2.7E+04	1.4E+04	1.3E+04	6.3E+04	4.0E+04	2.2E+04

Waste Material Parameters	TWBIR - 2004 Density (kg/m ³)	TWBIR Rev. 2 Density (kg/m ³)	Difference (kg/m ³) ²
Iron Base Metal/Alloys	2.4E+02	2.5E+02	-1.1E+01
Aluminum Base Metal/Alloys	3.1E+01	4.6E+01	-1.5E+01
Other Metal/Alloys	5.7E+01	5.7E+00	5.1E+01
Other Inorganic Material	5.3E+01	2.6E+01	2.7E+01
Cellulosic Material	1.2E+02	8.6E+01	3.4E+01
Rubber Material	3.0E+01	1.9E+01	1.1E+01
Plastic Material	8.4E+01	7.2E+01	1.3E+01
Solidified Inorganic Material	3.5E+00	3.8E+00	-3.0E-01
Cement (Solidified)	1.5E-01	0.0E+00	1.5E-01
Vitrified Material	0.0E+00	0.0E+00	0.0E+00
Solidified Organic Material	3.4E+00	4.0E-01	3.0E+00
Soil	8.7E+01	2.9E+00	8.4E+01

¹ See pages 1 and 27 - 29 for discussion.

² Some numbers represented on this table have been rounded in the TWBIR Revision 2.1 (LANL 2005) database prior to reporting.

Table B.1-8 WIPP CH-TRU Waste Profile Differences Between TWBIR - 2004 and TWBIR Revision 2—Inorganic Non-Metal¹

TRU Waste Site Volumes (m ³)								
Site	Emplaced Waste Volume	TWBIR - 2004 Stored	TWBIR Rev. 2 Stored	TWBIR - 2004 Proj.	TWBIR Rev. 2 Proj.	TWBIR - 2004 Total	TWBIR Rev. 2 Total	Total Diff. ²
Hanford (Richland-RL)	0.0E+00	1.1E+01	3.5E+01	3.0E+01	6.9E+01	4.1E+01	1.0E+02	-5.9E+01
Idaho National Laboratory	4.3E+02	1.1E+04	3.0E+03	0.0E+00	0.0E+00	1.1E+04	3.0E+03	8.0E+03
Paducah Gaseous Diffusion Plant	0.0E+00	5.7E+00	0.0E+00	5.7E+00	1.9E+00	1.1E+01	1.9E+00	9.1E+00
Rocky Flats Environmental Technology Site	5.4E+02	6.5E+02	5.8E+01	3.2E+01	8.7E+02	6.8E+02	9.3E+02	-2.5E+02
Teledyne Brown Engineering	0.0E+00	0.0E+00	2.1E-01	0.0E+00	0.0E+00	0.0E+00	2.1E-01	-2.1E-01
TRU Waste Site Total	9.7E+02	1.2E+04	3.1E+03	6.8E+01	9.4E+02	1.2E+04	4.0E+03	7.7E+03

Waste Material Parameters	TWBIR - 2004 Density (kg/m ³)	TWBIR Rev. 2 Density (kg/m ³)	Difference (kg/m ³) ²
Iron Base Metal/Alloys	4.2E+00	2.8E+00	1.4E+00
Aluminum Base Metal/Alloys	1.2E-02	0.0E+00	1.2E-02
Other Metal/Alloys	5.0E+00	2.0E-01	4.8E+00
Other Inorganic Material	5.5E+01	1.0E+02	-4.5E+01
Cellulosic Material	1.9E+01	1.6E+01	3.0E+00
Rubber Material	1.1E-01	4.0E-01	-2.9E-01
Plastic Material	2.7E+00	6.7E+00	-4.0E+00
Solidified Inorganic Material	9.0E-01	1.4E+00	-5.0E-01
Cement (Solidified)	0.0E+00	0.0E+00	0.0E+00
Vitrified Material	7.1E+01	1.4E+03	-1.3E+03
Solidified Organic Material	2.7E-05	0.0E+00	2.7E-05
Soil	1.8E-03	0.0E+00	1.8E-03

1 See pages 1 and 27 - 29 for discussion.

2 Some numbers represented on this table have been rounded in the TWBIR Revision 2.1 (LANL 2005) database prior to reporting.

Table B.1-9 WIPP CH-TRU Waste Profile Differences Between TWBIR - 2004 and TWBIR Revision 2—Lead/Cadmium Metal¹

TRU Waste Site Volumes (m ³)								
Site	Emplaced Waste Volume	TWBIR - 2004 Stored	TWBIR Rev. 2 Stored	TWBIR - 2004 Proj.	TWBIR Rev. 2 Proj.	TWBIR - 2004 Total	TWBIR Rev. 2 Total	Total Diff. ²
Argonne National Laboratory-East	0.0E+00	0.0E+00	1.1E+00	0.0E+00	1.3E+00	0.0E+00	2.4E+00	-2.4E+00
Hanford (Richland-RL)	0.0E+00	1.7E+01	1.4E+01	1.4E+01	3.5E+01	3.1E+01	4.9E+01	-1.8E+01
Idaho National Laboratory	8.1E+01	0.0E+00	1.4E+01	0.0E+00	0.0E+00	0.0E+00	1.4E+01	-1.4E+01
Los Alamos National Laboratory	0.0E+00	3.7E+00	1.9E+00	0.0E+00	0.0E+00	3.7E+00	1.9E+00	1.9E+00
Rocky Flats Environmental Technology Site	0.0E+00	1.2E+02	4.0E+00	1.8E+01	3.0E+02	1.4E+02	3.0E+02	-1.6E+02
TRU Waste Site Total	8.1E+01	1.4E+02	3.5E+01	3.2E+01	3.4E+02	1.7E+02	3.7E+02	-1.9E+02

Waste Material Parameter	TWBIR - 2004 Density (kg/m ³)	TWBIR Rev. 2 Density (kg/m ³)	Difference (kg/m ³) ²
Iron Base Metal/Alloys	9.3E+02	1.3E+02	7.9E+02
Aluminum Base Metal/Alloys	1.8E+01	1.7E+01	1.0E+00
Other Metal/Alloys	1.5E+02	5.2E+01	9.8E+01
Other Inorganic Material	1.7E+01	1.2E+01	5.0E+00
Cellulosic Material	4.8E+00	4.0E+00	8.0E-01
Rubber Material	3.3E+00	1.6E+01	-1.2E+01
Plastic Material	9.1E+00	2.2E+01	-1.3E+01
Solidified Inorganic Material	8.2E-01	0.0E+00	8.2E-01
Cement (Solidified)	0.0E+00	0.0E+00	0.0E-02
Vitrified Material	0.0E+00	0.0E+00	0.0E+00
Solidified Organic Material	1.1E-02	0.0E+00	1.1E-02
Soil	1.6E-01	0.0E+00	1.6E-01

1 See pages 1 and 27 - 29 for discussion.

2 Some numbers represented on this table have been rounded in the TWBID Revision 2.1 (LANL 2005) database prior to reporting.

Table B.1-10 WIPP CH-TRU Waste Profile Differences Between TWBIR - 2004 and TWBIR Revision 2—Salt¹

Final Waste Form: Salt

TRU Waste Site Volumes (m ³)								
Site	Emplaced Waste Volume	TWBIR – 2004 Stored	TWBIR Rev. 2 Stored	TWBIR – 2004 Projected	TWBIR Rev. 2 Projected	TWBIR – 2004 Total	TWBIR Rev. 2 Total	Total Diff. ²
Idaho National Laboratory	0.0E+00	0.0E+00	2.1E+01	0.0E+00	0.0E+00	0.0E+00	2.1E+01	-2.1E+01
Lawrence Livermore National Laboratory	0.0E+00	1.2E+00	6.2E-01	1.5E+01	3.0E+00	1.6E+01	3.6E+00	1.3E+01
Los Alamos National Laboratory	0.0E+00	1.3E+02	0.0E+00	1.7E+02	0.0E+00	3.0E+02	0.0E+00	3.0E+02
Rocky Flats Environmental Technology Site	1.5E+03	2.5E+01	0.0E+00	0.0E+00	3.3E+02	2.5E+01	3.3E+02	-3.1E+02
TRU Waste Site Total	1.5E+03	1.6E+02	2.2E+01	1.9E+02	3.3E+02	3.4E+02	3.5E+02	-1.4E+01
Waste Material Parameters	TWBIR - 2004 Density (kg/m ³)		TWBIR Rev. 2 Density (kg/m ³)		Difference (kg/m ³) ²			
Iron Base Metal/Alloys	9.7E+00		1.8E+02		-1.7E+02			
Aluminum Base Metal/Alloys	5.7E-02		1.0E-01		-4.3E-02			
Other Metal/Alloys	3.6E+00		2.3E+00		1.3E+00			
Other Inorganic Material	2.1E+02		1.7E+02		4.0E+01			
Cellulosic Material	1.4E+02		1.6E+02		-2.0E+01			
Rubber Material	4.1E-02		0.0E+00		4.1E-02			
Plastic Material	8.9E-01		6.0E-01		2.9E-01			
Solidified Inorganic Material	9.7E+00		0.0E+00		9.7E+00			
Cement (Solidified)	0.0E+00		0.0E+00		0.0E+00			
Vitrified Material	0.0E+00		0.0E+00		0.0E+00			
Solidified Organic Material	1.2E+01		0.0E+00		1.2E+01			
Soil	1.5E+00		0.0E+00		1.5E+00			

¹ See pages 1 and 27 - 29 for discussion.

² Some numbers represented on this table have been rounded in the TWBIR Revision 2.1 (LANL 2005) database prior to reporting.

Table B.1-11 WIPP CH-TRU Waste Profile Differences Between TWBIR - 2004 and TWBIR Revision 2—Soil¹

Final Waste Form: Soil

TRU Waste Site Volumes (m ³)							
Site	TWBIR - 2004 Stored	TWBIR Rev. 2 Stored	TWBIR - 2004 Projected	TWBIR Rev. 2 Projected	TWBIR - 2004 Total	TWBIR Rev. 2 Total	Total Diff. ²
Hanford (Richland) Site	1.1E+02	1.2E+02	0.0E+00	6.0E+03	1.1E+02	6.1E+03	-6.0E+03
Idaho National Laboratory	0.0E+00	0.0E+00	9.7E+01	0.0E+00	9.7E+01	0.0E+00	9.7E+01
Los Alamos National Laboratory	1.9E+02	1.1E+02	0.0E+00	2.9E+01	1.9E+02	1.4E+02	5.0E+01
Mound Plant	0.0E+00	1.8E+02	0.0E+00	0.0E+00	0.0E+00	1.8E+02	-1.8E+02
TRU Waste Site Total	3.0E+02	4.1E+02	9.7E+01	6.0E+03	4.0E+02	6.4E+03	-6.0E+03
Waste Material Parameters	TWBIR - 2004 Density (kg/m ³)		TWBIR Rev. 2 Density (kg/m ³)		Difference (kg/m ³) ²		
Iron Base Metal/Alloys	7.2E+01		1.7E+00		7.0E+01		
Aluminum Base Metal/Alloys	0.0E+00		0.0E+00		0.0E+00		
Other Metal/Alloys	8.8E+00		0.0E+00		8.8E+00		
Other Inorganic Material	1.5E+01		1.0E+00		1.4E+01		
Cellulosic Material	1.8E+01		3.7E+00		1.5E+01		
Rubber Material	2.9E-01		1.7E+00		-1.4E+00		
Plastic Material	2.4E+00		3.2E+00		-8.0E-01		
Solidified Inorganic Material	2.4E+01		0.0E+00		2.4E+01		
Cement (Solidified)	2.9E+01		0.0E+00		2.9E+01		
Vitrified Material	0.0E+00		0.0E+00		0.0E+00		
Solidified Organic Material	5.5E+01		1.0E-01		5.5E+01		
Soil	5.8E+02		7.6E+02		-1.8E+02		

1 See pages 1 and 27 - 29 for discussion.

2 Some numbers represented on this table have been rounded in the TWBIR Revision 2.1 (LANL 2005) database prior to reporting.

Table B.1-12 WIPP CH-TRU Waste Profile Differences Between TWBIR - 2004 and TWBIR Revision 2—Solidified Inorganics¹

Final Waste Form: Solidified Inorganics

Site	TRU Waste Site Volumes (m ³)							Total Diff. ²
	Emplaced Waste Volume	TWBIR – 2004 Stored	TWBIR Rev. 2 Stored	TWBIR – 2004 Projected	TWBIR Rev. 2 Projected	TWBIR – 2004 Total	TWBIR Rev. 2 Total	
Ames Laboratory- Iowa State University	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.2E-01	0.0E+00	4.2E-01	-4.2E-01
Argonne National Laboratory - East	0.0E+00	2.4E+01	5.2E+00	1.3E+01	0.0E+00	3.7E+01	5.2E+00	3.2E+01
Hanford (Richland-RL)	0.0E+00	1.9E+02	1.3E+01	3.0E+01	7.1E+00	2.2E+02	2.0E+01	2.0E+02
Hanford (River Protection) Site	0.0E+00	3.9E+03	0.0E+00	0.0E+00	0.0E+00	3.9E+03	0.0E+00	3.9E+03
Idaho National Laboratory	2.0E+03	2.9E+04	4.3E+03	8.3E+03	0.0E+00	3.8E+04	4.3E+03	3.4E+04
Lawrence Livermore National Laboratory	0.0E+00	1.4E+01	1.4E+01	1.8E+02	5.8E+00	1.9E+02	2.0E+01	1.7E+02
Los Alamos National Laboratory	0.0E+00	4.5E+03	4.9E+03	2.4E+02	2.0E+03	4.7E+03	6.9E+03	-2.2E+03
Mound Plant	0.0E+00	0.0E+00	6.0E+00	0.0E+00	0.0E+00	0.0E+00	6.0E+00	-6.0E+00
Nevada Test Site	0.0E+00	5.7E+00	5.7E+00	0.0E+00	0.0E+00	5.7E+00	5.7E+00	0.0E+00
Rocky Flats Environmental Technology Site	1.3E+03	8.1E+02	1.7E+02	2.7E+02	1.3E+03	1.1E+03	1.4E+03	-3.0E+02
Savannah River Site	0.0E+00	2.4E+01	2.0E+02	0.0E+00	1.2E+03	2.4E+01	1.4E+03	-1.4E+03
TRU Waste Site Total	3.3E+03	3.9E+04	9.6E+03	9.0E+03	4.5E+03	4.8E+04	1.4E+04	3.4E+04
Waste Material Parameters	TWBIR - 2004 Density (kg/m ³)		TWBIR Rev. 2 Density (kg/m ³)		Difference (kg/m ³) ²			
Iron Base Metal/Alloys	3.6E+00		1.8E+02		-1.8E+02			
Aluminum Base Metal/Alloys	2.6E-02		0.0E+00		2.6E-02			
Other Metal/Alloys	2.9E+00		8.0E-01		2.1E+00			
Other Inorganic Material	2.7E+01		8.1E+01		-5.4E+01			
Cellulosic Material	6.1E+00		4.0E-01		5.7E+00			
Rubber Material	2.1E-02		0.0E+00		2.1E-02			
Plastic Material	3.2E+00		2.2E+00		1.0E+00			
Solidified Inorganic Material	2.4E+02		4.2E+02		-1.8E+02			
Cement (Solidified)	1.1E+02		3.9E+02		-2.8E+02			
Vitrified Material	3.5E-02		3.2E+01		-3.2E+01			
Solidified Organic Material	1.0E+01		1.0E-01		9.9E+00			
Soil	1.6E+02		6.0E-01		1.6E+02			

¹ See pages 1 and 27 - 29 for discussion.

² Some numbers represented on this table have been rounded in the TWBID Revision 2.1 (LANL 2005) database prior to reporting.

Table B.1-13 WIPP CH-TRU Waste Profile Differences Between TWBIR - 2004 and TWBIR Revision 2—Solidified Organics¹

Final Waste Form: Solidified Organics

TRU Waste Site Volumes (m ³)							
Site	TWBIR - 2004 Stored	TWBIR Rev. 2 Stored	TWBIR - 2004 Projected	TWBIR Rev. 2 Projected	TWBIR - 2004 Total	TWBIR Rev. 2 Total	Total Diff. ²
Argonne National Laboratory - East	0.0E+00	2.1E-01	0.0E+00	0.0E+00	0.0E+00	2.1E-01	-2.1E-01
Energy Technology Engineering Center	8.4E-01	0.0E+00	0.0E+00	0.0E+00	8.4E-01	0.0E+00	8.4E-01
Hanford (Richland) Site	2.3E+00	7.4E+00	3.4E+02	9.4E+00	3.4E+02	1.7E+01	3.2E+02
Idaho National Laboratory	1.1E+03	7.9E+02	3.5E+03	0.0E+00	4.7E+03	7.9E+02	3.9E+03
Lawrence Livermore National Laboratory	8.1E+00	1.0E+00	4.8E+00	5.8E+00	1.3E+01	6.9E+00	6.1E+00
Los Alamos National Laboratory	2.9E+01	1.5E+00	2.7E+01	2.9E+01	5.6E+01	3.1E+01	2.5E+01
Rocky Flats Environmental Technology Center	1.4E+02	1.1E+02	4.4E+00	3.1E+01	1.4E+02	1.4E+02	0.0E+00
TRU Waste Site Total	1.3E+03	9.1E+02	3.9E+03	7.5E+01	5.2E+03	9.8E+02	4.3E+03
Waste Material Parameters	TWBIR - 2004 Density (kg/m ³)		TWBIR Rev. 2 Density (kg/m ³)		Difference (kg/m ³) ²		
Iron Base Metal/Alloys	7.9E-01		3.0E-01		4.9E-01		
Aluminum Base Metal/Alloys	6.1E-02		0.0E+00		6.1E-02		
Other Metal/Alloys	3.5E-01		0.0E+00		3.5E-01		
Other Inorganic Material	2.9E+01		1.2E+02		-9.1E+01		
Cellulosic Material	1.3E-01		3.0E-01		-1.7E-01		
Rubber Material	3.5E-02		0.0E+00		3.5E-02		
Plastic Material	1.2E+02		6.7E+00		1.1E+02		
Solidified Inorganic Material	6.6E+02		2.1E+01		6.4E+02		
Cement (Solidified)	4.3E+01		1.3E+02		-8.7E+01		
Vitrified Material	0.0E+00		0.0E+00		0.0E+00		
Solidified Organic Material	7.9E+02		6.1E+02		1.7E+02		
Soil	6.4E+02		2.0E-01		6.4E+02		

¹ See pages 1 and 27 - 29 for discussion.

² Some numbers represented on this table have been rounded in the TWBIR Revision 2.1 (LANL 2005) database prior to reporting.

Table B.1-14 WIPP CH-TRU Waste Profile Differences Between TWBIR - 2004 and TWBIR Revision 2—Uncategorized Metal¹

Final Waste Form: Uncategorized Metal

TRU Waste Site Volumes (m ³)								
Site	Emplaced Waste Volume	TWBIR – 2004 Stored	TWBIR Rev. 2 Stored	TWBIR – 2004 Projected	TWBIR Rev. 2 Projected	TWBIR – 2004 Total	TWBIR Rev. 2 Total	Total Diff. ²
Argonne National Laboratory-East	0.0E+00	0.0E+00	5.0E+00	0.0E+00	1.3E+02	0.0E+00	1.3E+02	-1.3E+02
Argonne National Laboratory-West	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.9E+02	0.0E+00	2.9E+02	-2.9E+02
Hanford (Richland-RL)	0.0E+00	1.1E+02	4.4E+02	4.4E+03	2.0E+04	4.5E+03	2.0E+04	-1.6E+04
Idaho National Laboratory	1.1E+01	9.4E+00	5.9E+03	0.0E+00	0.0E+00	9.4E+00	5.9E+03	-5.9E+03
Los Alamos National Laboratory	0.0E+00	1.5E+03	4.2E+03	3.2E+01	2.9E+03	1.5E+03	7.1E+03	-5.6E+03
Mound Plant	0.0E+00	0.0E+00	8.2E+01	0.0E+00	0.0E+00	0.0E+00	8.2E+01	-8.2E+01
Rocky Flats Environmental Technology Site	3.5E+02	7.9E+02	9.3E+01	6.7E+02	2.4E+02	1.5E+03	3.3E+02	1.2E+03
Savannah River Site	0.0E+00	0.0E+00	7.0E+01	0.0E+00	1.2E+02	0.0E+00	1.9E+02	-1.9E+02
TRU Waste Site Total	3.6E+02	2.4E+03	1.1E+04	5.1E+03	2.4E+04	7.5E+03	3.4E+04	-2.7E+04
Waste Material Parameters	TWBIR - 2004 Density (kg/m ³)		TWBIR Rev. 2 Density (kg/m ³)		Difference (kg/m ³) ²			
Iron Base Metal/Alloys	1.1E+02		1.5E+02		-4.0E+01			
Aluminum Base Metal/Alloys	5.3E+00		3.5E+00		1.8E+00			
Other Metal/Alloys	1.0E+02		2.1E+02		-1.1E+02			
Other Inorganic Material	2.4E+00		1.4E+01		-1.2E+01			
Cellulosic Material	1.1E+01		1.2E+01		-1.0E+00			
Rubber Material	1.6E+00		7.0E-01		9.0E-01			
Plastic Material	7.4E+00		7.9E+00		-5.0E-01			
Solidified Inorganic Material	7.7E+00		0.0E+00		7.7E+00			
Cement (Solidified)	0.0E+00		0.0E+00		0.0E+00			
Vitrified Material	0.0E+00		0.0E+00		0.0E+00			
Solidified Organic Material	6.4E-01		0.0E+00		6.4E-01			
Soil	8.7E-03		0.0E+00		8.7E-03			

¹ See pages 1 and 27 - 29 for discussion.

² Some numbers represented on this table have been rounded in the TWBIR Revision 2.1 (LANL 2005) database prior to reporting.

Table B.1-15. WIPP RH-TRU Waste Profile Differences Between TWBIR - 2004 and TWBIR Revision 2 — Combustible Material¹

Final Waste Form: Combustible Material

TRU Waste Site Volumes (m ³)							
Site	TWBIR – 2004 Stored	TWBIR Rev. 2 Stored	TWBIR – 2004 Projected	TWBIR Rev. 2 Projected	TWBIR – 2004 Total	TWBIR Rev. 2 Total	Total Diff. ²
Battelle Columbus Laboratories	1.7E+01	0.0E+00	8.9E-01	0.0E+00	1.8E+01	0.0E+00	1.8E+01
Hanford (Richland-RL)	8.9E-01	0.0E+00	0.0E+00	0.0E+00	8.9E-01	0.0E+00	8.9E-01
Idaho National Laboratory	0.0E+00	2.1E+01	0.0E+00	0.0E+00	0.0E+00	2.1E+01	-2.1E+01
Los Alamos National Laboratory	0.0E+00	1.5E+01	0.0E+00	4.9E+01	0.0E+00	6.4E+01	-6.4E+01
TRU Waste Site Total	1.8E+01	3.6E+01	8.9E-01	4.9E+01	1.9E+01	8.5E+01	-6.6E+01
Waste Material Parameters	TWBIR - 2004 Density (kg/m ³)		TWBIR Rev. 2 Density (kg/m ³)		Difference (kg/m ³) ²		
Iron Base Metal/Alloys	8.7E+00		1.9E+02		-1.8E+02		
Aluminum Base Metal/Alloys	7.6E+00		3.0E-01		7.3E+00		
Other Metal/Alloys	6.3E+00		1.7E+01		-1.1E+01		
Other Inorganic Material	9.2E+00		8.6E+00		6.0E-01		
Cellulosic Material	3.9E+01		4.9E+01		-1.0E+01		
Rubber Material	2.3E+01		6.4E+01		-4.1E+01		
Plastic Material	9.2E+01		7.0E+00		8.5E+01		
Solidified Inorganic Material	0.0E+00		0.0E+00		0.0E+00		
Cement (Solidified)	1.7E+01		0.0E+00		1.7E+01		
Vitrified Material	0.0E+00		0.0E+00		0.0E+00		
Solidified Organic Material	1.5E+00		0.0E+00		1.5E+00		
Soil	1.4E+00		0.0E+00		1.4E+00		

1 See pages 28 and 29 for discussion.

2 Some numbers represented on this table have been rounded in the TWBID Revision 2.1 (LANL 2005) database prior to reporting.

Table B.1-16. WIPP RH-TRU Waste Profile Differences Between TWBIR - 2004 and TWBIR Revision 2 — Filter Material¹

Final Waste Form: Filter Material

TRU Waste Site Volumes (m ³)							
Site	TWBIR - 2004 Stored	TWBIR Rev. 2 Stored	TWBIR - 2004 Projected	TWBIR Rev. 2 Projected	TWBIR - 2004 Total	TWBIR Rev. 2 Total	Total Diff. ²
Argonne National Laboratory - West	1.8E+00	0.0E+00	8.9E+00	0.0E+00	1.1E+01	0.0E+00	1.1E+01
Battelle Columbus Laboratories	5.3E+00	0.0E+00	0.0E+00	0.0E+00	5.3E+00	0.0E+00	5.3E+00
Hanford (Richland-RL)	1.8E+00	0.0E+00	0.0E+00	0.0E+00	1.8E+00	0.0E+00	1.8E+00
TRU Waste Site Total	8.9E+00	0.0E+00	8.9E+00	0.0E+00	1.8E+01	0.0E+00	1.8E+01
Waste Material Parameters	TWBIR - 2004 Density (kg/m ³)		TWBIR Rev. 2 Density (kg/m ³)		Difference (kg/m ³) ²		
Iron Base Metal/Alloys	3.3E+01		0.0E+00		3.3E+01		
Aluminum Base Metal/Alloys	1.7E+01		0.0E+00		1.7E+01		
Other Metal/Alloys	4.3E+01		0.0E+00		4.3E+01		
Other Inorganic Material	1.1E+02		0.0E+00		1.1E+02		
Cellulosic Material	7.3E+01		0.0E+00		7.3E+01		
Rubber Material	1.9E+01		0.0E+00		1.9E+01		
Plastic Material	6.3E+00		0.0E+00		6.3E+00		
Solidified Inorganic Material	0.0E+00		0.0E+00		0.0E+00		
Cement (Solidified)	7.7E+00		0.0E+00		7.7E+00		
Vitrified Material	0.0E+00		0.0E+00		0.0E+00		
Solidified Organic Material	1.2E+01		0.0E+00		1.2E+01		
Soil	0.0E+00		0.0E+00		0.0E+00		

1 See pages 28 and 29 for discussion.

2 Some numbers represented on this table have been rounded in the TWBID Revision 2.1 (LANL 2005) database prior to reporting.

Table B.1-17. WIPP RH-TRU Waste Profile Differences Between TWBIR - 2004 and TWBIR Revision 2 — Heterogeneous Debris¹

Final Waste Form:

Heterogeneous Debris

Site	TRU Waste Site Volumes (m ³)						
	TWBIR - 2004 Stored	TWBIR Rev. 2 Stored	TWBIR - 2004 Projected	TWBIR Rev. 2 Projected	TWBIR - 2004 Total	TWBIR Rev. 2 Total	Total Diff. ²
Argonne National Laboratory - East	1.5E+01	0.0E+00	1.0E+02	0.0E+00	1.2E+02	0.0E+00	1.2E+02
Argonne National Laboratory - West	6.2E+00	0.0E+00	3.6E+01	1.2E+03	4.3E+01	1.2E+03	-1.2E+03
Battelle Columbus Laboratories	0.0E+00	5.8E+02	0.0E+00	0.0E+00	0.0E+00	5.8E+02	-5.8E+02
Bettis Atomic Power Laboratory	2.0E+00	0.0E+00	0.0E+00	6.7E+00	2.0E+00	6.7E+00	-4.7E+00
Energy Technology Engineering Center	8.9E-01	0.0E+00	0.0E+00	0.0E+00	8.9E-01	0.0E+00	8.9E-01
Hanford (Richland-RL)	2.6E+02	2.0E+02	3.8E+02	4.1E+03	6.5E+02	4.3E+03	-3.7E+03
Idaho National Laboratory	2.0E+02	5.0E+01	0.0E+00	0.0E+00	2.0E+02	5.0E+01	1.5E+02
Knolls Atomic Power Laboratory - Schenectady	0.0E+00	0.0E+00	1.4E+02	0.0E+00	1.4E+02	0.0E+00	1.4E+02
Los Alamos National Laboratory	1.2E+02	1.2E+01	0.0E+00	0.0E+00	1.2E+02	1.2E+01	1.1E+02
Oak Ridge National Laboratory	0.0E+00	1.4E+03	2.7E+02	2.4E+02	2.7E+02	1.7E+03	-1.4E+03
Sandia National Laboratories - Albuquerque	4.6E+00	0.0E+00	0.0E+00	0.0E+00	4.6E+00	0.0E+00	4.6E+00
Savannah River Site	0.0E+00	0.0E+00	2.3E+01	0.0E+00	2.3E+01	0.0E+00	2.3E+01
TRU Waste Site Total	6.1E+02	2.3E+03	9.5E+02	5.5E+03	1.6E+03	7.8E+03	-6.3E+03

Waste Material Parameters	TWBIR - 2004 Density (kg/m ³)	TWBIR Rev. 2 Density (kg/m ³)	Difference (kg/m ³) ²
Iron Base Metal/Alloys	1.7E+02	1.8E+02	-1.0E+01
Aluminum Base Metal/Alloys	2.2E+01	2.4E+01	-2.0-1.5E+00
Other Metal/Alloys	4.5E+01	1.4E+01	3.1E+01
Other Inorganic Material	1.7E+01	1.9E+02	-1.7E+02
Cellulosic Material	4.2E+01	5.7E+01	-1.6E+01
Rubber Material	3.0E+01	1.0E+01	2.0E+01
Plastic Material	3.5E+01	4.9E+01	-1.5E+01
Solidified Inorganic Material	5.6E+00	9.0E+00	-3.4E+00
Cement (Solidified)	0.0E+00	0.0E+00	0.0E+00
Vitrified Material	0.0E+00	0.0E+00	0.0E+00
Solidified Organic Material	2.6E+00	2.9E+00	-3.1E-01
Soil	7.0E+01	3.5E+00	6.7E+01

¹ See pages 28 and 29 for discussion.

² Some numbers represented on this table have been rounded in the TWBIR Revision 2.1 (LANL 2005) database prior to reporting.

Table B.1-18. WIPP RH-TRU Waste Profile Differences Between TWBIR - 2004 and TWBIR Revision 2 — Inorganic Non-Metal¹

Final Waste Form: **Inorganic Non-Metal**

TRU Waste Site Volumes (m ³)							
Site	TWBIR – 2004 Stored	TWBIR Rev. 2 Stored	TWBIR – 2004 Projected	TWBIR Rev. 2 Projected	TWBIR - 2004 Total	TWBIR Rev. 2 Total	Total Diff. ²
Argonne National Laboratory - West	0.0E+00	0.0E+00	0.0E+00	2.1E+01	0.0E+00	2.1E+01	-2.1E+01
Battelle Columbus Laboratories	1.4E+01	0.0E+00	8.9E-01	0.0E+00	1.5E+01	0.0E+00	1.5E+01
Hanford (Richland-RL)	2.8E+01	0.0E+00	4.3E+01	0.0E+00	7.1E+01	0.0E+00	7.1E+01
Idaho National Laboratory	0.0E+00	4.6E+01	0.0E+00	0.0E+00	0.0E+00	4.6E+01	-4.6E+01
TRU Waste Site Total	4.3E+01	4.6E+01	4.4E+01	2.1E+01	8.6E+01	6.8E+01	1.9E+01
Waste Material Parameters	TWBIR - 2004 Density (kg/m ³)		TWBIR Rev. 2 Density (kg/m ³)		Difference (kg/m ³) ²		
Iron Base Metal/Alloys	1.6E+02		9.0E-01		1.6E+02		
Aluminum Base Metal/Alloys	2.1E+01		0.0E+00		2.1E+01		
Other Metal/Alloys	4.8E+01		1.0E-01		4.8E+01		
Other Inorganic Material	9.9E+02		5.6E+01		9.3E+02		
Cellulosic Material	3.9E+00		6.1E+00		-2.2E+00		
Rubber Material	1.8E+00		2.0E-01		1.6E+00		
Plastic Material	2.4E+01		3.8E+00		2.0E+01		
Solidified Inorganic Material	1.5E+01		4.0E-01		1.5E+01		
Cement (Solidified)	3.1E+00		0.0E+00		3.1E+00		
Vitrified Material	0.0E+00		1.9E+03		-1.9E+03		
Solidified Organic Material	2.8E-01		0.0E+00		2.8E-01		
Soil	7.1E+00		0.0E+00		7.1E+00		

¹ See pages 28 and 29 for discussion.

² Some numbers represented on this table have been rounded in the TWBIR Revision 2.1 (LANL 2005) database prior to reporting.

Table B.1-19. WIPP RH-TRU Waste Profile Differences Between TWBIR - 2004 and TWBIR Revision 2 — Lead/Cadmium Metal¹

Final Waste Form:

Lead/Cadmium Metal

TRU Waste Site Volumes (m ³)							
Site	TWBIR - 2004 Stored	TWBIR Rev. 2 Stored	TWBIR - 2004 Projected	TWBIR Rev. 2 Projected	TWBIR - 2004 Total	TWBIR Rev. 2 Total	Total Diff. ²
Argonne National Laboratory - West	0.0E+00	0.0E+00	0.0E+00	6.2E+00	0.0E+00	6.2E+00	-6.20E+00
Energy Technology Engineering Center	0.0E+00	8.9E-01	0.0E+00	0.0E+00	0.0E+00	8.9E-01	-8.90E-01
Hanford (Richland-RL)	1.2E+01	2.7E+00	7.1E+00	6.1E+01	1.9E+01	6.3E+01	-4.40E+01
Idaho National Laboratory	0.0E+00	3.6E+00	0.0E+00	0.0E+00	0.0E+00	3.6E+00	-3.60E+00
TRU Waste Site Total	1.2E+01	7.1E+00	7.1E+00	6.7E+01	1.9E+01	7.4E+01	-5.5E+01

Waste Material Parameters	TWBIR - 2004 Density (kg/m ³)	TWBIR Rev. 2 Density (kg/m ³)	Difference (kg/m ³) ²
Iron Base Metal/Alloys	5.4E+03	2.4E+01	5.4E+03
Aluminum Base Metal/Alloys	0.0E+00	2.1E+00	-2.1E+00
Other Metal/Alloys	7.4E+01	5.1E+02	-4.4E+02
Other Inorganic Material	0.0E+00	1.4E+00	-1.4E+00
Cellulosic Material	0.0E+00	5.0E-01	-5.0E-01
Rubber Material	0.0E+00	1.9E+00	-1.9E+00
Plastic Material	0.0E+00	2.8E+00	-2.8E+00
Solidified Inorganic Material	0.0E+00	0.0E+00	0.0E+00
Cement (Solidified)	0.0E+00	0.0E+00	0.0E+00
Vitrified Material	0.0E+00	0.0E+00	0.0E+00
Solidified Organic Material	0.0E+00	5.0E+00	-5.0E+00
Soil	0.0E+00	0.0E+00	0.0E+00

1 See pages 28 and 29 for discussion.

2 Some numbers represented on this table have been rounded in the TWBID Revision 2.1 (LANL 2005) database prior to reporting.

Table B.1-20. WIPP RH-TRU Waste Profile Differences Between TWBIR - 2004 and TWBIR Revision 2 — Soil¹

Final Waste Form: Soil

TRU Waste Site Volumes (m ³)							
Site	TWBIR - 2004 Stored	TWBIR Rev. 2 Stored	TWBIR - 2004 Projected	TWBIR Rev. 2 Projected	TWBIR - 2004 Total	TWBIR Rev. 2 Total	Total Diff. ²
Oak Ridge National Laboratory	0.0E+00	0.0E+00	2.0E+02	0.0E+00	2.0E+02	0.0E+00	2.0E+02
TRU Waste Site Total	0.0E+00	0.0E+00	2.0E+02	0.0E+00	2.0E+02	0.0E+00	2.0E+02
Waste Material Parameters	TWBIR - 2004 Density (kg/m ³)		TWBIR Rev. 2 Density (kg/m ³)		Difference (kg/m ³) ²		
Iron Base Metal/Alloys	0.0E+00		0.0E+00		0.0E+00		
Aluminum Base Metal/Alloys	0.0E+00		0.0E+00		0.0E+00		
Other Metal/Alloys	0.0E+00		0.0E+00		0.0E+00		
Other Inorganic Material	0.0E+00		0.0E+00		0.0E+00		
Cellulosic Material	0.0E+00		0.0E+00		0.0E+00		
Rubber Material	0.0E+00		0.0E+00		0.0E+00		
Plastic Material	0.0E+00		0.0E+00		0.0E+00		
Solidified Inorganic Material	0.0E+00		0.0E+00		0.0E+00		
Cement (Solidified)	0.0E+00		0.0E+00		0.0E+00		
Vitrified Material	0.0E+00		0.0E+00		0.0E+00		
Solidified Organic Material	0.0E+00		0.0E+00		0.0E+00		
Soil	1.3E+03		0.0E+00		1.3E+03		

1 See pages 28 and 29 for discussion.

2 Some numbers represented on this table have been rounded in the TWBIR Revision 2.1 (LANL 2005) database prior to reporting.

Table B.1-21. WIPP RH-TRU Waste Profile Differences Between TWBIR - 2004 and TWBIR Revision 2 — Solidified Inorganic Material¹

Final Waste Form: **Solidified Inorganic Material**

TRU Waste Site Volumes (m ³)							
Site	TWBIR – 2004 Stored	TWBIR Rev. 2 Stored	TWBIR – 2004 Projected	TWBIR Rev. 2 Projected	TWBIR – 2004 Total	TWBIR Rev. 2 Total	Total Diff. ²
Argonne National Laboratory - West	1.6E+01	1.8E+00	2.3E+01	2.8E+01	3.9E+01	3.0E+01	9.0E+00
Battelle Columbus Laboratories	1.8E+00	0.0E+00	0.0E+00	0.0E+00	1.8E+00	0.0E+00	1.8E+00
Hanford (Richland-RL)	1.5E+01	0.0E+00	1.2E+02	0.0E+00	1.3E+02	0.0E+00	1.3E+02
Hanford (River Protection-RP)	4.5E+03	0.0E+00	0.0E+00	0.0E+00	4.5E+03	0.0E+00	4.5E+03
Idaho National Laboratory	8.9E-01	6.5E+01	0.0E+00	0.0E+00	8.9E-01	6.5E+01	-6.4E+01
Oak Ridge National Laboratory	0.0E+00	1.0E+03	1.9E+02	2.1E+02	1.9E+02	1.2E+03	-1.0E+03
TRU Waste Site Total	4.5E+03	1.1E+03	3.3E+02	2.4E+02	4.8E+03	1.3E+03	3.6E+03
Waste Material Parameters	TWBIR - 2004 Density (kg/m ³)		TWBIR Rev. 2 Density (kg/m ³)		Difference (kg/m ³) ²		
Iron Base Metal/Alloys	6.8E+00		3.8E+00		3.0E+00		
Aluminum Base Metal/Alloys	0.0E+00		0.0E+00		0.0E+00		
Other Metal/Alloys	3.4E-02		1.0E-01		-6.6E-02		
Other Inorganic Material	6.9E-01		2.7E+00		-2.0E+00		
Cellulosic Material	3.5E-03		0.0E+00		3.5E-03		
Rubber Material	0.0E+00		0.0E+00		0.0E+00		
Plastic Material	1.6E-02		3.0E-01		-2.8E-01		
Solidified Inorganic Material	9.2E+01		3.9E+02		-3.0E+02		
Cement (Solidified)	2.4E+00		3.9E+02		-3.9E+02		
Vitrified Material	1.8E-01		7.0E-01		-5.2E-01		
Solidified Organic Material	3.1E-02		0.0E+00		3.1E-02		
Soil	4.1E-03		0.0E+00		4.1E-03		

¹ See pages 28 and 29 for discussion.

² Some numbers represented on this table have been rounded in the TWBIR Revision 2.1 (LANL 2005) database prior to reporting.

Table B.1-22. WIPP RH-TRU Waste Profile Differences Between TWBIR - 2004 and TWBIR Revision 2 — Solidified Organic Material¹

Final Waste Form: **Solidified Organic Material**

TRU Waste Site Volumes (m ³)							
Site	TWBIR - 2004 Stored	TWBIR Rev. 2 Stored	TWBIR - 2004 Projected	TWBIR Rev. 2 Projected	TWBIR - 2004 Total	TWBIR Rev. 2 Total	Total Diff. ²
Battelle Columbus Laboratories	5.3E+00	0.0E+00	0.0E+00	0.0E+00	5.3E+00	0.0E+00	5.3E+00
Energy Technology Engineering Center	4.1E+00	0.0E+00	0.0E+00	0.0E+00	4.1E+00	0.0E+00	4.1E+00
Idaho National Laboratory	0.0E+00	3.6E+00	0.0E+00	0.0E+00	0.0E+00	3.6E+00	-3.6E+00
TRU Waste Site Total	9.5E+00	3.6E+00	0.0E+00	0.0E+00	9.5E+00	3.6E+00	5.8E+00

Waste Material Parameters	TWBIR - 2004 Density (kg/m ³)	TWBIR Rev. 2 Density (kg/m ³)	Difference (kg/m ³) ²
Iron Base Metal/Alloys	4.9E+01	3.0E-01	4.9E+01
Aluminum Base Metal/Alloys	0.0E+00	0.0E+00	0.0E+00
Other Metal/Alloys	0.0E+00	0.0E+00	0.0E+00
Other Inorganic Material	1.2E+01	1.2E+02	-1.1E+02
Cellulosic Material	2.0E+01	3.0E-01	2.0E+01
Rubber Material	4.2E+00	0.0E+00	4.2E+00
Plastic Material	2.0E+01	6.7E+00	1.3E+01
Solidified Inorganic Material	0.0E+00	2.1E+01	-2.1E+01
Cement (Solidified)	1.4E+02	1.3E+02	1.0E+01
Vitrified Material	0.0E+00	0.0E+00	0.0E+00
Solidified Organic Material	1.7E+02	6.1E+02	-4.4E+02
Soil	0.0E+00	2.0E-01	-2.0E-01

1 See pages 28 and 29 for discussion.

2 Some numbers represented on this table have been rounded in the TWBIR Revision 2.1 (LANL 2005) database prior to reporting.

Table B.1-23. WIPP RH-TRU Waste Profile Differences Between TWBIR - 2004 and TWBIR Revision 2 — Uncategorized Metal¹

Final Waste Form: **Uncategorized Metal**

TRU Waste Site Volumes (m ³)							
Site	TWBIR - 2004 Stored	TWBIR Rev. 2 Stored	TWBIR - 2004 Projected	TWBIR Rev. 2 Projected	TWBIR - 2004 Total	TWBIR Rev. 2 Total	Total Diff. ²
Argonne National Laboratory - West	0.0E+00	1.8E+01	0.0E+00	0.0E+00	0.0E+00	1.8E+01	-1.8E+01
Battelle Columbus Laboratories	8.9E-01	0.0E+00	0.0E+00	0.0E+00	8.9E-01	0.0E+00	8.9E-01
Hanford (Richland-RL)	6.1E+01	0.0E+00	5.4E+02	1.7E+04	6.0E+02	1.7E+04	-1.6E+04
Idaho National Laboratory	2.2E+01	3.1E+01	0.0E+00	0.0E+00	2.2E+01	3.1E+01	-9.0E+00
Los Alamos National Laboratory	0.0E+00	6.8E+01	0.0E+00	5.0E+01	0.0E+00	1.2E+02	-1.2E+02
TRU Waste Site Total	8.4E+01	1.2E+02	5.4E+02	1.7E+04	6.2E+02	1.8E+04	-1.7E+04
Waste Material Parameters	TWBIR - 2004 Density (kg/m ³)		TWBIR Rev. 2 Density (kg/m ³)		Difference (kg/m ³) ²		
Iron Base Metal/Alloys	3.6E+01		7.5E+01		-3.9E+01		
Aluminum Base Metal/Alloys	4.5E-03		4.0E-01		-4.0E-01		
Other Metal/Alloys	5.6E+02		3.8E+02		1.8E+02		
Other Inorganic Material	4.3E-01		1.5E+01		-1.5E+01		
Cellulosic Material	7.4E-01		8.0E-01		-6.0E-02		
Rubber Material	5.1E-01		0.0E+00		5.1E-01		
Plastic Material	7.8E-01		5.0E-01		2.8E-01		
Solidified Inorganic Material	3.1E-02		0.0E+00		3.1E-02		
Cement (Solidified)	0.0E+00		0.0E+00		0.0E+00		
Vitrified Material	0.0E+00		0.0E+00		0.0E+00		
Solidified Organic Material	0.0E+00		0.0E+00		0.0E+00		
Soil	6.1E-01		0.0E+00		6.1E-01		

1 See pages 28 and 29 for discussion.

2 Some numbers represented on this table have been rounded in the TWBIR Revision 2.1 (LANL 2005) database prior to reporting.

The increased volume ($1.4\text{E}+04\text{ m}^3$) of heterogeneous debris from INL was due to the anticipated start-up of the Advanced Mixed Waste Treatment Facility (AMWTF) and the inclusion of INL pre-1970 waste streams. For the AMWTF, INL combined many waste streams into one new waste stream called IN-BN-510. The final waste form of this waste stream is heterogeneous debris. At the time of the PABC, it was assumed this waste stream would be compacted so that an average of four 55-gallon drums will fit into one 100-gallon drum. A large volume ($6.9\text{E}+03\text{ m}^3$) of heterogeneous debris waste from SRS originates from the “FB” and “HB” process lines (CCP 2003a, 2003b, 2003c, and 2003d). The LANL waste streams that contribute to the increased heterogeneous debris waste volume ($3.5\text{E}+03\text{ m}^3$) originate primarily from waste generated during facility and equipment operations and maintenance. RFETS added heterogeneous debris waste ($2.2\text{E}+03\text{ m}^3$) consisting of construction rubble, blacktop, concrete, dirt, and sand due primarily to decontamination and decommissioning operations. The remaining sites listed in Table B.1-7 with positive overall changes contributed additional volumes of less than $5.0\text{E}+02\text{ m}^3$ each. The emplaced volume for heterogeneous debris was $5.7\text{E}+02\text{ m}^3$ as of the inventory date. The sites that subtracted significant heterogeneous debris volumes are Hanford RL, with a decrease of $4.0\text{E}+03\text{ m}^3$, and Oak Ridge National Laboratory (ORNL), with a decrease of $1.1\text{E}+03\text{ m}^3$.

The overall increase in volume for solidified inorganic material is $3.4\text{E}+04\text{ m}^3$. Some sites added volume and some removed volume (see Table B.1-12). The sites that added solidified inorganic material volume are INL ($3.4\text{E}+04\text{ m}^3$) and Hanford RP ($3.9\text{E}+03\text{ m}^3$). The increased volume of solidified inorganic material from INL is due primarily to solidified sludges from treatment plants and other processes, such as ion exchange and the addition of the pre-1970 waste streams. The increased volume of solidified inorganic material from Hanford RP is due to the inclusion of tank sludges to the inventory. The sites that removed significant solidified inorganics volume are LANL ($2.2\text{E}+03\text{ m}^3$) and SRS ($1.4\text{E}+03\text{ m}^3$). The emplaced volume for this solidified inorganic material was $3.3\text{E}+03\text{ m}^3$ as of the inventory date, September 30, 2002.

The overall increase in volume for solidified organic material is $4.3\text{E}+03\text{ m}^3$. INL added significant solidified organic material volume, with $3.9\text{E}+03\text{ m}^3$ (see Table B.1-13). This increased volume is primarily due to the inclusion of the pre-1970 waste streams. There was no emplaced volume for solidified organic material as of the inventory date, September 30, 2002.

The overall increase in volume for inorganic non-metal is $7.7\text{E}+03\text{ m}^3$. The site that added significant inorganic non-metal volume is INL, with $8.0\text{E}+03\text{ m}^3$ (see Table B.1-8). The emplaced volume for inorganic non-metal was $9.7\text{E}+02\text{ m}^3$ as of the inventory date, September 30, 2002.

The overall increase in volume for filter material is $1.3\text{E}+03\text{ m}^3$. The site adding significant filter material volume is LLNL, with $5.9\text{E}+02\text{ m}^3$ (see Table B.1-5). The emplaced volume for filter material was $3.4\text{E}+02\text{ m}^3$ as of the inventory date, September 30, 2002.

The overall decrease in volume for salt waste is $1.4\text{E}+01\text{ m}^3$. RFETS removed significant salt waste volume, with $3.1\text{E}+02\text{ m}^3$ (see Table B.1-10) from the site. The emplaced volume for salt waste was $1.5\text{E}+03\text{ m}^3$ as of the inventory date, September 30, 2002.

The overall decrease in volume for uncategorized metal is $2.7\text{E}+04 \text{ m}^3$. The sites that removed significant uncategorized metal volume were Hanford RL with $1.6\text{E}+04 \text{ m}^3$, LANL with $5.6\text{E}+03 \text{ m}^3$, and INL with $5.9\text{E}+03 \text{ m}^3$ (see Table B.1-14). The emplaced volume for uncategorized metal was $3.6\text{E}+02 \text{ m}^3$ as of the inventory date, September 30, 2002.

The overall decrease in volume for combustible material is $4.2\text{E}+03 \text{ m}^3$. The sites that removed significant volume were Hanford RL with $1.6\text{E}+03 \text{ m}^3$, and INL with $3.3\text{E}+03 \text{ m}^3$ (see Table B.1-4). The emplaced volume for combustible material was $6.1\text{E}+02 \text{ m}^3$ as of the inventory date, September 30, 2002.

B-1.5 Analysis of RH-TRU Waste Volume Differences by Site

Table B.1-2 compares the stored, projected, and anticipated RH-TRU waste volumes between the TWBIR - 2004 and TWBIR Revision 2 (DOE 1995) inventories by site and gives the total RH-TRU waste volumes.

The total difference in stored RH-TRU waste at the sites is $1.7\text{E}+03 \text{ m}^3$, or about a 47 percent increase from the TWBIR Revision 2 (DOE 1995) inventory. The bulk of this additional stored volume came from Hanford RP ($4.5\text{E}+03 \text{ m}^3$), Knolls Atomic Power Laboratory (KAPL) ($1.4\text{E}+02 \text{ m}^3$), and Argonne National Laboratory-East (ANL-E) ($1.2\text{E}+02 \text{ m}^3$). As with CH-TRU waste, the sites adjusted their existing inventory data for RH-TRU waste volumes based on new information [since the TWBIR Revision 2 (DOE 1995) inventory] about the waste and/or increased accessibility to the waste. The Hanford RP waste was recently added to the inventory. Argonne National Laboratory - East, (ANL-E), BAPL, and Sandia National Laboratories (SNL) have added small volumes of stored RH-TRU waste to the inventory that were not previously reported. ORNL transferred all RH-TRU waste stored volume to projected waste volume because they plan to process the waste using segregation, compaction, size reduction, and evaporative drying for sludge (see Appendix C).

The total projected RH-TRU waste volume has decreased by $2.2\text{E}+04 \text{ m}^3$, or about a 92 percent decrease from the TWBIR Revision 2 (DOE 1995) inventory. The largest decrease in projected RH-TRU waste volume is $2.1\text{E}+04 \text{ m}^3$ reported by Hanford RL. This change is based on the site gaining better knowledge of the waste streams and thus managing the waste differently.

The anticipated RH-TRU waste is simply the sum of the stored and projected wastes. It follows that the overall change is a decrease of $2.0\text{E}+04 \text{ m}^3$, or a 74 percent decrease for the anticipated volumes. There was no emplaced waste volume as of the inventory date, September 30, 2002.

B-1.6 RH-TRU Waste Volumes by Final Waste Form by Site

Five of the nine RH-TRU waste final waste form total volumes increased (filter material, inorganic non-metal, soil, solidified inorganic material, and solidified organic material). Of these, the solidified inorganic material volume had the largest increase of $3.6\text{E}+03 \text{ m}^3$. The filter material, soil, and solidified organic material increased by $2.0\text{E}+02 \text{ m}^3$ or less.

Four of the nine RH-TRU final waste form total volumes decreased (heterogeneous debris, combustible material, lead/cadmium metal, and uncategorized metal). These decreases ranged

from $6.6\text{E}+01 \text{ m}^3$ or less for combustible material and lead/cadmium metal to $1.7\text{E}+04 \text{ m}^3$ for uncategorized metal.

The overall increase in volume for RH-TRU waste solidified inorganic material is $3.6\text{E}+03 \text{ m}^3$. Some sites added volume and some removed volume (see Table B.1-21). The sites that added significant volume were Hanford RP ($4.5\text{E}+03 \text{ m}^3$) and Hanford RL ($1.3\text{E}+02 \text{ m}^3$). The site that decreased significantly in volume was ORNL ($1.0\text{E}+03 \text{ m}^3$).

The overall decrease in volume for RH-TRU waste uncategorized metal is $1.7\text{E}+04 \text{ m}^3$. The site that removed significant uncategorized metal volume is Hanford RL with $1.6\text{E}+04 \text{ m}^3$ (see Table B.1-23). The decreased volume from Hanford RL is primarily due to reassignment of the waste to more appropriate final waste forms based on new characterization information.

B-2.0 WASTE MATERIAL PARAMETERS AND CONTAINER MATERIALS ESTIMATES

Tables B.1-24 and B.1-25 compare WMP densities for the WIPP roll-ups from the TWBIR Revision 2 (DOE 1995) with the TWBIR - 2004 WMP densities from TWBID Revision 2.1 (LANL 2005) for CH-TRU and RH-TRU waste, respectively. These tables also show, in the last column, the difference between TWBIR Revision 2 WMP densities from the TWBIR - 2004 WMP densities. These tables, unlike Tables B.1-4 through B.1-23, contain the rolled-up values for the container (also referred to as packaging) materials. One of the container materials given in Table B.1-25 is "Steel Plug." "N/A," indicating "not applicable," has been entered for the TWBIR - 2004 container material value and the difference value. The steel plugs are added by WIPP Waste Handling Operations (WHO) at the WIPP facility and are addressed in Section 3.5 of the report.

A detailed comparison of the TWBIR - 2004 and TWBIR Revision 2 (DOE 1995) volume estimates is provided in Section B-1.0. However, because volume is a factor in the comparison of TWBIR - 2004 and TWBIR Revision 2 (DOE 1995) WMP densities, it is also considered here.

The TWBIR - 2004 and TWBIR Revision 2 (DOE 1995) information in Tables B.1-4 through B.1-25 was analyzed for differences in volume and WMP densities, as applicable. The volume estimates for each final waste form for CH-TRU waste (Table B.1-4 through Table B.1-14) and the volume estimates for each final waste form for RH-TRU waste (from Table B.1-15 through Table B.1-23) are discussed in Section B.1.0. The WMP estimates for each final waste form and for the WIPP roll-up (Table B.1-24 and Table B.1-25) are discussed here. Finally, the differences in the waste container material densities are addressed.

The iron-based metal/alloys, cellulosic, rubber, and plastic (CPR) materials, and cement (solidified) WMPs impact gas generation within the WIPP. The EPA Compliance Certification Decision (EPA 1998) therefore sets limits for these WMPs. The collective limit for CPR materials in the WIPP is dependent upon emplaced inventory. The limits are discussed in CRA-2004 (DOE 2004), Chapter 4, Table 4-11. Because of the maximum limit on the CPR materials, particular attention is paid to the increases in these WMPs. The total CPR materials density for

the TWBIR Revision 2 (DOE 1995) inventory was 98 kg/m^3 (see Table B.1-24) and the TWBIR - 2004 total is 116 kg/m^3 (see Table B.1-24). It is therefore important to understand the basis of these increases. These are discussed in Section B.2.1 for CH-TRU waste and in Section B.2.2 for RH-TRU waste.

The repository limit for the ferrous metals is $2.0\text{E}+07$ (20 million) kg, and $2.0\text{E}+03$ (2 thousand) kg for nonferrous metals. According to the Contact Handled Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (DOE 2004), these minimum limits are met in the total repository inventory by the metals that constitute the payload containers. Container materials are discussed in Sections B.2.3 and B.2.4.

B-2.1 Analysis of CH-TRU Waste Material Parameter Differences

Analysis of the twelve WMPs in the TWBIR Revision 2 (DOE 1995) and TWBIR - 2004 for CH-TRU waste shows that seven of the WMP densities increased, and five of them decreased in density (see Table B.1-24). Decreases were noted in iron-based metal/alloys, aluminum-based metal/alloys, other metal/alloys, cement (solidified), and vitrified material. The densities of the other inorganic materials, CPR materials, solidified inorganic material, soils, and solidified organic material all increased.

Of particular interest are the increases in the densities of CPR materials of 6.0 kg/m^3 for cellulosic material, 9.0 kg/m^3 for plastic material, and 3.0 kg/m^3 for rubber material. An analysis of the CPR materials for CH TRU waste in the roll-ups by final waste form (Tables B.1-4 through B.1-14) show that there are increases in the densities of CPR materials for soil (15 kg/m^3 cellulose), solidified organics (110 kg/m^3 plastic) and heterogeneous debris (34 , 13 , and 11 kg/m^3 , cellulose, plastic and rubber, respectively). In addition, the density of plastic material increased by 10.0 kg/m^3 for filter material. Finally, the density of cellulosic material increased by 81 kg/m^3 and the density of plastic material increased by 17 kg/m^3 for graphite. There are other increases in the densities of the CPR materials, but these increases are all less than 10 kg/m^3 , and will not be specifically addressed here.

Heterogeneous debris had the largest increases in the CPR materials densities. The primary cause of these increases is the combined waste stream at the INL, IN-BN-510, Supercompacted Debris Waste. The densities for the CPR materials WMPs are 303 , 205 , and 80 kg/m^3 , respectively, for this waste stream (LANL 2005). The densities of CPR materials are high because of the nature of the treatment of this waste stream, and because INL combined approximately 200 heterogeneous debris waste streams to produce this single waste stream (see the waste stream crosswalk in Appendix C). The INL is treating the waste at the AMWTF and has the capability of supercompacting 55-gallon drums containing CH-TRU waste. The compacted drums are then placed in one 100-gallon drum for shipment to the WIPP.

Solidified organic and graphite final waste forms had the next largest increases in cellulosic and plastic material densities. The largest contributors to solidified organic disposition are INL and RFETS. The only contributions to graphite came from RFETS in the TWBIR - 2004.

Table B.1-24. Differences in Waste Material Parameter Densities (kg/m³) for CH-TRU Waste Between TWBIR - 2004 and TWBIR Revision 2¹

Waste Material Parameters	TWBIR - 2004 (kg/m ³)	TWBIR Rev. 2 (kg/m ³)	Difference (kg/m ³) ²
Iron-Based Metal/Alloys	1.1E+02	1.7E+02	-6.0E+01
Aluminum-Based Metal/Alloys	1.4E+01	1.8E+01	-4.0E+00
Other Metal/Alloys	3.2E+01	6.7E+01	-3.5E+01
Other Inorganic Material	4.0E+01	3.1E+01	9.0E+00
Cellulosic Material	6.0E+01	5.4E+01	6.0E+00
Rubber Material	1.3E+01	1.0E+01	3.0E+00
Plastic Material	4.3E+01	3.4E+01	9.0E+00
Solidified Inorganic Material	1.1E+02	5.4E+01	5.6E+01
Cement (Solidified)	3.9E+01	5.0E+01	-1.1E+01
Vitrified	5.8E+00	5.5E+01	-4.9E+01
Solidified Organic Material	3.3E+01	5.6E+00	2.7E+01
Soil	1.1E+02	4.4E+01	6.6E+01
Container Materials			
Steel	1.7E+02	1.4E+02	2.9E+01
Plastic	1.7E+01	2.6E+01	-9.0E+00
Lead	1.3E-02	N/A	N/A

¹ See pages 29 and 30 for discussion.

² Some numbers represented on this table have been rounded in the TWBID Revision 2.1 (LANL 2005) database prior to reporting.

B-2.2 Analysis of RH-TRU Waste Material Parameter Differences

Analysis of the 12 WMPs in the TWBIR Revision 2 (DOE 1995) and TWBIR - 2004 RH-TRU waste show that 9 of 12 WMPs decreased in density (see Table B.1-25). Decreases were noted in the iron-based metal/alloys, aluminum-based metal/alloys, other metal/alloys, other inorganic materials, cellulosic and plastic materials, cement (solidified), vitrified, and solidified organic material. The densities of the rubber material, solidified inorganic material, and soil increased.

Although the densities of RH-TRU waste cellulosic and plastic materials decreased overall (Table B.1-25), an analysis of the CPR materials in the roll-ups by final waste form (Tables B.1-15 through B.1-23) show that there are increases in the densities of cellulosic and plastic materials in some of the final waste forms. The densities of cellulosic material increased in the filter material and solidified organic material (by 73 and 20 kg/m³, respectively). There is an increase in the rubber material for filter material (19 kg/m³).

Table B.1-25. Difference on Waste Material Parameter Densities (kg/m³) for RH-TRU Waste Between TWBIR - 2004 and TWBIR Revision 2¹

Waste Material Parameters	TWBIR - 2004 (kg/m ³)	TWBIR Rev. 2 (kg/m ³)	Difference (kg/m ³) ²
Iron-Base Metal/Alloys	5.9E+01	1.0E+02	-4.1E+01
Aluminum-Based Metal/Alloys	5.0E+00	7.1E+00	-2.1E+00
Other Metal/Alloys	5.7E+01	2.5E+02	-1.9E+02
Other Inorganic Material	1.6E+01	6.4E+01	-4.8E+01
Cellulosic Material	9.3E+00	1.7E+01	-7.7E+00
Rubber Material	6.7E+00	3.3E+00	3.4E+00
Plastic Material	8.0E+00	1.5E+01	-7.0E+00
Solidified Inorganic Material	6.2E+01	2.2E+01	4.0E+01
Cement (Solidified)	1.9E+00	1.9E+01	-1.7E+01
Vitrified	1.2E-01	4.7E+00	-4.6E+00
Solidified Organic Material	8.3E-01	9.3E-01	-1.0E+01
Soil	5.0E+01	1.0E+00	4.9E+01
Container Materials			
Steel	5.4E+02	4.5E+02	9.0E+01
Plastic	3.1E+00	3.1E+00	-4.8E-02
Lead	4.2E+02	4.7E+02	-5.0E+01
Steel Plug	N/A	2.1E+03	N/A

¹ See pages 31 and 32 for discussion.

² Some numbers represented on this table have been rounded in the TWBID Revision 2.1 (LANL 2005) database prior to reporting.

Finally, the density of plastic increased in the combustible material, inorganic non-metal, and solidified organic material (by 85, 20, and 13 kg/m³, respectively). The remaining increases in the densities of the CPR materials are less than 10 kg/m³ each.

B-2.3 Analysis of CH-TRU Waste Container Materials

The container materials for CH-TRU waste are steel, plastic, and lead. Table B.1-24 indicates that the density of steel increased from 140 kg/m³ to 170 kg/m³, and the density of plastic decreased from 26 kg/m³ to 17 kg/m³.

Two significant changes in the inventory contributed to the increase in the density of steel container materials. First, a review of the TWBIR Revision 2 database (DOE 1995) reveals that the sites did not intend to use pipe over-pack components (POCs) at that time, and hence none were reported in the database. The supporting database for the TWBIR - 2004, the TWBID Revision 2.1 (LANL 2005), indicates that LANL, RFETS, and Hanford RL will use the POCs. In fact, RFETS has shipped waste from seven waste streams using POCs, and these are now emplaced in the WIPP. The difference in the density of steel between the 55-gallon drum (131 kg/m³ [see Table 27 of the main body of this report]) and the RH-TRU waste container POCs (525 kg/m³, as reported by RFETS) is approximately 394 kg/m³. There are currently 56 waste streams for which the sites have indicated POCs will be used. These are shown below in Table

B.1-26, along with seven waste streams that were emplaced in the WIPP as of the inventory date, September 30, 2002.

Second, the INL super-compacted debris waste stream (IN-BN-510) will have an average of four compacted 55-gallon drums in each 100-gallon drum. The steel comprising the 55-gallon drums falls into the iron-based metal/alloys WMP and the steel comprising the 100-gallon drums is steel container material for this waste stream. The typical value for a 55-gallon drum is 131 kg/m³, and the typical value for a 100-gallon drum is 114 kg/m³, as provided in Section 3.2.2 (see Table 27 of the main body of this report). The container/packaging materials for this waste stream are discussed in Appendix D, Section 3.3.1.

B-2.4 Analysis of RH-TRU Waste Container Materials

The RH-TRU waste container materials are steel, plastic, lead, and steel plug. The steel waste container material increased by 90 kg/m³. The plastic and lead waste container materials decreased (by approximately less than 1 and 50 kg/m³, respectively). The steel plug is actually supplied by the Waste Handling Operations group at the WIPP and is not reported by the sites in the current inventory, as it is not part of the shipped package. The density for the steel plug was, however, reported in the TWBIR Revision 2 (DOE 1995) inventory.

Table B.1-26. Waste Streams Shipped and to be Shipped in POCs to the WIPP

Site	Waste Stream	Site	Waste Stream	Site	Waste Stream
LANL	LA-OS-00-01	RFETS	RF-MT0532E	RFETS	RF-TT391P
RFETS	RF-MT0090	RFETS	RF-MT0532F	RFETS	RF-TT391P
RFETS	RF-MT0091	RFETS	RF-MT0541	RFETS	RF-TT392P
RFETS	RF-MT0092	RFETS	RF-MT0H61	RFETS	RF-TT393R
RFETS	RF-MT0093	RFETS	RF-MT3011	RFETS	RF-TT394P
RFETS	RF-MT0097	RFETS	RF-MT420P	RFETS	RF-TT395P
RFETS	RF-MT0290	RFETS	RF-MT532A	RFETS	RF-TT398P
RFETS	RF-MT-0292	RFETS	RF-MT532B	RFETS	RF-TT398R
RFETS	RF-MT0299	RFETS	RF-MT532C	RFETS	RF-TT411R
RFETS	RF-MT0320	RFETS	RF-MT532D	RFETS	RF-TT429R
RFETS	RF-MT0371	RFETS	RF-TT0300	RFETS	RF-TT433x
RFETS	RF-MT0373	RFETS	RF-TT0310	RFETS	RF-TT436R
RFETS	RF-MT0377	RFETS	RF-TT0312	RFETS	RF-TT454x
RFETS	RF-MT0419	RFETS	RF-TT0340	Hanford RL	RL-W756
RFETS	RF-MT0423	RFETS	RF-TT0368	WIPP	WP-RF003.01
RFETS	RF-MT0444	RFETS	RF-TT0370	WIPP	WP-RF005.01
RFETS	RF-MT0523A	RFETS	RF-TT0440	WIPP	WP-RF005.02
RFETS	RF-MT0523B	RFETS	RF-TT0442	WIPP	WP-RF006.01
RFETS	RF-MT0523C	RFETS	RF-TT0601	WIPP	WP-RF008.01
RFETS	RF-MT0523D	RFETS	RF-TT310P	WIPP	WP-RF009.01
RFETS	RF-MT0523E	RFETS	RF-TT390P	WIPP	WP-RF118.01

B-3.0 RADIONUCLIDE ESTIMATES

A comparison of Table 3-1 from TWBIR Revision 3 (DOE 1996) (*WIPP Disposal Radionuclide Inventory for the CCA*) to the data reported in Section 3.3.3, Table 37 of the main body of this report (*WIPP Disposal Radionuclide Inventory for the CRA*) is contained in Table B.1-27 for CH-TRU waste and Table B.1-28 for RH-TRU waste. The radionuclide values from TWBIR Revision 3 were decayed through 1995 as the base year and have not been further decayed, but are reported as they were in Revision 3. The values for short-lived radionuclides would have decreased over the six-year interval if no change in the inventory occurred since the CCA. The values from TWBID Revision 2.1 (LANL 2005) are decayed through 2001 (December 31, 2001) as the base year. A review of the results for CH-TRU waste indicates that the overall activity for all radionuclides has decreased by nearly 25 percent. Four of the radionuclides with the five highest activity concentrations decreased in activity between 15 and 55 percent, while ^{241}Am increased in activity by 9.1 percent. The results for RH-TRU waste are not as consistent, with substantial variations in individual radionuclide activity, and an overall increase in activity of about 60 percent. Based on total curies, the five most abundant CH-TRU waste isotopes in the TWBIR Revision 3, ^{241}Am , ^{238}Pu , ^{239}Pu , ^{240}Pu , and ^{241}Pu , are the most abundant in the TWBIR - 2004 (see bottom of Table B.1-27). For RH-TRU waste, the five most abundant isotopes in the TWBIR Revision 3, $^{137\text{m}}\text{Ba}$, ^{137}Cs , ^{241}Pu , ^{90}Sr , and ^{90}Y , are still the most abundant in the TWBIR - 2004 report (see bottom of Table B.1-28).

Table B.1-27. WIPP Disposal Radionuclide Inventory Comparison, 1995 to 2001, CH TRU Waste

Radionuclide	CH-TRU Waste Curies, Decayed through 2001	CH-TRU Waste Curies, Decayed through 1995	Delta (Ci)	Percent Change
²²⁵ Ac	1.4E+00	2.9E+00	-1.5E+00	-5.3E+01
²²⁷ Ac	3.6E-01	6.1E-01	-2.5E-01	-4.0E+01
²²⁸ Ac	1.8E+00	7.5E-01	1.0E+00	1.4E+02
^{109m} Ag	1.3E-04	1.6E+01	-1.6E+01	-1.0E+02
¹¹⁰ Ag	3.1E-11	7.1E-09	-7.0E-09	-1.0E+02
^{110m} Ag	2.4E-09	5.3E-07	-5.3E-07	-1.0E+02
²⁴¹ Am ¹	4.8E+05	4.4E+05	4.0E+04	9.1E+00
²⁴² Am	4.7E-02	1.8E+00	-1.7E+00	-9.7E+01
^{242m} Am	4.8E-02	1.8E+00	-1.7E+00	-9.7E+01
²⁴³ Am	7.8E+01	3.3E+01	4.5E+01	1.4E+02
²⁴⁵ Am	9.4E-11	1.3E-09	-1.2E-09	-9.3E+01
²¹⁷ At	1.4E+00	2.9E+00	-1.5E+00	-5.3E+01
^{137m} Ba	6.9E+03	7.6E+03	-7.0E+02	-9.2E+00
²¹⁰ Bi	1.9E+00	2.6E+00	-7.0E-01	-2.7E+01
²¹¹ Bi	3.6E-01	6.1E-01	-2.5E-01	-4.1E+01
²¹² Bi	2.8E+00	2.7E+01	-2.4E+01	-9.0E+01
²¹³ Bi	1.4E+00	2.9E+00	-1.5E+00	-5.3E+01
²¹⁴ Bi	4.6E+00	1.2E+01	-7.4E+00	-6.1E+01
²⁴⁹ Bk	6.5E-06	9.2E-05	-8.5E-05	-9.3E+01
²⁵⁰ Bk	2.6E-12	4.4E-11	-4.1E-11	-9.4E+01
¹⁴ C	1.2E+00	1.1E+01	-9.8E+00	-8.9E+01
¹⁰⁹ Cd	1.3E-04	1.6E+01	-1.6E+01	-1.0E+02
^{113m} Cd	NR*	1.8E-06	0.0E+00	0.0E+00
¹⁴¹ Ce	NR*	NR*	0.0E+00	0.0E+00
¹⁴⁴ Ce	3.6E-04	6.3E-02	-6.2E-02	-9.9E+01
²⁴⁹ Cf	5.8E-02	6.4E-02	-6.0E-03	-9.4E+00
²⁵⁰ Cf	1.7E-01	3.3E-01	-1.6E-01	-4.8E+01
²⁵¹ Cf	2.6E-04	3.8E-03	-3.5E-03	-9.3E+01
²⁵² Cf	1.7E-01	2.4E+00	-2.3E+00	-9.3E+01
²⁴² Cm	3.9E-02	1.1E+00	-1.1E+00	-9.7E+01
²⁴³ Cm	4.0E-01	2.7E+00	-2.3E+00	-8.5E+01

Table B.1-27. WIPP Disposal Radionuclide Inventory Comparison, 1995 to 2001, CH TRU Waste – Continued

Radionuclide	CH-TRU Waste Curies, Decayed through 2001	CH-TRU Waste Curies, Decayed through 1995	Delta (Ci)	Percent Change
²⁴⁴ Cm	6.2E+03	3.2E+04	-2.5E+04	-8.0E+01
²⁴⁵ Cm	6.0E-03	1.2E-02	-6.0E-03	-5.0E+01
²⁴⁶ Cm	1.1E+00	1.0E-01	1.0E+00	1.0E+03
²⁴⁷ Cm	2.0E-10	3.2E-09	-3.0E-09	-9.4E+01
²⁴⁸ Cm	6.5E-02	9.0E-02	-2.5E-02	-2.8E+01
²⁵⁰ Cm	4.7E-11	NR*	0.0E+00	0.0E+00
⁵⁸ Co	NR*	3.1E-13	0.0E+00	0.0E+00
⁶⁰ Co	9.8E-01	6.5E+01	-6.4E+01	-9.8E+01
⁵¹ Cr	NR*	NR*	0.0E+00	0.0E+00
¹³⁴ Cs	2.0E-02	1.3E-02	7.0E-03	5.4E+01
¹³⁵ Cs	NR*	5.0E-04	0.0E+00	0.0E+00
¹³⁷ Cs	7.4E+03	8.1E+03	-7.0E+02	-8.6E+00
²⁵⁴ Es	NR*	4.2E-11	0.0E+00	0.0E+00
¹⁵⁰ Eu	NR*	3.5E-05	0.0E+00	0.0E+00
¹⁵² Eu	1.9E+00	1.3E+00	6.0E-01	4.6E+01
¹⁵⁴ Eu	1.6E+00	1.2E+00	4.0E-01	3.3E+01
¹⁵⁵ Eu	4.9E-02	9.5E-01	0.0E+00	0.0E+00
⁵⁵ Fe	NR*	1.9E-05	0.0E+00	0.0E+00
⁵⁹ Fe	NR*	2.6E-07	0.0E+00	0.0E+00
²²¹ Fr	1.4E+00	2.9E+00	-1.5E+00	-5.3E+01
²²³ Fr	4.9E-03	8.4E-03	-3.5E-03	-4.1E+01
¹⁵² Gd	4.3E-14	NR*	0.0E+00	0.0E+00
³ H	2.2E+02	8.7E-01	2.2E+02	2.5E+04
¹²⁹ I	5.1E-04	7.1E-07	5.1E-04	7.2E+04
⁸⁵ Kr	4.6E-01	2.0E-01	2.6E-01	1.3E+02
⁵⁴ Mn	NR*	8.5E-04	0.0E+00	0.0E+00
²² Na	3.9E-07	NR*	0.0E+00	0.0E+00
^{93m} Nb	NR*	NR*	0.0E+00	0.0E+00
⁹⁵ Nb	NR*	2.5E-09	0.0E+00	0.0E+00
^{95m} Nb	NR*	8.5E-12	0.0E+00	0.0E+00
⁵⁹ Ni	7.6E-02	7.5E-03	6.9E-02	9.2E+02
⁶³ Ni	3.7E+00	9.2E-01	2.8E+00	3.0E+02
²³⁷ Np	6.2E+00	5.6E+01	-5.0E+01	-8.9E+01

Table B.1-27. WIPP Disposal Radionuclide Inventory Comparison, 1995 to 2001, CH TRU Waste – Continued

Radionuclide	CH-TRU Waste Curies, Decayed through 2001	CH-TRU Waste Curies, Decayed through 1995	Delta (Ci)	Percent Change
²³⁸ Np	2.4E-04	8.8E-03	-8.5E-03	-9.7E+01
²³⁹ Np	7.7E+01	3.3E+01	4.4E+01	1.4E+02
^{240m} Np	1.3E-06	1.5E-06	-2.0E-07	-1.3E+01
²³¹ Pa	8.7E-01	4.5E-01	4.2E-01	9.2E+01
²³³ Pa	6.2E+00	5.6E+01	-5.0E+01	-8.9E+01
²³⁴ Pa	8.0E-02	5.1E-02	2.9E-02	5.7E+01
^{234m} Pa	6.1E+01	4.0E+01	2.2E+01	5.4E+01
²⁰⁹ Pb	1.4E+00	2.9E+00	-1.5E+00	-5.3E+01
²¹⁰ Pb	1.9E+00	2.6E+00	-7.0E-01	-2.7E+01
²¹¹ Pb	3.6E-01	6.1E-01	-2.5E-01	-4.1E+01
²¹² Pb	2.8E+00	2.7E+01	-2.4E+01	-9.0E+01
²¹⁴ Pb	4.6E+00	1.2E+01	-7.4E+00	-6.1E+01
¹⁰⁷ Pd	NR*	7.4E-05	0.0E+00	0.0E+00
¹⁴⁷ Pm	1.8E+00	7.9E+00	-6.1E+00	-7.8E+01
²¹⁰ Po	1.9E+00	2.6E+00	-7.0E-01	-2.6E+01
²¹¹ Po	1.1E-03	1.7E-03	-6.0E-04	-3.6E+01
²¹² Po	1.8E+00	1.7E+01	-1.5E+01	-9.0E+01
²¹³ Po	1.3E+00	2.8E+00	-1.5E+00	-5.3E+01
²¹⁴ Po	4.6E+00	1.2E+01	-7.4E+00	-6.3E+01
²¹⁵ Po	3.6E-01	6.1E-01	-2.5E-01	-4.1E+01
²¹⁶ Po	2.8E+00	2.7E+01	-2.4E+01	-9.0E+01
²¹⁸ Po	4.5E+00	1.2E+01	-7.5E+00	-6.3E+01
¹⁴⁴ Pr	3.5E-04	6.2E-02	-6.1E-02	-9.9E+01
²³⁶ Pu	3.3E-03	1.0E-02	-6.7E-03	-6.8E+01
²³⁸ Pu ¹	1.5E+06	2.6E+06	-1.2E+06	-4.2E+01
²³⁹ Pu ¹	5.8E+05	7.9E+05	-2.1E+05	-2.6E+01
²⁴⁰ Pu ¹	9.4E+04	2.1E+05	-1.2E+05	-5.5E+01
²⁴¹ Pu ¹	2.0E+06	2.3E+06	-3.0E+05	-1.3E+01
²⁴² Pu	1.2E+01	1.2E+03	-1.2E+03	-9.9E+01
²⁴³ Pu	2.0E-10	3.2E-09	-3.0E-09	-9.4E+01
²⁴⁴ Pu	1.2E-06	1.5E-06	-2.6E-07	-2.0E+01
²²³ Ra	3.6E-01	6.1E-01	-2.5E-01	-4.1E+01
²²⁴ Ra	2.8E+00	2.7E+01	-2.4E+01	-9.0E+01
²²⁵ Ra	1.4E+00	2.9E+00	-1.5E+00	-5.3E+01

Table B.1-27. WIPP Disposal Radionuclide Inventory Comparison, 1995 to 2001, CH TRU Waste – Continued

Radionuclide	CH-TRU Waste Curies, Decayed through 2001	CH-TRU Waste Curies, Decayed through 1995	Delta (Ci)	Percent Change
²²⁶ Ra	4.6E+00	1.2E+01	-7.4E+00	-6.2E+01
²²⁸ Ra	2.1E+00	7.5E-01	1.4E+00	1.8E+02
¹⁰⁶ Rh	1.4E-04	2.9E-02	-2.9E-02	-1.0E+02
²¹⁹ Rn	3.6E-01	6.1E-01	-2.5E-01	-4.1E+01
²²⁰ Rn	2.8E+00	2.7E+01	-2.4E+01	-9.0E+01
²²² Rn	4.6E+00	1.2E+01	-7.4E+00	-6.2E+01
¹⁰⁶ Ru	1.5E-04	2.9E-02	-2.9E-02	-1.0E+02
¹²⁵ Sb	3.6E-03	1.2E-01	-1.2E-01	-9.7E+01
¹²⁶ Sb	NR*	1.4E-04	0.0E+00	0.0E+00
^{126m} Sb	NR*	9.7E-04	0.0E+00	0.0E+00
⁷⁹ Se	1.3E-04	4.4E-04	-3.0E-04	-7.0E+01
¹⁴⁷ Sm	3.5E-10	NR*	0.0E+00	0.0E+00
¹⁵¹ Sm	5.7E+01	1.5E+00	5.5E+01	3.8E+03
^{119m} Sn	NR*	4.1E-06	0.0E+00	0.0E+00
^{121m} Sn	NR*	2.7E-02	0.0E+00	0.0E+00
¹²⁶ Sn	NR*	9.7E-04	0.0E+00	0.0E+00
⁹⁰ Sr	5.6E+04	6.9E+03	4.9E+04	7.2E+02
¹⁸² Ta	NR*	NR*	0.0E+00	0.0E+00
⁹⁹ Tc	1.5E+02	2.5E+01	1.2E+02	4.8E+02
¹²³ Te	4.8E-05	NR*	0.0E+00	0.0E+00
^{123m} Te	3.6E-19	NR*	0.0E+00	0.0E+00
^{125m} Te	8.7E-04	3.0E-02	-2.9E-02	-9.7E+01
¹²⁷ Te	NR*	1.3E-07	0.0E+00	0.0E+00
^{127m} Te	NR*	1.3E-07	0.0E+00	0.0E+00
²²⁷ Th	3.5E-01	6.0E-01	-2.5E-01	-4.1E+01
²²⁸ Th	2.9E+00	2.7E+01	-2.4E+01	-8.9E+01
²²⁹ Th	1.4E+00	2.9E+00	-1.5E+00	-5.3E+01
²³⁰ Th	9.5E-02	8.1E-02	1.5E-02	1.8E+01
²³¹ Th	2.9E+00	1.3E+01	-9.9E+00	-7.7E+01
²³² Th	2.5E+00	9.1E-01	1.6E+00	1.7E+02
²³⁴ Th	6.1E+01	4.0E+01	2.2E+01	5.5E+01
²⁰⁷ Tl	3.6E-01	6.1E-01	-2.5E-01	-4.1E+01
²⁰⁸ Tl	1.0E+00	9.7E+00	-8.7E+00	-9.0E+01
²⁰⁹ Tl	3.0E-02	6.2E-02	-3.2E-02	-5.2E+01

Table B.1-27. WIPP Disposal Radionuclide Inventory Comparison, 1995 to 2001, CH TRU Waste – Continued

Radionuclide	CH-TRU Waste Curies, Decayed through 2001	CH-TRU Waste Curies, Decayed through 1995	Delta (Ci)	Percent Change
²³² U	1.3E+00	2.6E+01	-2.5E+01	-9.5E+01
²³³ U	1.1E+03	1.8E+03	-7.0E+02	-3.9E+01
²³⁴ U	2.0E+02	4.7E+02	-2.7E+02	-5.8E+01
²³⁵ U	3.9E+00	1.3E+01	-9.1+00	-7.0E+01
²³⁶ U	1.5E+00	3.3E-01	1.1E+00	3.4E+02
²³⁷ U	2.1E+01	5.7E+01	-3.6E+01	-6.4E+01
²³⁸ U	7.9E+01	4.0E+01	3.9E+01	1.0E+02
²⁴⁰ U	1.2E-06	1.5E-06	-3.0E-07	-2.0E+01
⁹⁰ Y	5.6E+04	6.9E+03	4.9E+04	7.2E+02
⁹¹ Y	NR*	NR*	0.00E+00	0.0E+00
⁶⁵ Zn	1.7E-10	NR*	0.00E+00	0.0E+00
⁹³ Zr	1.1E-03	5.6E-03	-4.5E-03	-8.0E+01
⁹⁵ Zr	NR*	1.2E-09	0.00E+00	0.0E+00
Total:	4.7E+06	6.4E+06	-1.6E+06	-2.5E+01

*NR = Not Reported.

¹ Most abundant CH radionuclides are ²⁴¹Am, ²⁴¹Pu, ²³⁸Pu, ²³⁹Pu, ²⁴⁰Pu, ²⁴¹Pu with 97 percent of the activity (4.6E+06 Ci).

Source: TWBID Revision 2.1 (LANL 2005) Data Version D.4.16.

Table B.1-28. WIPP Disposal Radionuclide Inventory Comparison, 1995 to 2001, RH TRU Waste¹

Radionuclide	RH-TRU Waste Curies, Decayed through 2001	RH-TRU Waste Curies, 1995	Delta (Ci)	Percent Change
²²⁵ Ac	1.8E-01	1.2E+01	-1.2E+01	-9.8E+01
²²⁷ Ac	2.0E-05	7.6E-04	-7.4E-04	-9.7E+01
²²⁸ Ac	7.2E-01	7.8E-02	6.4E-01	8.2E+02
^{109m} Ag	NR*	NR*	0.0E+00	0.0E+00
¹¹⁰ Ag	9.6E-11	1.7E-09	-1.6E-09	-9.4E+01
^{110m} Ag	7.3E-09	1.3E-07	-1.2E-07	-9.4E+01
²⁴¹ Am	1.4E+04	6.0E+03	8.0E+03	1.3E+02
²⁴² Am	4.3E-03	NR*	0.0E+00	0.0E+00
^{242m} Am	2.1E-01	NR*	0.0E+00	0.0E+00
²⁴³ Am	9.9E-01	2.3E-04	9.9E-01	4.3E+05
²⁴⁵ Am	NR*	2.9E-16	0.0E+00	0.0E+00
²¹⁷ At	1.9E-01	1.2E-01	7.0E-02	5.8E+01
^{137m} Ba ¹	3.9E+05	2.0E+05	1.9E+05	9.5E+01
²¹⁰ Bi	1.1E-06	7.2E-06	-6.1E-06	-8.5E+01
²¹¹ Bi	1.9E-05	7.6E-04	-7.4E-04	-9.7E+01
²¹² Bi	1.4E+01	7.4E-02	1.3E+01	1.8E+04
²¹³ Bi	1.8E-01	1.2E-01	6.0E-02	5.0E+01
²¹⁴ Bi	6.8E-06	3.6E-05	-2.9E-05	-8.1E+01
²⁴⁹ Bk	NR*	2.0E-11	0.0E+00	0.0E+00
²⁵⁰ Bk	NR*	NR*	0.0E+00	0.0E+00
¹⁴ C	1.2E+00	2.1E+00	-9.0E-01	-4.3E+01
¹⁰⁹ Cd	NR*	NR*	0.0E+00	0.0E+00
^{113m} Cd	5.2E-01	5.5E-07	5.2E-01	9.5E+07
¹⁴¹ Ce	4.2E-19	NR*	0.0E+00	0.0E+00
¹⁴⁴ Ce	6.4E+00	5.1E+00	1.3E+00	2.5E+01
²⁴⁹ Cf	4.2E-03	4.5E-03	-3.0E-04	-6.7E+00
²⁵⁰ Cf	7.5E-02	NR*	0.0E+00	0.0E+00
²⁵¹ Cf	8.0E-04	NR*	0.0E+00	0.0E+00
²⁵² Cf	8.9E-02	1.3E+00	-1.2E+00	-9.3E+01
²⁴² Cm	3.6E-03	NR*	0.0E+00	0.0E+00
²⁴³ Cm	5.1E-01	5.0E+01	-4.9E+01	-9.9E+01
²⁴⁴ Cm	1.1E+03	3.2E+02	7.8E+02	2.5E+02
²⁴⁵ Cm	1.1E-02	1.5E-06	1.1E-02	7.3E+05

Table B.1-28. WIPP Disposal Radionuclide Inventory Comparison, 1995 to 2001, RH TRU Waste¹ - Continued

Radionuclide	RH-TRU Waste Curies, Decayed through 2001	RH-TRU Waste Curies, 1995	Delta (Ci)	Percent Change
²⁴⁶ Cm	3.4E+00	NR*	0.0E+00	0.0E+00
²⁴⁷ Cm	4.7E+01	NR*	0.0E+00	0.0E+00
²⁴⁸ Cm	9.2E-03	2.1E-04	9.0E-03	4.4E+03
²⁵⁰ Cm	NR*	NR*	0.0E+00	0.0E+00
⁵⁸ Co	NR*	1.2E-11	0.0E+00	0.0E+00
⁶⁰ Co	1.8E+03	1.0E+04	-8.2E+03	-8.3E+01
⁵¹ Cr	NR*	3.0E-06	0.0E+00	0.0E+00
¹³⁴ Cs	1.1E+02	1.8E+01	9.1E+01	5.1E+02
¹³⁵ Cs	3.5E-04	1.2E-04	2.3E-04	2.0E+02
¹³⁷ Cs ¹	4.3E+05	2.2E+05	2.1E+05	9.5E+01
²⁵⁴ Es	NR*	NR*	0.0E+00	0.0E+00
¹⁵⁰ Eu	NR*	NR*	0.0E+00	0.0E+00
¹⁵² Eu	2.4E+03	1.2E+03	1.1E+03	1.0E+02
¹⁵⁴ Eu	1.1E+03	5.9E+02	5.1E+02	8.6E+01
¹⁵⁵ Eu	3.5E+02	1.2E+02	2.3E+02	2.0E+02
⁵⁵ Fe	1.3E-01	1.7E-01	-4.0E-02	-2.4E+01
⁵⁹ Fe	NR*	NR*	0.0E+00	0.0E+00
²²¹ Fr	1.8E-01	1.2E-01	6.0E-02	5.0E+01
²²³ Fr	2.7E-07	1.0E-05	-9.7E-05	-9.7E+01
¹⁵² Gd	9.8E-11	NR*	0.0E+00	0.0E+00
³ H	2.3E-01	6.6E-02	1.6E-01	2.5E+02
¹²⁹ I	8.2E-02	NR*	0.0E+00	0.0E+00
⁸⁵ Kr	3.6E-01	1.7E+00	-1.3E+00	-7.9E+01
⁵⁴ Mn	2.0E+00	2.4E-02	2.0E+00	8.2E+03
²² Na	3.3E-01	NR*	0.0E+00	0.0E+00
^{93m} Nb	9.1E-04	NR*	0.0E+00	0.0E+00
⁹⁵ Nb	2.2E-13	6.7E-01	-6.7E-01	-1.0E+02
^{95m} Nb	7.2E-16	2.2E-03	-2.2E-03	-1.0E+02
⁵⁹ Ni	2.3E+01	NR*	0.0E+00	0.0E+00
⁶³ Ni	1.1E+03	9.9E-01	1.1E+03	1.1E+05
²³⁷ Np	6.7E-01	2.9E+00	-2.2E+00	-7.6E+01
²³⁸ Np	2.2E-05	NR*	0.0E+00	0.0E+00
²³⁹ Np	3.2E-01	2.3E-04	3.1E-01	1.4E+05

Table B.1-28. WIPP Disposal Radionuclide Inventory Comparison, 1995 to 2001, RH TRU Waste¹ - Continued

Radionuclide	RH-TRU Waste Curies, Decayed through 2001	RH-TRU Waste Curies, 1995	Delta (Ci)	Percent Change
^{240m} Np	5.6E-03	2.2E-11	5.6E-03	2.5E+10
²³¹ Pa	8.7E-05	1.9E-03	-1.8E-03	-9.5E+01
²³³ Pa	6.3E-03	2.9E+00	-2.8E+00	-1.0E+02
²³⁴ Pa	1.4E-02	1.4E-02	0.0E+00	0.0E+00
^{234m} Pa	1.1E+01	1.1E+01	0.0E+00	0.0E+00
²⁰⁹ Pb	1.8E-01	1.2E-01	6.0E-02	5.0E+01
²¹⁰ Pb	1.1E-06	7.2E-06	-6.1E-06	-8.5E+01
²¹¹ Pb	2.0E-05	7.6E-04	-7.4E-04	-9.7E+01
²¹² Pb	1.4E+01	7.4E-02	1.3E+01	1.8E+04
²¹⁴ Pb	6.8E-06	3.6E-05	-2.9E-05	-8.1E+01
¹⁰⁷ Pd	1.5E-05	1.7E-05	-2.0E-06	-1.2E+01
¹⁴⁷ Pm	6.1E+02	1.1E+01	6.0E+02	5.4E+03
²¹⁰ Po	1.1E-06	7.2E-06	-6.1E-06	-8.5E+01
²¹¹ Po	5.9E-08	2.1E-06	-2.1E-06	-9.7E+01
²¹² Po	8.6E+00	4.7E-02	8.6E+00	1.8E+04
²¹³ Po	1.8E-01	1.2E-01	6.0E-02	5.0E+01
²¹⁴ Po	6.8E-06	3.6E-05	-2.9E-05	-8.1E+01
²¹⁵ Po	2.0E-05	7.6E-04	-7.4E-04	-9.7E+01
²¹⁶ Po	1.4E+01	7.4E-02	1.3E+01	1.8E+04
²¹⁸ Po	6.7E-06	3.6E-05	-2.9E-05	-8.1E+01
¹⁴⁴ Pr	6.3E+00	5.1E+00	1.2E+00	2.4E+01
²³⁶ Pu	NR*	NR*	0.0E+00	0.0E+00
²³⁸ Pu	3.8E+03	1.5E+03	2.4E+03	1.6E+02
²³⁹ Pu	5.2E+03	1.0E+04	-4.8E+03	-4.8E+01
²⁴⁰ Pu	1.6E+03	5.1E+03	-3.5E+03	-6.9E+01
²⁴¹ Pu ¹	1.3E+05	1.4E+05	-1.0E+04	-7.1E+00
²⁴² Pu	4.8E-01	1.5E-01	3.3E-01	2.2E+02
²⁴³ Pu	4.7E+01	NR*	0.0E+00	0.0E+00
²⁴⁴ Pu	5.5E-03	2.2E-11	5.5E-03	2.5E+10
²²³ Ra	2.0E-05	7.6E-04	-7.4E-04	-9.7E+01
²²⁴ Ra	1.4E+01	7.4E-02	1.3E+01	1.8E+04
²²⁵ Ra	1.9E-01	1.2E-01	7.0E-02	5.8E+01
²²⁶ Ra	6.9E-06	3.6E-05	-2.9E-05	-8.1E+01
²²⁸ Ra	8.5E-01	7.8E-02	7.7E-01	9.9E+02

Table B.1-28. WIPP Disposal Radionuclide Inventory Comparison, 1995 to 2001, RH TRU Waste¹ - Continued

Radionuclide	RH-TRU Waste Curies, Decayed through 2001	RH-TRU Waste Curies, 1995	Delta (Ci)	Percent Change
¹⁰⁶ Rh	1.9E-03	1.1E+01	-1.1E+01	-1.0E+02
²¹⁹ Rn	1.9E-05	7.6E-04	-7.4E-04	-9.7E+01
²²⁰ Rn	1.4E+01	7.4E-02	1.3E+01	1.8E+04
²²² Rn	6.8E-06	3.6E-05	-2.9E-05	-8.1E+01
¹⁰⁶ Ru	1.9E-03	1.1E+01	-1.1E+01	-1.0E+02
¹²⁵ Sb	4.9E+00	1.9E+00	3.0E+00	1.6E+02
¹²⁶ Sb	1.5E-04	3.2E-05	1.2E-04	3.7E+02
^{126m} Sb	1.1E-03	2.3E-04	8.7E-04	3.8E+02
⁷⁹ Se	4.0E-02	1.0E-04	4.0E-02	3.9E+04
¹⁴⁷ Sm	3.2E-08	NR	0.0E+00	0.0E+00
¹⁵¹ Sm	6.0E+02	3.6E-01	6.0E+02	1.7E+05
^{119m} Sn	NR	9.6E-07	0.0E+00	0.0E+00
^{121m} Sn	2.6E-03	6.7E-03	-4.1E-03	-6.1E+01
¹²⁶ Sn	1.1E-03	2.3E-04	8.7E-04	3.8E+02
⁹⁰ Sr ¹	3.2E+05	2.1E+05	1.1E+05	5.4E+01
¹⁸² Ta	NR	4.2E-08	0.0E+00	0.0E+00
⁹⁹ Tc	1.6E+02	5.9E-03	1.6E+02	2.7E+06
¹²³ Te	NR	NR	0.0E+00	0.0E+00
^{123m} Te	NR	NR	0.0E+00	0.0E+00
^{125m} Te	1.2E+00	4.7E-01	7.2E-01	1.5E+02
¹²⁷ Te	NR	1.7E-09	0.0E+00	0.0E+00
^{127m} Te	NR	1.8E-09	0.0E+00	0.0E+00
²²⁷ Th	1.9E-05	7.5E-04	-7.3E-04	-9.7E+01
²²⁸ Th	1.4E+01	7.4E-02	1.4E+01	1.9E+04
²²⁹ Th	1.9E-01	1.2E-01	7.0E-02	5.8E+01
²³⁰ Th	1.9E-03	7.6E-03	-5.7E-03	-7.5E+01
²³¹ Th	2.4E-01	4.6E+00	-4.4E+00	-9.5E+01
²³² Th	9.2E-01	9.3E-02	8.3E-01	8.9E+02
²³⁴ Th	1.1E+01	1.1E+01	0.00E-01	0.0E+00
²⁰⁷ Tl	1.9E-05	7.6E-04	-7.4E-04	-9.7E+01
²⁰⁸ Tl	4.9E+00	2.7E-02	4.8E+00	1.8E+04
²⁰⁹ Tl	4.1E-03	2.5E-03	1.5E-03	6.4E+01
²³² U	1.3E+01	NR	0.0E+00	0.0E+00
²³³ U	1.3E+02	1.6E+02	-3.0E+01	-1.9E+01

Table B.1-28. WIPP Disposal Radionuclide Inventory Comparison, 1995 to 2001, RH TRU Waste¹ - Continued

Radionuclide	RH-TRU Waste Curies, Decayed through 2001	RH-TRU Waste Curies, 1995	Delta (Ci)	Percent Change
²³⁴ U	3.0E+01	4.3E+01	-1.3E+01	-3.0E+01
²³⁵ U	1.1E+00	4.6E+00	-3.5E+00	-7.6E+01
²³⁶ U	1.3E+00	9.7E-02	1.2E+00	1.3E+03
²³⁷ U	2.3E-02	3.5E+00	-3.5E+00	-9.9E+01
²³⁸ U	1.4E+02	1.1E+01	1.3E+02	1.2E+03
²⁴⁰ U	5.5E-03	2.2E-11	5.5E-03	2.5E+10
⁹⁰ Y ¹	3.2E+05	2.1E+05	-1.1E+05	5.2E+01
⁹¹ Y	4.1E-12	NR	0.0E+00	0.0E+00
⁶⁵ Zn	NR	NR	0.0E+00	0.0E+00
⁹³ Zr	3.4E-01	1.3E-03	3.4E-01	2.6E+04
⁹⁵ Zr	9.8E-14	3.0E-01	-3.0E-01	-1.0E+02
Total:	1.6E+06	1.0E+06	6.1E+05	6.0E+01

*NR = Not Reported.

¹ Most abundant RH radionuclides are ^{137m}Ba, ¹³⁷Cs, ²⁴¹Pu, ⁹⁰Sr, and ⁹⁰Y with 98 percent of the activity (1.6E+06 Ci).

Source: TWBID Revision 2.1 (LANL 2005) Data Version D.4.16.

REFERENCES

Central Characterization Project (CCP) 2003a. *Central Characterization Project Acceptable Knowledge Summary Report for Savannah River Site Waste Steams: SRW027-221F-Het-A, Het-C-D, Het-E*. CCP-AK-SRS-1, Revision 10, Carlsbad, New Mexico: Central Characterization Project Office.

Central Characterization Project (CCP) 2003b. *Central Characterization Project Acceptable Knowledge Summary Report For Savannah River Site SR-W027-FB-Pre86-C*. CCP-AK-SRS-2, Revision 4, Carlsbad, New Mexico: Central Characterization Project Office.

Central Characterization Project (CCP) 2003c. *Central Characterization Project Acceptable Knowledge Summary Report for Savannah River Site Waste Steams: SR-W026-221F-Het-A, SR-W026-221F-Het, SR-W026-221F-HOM, SR-W026-221F-HEPA*. CCP-AK-SRS-3, Revision 2, Carlsbad, New Mexico: Central Characterization Project Office.

Central Characterization Project (CCP) 2003d. *Central Characterization Project Acceptable Knowledge Summary Report for Savannah River Site Waste Steams: SR-W027-221H-HET, SR-W026-221H-HET-A, SR-W026-221H-HET-B, SR-W027-221H-HEPA, SR-T001-221H-HEPA, SR-W027-HBL-Box*. CCP-AK-SRS-4, Revision 2, Carlsbad, New Mexico: Central Characterization Project Office.

Department of Energy (DOE) 2004. Title 40 CFR Part 191, Subparts B and C, *Compliance Recertification Application 2004*, DOE/WIPP-2004-3231, March 2004, Carlsbad, NM.

Department of Energy (DOE) 1995. *Transuranic Waste Baseline Inventory Report*, Revision 2, DOE/CAO-95-1121, December 1995.

Department of Energy (DOE) 1996. *Transuranic Waste Baseline Inventory Report*, Revision 3, DOE/CAO-95-1121, June 1996.

Environmental Protection Agency (EPA) 1998. *Criteria for the Certification and Recertification of the Waste Isolation Pilot Plant's Compliance with the Disposal Regulations: Certification Decision: EPA Final Rule*. Federal Register 63:27353-27406, May 18, 1998, Radiation Protection Division, Washington, D.C.

Los Alamos National Laboratory (LANL) 2005. *Transuranic Waste Baseline Inventory Database*, Revision 2.1, Version 3.13, Data Version D.4.16, ERMS# 538934. Carlsbad, NM: Los Alamos National Laboratory.

APPENDIX C

CROSSWALK OF TWBIR REVISION 2 AND

TWBIR - 2004 WASTE STREAMS

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C-1.0 INTRODUCTION

This Transuranic Waste Baseline Inventory Report - 2004 (TWBIR - 2004) contains the update to the Transuranic Waste Baseline Inventory Report, Revision 2 (TWBIR Revision 2) (DOE 1995) and TWBIR Revision 3 (DOE 1996). The U.S. Environmental Protection Agency (EPA) is interested in the differences in the inventory between TWBIR Revisions 2 and 3 and this TWBIR - 2004. The Compliance Certification Application (CCA) used the TWBIR Revisions 2 and 3 data for the Compliance Certification Decision (CRA) (EPA 1998) to initially certify the Waste Isolation Pilot Plant (WIPP). During their completeness review, the EPA requested that significant changes in inventory information that had occurred since the cut off date of September 30, 2002 be included in this updated document.

Those changes include:

- The deletion of 11 waste streams from the Hanford Richland Operations Office (RL) (Lott 2004a)
- The inclusion of 4 waste streams at INL from the pre-1970 buried waste that was originally reported in waste stream IN-Z001 (Lott 2004b)
- Changes that resulted from a final review of the waste stream profiles. This review identified inconsistencies (such as accounting methods for packaging configurations, accounting for low-level waste (LLW) as Transuranic (TRU) waste, volume reductions processes, accounting for cement, packaging material densities, inconsistent WMPs, and final form radionuclide concentrations) which have now been corrected. As noted in the Leigh and Crawford (2004) summary report from this review, none of these inconsistencies had an impact on the performance assessment (PA) calculations that were reported in the CRA-2004 (DOE 2004)
- The waste streams from some small quantity sites that have shipped their waste to other sites or to WIPP have been deleted from this appendix, but the waste stream information is still included in the document

A crosswalk that maps current waste streams to those identified in TWBIR Revision 2 is provided in this appendix. Each TRU waste site was requested to provide an explanation as to what changed in their inventory since the CCA inventory. Those explanations are provided in the respective site sections. The inventory information in this appendix is not intended to match the inventory information submitted for use in the PA in support of the WIPP CRA-2004. The scope of this appendix is limited to revealing the significant changes in waste streams since September 30, 2002. New sites have been included in this update and in this appendix. The new sites are Framatome (FR), Hanford-River Protection (RP), General Electric Vallecitos Nuclear Center (GE), Separations Process Research Unit (SPRU), Babcock & Wilcox-Lynchburg (BL), and Knolls Atomic Power Laboratory-Nuclear Fuels Services (KN). Waste streams presented in this section include waste streams from both Appendix I (currently non-WIPP waste streams) and Appendix J (WIPP-bound waste streams).

More small quantity TRU waste sites have been added to the list of sites that no longer have TRU waste. The list of sites at the time of this report includes ARCO Medical Products (AM), Pantex (PX), Teledyne-Brown (TB), Ames Laboratory (AL), Mound (MD), Energy Technology Engineering Center (ETEC), University of Missouri Research Reactor (MURR), and Lawrence Berkeley National Laboratory (LBNL).

“N/A” in the TWBIR Revision 2 Waste Streams column in the following tables identifies new waste streams that were reported in TWBIR - 2004. “N/A” in the TWBIR - 2004 Waste Streams column identifies a deleted waste stream from TWBIR Revision 2. The data from Hanford RL includes several entries marked “unavailable.” This entry resulted from the process used by the Hanford RL site that incorporated container re-assignments to new waste stream identification numbers without regard to waste stream continuity.

C-1.1 Argonne National Laboratory-East (AE)

During the Argonne National Laboratory-East (ANL-E) 1996 data generation period for the TWBIR, the information submitted was the best available at the time. The ANL-E had a large number of bins [typically 3.5 m³ (123 ft³)¹ in size] that contained waste dating back to the late 1980s. These bins, containing various sized containers, were assigned a TRU waste designation by the generators based on the knowledge of the waste generation process. As a result, some of the waste may or may not have been TRU. There were also various-sized containers that contained liquids or solids that made it difficult to determine what the final waste stream volume would be.

Subsequent to the TWBIR Revision 2 submittal, ANL-E embarked on an aggressive campaign to characterize, treat, and where appropriate, repackage the TRU waste from the bins and containers identified and reported in the TWBIR Revision 2. Whenever possible, repackaging was performed that resulted in the waste being placed into 55-gallon drums for enhanced inventory identification and tracking, and also in preparation for eventual characterization and disposal. This repackaging process allowed ANL-E’s to more accurately quantify the TRU waste.

In addition to improved inventory accountability through ANL-E repackaging efforts, there was an increase in the volume of TRU waste at ANL-E. Additionally, more TRU waste was generated since the TWBIR Revision 2 as a result of aggressive site-wide cleanup activities performed during the late 1990s. Table C-1 contains the crosswalk of the ANL-E waste streams from TWBIR Revision 2 to the TWBIR - 2004.

**Table C-1. Argonne National Laboratory-East (AE) Crosswalk of Waste Streams
TWBIR Revision 2 vs. TWBIR - 2004**

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
AE-W041, AE-W042, AE-T001	AE-T001
AE-W038, AE-W039, AE-W040, AE-T003	AE-T003
AE-T009	AE-T009

¹ The conversion factor used throughout this section is 1 m³ (35.32 ft³).

C-1.2 Argonne National Laboratory-West (AW)

The increase in the TWBIR Revision 2 quantity of 26 m³ (918 ft³) to the TWBIR - 2004 quantity of 306 m³ (10,808 ft³) is caused by the inclusion of the waste volume that is suspect and may be TRU, with waste that is known to be TRU.

The 280 m³ (9,890 ft³) of suspect TRU waste is difficult to characterize since it is typically mixed with highly radioactive waste and stored inside sealed steel in-ground silos at the ANL-W Radioactive Scrap and Waste facility. Many of the suspect TRU silos were loaded in the 1960s and 1970s and do not have detailed inventory records that call out TRU isotopes.

ANL-W has requested funding to design and build a remote-handled waste treatment facility to unload, sort, characterize, treat, and repackage the waste in these silos. Until this facility begins operation (scheduled in 2009), an upper bound, conservative estimate of the Argonne National Laboratory-West (ANL-W) TRU waste that could potentially go to WIPP for disposal will be used.

The ANL-W TRU waste volumes, 306 m³ (10,808 ft³), is the TRU inventory figure that ANL-W reported to the Inspector General during the April 2002 survey of remote-handled TRU waste site activities.

Table C-2 contains the crosswalk of the ANL-W waste streams from the TWBIR Revision 2 to the TWBIR - 2004.

**Table C-2. Argonne National Laboratory-West (AW) Crosswalk of Waste Streams
TWBIR Revision 2 vs. TWBIR - 2004**

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
AW-N026.82	AW-N026.82
AW-N027.531	AW-N027.531
AW-T029.1323	AW-W029
AW-T030.1321	N/A
AW-T031.1322	AW-T031.1322
AW-T032-1324	N/A
AW-T033.1325	AW-T033.1325
AW-T034.1327	N/A
AW-T035.1326	N/A
AW-W012.10	AW-W012.10
AW-W016.20	N/A
AW-W018	AW-W018
AW-W019	AW-W019
AW-W020.13	AW-W20.13
AW-W021.16	N/A
AW-W022.22	N/A
AW-N028	AW-W028
N/A	AW-W026

**Table C-2. Argonne National Laboratory-West (AW) Crosswalk of Waste Streams
TWBIR Revision 2 vs. TWBIR - 2004**

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
N/A	AW-W046
N/A	AW-W047
N/A	AW-W048
N/A	AW-W049

C-1.3 Babcock and Wilcox-Lynchburg (BL)

The Babcock and Wilcox-Lynchburg (BL) TRU waste was discussed in TWBIR Revision 2, but no specific waste streams were included in the TRU waste inventory information. BL added one new waste stream for the TWBIR - 2004. Table C-3 provides the new waste stream identified by BL.

**Table C-3. Babcock and Wilcox-Lynchburg Crosswalk of Waste Streams
TWBIR Revision 2 to the TWBIR - 2004**

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
N/A	BL-001

C-1.4 Battelle Columbus Laboratories (BC)

The TWBIR, Revision 2 reported only one waste stream – BC-T001 for Battelle Columbus Laboratories (BCL). This waste has since been repackaged and characterized. As a result, better data were used to define multiple waste streams.

The TWBIR, Revision 2 value inventory volume, 581 m³ (20,486 ft³), was an estimate based on the storage vault and container dimensions, and included the storage vaults, containers, and the research hot-cells internal volume, and all utilities. The TWBIR - 2004 inventory volume of 35 m³ (1,236 ft³), is based on a well documented and characterized sorting, segregation, compaction, and decontamination process. The result of this process was a 95 percent reduction of the TWBIR, Revision 2 inventory estimate. The weight-dose-to-curie computer modeling program and database developed by the BCL allowed for the segregation of low-level waste from the TRU waste which also helped reduce the TWBIR, Revision 2 inventory estimate.

The waste matrix code for the TWBIR, Revision 2 inventory was S5400-heterogeneous debris. Acceptable Knowledge (AK) documentation is complete. New waste matrix codes for the waste streams were assigned. For example, there are several absorbed liquid waste streams and resins that require an S series waste matrix code. In addition, the Carlsbad Field Office (CBFO) has better defined the requirements for waste designation since the initial inventory baseline was issued.

Finally, TRUCON codes were assigned for the new waste streams for the TWBIR - 2004. These were not known or required for RH-TRU wastes for the TWBIR, Revision 2 inventory.

Table C-4 contains the crosswalk of BCL waste streams from TWBIR Revision 2 to the TWBIR - 2004 for BCL.

**Table C-4. Battelle Columbus Laboratories (BC) Crosswalk of Waste Streams
TWBIR Revision 2 to TWBIR - 2004**

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
BC-T001	BCLRH-T001, BCLRH-T002, BCLRH-T003, BCLRH-T004, BCLRH-T005, BCLRH-T006, BCLRH-T007, BCLRH-T008, BCLRH-T009, BCLRH-T010, BCLRH-MT01, BCLRH-T011
N/A	BCLCH-MT01

C-1.5 Bettis Atomic Power Laboratory (BT)

The TWBIR, Revision 2, for Bettis Atomic Power Laboratory (BAPL) listed five waste streams: BT-T001 through BT-T005. Waste streams BT-T004 and BT-T005 were deleted, as these were radioactive sources that were subsequently placed in the Offsite Source Recovery (OSR) database. Waste stream BT-T003 consisted of waste containing uranium-233. As uranium-233 is no longer considered TRU from a waste disposal standpoint, this waste stream was deleted. This waste will be disposed of at a DOE low-level waste disposal facility. Records indicate that the TWBIR, Revision 2, BT-T001 and BT-T002 volumes were 1.95 m³ (68.87 ft³) and 17.6 m³ (621.6 ft³) respectively—essentially the same as the TWBIR - 2004 inventory values of 2 m³ (70.64 ft³) and 18.6 m³ (656.95 ft³).

Table C-5 contains the crosswalk of the BAPL waste streams from TWBIR Revision 2 to the TWBIR - 2004.

**Table C-5. Bettis Atomic Power Laboratory (BT) Crosswalk of Waste Streams
TWBIR Revision 2 to TWBIR - 2004**

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
BT-T001	BT-T001
BT-T002	BT-T002
BT-T003	N/A
BT-T004	N/A
BT-T005	N/A

C-1.6 Framatome (FM)

Framatome (FM) is a new waste site that has been added to the TRU waste inventory. Table C-6 identifies the waste streams at Framatome.

Table C-6. Framatome (FM) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
N/A	FM-MOX-MT02
N/A	FM-MOX-T01

C-1.7 General Electric Vallecitos Nuclear Center (VN)

General Electric Vallecitos Nuclear Center (GEVNC) was mentioned in TWBIR Revision 2, but no specific waste streams were identified. The waste streams from GEVNC are now included in the TWBIR - 2004.

Table C-7 identifies the waste streams identified by GE.

Table C-7. General Electric Vallecitos Nuclear Center (VN) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
N/A	VN-CHT001
N/A	VN-RHT001

C-1.8 Hanford Richland Operations Office (RL)

The TRU waste identified for the Richland Operations Office (RL) is designated with an “RL” site identifier. A significant change in this update for RL is that the inventory information from the Plutonium Finishing Plant has been updated. RL has deleted 11 waste streams that were inadvertently included in the data submittal (Lott 2004a). Many minor updates to other waste streams and additional new waste streams are also identified.

Table C-8 contains the crosswalk of RL waste streams from TWBIR Revision 2 to the TWBIR - 2004.

Table C-8. Hanford Site (RL) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
RL-T101	RL-T101
RL-T102	RL-T102
RL-T103	RL-T103
RL-T104	RL-T104
RL-T105	RL-T105
RL-T106	RL-T106
RL-T107	RL-T107
RL-T108	RL-T108

Table C-8. Hanford Site (RL) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
RL-T109	RL-T109
RL-T110	RL-T110
RL-T112	RL-T112
RL-T113	RL-T113
RL-W114	RL-W114
RL-T115	RL-T115
RL-T116	RL-T116
RL-T118	RL-T118
RL-T120	RL-T120
RL-T121	RL-T121
RL-T122	RL-T122
RL-T123	RL-T123
RL-T124	RL-T124
RL-T125	RL-T125
RL-T127	RL-T127
RL-T128	RL-T128
RL-T129	RL-T129
RL-T130	RL-T130
RL-T131	RL-T131
RL-T132	RL-T132
RL-T133	RL-T133
RL-T134	RL-T134
RL-T135	RL-T135
RL-T137	RL-T137
RL-T140	RL-T140
RL-T143	RL-T143
RL-T145	RL-T145
RL-T147	RL-T147
RL-T148	RL-T148
RL-T149	RL-T149
RL-W161	RL-W161
RL-W162	RL-W162
RL-W276	N/A
RL-W277	N/A
RL-W278	N/A
RL-W279	N/A
RL-W280	N/A
RL-W281	N/A
RL-W282	N/A
RL-W283	N/A

Table C-8. Hanford Site (RL) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
RL-W284	RL-W284
RL-W285	N/A
RL-W286	N/A
RL-W287	N/A
RL-W288	N/A
RL-W289	N/A
RL-W290	N/A
RL-W291	N/A
RL-W292	N/A
RL-W293	N/A
RL-W294	N/A
RL-W295	N/A
RL-W296	N/A
RL-W297	N/A
RL-W298	N/A
RL-W299	N/A
RL-W300	N/A
RL-W301	N/A
RL-W302	N/A
RL-W303	N/A
RL-W304	N/A
RL-W305	N/A
RL-W306	N/A
RL-W307	N/A
RL-W308	N/A
RL-W309	N/A
RL-W310	N/A
RL-W311	N/A
RL-W312	N/A
RL-W313	N/A
RL-W314	N/A
RL-W315	N/A
RL-W316	N/A
RL-W317	N/A
RL-W318	N/A
RL-W319	N/A
RL-W320	N/A
RL-W321	N/A
RL-W322	N/A
RL-W323	N/A

Table C-8. Hanford Site (RL) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
RL-W324	N/A
RL-W325	N/A
RL-W326	N/A
RL-W327	RL-W327
RL-W328	RL-W328
RL-W329	RL-W329
RL-W330	N/A
RL-W331	N/A
RL-W332	RL-W332
RL-W333	RL-W333
RL-W334	RL-W334
RL-W335	N/A
RL-W336	N/A
RL-W337	N/A
RL-W338	N/A
RL-W339	N/A
RL-W340	N/A
RL-W341	N/A
RL-W342	N/A
RL-W343	N/A
RL-W344	N/A
RL-W345	N/A
RL-W346	N/A
RL-W347	N/A
RL-W348	N/A
RL-W349	N/A
RL-W350	N/A
RL-W351	N/A
RL-W352	N/A
RL-W353	N/A
RL-W354	N/A
RL-W355	N/A
RL-W356	N/A
RL-W357	RL-W357
RL-W358	N/A
RL-W359	N/A
RL-W360	N/A
RL-W361	N/A
RL-W362	N/A
RL-W363	N/A

Table C-8. Hanford Site (RL) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
RL-W364	N/A
RL-W365	N/A
RL-W366	RL-W366
RL-W367	N/A
RL-W368	N/A
RL-W369	N/A
RL-W370	N/A
RL-W371	N/A
RL-W372	N/A
RL-W373	N/A
RL-W374	N/A
RL-W375	N/A
RL-W376	N/A
RL-W377	N/A
RL-W378	N/A
RL-W379	N/A
RL-W380	N/A
RL-W381	N/A
RL-W382	RL-W382
RL-W383	N/A
RL-W384	N/A
RL-W385	N/A
RL-W386	N/A
RL-W387	N/A
RL-W388	N/A
RL-W389	N/A
RL-W390	N/A
RL-W391	RL-W391
RL-W392	N/A
RL-W393	N/A
RL-W394	N/A
RL-W395	N/A
RL-W396	N/A
RL-W397	N/A
RL-W398	N/A
RL-W399	N/A
RL-W400	N/A
RL-W401	N/A
RL-W402	N/A
RL-W403	N/A

Table C-8. Hanford Site (RL) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
RL-W404	N/A
RL-W405	N/A
RL-W406	N/A
RL-W407	RL-W407
RL-W408	RL-W408
RL-W409	N/A
RL-W410	N/A
RL-W411	N/A
RL-W412	N/A
RL-W413	N/A
RL-W414	N/A
RL-W415	RL-W415
RL-W416	N/A
RL-W417	N/A
RL-W418	RL-W418
RL-W419	RL-W419
RL-W420	RL-W420
RL-W421	RL-W421
RL-W422	N/A
RL-W423	N/A
RL-W424	N/A
RL-W425	N/A
RL-W426	N/A
RL-W427	N/A
RL-W428	RL-W428
RL-W429	N/A
RL-W430	N/A
RL-W431	N/A
RL-W432	N/A
RL-W433	RL-W433
RL-W434	N/A
RL-W435	N/A
RL-W436	RL-W436
RL-W437	N/A
RL-W438	RL-W438
RL-W439	N/A
RL-W440	N/A
RL-W441	N/A
RL-W442	N/A
RL-W443	N/A

Table C-8. Hanford Site (RL) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
RL-W444	RL-W444
N/A	RL-W445
N/A	RL-W446
Unavailable	RL-W447
Unavailable	RL-W448
Unavailable	RL-W449
Unavailable	RL-W450
Unavailable	RL-W451
Unavailable	RL-W452
Unavailable	RL-W453
Unavailable	RL-W454
Unavailable	RL-W455
Unavailable	RL-W456
Unavailable	RL-W457
Unavailable	RL-W458
Unavailable	RL-W459
Unavailable	RL-W460
Unavailable	RL-W461
Unavailable	RL-W462
Unavailable	RL-W463
Unavailable	RL-W464
Unavailable	RL-W465
Unavailable	RL-W466
Unavailable	RL-W467
Unavailable	RL-W468
Unavailable	RL-W469
Unavailable	RL-W470
Unavailable	RL-W471
Unavailable	RL-W472
Unavailable	RL-W473
Unavailable	RL-W474
Unavailable	RL-W475
Unavailable	RL-W476
Unavailable	RL-W477
Unavailable	RL-W478
Unavailable	RL-W479
Unavailable	RL-W480
Unavailable	RL-W481
Unavailable	RL-W482
Unavailable	RL-W483

Table C-8. Hanford Site (RL) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
N/A	RL-W484
N/A	RL-W485
N/A	RL-W486
Unavailable	RL-W487
Unavailable	RL-W488
Unavailable	RL-W489
Unavailable	RL-W490
Unavailable	RL-W491
Unavailable	RL-W492
Unavailable	RL-W493
Unavailable	RL-W494
Unavailable	RL-W495
Unavailable	RL-W496
N/A	RL-W497
Unavailable	RL-W498
Unavailable	RL-W499
Unavailable	RL-W500
Unavailable	RL-W501
Unavailable	RL-W502
Unavailable	RL-W503
Unavailable	RL-W504
Unavailable	RL-W505
Unavailable	RL-W506
Unavailable	RL-W507
Unavailable	RL-W508
Unavailable	RL-W509
Unavailable	RL-W510
Unavailable	RL-W511
Unavailable	RL-W512
Unavailable	RL-W513
Unavailable	RL-W514
Unavailable	RL-W515
Unavailable	RL-W516
N/A	RL-W517
Unavailable	RL-W518
Unavailable	RL-W519
Unavailable	RL-W520
Unavailable	RL-W521
Unavailable	RL-W522
Unavailable	RL-W523

Table C-8. Hanford Site (RL) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
Unavailable	RL-W524
Unavailable	RL-W525
Unavailable	RL-W526
Unavailable	RL-W527
Unavailable	RL-W528
Unavailable	RL-W529
Unavailable	RL-W530
Unavailable	RL-W531
Unavailable	RL-W532
Unavailable	RL-W533
Unavailable	RL-W534
Unavailable	RL-W535
Unavailable	RL-W536
Unavailable	RL-W537
Unavailable	RL-W538
Unavailable	RL-W539
Unavailable	RL-W540
Unavailable	RL-W541
Unavailable	RL-W542
Unavailable	RL-W543
Unavailable	RL-W544
Unavailable	RL-W545
Unavailable	RL-W546
Unavailable	RL-W547
Unavailable	RL-W548
Unavailable	RL-W549
Unavailable	RL-W550
Unavailable	RL-W551
Unavailable	RL-W552
Unavailable	RL-W553
Unavailable	RL-W554
Unavailable	RL-W555
Unavailable	RL-W556
Unavailable	RL-W557
Unavailable	RL-W558
Unavailable	RL-W559
Unavailable	RL-W560
Unavailable	RL-W561
Unavailable	RL-W562
Unavailable	RL-W563

Table C-8. Hanford Site (RL) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
Unavailable	RL-W564
Unavailable	RL-W565
Unavailable	RL-W566
Unavailable	RL-W567
Unavailable	RL-W568
Unavailable	RL-W569
Unavailable	RL-W570
Unavailable	RL-W571
Unavailable	RL-W572
Unavailable	RL-W573
Unavailable	RL-W574
Unavailable	RL-W575
Unavailable	RL-W576
Unavailable	RL-W577
Unavailable	RL-W578
N/A	RL-W579
Unavailable	RL-W580
Unavailable	RL-W581
Unavailable	RL-W582
Unavailable	RL-W583
Unavailable	RL-W584
Unavailable	RL-W585
Unavailable	RL-W586
Unavailable	RL-W587
Unavailable	RL-W588
Unavailable	RL-W589
Unavailable	RL-W590
Unavailable	RL-W591
Unavailable	RL-W592
Unavailable	RL-W593
Unavailable	RL-W594
Unavailable	RL-W595
Unavailable	RL-W596
Unavailable	RL-W597
Unavailable	RL-W598
Unavailable	RL-W599
Unavailable	RL-W600
N/A	RL-W601
Unavailable	RL-W602
N/A	RL-W603

Table C-8. Hanford Site (RL) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
Unavailable	RL-W604
N/A	RL-W605
N/A	RL-W606
N/A	RL-W607
N/A	RL-W608
N/A	RL-W609
Unavailable	RL-W610
Unavailable	RL-W612
N/A	RL-W613
N/A	RL-W614
Unavailable	RL-W615
N/A	RL-W616
N/A	RL-W617
N/A	RL-W618
N/A	RL-W619
N/A	RL-W620
N/A	RL-W621
Unavailable	RL-W622
N/A	RL-W623
Unavailable	RL-W625
Unavailable	RL-W626
Unavailable	RL-W627
Unavailable	RL-W628
Unavailable	RL-W629
Unavailable	RL-W630
Unavailable	RL-W631
Unavailable	RL-W632
Unavailable	RL-W633
N/A	RL-W634
Unavailable	RL-W635
Unavailable	RL-W636
Unavailable	RL-W637
Unavailable	RL-W638
Unavailable	RL-W639
Unavailable	RL-W640
Unavailable	RL-W641
Unavailable	RL-W642
Unavailable	RL-W643
Unavailable	RL-W644
Unavailable	RL-W645

Table C-8. Hanford Site (RL) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
Unavailable	RL-W646
Unavailable	RL-W647
Unavailable	RL-W648
Unavailable	RL-W649
Unavailable	RL-W650
Unavailable	RL-W651
Unavailable	RL-W652
Unavailable	RL-W653
Unavailable	RL-W654
Unavailable	RL-W655
Unavailable	RL-W656
Unavailable	RL-W657
N/A	RL-W658
Unavailable	RL-W659
Unavailable	RL-W660
Unavailable	RL-W661
Unavailable	RL-W662
N/A	RL-W663
Unavailable	RL-W664
Unavailable	RL-W665
Unavailable	RL-W666
Unavailable	RL-W667
Unavailable	RL-W668
Unavailable	RL-W669
Unavailable	RL-W670
N/A	RL-W671
N/A	RL-W672
Unavailable	RL-W673
N/A	RL-W674
N/A	RL-W675
Unavailable	RL-W676
N/A	RL-W677
Unavailable	RL-W678
Unavailable	RL-W679
Unavailable	RL-W680
N/A	RL-W681
N/A	RL-W682
N/A	RL-W683
N/A	RL-W684
N/A	RL-W685

Table C-8. Hanford Site (RL) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
N/A	RL-W686
N/A	RL-W687
N/A	RL-W688
Unavailable	RL-W689
Unavailable	RL-W690
Unavailable	RL-W691
Unavailable	RL-W692
Unavailable	RL-W693
Unavailable	RL-W694
Unavailable	RL-W695
N/A	RL-W696
Unavailable	RL-W697
N/A	RL-W698
Unavailable	RL-W699
Unavailable	RL-W700
N/A	RL-W701
Unavailable	RL-W702
Unavailable	RL-W703
Unavailable	RL-W704
Unavailable	RL-W705
Unavailable	RL-W706
Unavailable	RL-W707
Unavailable	RL-W708
Unavailable	RL-W709
Unavailable	RL-W710
Unavailable	RL-W711
Unavailable	RL-W712
Unavailable	RL-W713
Unavailable	RL-W714
Unavailable	RL-W715
Unavailable	RL-W716
Unavailable	RL-W717
Unavailable	RL-W718
Unavailable	RL-W719
Unavailable	RL-W720
Unavailable	RL-W721
Unavailable	RL-W722
Unavailable	RL-W723
Unavailable	RL-W724
Unavailable	RL-W725

Table C-8. Hanford Site (RL) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
Unavailable	RL-W726
Unavailable	RL-W727
Unavailable	RL-W728
Unavailable	RL-W729
Unavailable	RL-W730
Unavailable	RL-W731
Unavailable	RL-W732
Unavailable	RL-W733
Unavailable	RL-W734
Unavailable	RL-W735
Unavailable	RL-W736
Unavailable	RL-W737
Unavailable	RL-W738
Unavailable	RL-W739
Unavailable	RL-W740
Unavailable	RL-W741
Unavailable	RL-W742
Unavailable	RL-W743
Unavailable	RL-W744
Unavailable	RL-W745
Unavailable	RL-W746
Unavailable	RL-W747
Unavailable	RL-W748
Unavailable	RL-W749
Unavailable	RL-W750
Unavailable	RL-W751
Unavailable	RL-W752
Unavailable	RL-W753
Unavailable	RLW-756
RL-Z001	RL-Z001
N/A	RL-Z002
N/A	RL-Z003

C-1.9 Hanford Office of River Protection (RP)

The Hanford Office of River Protection (RP) tanks were discussed in TWBIR Revision 2, but there were no specific waste streams identified. Twelve tanks in four waste streams have been included in the TWBIR - 2004. The tank waste is maintained by the RP and the waste streams are designated with an “RP” site identifier.

Table C-9 contains the waste streams identified for the RP tank waste.

**Table C-9. Hanford Office of River Protection (RP) Crosswalk of Waste Streams
TWBIR Revision 2 vs. TWBIR - 2004**

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
N/A	RP-W013
N/A	RP-W016
N/A	RP-W754
N/A	RP-W755

C-1.10 Idaho National Laboratory (IN)

The most significant change at the Idaho National Laboratory (INL) is that the legacy contact-handled (CH)-TRU waste will be processed through the Advanced Mixed Waste Treatment Facility. The CH-TRU debris waste will be compacted in the facility. An average of four compacted 55-gallon drums will be placed into a 100-gallon drum for shipment to the WIPP. Since thermal treatment, as planned and reported in TWBIR Revision 3, is no longer an option, the compaction of the debris waste, the mass of the cellulosic, plastic, and rubber (CPR) materials has increased.

The CH-TRU homogeneous waste will be overpacked into the 10-drum overpack (containing 10 55-gallon drums) for shipment to WIPP.

For the RH-TRU waste, the TWBIR Revision 2 included waste that was potentially RH-TRU waste, as well as waste known to be RH-TRU waste. The TWBIR - 2004 only addresses waste that is known to be RH-TRU waste; therefore, the volume has decreased.

Another significant change at INL is the addition of four waste streams from the pre-1970 waste streams (Lott 2004b).

Table C-10 contains the crosswalk of waste streams from TWBIR Revision 2 to the TWBIR - 2004 for the INL.

**Table C-10. Idaho National Laboratory (IN) Crosswalk of Waste Streams TWBIR
Revision 2 vs. TWBIR - 2004**

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
IN-W112	N/A

**Table C-10. Idaho National Laboratory (IN) Crosswalk of Waste Streams TWBIR
Revision 2 vs. TWBIR - 2004**

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
IN-W139.627, IN-W161.231, IN-W161.806, IN-W166.151, IN-W166.928, IN-W169-191, IN-W169-192, IN-W169.193, IN-W169.194, IN-W169.985, IN-W170.189, IN-W170.938, IN-W171.184, IN-W171.801, IN-W172.182, IN-W172.911, IN-W186.187, IN-W187.1094, IN-W187.121, IN-W189.1048, IN-W189.131, IN-W197.196, IN-W197.197, IN-W197.198, IN-W197.802, IN-W197.803, IN-W198.202, IN-W198.203, IN-W198.204, IN-W198.205 IN-W198.804, IN-W199.1039, IN-W199.209, IN-W202.1092, IN-W202.224, IN-W203.1081, IN-W203.210, IN-W203.211, IN-W203.212, IN-W204.215, IN-W204.216, IN-W204.217, IN-W205.1086, IN-W205.1087, IN-W205.220, IN-W206.935, IN-W206.936, IN-W207.238, IN-W207.980, IN-W207.981, IN-W208.242, IN-W208.243, IN-W208.988, IN-W209.244, IN-W209.994, IN-W210.1001, IN-W210.247, IN-W211.1009, IN-W211.249, IN- W212.1058, IN-W212.251, IN-W213.1069, IN-W213.252, IN-W213.253, IN-W214.1075, IN-W214.755, IN-W214.756, IN-W225.127, IN-W225.800, IN-W230.229, IN-W230.940, IN-W250.259, IN-W250.941, IN-W252.1000, IN-W252.282, IN-W252.283, IN-W252.811, IN-W254.1044, IN-W254.1045, IN-W254.289, IN-W254.290, IN-W256.1062, IN-W256.295, IN-W259.552, IN-W259.920, IN-W260.565, IN-W260.566, IN-W260.567, IN-W260.568, IN-W260.916, IN-W265.516, IN-W265.517, IN-W269.510, IN-W269.535, IN-W271.532, IN-W271.533, IN-W272.504, IN-W272.974, IN-W275.502, IN-W275.967, IN-W276.500, IN-W276.966, IN-W278.1090, IN-W278.495, IN-W280.1066, IN-W280.448, IN-W280.449, IN-W281.487, IN-W281.488, IN-W283.481, IN-W283.534, IN-W283.963, IN-W283.964, IN-W285.471, IN-W285.815, IN-W287.460, IN-W289.466, IN-W291.454, IN-W291.455, IN-W291.456, IN-W294.1057, IN-W294.342, IN-W294.343, IN-W294.814, IN-W296.327, IN-W296.329, IN-W296.330, IN-W296.331, IN-W296.813, IN-W298.317, IN-W298.318, IN-W298.812, IN-W298.979, IN-W300.308, IN-W300.930, IN-W302.299, IN-W302.913, IN-W304.860, IN-W304.861, IN-W305.1068, IN-W305.828, IN-W306.632, IN-W306.633, IN-W306.634, IN-W306.635, IN-W308.618, IN-W308.621, IN-W311.1013, IN-W311.604, IN-W312.602, IN-W312.942, IN-W314.1017, IN-W314.606, IN-W317.1028, IN-W317.1029, IN-W317.757, IN-W317.758, IN-W327.1085, IN-W327.735, IN-W329.681, IN-W329.682, IN-W330.667, IN-W330.678, IN-W334.675, IN-W334.961, IN-W336.660, IN-W336.820, IN-W338.657, IN-W338.956, IN-W339.655, IN-W339.955, IN-W345.669, IN-W345.819, IN-W351.648, IN-W351.922, IN-W354.1016, IN-W354.858, IN-W355.1015, IN-W355.857, IN-W356.1014, IN-W356.856, IN-W367.840, IN-W367.973, IN-W368.839, IN-W368.971, IN-W369.837, IN-W369.970, IN-W370.836, IN-W370.929, IN-W371.1018, IN-W371.831, IN-W373.1003, IN-W373.830, IN- W374.1091, IN-W374.829	IN-BN-510
IN-W157.906, IN-W157.907, IN-W157.144	IN-W157.144
IN-W159.119, IN-W159.120, IN-W159.1072	IN-W159.1072
IN-W163.234, IN-W163.1007	IN-W163.1007
IN-W164.1060, IN-W164.153	IN-W164.153
IN-W167.926, IN-W167.149	IN-W167.149
IN-W174.1082, IN-W174.154	IN-W174.154
IN-W177.1083, IN-W177.156	IN-W177.156
IN-W179.1084, IN-W179.158	IN-W179.158

**Table C-10. Idaho National Laboratory (IN) Crosswalk of Waste Streams TWBIR
Revision 2 vs. TWBIR - 2004**

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
IN-W188.1093, IN-W188.160	IN-W188.160
IN-W216.875, IN-W216.876, IN-W216.98, IN-W216.877, IN-W216.99, IN-W306.817, IN-W308.816	IN-W216.98
IN-W218.109, IN-W218.909	IN-W218.909
IN-W220.925, IN-W220.114	IN-W220.114
IN-W221.113, IN-W221.927	IN-W221.927
IN-W222.117, IN-W222.965, IN-W222.116	IN-W222.116
IN-W228.102, IN-W228.103, IN-W228.883, IN-W228.884, IN-W228.885, IN-W228.886, IN-W306.817, IN-W308.816, IN-W228.101	IN-W228.101
IN-W240.272, IN-W240.931	IN-W240.931
IN-W243.274, IN-W243.275, IN-W243.276, IN-W243.277, IN-W243.808	IN-W243.808
IN-W245.1034, IN-W245.1035, IN-W245.302, IN-W245.301	IN-W245.301
IN-W247.1038, IN-W247.523, IN-W247.524, IN-W247.810	IN-W247.810
IN-W249.1071, IN-W249.528, IN-W249.527	IN-W249.527
IN-W257.558, IN-W257.947	IN-INTEC-SFS-01
IN-W259.921, IN-W349.667, IN-W349.924	IN-AE-AGHC-01
IN-W267.514, IN-W267.1005	IN-W267.1005
IN-W309.610, IN-W308.816, IN-W306.817, IN-W309.609	IN-W309.609
IN-W319.583, IN-W319.584	IN-W319.584
IN-W321.578, IN-W321.1023	IN-W321.1023
IN-W332.962, IN-W332.661	IN-W332.661
IN-W347.646, IN-W347.818	IN-W347.818
IN-W348.846, IN-W348.1012	IN-W348.1012
IN-W357.850, IN-W357.1022	IN-W357.1022
IN-W361.849, IN-W361.1021	IN-W361.1021
IN-W362.848, IN-W362.1020	IN-W362.1020
IN-W363.847, IN-W363.1019	IN-W363.1019
IN-W364.844, IN-W364.845, IN-W364.1011	IN-W364.1011
IN-W365.842, IN-W365.843, IN-W365.1010	IN-W365.1010
IN-W366.1004, IN-W366.841	IN-W366.841
IN-W375.827, IN-W375.1096	IN-W375.1096
IN-W263.520	IN-W263.520
IN-W353.859	IN-W353.859
IN-W315.601	IN-W315.601
IN-W181.162	IN-W181.162
IN-W219.110	IN-W219.110
IN-W219.914	IN-W219.914
IN-W322.851	IN-W322.851
IN-W322.952	IN-W322.952
IN-W323.562	IN-W323.562

**Table C-10. Idaho National Laboratory (IN) Crosswalk of Waste Streams TWBIR
Revision 2 vs. TWBIR - 2004**

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
IN-W323.951	IN-W323.951
IN-W337.673	IN-W337.673
IN-W337.957	IN-W337.957
IN-W341.671	IN-W341.671
IN-W341.954	IN-W341.954
IN-W342.652	IN-W342.652
IN-W342.953	IN-W342.953
IN-W358.854	IN-W358.854
IN-W358.855	IN-W358.855
IN-W358.948	IN-W358.948
IN-W358.949	IN-W358.949
IN-W372.832	IN-W372.832
IN-W372.918	IN-W372.918
N/A	IN-NRF-153
N/A	IN-TRA-150
N/A	IN-TRA-157
N/A	IN-AW-161
IN-Z001	IN-GEM-01
IN-Z001	IN-GEM-02
IN-W325.1076	IN-W325.1076
IN-W325.679	IN-W325.679
IN-W350.650	IN-W350.650
IN-W350.923	IN-W350.923
IN-W353.917	IN-W353.917
IN-W359.853	IN-W359.853
IN-W360.852	IN-W360.852
IN-W360.912	IN-W360.912
IN-W146.699	IN-W146.699
N/A	IN-SBW-01A
N/A	IN-SBW-01B
N/A	IN-TRA-BE-01
IN-Z001	IN-Z001
N/A	IN-Z001A
N/A	IN-ICP-002
N/A	IN-ICP-003
N/A	IN-ICP-004
N/A	IN-ICP-005

C-1.11 Knolls Atomic Power Laboratory (KA)

The moderate increase of the projected volumes of TRU waste for Knolls Atomic Power Laboratory (KAPL) waste streams KA-T001 and KA-W016 between the TWBIR Revision 2 and TWBIR - 2004 are a result of improved estimates of material that is expected to be generated, characterized, and packaged in its final waste form.

The TRU waste inventory volumes listed in TWBIR, Revision 2, for waste stream KA-T001 stored in final form was erroneously listed as 2.5 m³ (88.3 ft³). This was incorrect and only a small amount of TRU waste had actually been generated – 0.2 m³ (7.06 ft³) (as-generated volume). At the time, there was no TRU waste stored in final waste form. The 2.5 m³ (88.3 ft³) listed in the Revision 2 was the projected volume. The TWBIR, Revision 2 should have indicated 0 m³ of stored TRU waste in its final waste form. The TWBIR - 2004 value is 0 m³ as there is still no TRU waste in its final waste form.

Table C-11 provides the crosswalk for KAPL waste streams from TWBIR Revision 2 to the TWBIR - 2004.

Table C-11. Knolls Atomic Power Laboratory (KA) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
KA-T001	KA-T001
KA-W016	KA-W016

C-1.12 Knolls Atomic Power Laboratory-Nuclear Fuel Services (KN)

Knolls Atomic Power Laboratory-Nuclear Fuel Services (KAPL-NFS) is a new site. This is the first time waste streams from the site have been included in the TRU waste inventory information.

Table C-12 provides the waste streams from KAPL-NFS.

Table C-12. Knolls Atomic Power Laboratory-Nuclear Fuel Services (KN) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
N/A	KN-B234TRU
N/A	KN-B234PCBTRU

C-1.13 Lawrence Livermore National Laboratory (LL)

The inventory of stored waste at Lawrence Livermore National Laboratory (LLNL) increased because of ongoing TRU waste generation. LLNL updated the originally reported numbers for most of the waste streams to reflect the current inventory.

A new high-efficiency particulate air (HEPA) filter mixed waste stream, LL-W034, was established to accommodate several old boxes and one drum.

Table C-13 contains the crosswalk of waste streams from TWBIR Revision 2 to the TWBIR - 2004 for the LLNL.

Table C-13. Lawrence Livermore National Laboratory (LL) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
LL-M001	LL-M001
LL-T001	LL-T001
LL-T002	LL-T002
LL-T003	LL-T003
LL-T004	LL-T004
LL-T005	LL-T005, LL-W034
LL-W018	LL-W018
LL-W019	LL-W019

C-1.14 Los Alamos National Laboratory (LA)

The major differences in the Los Alamos National Laboratory (LANL) submittals for the TWBIR Revision 2 and the TWBIR - 2004 are due to three factors:

- Redefinition of waste streams,
- Addition of waste generated between 1996 and 2003, and
- Addition of radiography characterization data for approximately 5,000 drums.

C-1.14.1 Redefinition of Waste Streams

Following the guidance in the draft WIPP Waste Analysis Plan (WAP) (NMED 1999), LANL reorganized its waste streams beginning in 1998 with the publication of the “LANL Waste Characterization Sampling Plan, R.0.” Waste streams in the TWBIR, Revision 2, were defined based on major waste material parameter content (e.g., metals, combustible debris). These were further subdivided beginning in 1998 according to the waste generation facility. Waste stream assignments, especially involving the mixed or non-mixed status of wastes, were further refined using additional acceptable knowledge studies in subsequent versions of the “Acceptable Knowledge Information Summary.” There is no simple rule for correspondence in waste stream assignment between the LANL submittals for TWBIR, Revision 2 and TWBIR - 2004; improved acceptable knowledge (AK) resulted in numerous waste stream reassignments.

C-1.14.2 Addition of Waste

LANL continues to generate waste – approximately 1,600 containers were generated between 1996 and the latest TWBIR - 2004 submittal. These have been added to the LANL inventory in the latest data submittal.

C-1.14.3 Radiography Characterization Data

LANL has obtained real-time radiography (RTR) data for about 5,000 waste drums from almost all of the defined waste streams. RTR supplies information on average, minimum, and maximum waste material parameter content for each waste stream. Isotopic information for each waste stream is still based primarily on AK (generator assays).

Table C-14 contains the crosswalk of waste streams from TWBIR Revision 2 to the TWBIR - 2004 for the LANL.

**Table C-14. Los Alamos National Laboratory (LA) Crosswalk of Waste Streams
TWBIR Revision 2 vs. TWBIR - 2004**

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
LA-M002	LA-TA-00-05, LA-TA-03-28, LA-TA-21-13, LA-TA-21-43, LA-TA-50-17, LA-TA-50-18
LA-T001	LA-TA-00-01, LA-TA-21-42, LA-TA-50-11, LA-TA-50-15, LA-TA-55-19, LA-TA-55-30, LA-TA-55-44
LA-T002	LA-TA-50-17
N/A	LA-OS-00-01
LA-T004	LA-IT-00-01, LA-PX-00-01, LA-TA-00-02, LA-TA-00-05, LA-TA-00-06, LA-TA-00-07, LA-TA-03-12, LA-TA-03-13, LA-TA-03-19, LA-TA-03-20, LA-TA-03-24, LA-TA-03-26, LA-TA-03-30, LA-TA-21-06, LA-TA-21-12, LA-TA-21-15, LA-TA-21-42, LA-TA-48-01, LA-TA-50-11, LA-TA-50-15, LA-TA-50-40, LA-TA-55-19, LA-TA-55-20, LA-TA-55-21, LA-TA-55-30, LA-TA-55-33, LA-TA-55-38, LA-TA-55-43, LA-TA-55-44, LA-TA-55-48, LA-TA-55-49, LA-TA-55-56
LA-T005	LA-IT-00-01, LA-SL-00-01, LA-TA-00-01, LA-TA-00-02, LA-TA-00-04, LA-TA-00-05, LA-TA-00-06, LA-TA-00-07, LA-TA-03-12, LA-TA-03-19, LA-TA-03-20, LA-TA-03-24, LA-TA-03-42, LA-TA-21-12, LA-TA-48-01, LA-TA-50-11, LA-TA-55-19, LA-TA-55-20, LA-TA-55-21, LA-TA-55-22, LA-TA-55-23, LA-TA-55-24, LA-TA-55-25, LA-TA-55-28, LA-TA-55-30, LA-TA-55-32, LA-TA-55-33, LA-TA-55-34, LA-TA-55-38, LA-TA-55-39, LA-TA-55-43, LA-TA-55-44, LA-TA-55-49, LA-TA-55-53, LA-TA-55-56, LA-TA-55-60
LA-T006	LA-TA-00-02, LA-TA-00-05, LA-TA-21-15, LA-TA-21-12, LA-TA-48-01, LA-TA-50-15, LA-TA-55-30, LA-TA-55-32, LA-TA-55-33, LA-TA-55-38, LA-TA-55-44, LA-

**Table C-14. Los Alamos National Laboratory (LA) Crosswalk of Waste Streams
TWBIR Revision 2 vs. TWBIR - 2004**

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
	TA-55-49
LA-T007	LA-TA-03-24, LA-TA-03-26
LA-T008	LA-TA-00-01, LA-TA-03-29, LA-TA-21-14, LA-TA-21-41, LA-TA-21-44, LA-TA-50-20
LA-T009	LA-IT-00-01, LA-OS-00-02, LA-TA-00-01, LA-TA-00-02, LA-TA-00-04, LA-TA-00-07, LA-TA-03-12, LA-TA-03-13, LA-TA-03-19, LA-TA-03-20, LA-TA-03-24, LA-TA-03-26, LA-TA-03-40, LA-TA-03-42, LA-TA-21-12, LA-TA-21-41, LA-TA-21-42, LA-TA-21-44, LA-TA-50-11, LA-TA-50-15, LA-TA-50-17, LA-TA-50-19, LA-TA-50-41, LA-TA-55-19, LA-TA-55-30, LA-TA-55-33, LA-TA-55-34, LA-TA-55-38, LA-TA-55-44, LA-TA-55-48, LA-TA-55-49, LA-TA-55-53, LA-TA-55-56, LA-TA-55-60, LA-TA-55-62, LA-TA-55-63
LA-TR04	LA-TA-03-27
LA-TR05	LA-TA-03-27
LATR07	LA-TA-00-02, LA-TA-03-27
LA-W001 is LA-M001 (This is LANL Local ID.)	LA-TA-00-02, LA-TA-00-04, LA-TA-00-05, LA-TA-03-12, LA-TA-03-19, LA-TA-03-24, LA-TA-03-40, LA-TA-21-12, LA-TA-21-40, LA-TA-21-42, LA-TA-49-01, LA-TA-50-11, LA-TA-50-15, LA-TA-50-40, LA-TA-55-19, LA-TA-55-30, LA-TA-55-44
LA-W003 is LA-M003 (This is LANL Local ID.)	LA-TA-00-01, LA-TA-00-05, LA-TA-21-43, LA-TA-50-10, LA-TA-50-19
LA-W004 is LA-M004 (This is LANL Local ID.)	LA-TA-00-05, LA-TA-00-06, LA-TA-00-07, LA-TA-03-12, LA-TA-03-13, LA-TA-03-19, LA-TA-03-20, LA-TA-21-06, LA-TA-55-19, LA-TA-55-20, LA-TA-55-30, LA-TA-55-44, LA-TA-55-56
LA-W005 is LA-M005 (This is LANL Local ID.)	LA-TA-00-02, LA-TA-00-04, LA-TA-00-06, LA-TA-00-07, LA-TA-03-13, LA-TA-03-19, LA-TA-03-24, LA-TA-55-19, LA-TA-55-21, LA-TA-55-22, LA-TA-55-23, LA-TA-55-28, LA-TA-55-30, LA-TA-55-32, LA-TA-55-34, LA-TA-55-38, LA-TA-55-39, LA-TA-55-43, LA-TA-55-44, LA-TA-55-53, LA-TA-55-56, LA-TA-55-60, LA-TA-55-61
LA-W006 is LA-M006	LA-TA-00-05, LA-TA-03-30, LA-TA-21-16, LA-TA-50-19, LA-TA-55-30, LA-TA-55-32, LA-TA-55-38, LA-TA-55-41, LA-TA-55-44, LA-TA-55-49, LA-TA-55-53, LA-TA-03-31
LA-W009 is LA-M009 (This is LANL Local ID.)	LA-IT-00-01, LA-TA-00-01, LA-TA-00-02, LA-TA-00-03, LA-TA-00-04, LA-TA-03-13, LA-TA-03-19, LA-TA-03-28, LA-TA-03-40, LA-TA-21-16, LA-TA-21-40, LA-TA-50-15, LA-TA-50-17, LA-TA-50-18, LA-TA-50-19, LA-TA-50-40, LA-TA-55-19, LA-TA-55-30, LA-TA-55-38, LA-TA-55-44, LA-TA-55-49, LA-TA-55-53, LA-TA-55-56, LA-TA-55-60, LA-TA-55-61
LA-W066 is LA-M001 (This is LANL Local ID.)	LA-TA-00-02, LA-TA-00-04, LA-TA-00-05, LA-TA-03-12, LA-TA-03-19, LA-TA-03-24, LA-TA-03-40, LA-TA-

**Table C-14. Los Alamos National Laboratory (LA) Crosswalk of Waste Streams
TWBIR Revision 2 vs. TWBIR - 2004**

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
	21-12, LA-TA-21-40, LA-TA-21-42, LA-TA-49-01, LA-TA-50-11, LA-TA-50-15, LA-TA-50-40, LA-TA-55-19, LA-TA-55-30, LA-TA-55-44
LA-W067 is LA-T004 (This is LANL Local ID.)	See LANL LA-T004
LA-W068 is LA-T005 (This is LANL Local ID.)	See LANL LA-T005
LA-WR01 is LA-MR01 (This is LANL Local ID.)	LA-TA-00-01, LA-TA-03-27
LA-WR05 is LA-MR05 (This is LANL Local ID.)	LA-TA-03-27
N/A	LA-TA-55-52
LA-Z001	Unavailable

C-1.15 Nevada Test Site (NT)

The Nevada Test Site (NTS) has one new waste stream identified in the TWBIR - 2004 from the National Nuclear Security Administration. That new waste stream results from activities from the Joint Actinide Shock Physics Experimental Research (JASPER) Facility.

Table C-15 contains the crosswalk of waste streams from TWBIR Revision 2 to the TWBIR - 2004 for the NTS.

**Table C-15. Nevada Test Site Laboratory (NT) Crosswalk of Waste Streams
TWBIR Revision 2 vs. TWBIR - 2004**

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
NT-W001	NT-W001
NT-W021	NT-W021
N/A	NT-JAS-01

C-1.16 Oak Ridge National Laboratory (OR)

C-1.16.1 Waste Streams

The number of waste streams was reduced from 16 to 9. The reason for the change is to better represent the waste streams that WIPP will receive. The previously identified waste streams were reflective of the stored inventory. The new waste stream information reflects the repackaged waste after sorting, treatment, re-characterization, and repackaging.

Corresponding to the WIPP-ID changes, the waste matrix codes have been updated to reflect the waste stream parameters.

C-1.16.2 TRUCON Codes

There were no significant changes in the TRUCON codes. Oak Ridge will need to work with WIPP to obtain TRUCON codes for the various waste streams as Oak Ridge approaches

certification. The currently approved Oak Ridge TRUCON codes (OR-125 and OR-225) are still needed.

C-1.16.3 EPA Codes

The EPA codes were eliminated for the waste because of treatment. The previous waste stream description included EPA codes for characteristic heavy metals including D006, D008, D009, and D011. The current DOE-ORO contract for processing the TRU waste includes treatment to meet the Resource Conservation and Recovery Act (RCRA) Land Disposal Restrictions. Therefore, the TRU waste will not carry the characteristic EPA codes at the time it is sent to WIPP.

C-1.16.4 Radionuclides

The radioisotope inventory for Oak Ridge has changed considerably. The radioisotope inventories have increased from approximately 125,000 curies in TWBIR, Revision 2 to 245,000 curies in the TWBIR - 2004. The TWBIR Revision 2 information indicated that the predominant isotopes by activity were ^{60}Co and $^{110\text{m}}\text{Ag}$, with over a factor of ten reduction to reach the next dominant isotopes (^{241}Pu , ^{241}Am , ^{90}Sr , ^{137}Cs , etc.). The TWBIR - 2004 information indicates the predominant isotopes are ^{241}Pu , ^{90}Sr , and ^{137}Cs with over a factor of ten reduction to reach the next dominant isotopes (^{238}Pu , ^{152}Eu , ^{244}Cm , etc.). The changes in the radioisotope inventory are attributable to three sources:

- Additional characterization information
- Differences in waste processing strategies
- Additional waste streams

Oak Ridge has obtained more reliable characterization data than what existed five years ago. A considerable number of samples have been obtained from the TRU sludge and analyzed. Further characterization was also performed for the CH- and RH-TRU waste debris from the major production facilities in Oak Ridge. The debris characterization effort identified more actinides and other isotopes than were previously included.

Oak Ridge waste processing includes compaction of the waste and size reduction of the waste. Since the TWBIR activities are reported as concentrations (i.e., Ci/m^3), compaction and size reduction would increase the concentration. However, a net reduction of radioisotopes will be going to WIPP as a result of waste sorting and segregation. Sorting will generate LLW that will be sent to the NTS. Offsetting the isotope reduction by the generation of LLW is a small increase in the volume of unsorted waste. All told, these changes result in only moderate change to the overall totals.

Oak Ridge has identified a few additional waste streams that have added a significant amount of radioisotopes. These streams include TRU soils, fuel salts, and decontamination and decommissioning (D&D) debris.

C-1.16.5 Packaging

The packaging, when realigned to the new waste stream designators, has not changed. Oak Ridge plans to send CH-TRU waste in 55-gallon drums and RH-TRU waste in 72B canisters.

C-1.16.6 Volumes

The volume of waste being sent from Oak Ridge to WIPP has decreased from approximately 3,800 m³ (134,216 ft³) in TWBIR Revision 2 to 1,100 m³ (38,852 ft³) in the TWBIR - 2004. This is mostly attributable to the planned volume reduction techniques during waste processing including waste segregation (LLW from TRU), compaction, size reduction, and evaporative drying for sludge.

The Oak Ridge submittal for the TWBIR - 2004 is focused on the projected volumes, not the current volumes. The reason for the emphasis on projected volumes is that the Oak Ridge waste streams will be completely repackaged and will include considerable volume reduction to most of the waste streams. The repackaged waste is what will be sent to WIPP. The effort to prepare the TWBIR - 2004 information included a detailed evaluation of the projected volumes.

For the debris and homogeneous solids (sludge), the inventory information for TWBIR, Revisions 2 and 4 are essentially the same. The addition of environmental restoration waste streams (i.e., soil, salts, TRU Waste polychlorinated biphenyls [PCB]) resulted in new waste material parameter for those waste streams.

There is a significant change between WMP densities in TWBIR, Revision 2 and the TWBIR - 2004 due to the compaction and size reduction efforts previously discussed. Also, new waste streams (such as soil) have been added and their specific WMP densities are included in the TWBIR - 2004.

Table C-16 contains the crosswalk of waste streams from TWBIR Revision 2 to the TWBIR - 2004 for the ORNL.

**Table C-16. Oak Ridge National Laboratory (OR) Crosswalk of Waste Streams
TWBIR Revision 2 vs. TWBIR - 2004**

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
OR-W041, OR-W052, OR-W053	OR-W201
OR-W044, OR-W045, OR-W047, OR-W048	OR-W202
N/A	OR-W203
N/A	OR-W204
OR-W054	OR-W211
OR-W040, OR-W043	OR-W212
N/A	OR-W213
N/A	OR-W214
OR-W042, OR-W046	OR-W215
OR-W051	N/A
OR-W049	N/A
OR-W050	N/A
OR-Z001	Unavailable

C-1.17 Paducah Gaseous Diffusion Plant (PA)

There were no changes to the Paducah waste streams from TWBIR, Revision 2 to TWBIR - 2004. Table C-17 contains the crosswalk of waste streams from TWBIR Revision 2 to the TWBIR - 2004 for the Paducah Gaseous Diffusion Plant.

Table C-17. Paducah Gaseous Diffusion Plant Laboratory (RA) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
PA-A015	PA-A015
PA-B015	PA-B015
PA-W014	PA-W014

C-1.18 Rocky Flats Environmental Technology Site (RF)

The major changes in the Rocky Flats Environmental Technology Site (RFETS) waste streams are that all the residues have been re-characterized as waste and have been processed and packaged as TRU or TRU mixed (MTRU) waste. Many waste streams were renamed from mixed residues (MR) waste to mixed TRU (MT) waste or TRU residues (TR) to TRU TRU (TT). Also, several new waste streams have been added. N/A for a waste stream indicates no inventory.

The waste material parameters (WMPs) and the radionuclide concentration in curies per cubic meter (Ci/m^3) are based on data from WIPP-approved RTR or assay systems.

Table C-18 contains the crosswalk of waste streams from TWBIR Revision 2 to the TWBIR - 2004 for the RFETS.

Table C-18. Rocky Flats Environmental Technology Site (RF) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
RF- MR-0070	N/A
RF-MR0089	RF-MT0089
RF-MR0090	RF-MT0090, RF-MT0093
RF-MR0091	RF-MT0091, RF-MT0093
RF-MR0092	RF-MT0092, RF-MT0093
RF-MR0097	RF-MT0097, RF-MT0093
RF-MR0099	RF-MT0099
RF-MR-0200	RF-TT0200
RF-MR0290	RF-MT0290
RF-MR-0292	RF-MT-0292
RF-MR-0299	N/A
RF-MR0320	RF-MT0320
RF-MR0321	RF-MT0321
RF-MR0330	RF-MT0330

Table C-18. Rocky Flats Environmental Technology Site (RF) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
RF-MR-0331	RF-MT-0331
RF-MR0332	RF-MT0332
RF-MR-0333	N/A
RF-MR0336	RF-MT0336
RF-MR0337	RF-MT0337
RF-MR-0338	RF-TT0338
RF-MR0339	RF-MT0339
RF-MR0340	RF-TT0340
RF-MR0341	RF-MT0339
RF-MR-0342	RF-MT-0342
RF-MR-0365, RF-MR-0409, RF-MR-0411, RF-MR-0413, RF-MR-0414, RF-MR-0434, RF-MT-0411, RF-TR0404, RF-TR0405, RF-TR0406, RF-TR0407, RF-TR0408, RF-TR0410, RF-TR0411, RF-TR0413, RF-TR0415, RF-TR0417, RF-TR0418, RF-TR0427, RF-TR0429, RF-TR0433, RF-TR0434, RF-TR0473, RF-TR0654,	RF-TT411R, RF-TT429R, RF-TT433X, RF-TT436R, RF-TT454X
RF-MR0371	RF-MT0371
RF-MR0373	RF-MT0373
RF-MR0374	RF-MT0374
RF-MR-0376	RF-MT0376
RF-MR0377	RF-MT0377
RF-MR0378	RF-MT0378
RF-MR-0387, RF-MR-0390, RF-MR-0392, RF-MR-0391, RF-MR-0395, RF-TR0390, RF-TR0395, RF-TR0396, RF-TR0398	RF-TT398R
RF-MR-0393	RF-TT0393, RF-TT393R
RF-MR-0400	N/A
RF-MR-0401	N/A
RF-MR0419	RF-MT0419
RF-MR0420	RF-MT0420
RF-MR0421, RF-MR0422, RF-MR0428	RF-MT420P
RF-MR0423	RF-MT0423
RF-MR-0500	N/A
RF-MR-0503	RF-MT0503, RF-MT0505
RF-MR-0508, RF-MR-0527	RF-MT0828, RF-MT0829, RF-MT0505
RF-MR0533	RF-MT0533, RF-TT0533
RF-MR0535	RF-MT0535
RF-MR-0541	RF-MT0541
RF-MR-X200	RF-TT0523, RF-MT532C, RF-TT0200
RF-MT0001	RF-MT0001, RF-MT0002, RF-MT0532E, RF-MT0532F, RF-MT0828, RF-MT0829

Table C-18. Rocky Flats Environmental Technology Site (RF) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
RF-MT0003	RF-MT0003, RF-MT0529, RF-MT0531, RF-MT0816, RF-MT0827, RF-MT0857
RF-MT0007	RF-MT0007
RF-MT-0292	RF-MT-0292
RF-MT-0299	RF-MT-0299
RF-MT0320	RF-MT0320, RF-MT3010, RF-MT3011, RF-TT3010, RF-TT3011
RF-MT0321	RF-MT0321, RF-MT3010, RF-MT3011, RF-TT3010, RF-TT3011
RF-MT-0328	RF-MT-0328
RF-MT0330	RF-MT0330, RF-MT3010, RF-MT3011, RF-TT3010, RF-TT3011
RF-MT-0331	RF-MT-0331
RF-MT-0335	RF-MT-0335
RF-MT0336	RF-MT0336, RF-MT3010, RF-MT3011, RF-TT3010, RF-TT3011
RF-MT0337	RF-MT0337, RF-MT3010, RF-MT3011, RF-TT3010, RF-TT3011
RF-MT-0338	N/A
RF-MT0339	RF-MT0339
RF-MT0341	RF-MT0339
RF-MT-0342	RF-MT-0342
RF-MT-0372	RF-MT-0372, RF-TT0372
RF-MT0374	RF-MT0374, RF-MT3010, RF-MT3011, RF-TT3010, RF-TT3011
RF-MT0375	RF-MT0375A, RF-TT0375A, RF-MT0375B, RF-TT0375B
RF-MT0377	RF-MT0377, RF-TT0377
RF-MT0378	RF-MT0378
RF-MT-0368	RF-TT0368
RF-MT-0391, RF-MT-0392	RF-TT398R
RF-MT-0393	RF-TT0393, RF-TT393R
RF-MT-0400	N/A
RF-MT-0409	RF-TT0409
RF-MT-0412	RF-TT0412
RF-MT-0414	N/A
RF-MT0420	RF-MT0420
RF-MT0425	RF-MT0425
RF-MT-0438	RF-MT-0438
RF-MT0440	RF-MT0440, RF-MT0443, RF-TT0443
RF-MT0442	RF-MT0442
RF-MT0444	RF-MT0444
RF-MT0480	RF-MT0480, RF-MT3010, RF-MT3011, RF-TT3010, RF-TT3011, RF-TT0971, RF-TT0972, RF-TT0973

Table C-18. Rocky Flats Environmental Technology Site (RF) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
RF-MT-0491	RF-MT-0491
RF-MT-0492	RF-TT0492
RF-MT-0541	RF-MT0541
RF-MT0544	RF-MT0545, RF-TT0545, RF-TT0886
RF-MT0800	RF-MT0800
RF-MT0801	RF-MT0801
RF-MT0803	RF-MT0803
RF-MT0806	RF-MT0806
RF-MT0807	RF-MT0807
RF-MT0821	RF-TT0821, RF-MT3010, RF-MT3011, RF-TT3010, RF-TT3011
RF-MT0822	RF-TT0822, RF-MT3010, RF-MT3011, RF-TT3010, RF-TT3011
RF-MT-0823	RF-MT-0823
RF-MT0831	RF-MT0831, RF-MT3010, RF-MT3011, RF-TT3010, RF-TT3011
RF-MT0831P	N/A
RF-MT0832	RF-MT0832, RF-MT3010, RF-MT3011, RF-TT3010, RF-TT3011
RF-MT0833	RF-MT0833, RF-MT3010, RF-MT3011, RF-TT3010, RF-TT3011
RF-MT0853	RF-MT0833
RF-MT0855	RF-MT0855
RF-MT0856	RF-MT0443, RF-MT3010, RF-MT3011, RF-TT3010, RF-TT3011
RF-MT2116	RF-MT2116
RF-MTX111	N/A
RF-MTX112	RF-MT-0299
RF-MTX115	RF-MT0816, RF-MT0827
RF-T010	RF-MT0800, RF-MT0803, RF-MT0807
RF-TR0044, RF-TR0067, RF-TR0081, RF-TR0087, RF-TR0146, RF-TR0289	RF-MT532C
RF-TR0080	RF-MT532A, RF-MT532B, RF-MT532C, RF-MT532D
RF-TR0082	RF-MT532A, RF-MT532B, RF-MT532C, RF-MT532D
RF-TR0083	RF-MT532A, RF-MT532B, RF-MT532C, RF-MT532D
RF-TR0084	RF-MT532A, RF-MT532B, RF-MT532C, RF-MT532D
RF-TR0086	RF-MT532A, RF-MT532B, RF-MT532C, RF-MT532D
RF-TR0089	RF-MT0089, RF-MT0H61, RF-MT532A, RF-MT532B, RF-MT532C, RF-MT532D,

Table C-18. Rocky Flats Environmental Technology Site (RF) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
RF-TR0145	N/A
RF-TR0290	RF-MT0H61
RF-TR0299	RF-TT0299
RF-TR0300	RF-TT0300
RF-TR0301	RF-TT0301, RF-TT301U
RF-TR0303	RF-TT0302
RF-TR0310	RF-TT0310, RF-TT310P
RF-TR0312	RF-TT0312
RF-TR0320	RF-TT0320
RF-TR0330	RF-TT0330
RF-TR0331	RF-TT-0331
RF-TR0334	RF-TT-0334, RF-TT0532B
RF-TR0335	RF-TT0335
RF-TR0336	RF-TT0336
RF-TR0337	RF-TT0337
RF-TR 0338	RF-TT0338, RF-TT338S
RF-TR0342	RF-TT0342
RF-TR0368	RF-TT0368, RF-TT0360
RF-TR0370	RF-TT0370
RF-TR0376	RF-TT0371
RF-TR0390	RF-TT390P
RF-TR0391	RF-TT0391, RF-TT391P
RF-TR0392	RF-TT0392, RF-TT392P
RF-TR0394	RF-TT0394, RF-TT394P
RF-TR0395	RF-TT395P
RF-TR0396	RF-TT396P
RF-TR0398	RF-TT0398, RF-TT398P
RF-TR0409	RF-TT0409
RF-TR0412	RF-TT0412
RF-TR0414	RF-TT0414
RF-TR0416	RF-TT0480
RF-TR0430	RF-TT0430
RF-TR0431	RF-TT0431
RF-TR0438	RF-TT0438, RF-TT0532B
RF-TR0440	RF-TT0440
RF-TR0441	RF-TT0441
RF-TR0442	RF-TT0442
RF-TR0444	RF-MT0444
RF-TR0479	RF-TT0479
RF-TR0480	RF-TT0480
RF-TR0484	RF-TT0484
RF-TR0485	RF-TT0485

Table C-18. Rocky Flats Environmental Technology Site (RF) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
RF-TR0486	RF-TT0486
RF-TR0489	RF-TT0489
RF-TR0504	N/A
RF-TR0527	RF-MT0828, RF-MT0829
RF-TR0541	RF-TT0541
RF-TR0600	N/A
RF-TR0601	RF-TT0601
RF-TR0653	RF-MT532D
RF-TR0655	RF-TT0655
RF-TT0300	RF-TT0300
RF-TT0301	RF-TT0301
RF-TT0302	RF-TT0302, RF-MT0302
RF-TT0303	RF-TT0303
RF-TT0312	RF-TT0312
RF-TT0320	RF-TT0320, RF-TT0483, RF-TT0854
RF-TT0330	RF-TT0330
RF-TT0335	RF-TT0335
RF-TT0336	RF-TT0336
RF-TT0337	RF-TT0337
RF-TT0338	RF-TT0338
RF-TT0374	RF-TT0374
RF-TT0376	RF-TT0376
RF-TT0430	RF-TT0430
RF-TT0431	RF-TT0431
RF-TT0438	RF-TT0438, RF-TT0532B
RF-TT0440	RF-TT0440, RF-TT0317
RF-TT0441	RF-TT0441, RF-TT0317
RF-TT0442	RF-TT0442, RF-TT0317
RF-TT0479	RF-TT0479
RF-TT0480	RF-TT0480, RF-TT0483, RF-TT0854
RF-TT0481	RF-TT0481
RF-TT0484	RF-TT0484
RF-TT0485	RF-TT0485, RF-TT0483, RF-TT0854
RF-TT0486	RF-TT0486
RF-TT0487	RF-TT0487
RF-TT0489	RF-TT0489, RF-TT0483, RF-TT0854
RF-TT0490	RF-TT0490, RF-MT0490
RF-TT0491	RF-TT0491
RF-TT0508	RF-MT0828, RF-MT0829
RF-TT0541	RF-TT0541
RF-TT0802	RF-TT0802
RF-TT0806	N/A

Table C-18. Rocky Flats Environmental Technology Site (RF) Crosswalk of Waste Streams TWBIR Revision 2 vs. TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
RF-TT0809	RF-TT0809
RF-TT0821	RF-TT0821
RF-TT0822	RF-TT0822
RF-TT0823	RF-TT0823
RF-TT0824	RF-TT0824
RF-TT0825	RF-TT0825
RF-TT0831	RF-MT0831
RF-TT0832	RF-TT0832
RF-TT0833,	RF-MT0831
RF-TT0999	N/A
RF-TT2116	RF-MT2116
RF-TT2216	RF-TT2216
RF-W011	RF-MT0480, RF-MT0488
N/A	RF-TT0069
N/A	RF-TT0532A
N/A	RF-MT0523A
N/A	RF-MT0523B
N/A	RF-MT0523C
N/A	RF-MT0523D
N/A	RF-MT0523E
N/A	RF-TT0523A
N/A	RF-TT0523B
N/A	RF-TT0523C
N/A	RF-TT0523D
N/A	RF-TT0523E

C-1.19 Sandia National Laboratories (SA)

C-1.19.1 Inventory Changes

The TWBIR, Revision 2, for Sandia National Laboratories, New Mexico (SNL/NM) included two waste streams: SA-W134 – Transuranic Waste at Hot Cell Facility and SA-T001 – Lovelace Inhalation Toxicology Research Institute (ITRI) Waste Stream. The TWBIR - 2004, renamed one waste stream, SA-W134 – TRU Waste from SNL/NM – Contact-Handled and created one new waste stream, SA-W135 – TRU Waste from SNL/NM – Remote-Handled. The total waste covered by these two waste streams shows an increase in volume from the TWBIR, Revision 2. This increase is due to the TRU waste volume generated during the decontamination and decommissioning of the Hot Cell Facility at SNL/NM Technical Area V being greater than originally anticipated, additional TRU waste identified during re-characterization efforts of legacy waste stored by SNL/NM, and an effort to identify nuclear material that has no defined use at the laboratory.

The updated volume for SA-T001 – Lovelace ITRI Waste Stream has been reduced from the TWBIR, Revision 2. This is due to a mission change at the Lovelace Respiratory Research Institute (LRRI). It is no longer a DOE-funded facility and its work with radioactive material, especially transuranic isotopes, has been greatly reduced. Any additional TRU waste generated by the facility will be the result of D&D efforts.

Table C-19 contains the crosswalk of waste streams from TWBIR Revision 2 to the TWBIR - 2004 for the SNL.

**Table C-19. Sandia National Laboratories (SA) Crosswalk of Waste Streams
TWBIR Revision 2 vs. TWBIR - 2004**

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
SA-T001	SA-T001
SA-W134	SA-W134, SA-W134M, SA-W135
SA-Z001	SA-Z001

C-1.20 Savannah River Site (SR)

The TWBIR, Revision 2, contained 47 specific waste streams for the Savannah River Site (SRS); 18 waste streams were TRU and 29 waste streams were mixed TRU (MTRU). The reported stored inventory was 9,194 m³ (324,732 ft³). In TWBIR, Revision 2, the technology identified for treating part of the inventory was vitrification that had a volume reduction ratio of 30 to 1. Also included was size reduction for large metal components that had to fit into standard waste boxes (SWBs). The size reduction ratio used was 3.5 to 1. As a result, the final waste forms identified were vitrified debris, heterogeneous debris, and metal debris.

The SRS has consolidated the 47 waste streams into 20 waste streams. This is because vitrification will no longer be implemented for treatment and the large metal components will only be size-reduced to fit into 5 ft by 5 ft by 8 ft containers. As a result, the vitrified and metal waste streams have been deleted and are now included in the heterogeneous debris waste streams. The reported TWBIR - 2004, stored inventory is 11,612 m³ (410,135.8 ft³).

The SRS also identifies five future waste streams to be generated as a result of pit disassembly and waste solidification activities. It also identifies the future generation of 270 m³ (9,536.4 ft³) of waste from Mound. This is the inventory currently being shipped to SRS. As shown in Table C-20, all 13 waste streams from Mound (identified in TWBIR, Revision 2) are accounted for in Waste Stream W027-999-HET (TWBIR - 2004).

Having compared the EPA Hazardous Waste codes between TWBIR, Revision 2 and TWBIR - 2004, five codes have been added in the TWBIR - 2004. The five codes are D029, D035, D039, D040, and D043. These codes were added as a result of Acceptable Knowledge report development.

Table C-20 contains the crosswalk of waste streams from TWBIR Revision 2 to the TWBIR - 2004 for the SRS.

**Table C-20. Savannah River Site (SR) Crosswalk of Waste Streams
TWBIR Revision 2 vs. TWBIR - 2004**

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
T001-221F-MET, T001-221F-VIT, T001-221F-HET	T001-221F-HET
T001-221H-MET, T001-221H-VIT, T001-221H-HET	T001-221H-HET
T001-235F-MET, T001-235F-VIT, T001-235F-HET	T001-235F-HET
T001-772F-MET, T001-772F-VIT, T001-772F-HET	T001-772F-HET
T001-773A-MET, T001-773A-VIT, T001-773A-HET	T001-773A-HET
T001-773A-CLA	T001-773A-CLAS
T003-773A-VIT, T003-773A-HET	T003-773A-HET
W006-773A-VIT	W006-773A-VIT
W026-221F-VIT, W026-221F-HET	W026-221F-HET
W026-221H-VIT, W026-221H-HE	W026-221H-HET
W026-235F-VIT, W026-235F-HET	W026-235F-HET
W026-772F-VIT, W026-772F-HET	W026-772F-HET
W026-773A-VIT, W026-773A-HE	W026-773A-HET
W027-221F-ME, W027-221F-VIT, W027-221F-HET	W027-221F-HET
W027-221H-ME, W027-221H-VIT, W027-221H-HE	W027-221H-HET
W027-235F-ME W027-235F-VIT, W027-235F-HET	W027-235F-HET
W027-772F-ME, W027-772F-VIT, W027-772F-HET	W027-772F-HET
W027-773A-ME, W027-773A-VIT, W027-773A-HE	W027-773A-HET
W027-999-VIT, W027-999-HET, MD-M001, MD-T001, MD-T003, MD-T005, MD-T006, MD-T007, MD-T008, MD-T009, MD-T010, MD-T012, MD-W002, MD-W003, MD-W017	W027-999-HET
W053-773A-VIT	W053-773A-VIT
N/A	SR-T001-WSB-1
N/A	SR-W026-WSB-2
N/A	SR-T001-WSB-3
N/A	SR-W026-PDCF-1
N/A	SR-W026-MFFF-1
SR-Z001	Unavailable

C-1.21 Separations Process Research Unit (SP)

The Separations Process Research Unit (SPRU) was mentioned in TWBIR Revision 2, but no waste streams were identified. One waste stream from SPRU is now included in TWBIR - 2004.

Table C-21 provides the waste stream from SPRU.

**Table C-21. Separations Process Research Unit (SP) Crosswalk of Waste Streams
TWBIR Revision 2 vs. TWBIR - 2004**

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
N/A	SP-T001

C-1.22 U.S. Army Material Command (MC)

No changes were reported for the U.S. Army Material Command (USAMC) waste streams with this TWBIR - 2004.

Table C-22 contains the crosswalk of waste streams from TWBIR Revision 2 to the TWBIR - 2004 for the USAMC.

**Table C-22. U.S. Army Material Command (MC) Crosswalk of Waste Streams
TWBIR Revision 2 vs. TWBIR - 2004**

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
MC-W001	MC-W001

C-1.23 West Valley Demonstration Project (WV)

Four waste streams were removed from the inventory as a result of re-characterization. Final form inventory was reduced because of size reduction and repackaging.

A Remote-Handled Waste Facility (RHWF) is being constructed to sort, characterize, size-reduce, decontaminate, and repack waste currently stored on site. Operations at the RHWF are expected to begin in the first quarter of fiscal year 2005. As a result of this new facility, the RH-TRU waste portion of West Valley Demonstration Project (WVDP) waste, final form has been reduced. One additional waste stream number has been assigned for inventory tracking purposes as a result of the RHWF Process. The WV-T021 waste stream is a subset of waste stream WV-T001, Fissile Material, as shown in Table C-23.

Three decontamination projects were initiated and three additional waste stream numbers were assigned for inventory tracking purposes as shown in Table C-23.

Table C-23 contains the crosswalk of waste streams from TWBIR Revision 2 to the TWBIR - 2004 for the WVDP.

**Table C-23. West Valley Demonstration Project (WVDP) Crosswalk of Waste
Streams TWBIR Revision 2 to TWBIR - 2004**

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
WV-M005	WV-M005, WV-T019
WV-M007	WV-M007
WV-M008	WV-M008
WV-M010	WV-M010
WV-M012	N/A
WV-M013	WV-M013
WV-M015	WV-M015
WV-T001	WV-T001, WV-T020, WV-T021
WV-T002	N/A
WV-T003	N/A

Table C-23. West Valley Demonstration Project (WVDP) Crosswalk of Waste Streams TWBIR Revision 2 to TWBIR - 2004

TWBIR Revision 2 Waste Streams	TWBIR - 2004 Waste Streams
WV-T004	WV-T004
WV-T006	WV-T006
WV-T009	WV-T009
WV-T011	WV-T011
WV-T014	WV-T014, WV-T018
WV-T016	WV-T016, WV-T018
WV-T017	WV-T017
WV-W041	N/A
WV-W024	WV-W024
WV-Z001	WV-Z001

REFERENCES

Department of Energy (DOE) 1995. *Transuranic Waste Baseline Inventory Report, Revision 2*, DOE/CAO-95-1121, December 1995. ERMS #531643.

Department of Energy (DOE) 1996. *Transuranic Waste Baseline Inventory Report, Revision 3*, DOE/CAO-95-1121, June 1996. ERMS #531643.

Department of Energy (DOE) 2004. Title 40 CFR 191 Subparts B and C *Compliance Recertification Application 2004*. DOE/WIPP 2004-3231. March 2004.

Environmental Protection Agency (EPA) 1998. *Criteria for the Certification and Recertification of the Waste Isolation Pilot Plant's Compliance with the Disposal Regulations: Certification Decision: EPA Final Rule*. Federal Register 63:27353-27406, May 18, 1998, Radiation Protection Division, Washington, D.C. ERMS #251924.

Leigh and Crawford 2004. *Inventory Reassessment Summary For the CRA-2004 TRU Waste Inventory*. ERMS# 535837. June 2004.

Lott 2004a. *Analysis of the Deletion of Waste Streams from Hanford Richland Operations Office (RL)*, ERMS# 537695. October 2004. Los Alamos National Laboratory, Carlsbad, NM.

Lott 2004b. Inventory Data Change Control Form, [Waste that Was Placed in Non-WIPP Profiles and Moved to WIPP Profiles with Additional Information Added]. ERMS# 537966. November 2004.

New Mexico Environment Department (NMED) 1999. *Waste Isolation Pilot Plant Hazardous Waste Facility Permit*. NM4890139088-TSDF, Attachment B, Waste Analysis Plan. Santa Fe, New Mexico.

APPENDIX D
PACKAGING MATERIALS

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D-1.0 INTRODUCTION

The calculations for the packaging material densities (also referred to as container material densities) for steel, plastic, or lead present in each type of transuranic (TRU) waste container that will be shipped to the Waste Isolation Pilot Plant (WIPP) are based on packaging assumptions found in the *Transuranic Waste Baseline Inventory Report (TWBIR)*, Revision 2, Chapter 1 (DOE 1995) and on data documented in the TRUPACT-II Authorized Methods for Payload Control (TRAMPAC; DOE 2004a). Additional details concerning waste material parameters or packaging materials can be found in Table M-6 of Appendix M of this document. This appendix describes how packaging material densities are determined for sites where limited or no information was provided.

This appendix consists of two parts. In the first part, the general packaging material densities are given for directly loaded containers including 55-gallon drums, 85-gallon drums, 100-gallon drums, and standard waste boxes (SWBs). This part also includes the methods used to determine the packaging material densities when waste containers are overpacked, such as four 55-gallon drums overpacked in an SWB or ten 55-gallon drums overpacked in a ten-drum overpack (TDOP). These general methods are based on TWBIR, Revision 2 (DOE 1995) and the TRAMPAC (DOE 2004a). The calculations to estimate the packaging material densities in kilograms per cubic meter (kg/m^3) are presented in Section D-2.0.

The second part of this appendix summarizes the methods used to calculate and document packaging material densities on a site-by-site basis. These summaries are based on several "Routine Calculations" that were developed and documented under Sandia National Laboratories (SNL) Nuclear Waste Management Program Procedure, NP 9-1, *Analyses* (SNL 2001). These routine calculations were conducted after a thorough review of the inventory information revealed that some waste streams required modification to allow for shipping container volume. For example, some sites reported the current packaging configuration of their waste streams instead of the configuration that the waste would be in when shipped to and disposed in WIPP. Although this information was accurate and complete, the result was that the waste volumes reported did not truly reflect the volume the waste will occupy when disposed in WIPP. Waste volume accuracy in this regard is vital for the Performance Assessment (PA) calculations in support of the Compliance Recertification Application 2004 (DOE 2004b) and the Performance Assessment Baseline Calculation (PABC) (Leigh et al. 2005a, Leigh et al. 2005b). The routine calculations serve to repair this discrepancy in the volumes and apply the new volumes to the waste and packaging material densities and the radionuclide concentrations. The methods used to estimate the packaging material densities in kg/m^3 are summarized in Section D-3.0, with reference to the actual routine calculations by SNL WIPP Records Center, Electronic Records Management System (ERMS) number.

D-2.0 GENERAL PACKAGING MATERIAL DENSITIES

D-2.1 Packaging Material Densities for a Directly Loaded 55-Gallon Drum

D-2.1.1 Steel

A 55-gallon drum is made of steel and weighs 27.2 kg (60 lbs) (DOE 2004a). The density of steel for the drum is calculated as follows:

$$\text{Density of Steel} = \frac{27.2 \text{ kg}}{0.208 \text{ m}^3 \text{ per drum}} = 131 \text{ kg/m}^3$$

D-2.1.2 Plastic

The rigid liner in a 55-gallon drum weighs 7.7 kg (17 lbs) (DOE 1995). The density of plastic packaging in a 55-gallon drum is calculated as follows:

$$\text{Density of Plastic} = \frac{7.7 \text{ kg}}{0.208 \text{ m}^3} = 37 \text{ kg/m}^3$$

D-2.2 Packaging Material Densities for a Directly Loaded 85-Gallon Drum

A request was submitted to the Nuclear Regulatory Commission (NRC) in October 2002 to approve directly loaded 85-gallon drums as payload containers as part of the CH TRAMPAC Revision 1 (DOE 2004a). This has now been approved as a WIPP shipping container.

Additionally, the TRAMPAC, Revision 1 (DOE 2002) used the term “85-gallon drum” to refer to “drums with a range of dimensions yielding 75 to 88 gallons.” Therefore, it is assumed that the density for 85-gallon drums applies to all drums between 75 and 88 gallons.

D-2.2.1 Steel

The weight of the 85-gallon drum is 36.7 kg (81 lbs) (DOE 2004a). The volume of an 85-gallon drum is 0.322 m³. The density of steel for the 85-gallon drum is calculated as follows:

$$\text{Density of Steel} = \frac{36.7 \text{ kg}}{0.322 \text{ m}^3 \text{ per 85-gallon drum}} = 114 \text{ kg/m}^3$$

D-2.2.2 Plastic

It is assumed that no plastic liners are used. Therefore, the value used for the plastic packaging material is 0.0 kg/m³.

D-2.3 Packaging Material Densities for a Directly Loaded 100-Gallon Drum

The 100-gallon drum is currently authorized for shipment in the TRUPACT-II (DOE 2004a) and has been added as an authorized payload container for the HalfPACT.

D-2.3.1 Steel

The weight of a steel, 100-gallon drum is 43.1 kg (95 lbs) (DOE 2004a). The volume of a 100-gallon drum is 0.379 m³. The density of steel for the 100-gallon drum is calculated as follows:

$$\text{Density of Steel} = \frac{43.1 \text{ kg}}{0.379 \text{ m}^3 \text{ per 100-gallon drum}} = 114 \text{ kg/m}^3$$

D-2.3.2 Plastic

It is assumed that no plastic liners are used. Therefore, the value used for the plastic packaging material is 0.0 kg/m³.

D-2.4 Packaging Material Densities for a Directly Loaded Standard Waste Box**D-2.4.1 Steel**

A SWB is made of steel and weighs 290.2 kg (640 lbs) (DOE 2004a). The volume of an SWB is 1.89 m³. The amount of steel is calculated as follows:

$$\text{Density of Steel} = \frac{290.2 \text{ kg}}{1.89 \text{ m}^3 \text{ per SWB}} = 154 \text{ kg/m}^3$$

D-2.4.2 Plastic

The plastic liner in a directly loaded SWB weighs approximately 2.27 kg (5 lbs) (DOE 1995). The plastic packaging density in a directly loaded SWB is calculated as follows:

$$\text{Density of Plastic} = \frac{2.27 \text{ kg}}{1.89 \text{ m}^3} = 1.2 \text{ kg/m}^3$$

D-2.5 Packaging Material Densities for a Directly Loaded Remote-Handled-Transuranic Waste Canister

There are two remote-handled (RH)-TRU waste canister designs available for use by the generator sites. One contains lead, the other does not. Since it was uncertain which canister would be used at the time of this report, this calculation uses the same assumption as that for the TWBIR Revision 2 (DOE 1995), and lead is included as packaging material for RH-TRU waste canisters.

D-2.5.1 Steel

The total weight of an empty RH-TRU waste canister is 799 kg (1,762 lbs), of which 386 kg (852 lbs) is steel and 413 kg (910 lbs) is lead (DOE 1995). This does not include the shield plug (included in emplacement materials). The volume of the RH-TRU waste canister is 0.89 m³. The density of steel for the RH-TRU waste canister is calculated as follows:

$$\text{Density of Steel} = \frac{386 \text{ kg}}{0.89 \text{ m}^3 \text{ per RH-TRU waste canister}} = 434 \text{ kg/m}^3$$

D-2.5.2 Plastic

For a directly loaded RH-TRU waste canister, it is assumed there would be no plastic packaging involved. Therefore, the amount of plastic for this case is zero.

D-2.5.3 Lead

The weight of lead in the RH-TRU waste canister is 413 kg (910 lbs) (DOE 1995), and the volume is 0.89 m³. The density of lead is calculated as follows:

$$\text{Density of Lead} = \frac{413 \text{ kg}}{0.89 \text{ m}^3 \text{ per RH-TRU waste canister}} = 464 \text{ kg/m}^3$$

D-2.6 Packaging Material Densities for a Standard Waste Box Used to Overpack Four 55-Gallon Drums**D-2.6.1 Steel**

For the case of four 55-gallon drums overpacked in an SWB, the total weight of steel is a combination of the steel in the SWB and the steel in the 55-gallon drums. The weight of a 55-gallon drum is 27.2 kg (60 lbs) and the weight of an SWB is 290.2 kg (640 lbs) (NRC 2003). The density of steel for the SWB containing four 55-gallon drums is calculated as follows:

$$\text{Density of Steel} = \frac{(4 \text{ drums} \times 27.2 \text{ kg steel per drum} + 290.2 \text{ kg})}{1.89 \text{ m}^3 \text{ per SWB}} = 211 \text{ kg/m}^3$$

D-2.6.2 Plastic

It is assumed that the plastic liner for the SWB will not be used when the drums are overpacked in the SWB. Thus, the plastic will be contributed entirely by the rigid liners in the four overpacked drums (refer to Section D-2.1.2 for plastic assigned to 55-gallon drums). The density of plastic packaging is calculated as follows:

$$\text{Density of Plastic} = \frac{4 \text{ drums} \times 7.7 \text{ kg of plastic per drum}}{1.89 \text{ m}^3 \text{ per SWB}} = 16 \text{ kg/m}^3$$

D-2.7 Packaging Material Densities for a Remote-Handled TRU-Waste Canister Used to Over-Pack Three 55-Gallon Drums

D-2.7.1 Steel

For the case of three 55-gallon drums overpacked in a RH-TRU waste canister, the total weight of steel is a combination of the steel in the RH-TRU waste canister and steel in the three 55-gallon drums. The weight of a 55-gallon drum is 27.2 kg (60 lbs) (DOE 2004a) and the weight of steel in an RH-TRU waste canister is 386 kg (852 lbs) (DOE 1995). The density of steel for the RH-TRU waste canister with three 55-gallon drums in it is calculated as follows:

$$\text{Density of Steel} = \frac{(3 \text{ drums} \times 27.2 \text{ kg}) + 386 \text{ kg}}{0.89 \text{ m}^3 \text{ per RH-TRU waste canister}} = 525 \text{ kg/m}^3$$

D-2.7.2 Plastic

The plastic will be contributed entirely by the rigid liners in the three overpacked 55-gallon drums. The plastic liners weigh approximately 7.7 kg (17 lbs) each (DOE 1995) and are in the total volume of the RH-TRU waste canister. The density of plastic packaging is calculated as follows:

$$\text{Density of Plastic} = \frac{3 \text{ drums} \times 7.7 \text{ kg of plastic per drum}}{0.89 \text{ m}^3 \text{ per RH-TRU waste canister}} = 26 \text{ kg/m}^3$$

D-2.7.3 Lead

Since the 55-gallon drums do not contribute any lead, the calculation for this case is the same as that of a directly loaded RH-TRU waste canister (464 kg/m³), as calculated in Section D-2.5.

D-2.8 Packaging Material Densities for Ten 55-Gallon Drums in a Ten-Drum Overpack

D-2.8.1 Steel

For the case of ten 55-gallon drums overpacked in a TDOP, the total weight of steel is a combination of the steel in the TDOP and the ten 55-gallon drums. The weight of an empty TDOP is 771 kg (1,700 lbs) (DOE 2004a). The volume of a TDOP is 4.79 m³. The weight of a 55-gallon drum is 27.2 kg. The density of steel packaging in the TDOP containing 10 drums is calculated as follows:

$$\text{Density of Steel} = \frac{(10 \text{ drums} \times 27.2 \text{ kg}) + 771 \text{ kg}}{4.79 \text{ m}^3 \text{ per TDOP}} = 218 \text{ kg/m}^3$$

D-2.8.2 Plastic

The plastic in the TDOP will be contributed entirely by the rigid liners in the 10-drum overpacks. The density of plastic packaging is calculated as follows (see plastic assignment for 55-gallon drums in Section D-2.1.2):

$$\text{Density of Plastic} = \frac{10 \text{ drums} \times 7.7 \text{ kg of plastic per drum}}{4.79 \text{ m}^3 \text{ per TDOP}} = 16 \text{ kg/m}^3$$

D-3.0 TRU WASTE SITE PACKAGING MATERIAL DENSITIES

Several generator sites originally reported inventory information in a way that did not reflect the volume the waste would occupy when disposed in WIPP. The volume of waste needed for the PABC (Leigh et al. 2005a; Leigh et al. 2005b) is the volume that will be disposed in WIPP. Therefore, packaging information and calculations were reviewed and adjusted as necessary to reflect the volume the waste would occupy once disposed in WIPP. Table D-1 lists the large and small quantity TRU waste generator sites that required some adjustment of their packaging material densities, along with the ERMS reference number for the associated routine calculation.

Table D-1. TRU Waste Generator Sites and Associated ERMS Numbers for Routine Calculations Related to Packaging Material Densities

Generator Site	ERMS # for Routine Calculation
Hanford Richland Operations Office (Hanford RL)	530693
Hanford Office of River Protection (Hanford RP)	530675
Idaho National Laboratory (INL)	530666 (IN-BN-510) 530688 (Non-Debris) 530679 (RH/Other)
Los Alamos National Laboratory (LANL)	530717
Argonne National Laboratories East (ANL-E)	530643
Argonne National Laboratories West (ANL-W)	530639
Battelle Columbus Laboratories (BCL)	530634
Energy Technology Engineering Center (ETEC)	530658
Knolls Atomic Power Laboratory (KAPL)	530648
Lawrence Livermore National Laboratory (LLNL)	530662
Paducah Gaseous Diffusion Plant (PGDP)	530670

Table D-2 contains a summary of the packaging configurations and packaging material densities for sites whose packaging required updating to obtain the volume needed for the PA in support of the PABC (Leigh et al. 2005a; Leigh et al. 2005b). The processes used to obtain these results are described in Sections D-3.1 through D-3.11.

Table D-2. Summary of Packaging Configurations and Packaging Material Densities

Generator Site ¹	Packaging Configuration ²	Steel Packaging Material Density (kg/m ³) ³	Plastic Packaging Material Density (kg/m ³) ³	Lead Packaging Material Density (kg/m ³) ³
Hanford RL	Directly loaded 55-gallon drums	131	37	0
	Directly loaded SWBs	154	1.2	0
Hanford RP	Three 55-gallon drums overpacked in an RH-TRU waste canister	525	26	464
INL	Directly loaded 55-gallon drums	131	37	0
	Directly loaded 100-gallon drums	119.8	0	0
	Ten 55-gallon drums overpacked in a TDOP	208	24	0
	Four 55-gallon drums overpacked in an SWB	211	16	0
	Three 55-gallon drums overpacked in an RH-TRU waste canister	525	26	464
	Three 30-gallon drums overpacked in an RH-TRU waste canister	498	0	464
LANL	Three 15-gallon drums overpacked in one 55-gallon drum	262	37	0
	One 30-gallon drum overpacked in one 55-gallon drum	207	37	0
	Other/unknown containers overpacked in 55-gallon drums	131	37	0
	Crates, fiberglass-reinforced polyethylene (FRP) boxes, and other/unknown large containers into SWBs or standard large boxes (SLBs)	154	1.2	0
	Repackaging crates, FRP boxes, and other/unknown large containers into SWBs	154	1.2	0
ANL-E	Three 30-gallon drums overpacked in an RH-TRU waste canister	481	15	464
ANL-W	Three 45-gallon drums overpacked in an RH-TRU waste canister	511	21	464
BCL	Three 55-gallon drums overpacked in an RH-TRU waste canister	770	17	464
ETEC	Three 55-gallon drums overpacked in an RH-TRU waste canister	525	26	464
KAPL	Three 55-gallon drums overpacked in an RH-TRU waste canister	525	26	464
LLNL	Repackaging large boxes into SWBs or SLBs	154	0	0
PGDP	Four 55-gallon drums overpacked in an SWB	212	17.5	0

¹ See the TWBIR - 2004 and the acronym section of this report.

² This is the packaging configuration determined to be acceptable for shipment to and disposal in WIPP.

³ These are the new packaging material densities as calculated, in the routine calculations listed in Table D-1.

D-3.1 Hanford Richland Packaging Material Densities

Hanford Richland (RL) originally reported 229 contact-handled (CH)-TRU and 119 RH-TRU waste streams (ERMS# 526736). The site had misinterpreted the “R” in one of their database fields to mean RH-TRU waste when it actually indicated that the waste was radioactive. The result was that Hanford RL actually had 306 CH-TRU waste streams and 42 RH-TRU waste streams. Therefore, 77 waste streams required a change in the shipping container from a RH-TRU waste canister to other packaging acceptable for CH-TRU waste shipment and disposal. As a result, the packaging material densities for the 77 CH-TRU waste streams were recalculated. Hanford RL submitted updated information indicating the appropriate shipping containers (Cooney 2003). The new shipping containers were directly loaded 55-gallon drums and SWBs. The packaging material densities for the 55-gallon drums and SWBs were determined as shown in Sections D-2.1 and D-2.4, respectively.

The updated volume of waste that will be received at the WIPP, the corresponding waste and packaging material densities, and the radionuclide concentrations were determined and documented in *Calculation of Waste Stream Volumes, Waste Material Densities, Container Material Densities, and Radionuclide Concentrations for Corrected Hanford (RL) Waste Streams for the Compliance Recertification Application* (Lott and Leigh, 2003a). The packaging material densities for these 77 waste streams were adjusted according to the results of this calculation.

D-3.2 Hanford River Protection Packaging Material Densities

Hanford River Protection (RP) originally reported two of its waste streams in a way that did not reflect the volume that the waste will occupy when disposed in WIPP (ERMS #526473). Specifically, Hanford RP intends to ship these waste streams in 55-gallon drums overpacked in RH-TRU waste canisters. However, the waste volume reported was determined using the internal volume of the three 55-gallon drums ($3 \times 0.21 = 0.63 \text{ m}^3$) instead of the volume of the RH-TRU waste canister (0.89 m^3), which is representative of the volume of waste to be emplaced in WIPP. The waste stream volume and the packaging material densities were recalculated based on the volume of the RH-TRU waste canister (0.89 m^3), as shown in Section D-2.7 for three 55-gallon drums overpacked in an RH-TRU waste canister.

The updated volume of waste that will be received at the WIPP, the corresponding waste and packaging material densities, and the radionuclide concentrations were determined and documented in *Calculation of Waste Stream Volumes, Waste and Container Material Densities, and Radionuclide Concentrations for RP RH TRU Waste Streams RP-W013 and RP-W016 for the Compliance Recertification Application* (Lott and Leigh 2003b). The packaging material densities for these two RH-TRU waste streams were adjusted according to the results of this calculation.

D-3.3 Idaho National Laboratory Packaging Material Densities

Idaho National Laboratory (INL) originally reported several of its waste streams in a way that did not reflect the volume that the waste will occupy when disposed in WIPP. Three routine calculations were developed for the INL waste streams. The first focuses on the super-compacted waste stream originating from the Advanced Mixed Waste Treatment Facility (AMWTF). The second routine calculation discusses the non-debris waste streams from the AMWTF. The third routine calculation covers 13 other INL waste streams for which the packaging configurations did not reflect the volume that the waste will occupy in WIPP. These three routine calculations consistently estimate the packaging material densities for each of the disposal container types and are referenced and summarized below.

D-3.3.1 Super-Compacted Debris Waste Stream IN-BN-510

The density of steel was calculated based on information received from INL about empty drum weight (100 lbs) and numbers of drums in the IN-BN-510 waste stream (Lott and Leigh, 2003c). The resultant density of the empty drums at INL was determined to be 119.7 kg/m^3 .

D-3.3.2 Advanced Mixed Waste Treatment Facility Non-Debris Waste Streams

The INL reported 38 non-debris waste streams originating from the AMWTF (Wells 2003). However, updated information from INL (Leigh 2003) revealed changes in the shipping container type and a resulting change in the volume of waste to be received at the WIPP. Specifically, INL originally reported only TDOPs as shipping containers, but its updated information identified both TDOPs and SWBs as shipping containers for each waste stream. Therefore, there were two cases considered regarding packaging material densities: ten 55-gallon drums overpacked in a TDOP, and four 55-gallon drums overpacked in an SWB.

The steel packaging material densities reported in the original submittal from INL were calculated based on the original densities given by the site that were based on the total waste stream volumes, and the total volume of the TDOP (4.79 m^3). However, INL updated its information indicating that each waste stream would be packaged in 55-gallon drums that would then be overpacked in SWBs and TDOPs. Therefore, the packaging material densities were recalculated based on the number of TDOPs and SWBs for each waste stream as given by INL in its updated information. Further, the original calculations were done using the actual volume of ten 55-gallon drums of waste (2.08 m^3) instead of the volume that the waste actually occupies (4.79 m^3). As a result, the mass of steel did not vary for the TDOP, but the volume increased, causing the steel packaging material density to decrease from 480 kg/m^3 to 208 kg/m^3 . The plastic packaging material density originally reported by INL varied by waste stream. However, the mass of plastic did not change and, for most of the waste streams, the plastic packaging material density decreased from 55 kg/m^3 to 24 kg/m^3 .

For the SWBs, the steel and plastic packaging material densities were calculated in the routine calculation based on the volume of the SWB (1.89 m^3), as shown in Section D-2.6, for four 55-gallon drums overpacked in an SWB.

The updated volume of waste that will be received at the WIPP, the corresponding waste and packaging material densities, and the radionuclide concentrations were determined and documented in *Calculation of Waste Stream Volumes, Waste and Container Material Densities, and Radionuclide Concentrations for Non-Debris AMWTF Waste Streams at INEEL for the Compliance Recertification Application* (Leigh and Lott 2003d). The packaging material densities for these 38 waste streams were adjusted according to the results of this calculation.

D-3.3.3 Idaho National Laboratory Waste Streams Requiring Overpacking

The INL reported its waste streams based, for the most part, on the current packaging configuration of the waste. For 13 of its waste streams, the current packaging configuration did not match the intended shipping configuration. For example, 55-gallon drums were reported, but INL actually intends to ship these drums inside SWBs.

The updated volume of waste that will be received at the WIPP, the corresponding waste and packaging material densities, and the radionuclide concentrations were determined and documented in *Calculation of Final Form Values For IN-AE-AGHC-01, IN-INTEC-SFS-01, IN-NRF-153, IN-W219.914, IN-W322.851, IN-W323.562, IN-W337.957, IN-W341.954, IN-W342.652, IN-W358.854, IN-W358.949, IN-W372.832, and IN-W372.918 for the Compliance Recertification Application* (Fox and Lott 2003). The packaging material densities for these 13 waste streams were adjusted according to the results of this calculation. The calculations needed for the packaging material densities for these INL waste streams in the routine calculation are summarized below.

D-3.3.3.1 Overpacking Three 55-Gallon Drums into a Remote-Handled Transuranic Waste Canister

The packaging configuration for two of the 13 INL waste streams was determined to be three 55-gallon drums overpacked in an RH-TRU waste canister. Therefore, the steel and plastic packaging material densities were determined in the routine calculation based on the volume of the RH-TRU waste canister (0.89 m^3), as shown in Section D-2.7 for three 55-gallon drums overpacked in an RH-TRU waste canister. The packaging material densities were calculated to be steel, 525 kg/m^3 ; plastic, 26 kg/m^3 ; and lead, 464 kg/m^3 .

D-3.3.3.2 Overpacking Three 30-Gallon Drums into a Remote-Handled Transuranic Waste Canister

The packaging configuration for three of the 13 INL waste streams was determined to be three 30-gallon drums overpacked in an RH-TRU waste canister. Therefore, the steel and plastic packaging material densities were determined in the routine calculation based on the volume of the RH-TRU waste canister (0.89 m^3). The calculation is similar to that shown in Section D-2.7 for three 55-gallon drums overpacked in an RH-TRU waste canister, except that the total weight of steel for this case was determined based on the steel packaging material density given by the site for the 30-gallon drum (168 kg/m^3). The resulting steel packaging material density was 498 kg/m^3 . Since the only source of lead is the RH-TRU waste canister, the lead packaging material density is 464 kg/m^3 , as calculated in Section D-2.7. No plastic packaging was reported by the site for the 30-gallon drums.

D-3.3.3.3 Overpacking Four 55-Gallon Drums into a Standard Waste Box

The packaging configuration of the remaining eight INL waste streams was determined to be four 55-gallon drums overpacked in a SWB. Therefore, the steel and plastic packaging material densities were calculated in the routine calculation, as shown in Section D-2.6, for four 55-gallon drums overpacked in an SWB.

D-3.4 Los Alamos National Laboratory Packaging Material Densities

Los Alamos National Laboratory (LANL) reported its waste streams based on the current packaging configuration of the waste. Of the 63 waste streams reported by LANL, 33 were reported with unacceptable containers for shipment to WIPP in the TRUPACT-II (DOE 2004a). Of the 33 waste streams, 27 waste streams were reported with containers that require overpacking prior to shipment, and six waste streams have container types that will require repackaging prior to shipment.

The updated volume of waste that will be received at the WIPP, the corresponding waste and packaging material densities, and the radionuclide concentrations were determined and documented in *Calculation of Waste Stream Volumes, Waste Material Densities, Container Material Densities, and Radionuclide Concentrations for LANL Waste Streams for the Compliance Recertification Application* (Sparks and Leigh 2003). The packaging material densities for these 33 waste streams were adjusted according to the results of this calculation. The calculations needed for the packaging material densities of the LANL waste streams in the routine calculation are summarized below.

D-3.4.1 Overpacking 15-Gallon Drums into a 55-Gallon Drum

LANL reported 15-gallon drums for one waste stream. In this calculation, it was assumed that three 15-gallon drums would be placed in one 55-gallon drum. The calculated steel packaging material density for one 55-gallon drum and three 15-gallon drums was 262 kg/m^3 . The plastic packaging material density for a 55-gallon drum liner was calculated as shown in Section D-2.1 for a directly loaded 55-gallon drum (37 kg/m^3).

D-3.4.2 Overpacking 30-Gallon Drums into 55-Gallon Drums

LANL reported 30-gallon drums for several waste streams. In this calculation, it was assumed that one 30-gallon drum would be placed in one 55-gallon drum. The calculated steel packaging material density for one 55-gallon drum and one 30-gallon drum was 207 kg/m^3 . The plastic packaging material density for a 55-gallon drum liner was calculated as shown in Section D-2.1 for a directly loaded 55-gallon drum (37 kg/m^3).

D-3.4.3 Overpacking Small Containers (Including “Other,” “Unknown,” and “Cardboard Box” into 55-Gallon Drums)

LANL reported other or unknown containers that will fit into 55-gallon drums for several waste streams. Because the container volumes of the other/unknown containers vary by waste stream, and the container materials and dimensions were not provided by the site, the packaging

materials for a directly loaded 55-gallon drum, as shown in Section D-2.1, were used (density of steel = 131 kg/m^3 , and density of plastic = 37 kg/m^3).

D-3.4.4 Overpacking Crates, Fiberglass-Reinforced Polyethylene Boxes, or Other/Unknown Large Containers into Standard Waste Boxes or Standard Large Boxes

LANL reported crates, fiberglass-reinforced polyethylene (FRP) boxes, and “other” or “unknown” containers of various sizes. However, since the only acceptable large shipping containers are the SWB and the SLBs,¹ all crates, FRP boxes, and unknown/other containers that will fit into the SWBs and SLBs must be overpacked into the SWBs or SLBs.²

Because the container volumes of the crates, FRP boxes, and other/unknown containers varied by waste stream, and the container materials and dimensions were not provided by LANL, the packaging material densities for a directly loaded SWB, as shown in Section D-2.4, were used in the routine calculation for the SLBs.

D-3.4.5 Repackaging (Size Reduction) of Crates, Fiberglass-Reinforced Polyethylene Boxes, or Other/Unknown Large Containers into Standard Waste Boxes

LANL reported large containers (greater than the volume of the SLB) for six waste streams. In order for LANL to ship these waste streams to the WIPP, it will have to “size-reduce” the waste (including the original waste containers) and directly load the size-reduced waste and containers into SWBs.³ Therefore, the steel and plastic packaging densities associated with the SWBs, as described in Section D-2.4, were used.

D-3.5 Argonne National Laboratory-East Packaging Material Densities

Argonne National Laboratory-East (ANL-E) reported a packaging configuration for waste stream AE-T009 as three 30-gallon drums overpacked in a RH-TRU waste canister (Crawford 2003a). The volume of RH-TRU waste originally reported by ANL-E is the waste volume associated with the 30-gallon drums that will be loaded into the RH-TRU waste canister, which does not reflect the volume of waste that will be disposed in WIPP. Therefore, the steel, plastic, and lead packaging material densities were recalculated based on the volume of the RH-TRU waste canister (0.89 m^3). The calculation is similar to that shown in Section D-2.7 for three 55-gallon drums overpacked in an RH-TRU waste canister, except that the total weight of steel for this case was determined based on the steel packaging material density given by the site for the 30-gallon drums (124.4 kg/m^3). The resulting steel packaging material density was 481 kg/m^3 .

¹ Development of the TRUPACT-III, which will allow shipment of the SLBs to WIPP for disposal is under way. According to DOE guidance (DOE 2003), inventory estimates for the CRA-2004 allow the use of the SLB as a payload container for WIPP.

² The SLBs are sometimes generically referred to as “ $5 \times 5 \times 8$ boxes,” where the units of measure are in feet. The SLBs are in the preliminary design stage and only preliminary specifications are available. Therefore, the volume of the $5 \times 5 \times 8$ -foot box, 5.66 m^3 , was used in the routine calculation as a close approximation of the internal volume of the SLB.

³ Repackaging into the SLBs is not considered in the routine calculation because the SWBs are currently approved and available for this use and the SLBs are not.

Since the lead is contributed entirely by the RH-TRU waste canister, the lead packaging material density is 464 kg/m^3 , as calculated in Section D-2.7. The density of plastic was also given by the site (39.9 kg/m^3), and this was used to determine the plastic packaging density (15 kg/m^3).

The updated volume of waste that will be received at the WIPP, the corresponding waste and packaging material densities, and the radionuclide concentrations were determined and documented in *Calculation of Waste Stream Volumes, Waste and Container Material Densities, and Radionuclide Concentrations for AE-T009 at ANL-E for the Compliance Recertification Application* (Trone and Sparks 2003a). The packaging material densities for this RH-TRU waste stream were adjusted according to the results of this calculation.

D-3.6 Argonne National Laboratory-West Packaging Material Densities

Argonne National Laboratory-West (ANL-W) reported a packaging configuration for eight waste streams as three 45-gallon drums overpacked in a RH-TRU waste canister (Crawford 2003b). The volume of RH-TRU waste originally reported by ANL-W is the waste volume associated with the 45-gallon drums that will be loaded into the RH-TRU waste canister, which does not reflect the volume of waste that will be disposed in WIPP. Therefore, the steel, plastic, and lead packaging material densities were recalculated based on the volume of the RH-TRU waste canister (0.89 m^3). The calculation is similar to that shown in Section D-2.7 for three 55-gallon drums overpacked in a RH-TRU waste canister, except that the total weight of steel for this case was determined assuming the 45-gallon drums weighed 23 kg (51 lbs) each and that the mass of steel in a RH-TRU waste canister was 386 kg (851 lbs). The resulting steel packaging material density was 511 kg/m^3 . Since the only source of lead is the RH-TRU waste canister, the lead packaging material density is 464 kg/m^3 , as calculated in Section D-2.7. The density of plastic (21 kg/m^3) was determined by first calculating the mass of the plastic liner for a 45-gallon drum (6.3 kg).

The updated volume of waste that will be received at the WIPP, the corresponding waste and packaging material densities, and the radionuclide concentrations were determined and documented in *Calculation of Waste Stream Volumes, Waste and Container Material Densities, and Radionuclide Concentrations for RH Waste Streams at ANL-W for the Compliance Recertification Application* (Trone and Sparks 2003b). The packaging material densities for these RH-TRU waste streams were adjusted according to the results of this calculation.

D-3.7 Battelle Columbus Laboratories Packaging Material Densities

Battelle Columbus Laboratories (BCL) reported 12 RH-TRU waste streams. Specifically, BCL reported that the RH-TRU waste would be packaged in 55-gallon drums, and that those drums would be configured in a five-drum pallet inside the ChemNuclear Systems (CNS) 10-160B shipping container for shipment to WIPP (Crawford 2003c). The volumes of RH-TRU waste originally reported are those associated with the 55-gallon drums that will be loaded into the CNS 10-160B package. Ultimately, the 55-gallon drums will be taken to the WIPP RH-TRU waste hot cell and placed in a RH-TRU waste canister for disposal. Therefore, the steel, plastic, and lead packaging material densities were recalculated based on the materials and volume of the RH-TRU waste canister (0.89 m^3). The calculation is similar to that shown in Section D-2.7 for

three 55-gallon drums overpacked in an RH-TRU waste canister, except that the total weight of steel for this case was determined based on the steel packaging material density given by the site for the 55-gallon drums (481 kg/m^3). The resulting steel packaging material density for the RH-TRU waste canister with three 55-gallon drums in it was 770 kg/m^3 . Since the lead is contributed entirely by the RH-TRU waste canister, the lead packaging material density is 464 kg/m^3 , as calculated in Section D-2.7. The density of plastic was also given by the site (24 kg/m^3), and this was used to determine the plastic packaging density (17 kg/m^3) based on the updated volume.

The updated volume of waste that will be received at the WIPP, the corresponding waste and packaging material densities, and the radionuclide concentrations were determined and documented in *Calculation of Waste Stream Volumes, Waste and Container Material Densities, and Radionuclide Concentrations for RH Waste Streams at BCL for the Compliance Recertification Application* (Trone and Sparks 2003c). The packaging material densities for these RH-TRU waste streams were adjusted according to the results of this calculation.

D-3.8 Energy Technology Engineering Center Packaging Material Densities

Energy Technology Engineering Center (ETEC) reported two RH-TRU waste streams, and that the RH-TRU waste will first be packaged in 55-gallon drums, then placed in RH-TRU waste canisters for shipment to WIPP (Crawford 2003d). The volumes of RH-TRU waste in the ETEC waste streams originally reported are the waste volumes associated with the 55-gallon drums loaded into the RH-TRU waste canister. Therefore, the steel, plastic, and lead packaging material densities were recalculated based on the materials and volume of the RH-TRU waste canister (0.89 m^3). The calculation is the same as that shown in Section D-2.7 for three 55-gallon drums overpacked in a RH-TRU waste canister. The resulting steel packaging material density for the RH-TRU waste canister with three 55-gallon drums in it was 525 kg/m^3 . Since the lead is contributed entirely by the RH-TRU waste canister, the lead packaging material density is 464 kg/m^3 , as calculated in Section D-2.7. The density of plastic was also given by the site (37 kg/m^3), and this was used to determine the plastic packaging density (26 kg/m^3).

The updated volume of waste that will be received at the WIPP, the corresponding waste and packaging material densities, and the radionuclide concentrations were determined and documented in *Calculation of Waste Stream Volumes, Waste and Container Material Densities, and Radionuclide Concentrations for ET-R1-DLR and ET-R2-D107 at ETEC for the Compliance Recertification Application* (Trone and Sparks 2003d). The packaging material densities for these RH-TRU waste streams were adjusted according to the results of this calculation.

D-3.9 Knolls Atomic Power Laboratory Packaging Material Densities

Knolls Atomic Power Laboratory (KAPL) (Schenectady, NY) reported two RH-TRU waste streams, and that the RH-TRU waste will be packaged in 55-gallon drums and then placed in RH-TRU waste canisters for shipment to WIPP (Crawford 2003e). The volumes of RH-TRU waste in the KAPL waste streams originally reported are the waste volumes associated with the 55-gallon drums that will be loaded into the RH-TRU waste canister. Therefore, the steel, plastic, and lead packaging material densities were recalculated based on the materials and volume of the RH-TRU waste canister (0.89 m^3). The calculation is similar to that shown in

Section D-2.7 for three 55-gallon drums overpacked in an RH-TRU waste canister, except that the total weight of steel for this case was determined based on the steel packaging material density given by the site for the 55-gallon drums (131 kg/m^3). The resulting steel packaging material density for the RH-TRU waste canister with three 55-gallon drums in it was 525 kg/m^3 . Since the lead is contributed entirely by the RH-TRU canister, the lead packaging material density is 464 kg/m^3 , as calculated in Section D-2.7. The density of plastic was also given by the site (37 kg/m^3) and used to determine the plastic packaging density (26 kg/m^3).

The updated volume of waste that will be received at the WIPP, the corresponding waste and packaging material densities, and the radionuclide concentrations were determined and documented in *Calculation of Waste Stream Volumes, Waste and Container Material Densities, and Radionuclide Concentrations for KA-T001 and KA-W016 at KAPL for the Compliance Recertification Application* (Trone and Sparks 2003e). The packaging material densities for these RH-TRU waste streams were adjusted according to the results of this calculation.

D-3.10 Lawrence Livermore National Laboratory Packaging Material Densities

Lawrence Livermore National Laboratory (LLNL) reported three CH-TRU waste streams containing over-sized boxes. These three waste streams are currently stored in miscellaneous-sized boxes that cannot be used as payload containers for shipment to and disposal in WIPP (Crawford 2003f). The volumes reported by LLNL are the waste volumes associated with the current storage configuration in various sized boxes. Therefore, acceptable shipping containers and the updated packaging material densities were needed. Each of the three waste streams will be shipped and disposed in 55-gallon drums, SWBs, and SLBs. The packaging materials reported for the 55-gallon drums did not change, since the drums did not require repackaging or overpacking. However, the miscellaneous-sized boxes require repackaging. The steel originally reported as packaging material for the waste becomes waste material after repackaging and was added to the Iron-Base Metal/Alloys category. The steel packaging associated with shipping containers was simply the steel packaging for the shipping container (either a 55-gallon drum, SWB, or SLB). The SLB is a new box that will likely be used for repackaging LLNL waste. Because the SLB is still being designed (see Section D-3.4.5) and it has no set specifications, the packaging material densities for a directly loaded SWB, as shown in Section D-2.4, were used in the routine calculation for the SLBs. Therefore, the steel packaging material density was 154 kg/m^3 for both SWBs and SLBs. The calculation assumed no plastic packaging for the SWBs and SLBs.

The updated volume of waste that will be received at the WIPP, the corresponding waste and packaging material densities, and the radionuclide concentrations were determined and documented in *Calculation of Waste Stream Volumes, Waste and Container Material Densities, and Radionuclide Concentrations for LL-T002, LL-T005, and LL-T034 for the Compliance Recertification Application* (Leigh and Sparks 2003). The packaging material densities for these CH-TRU waste streams were adjusted according to the results of this calculation.

D-3.11 Paducah Gaseous Diffusion Plant Packaging Material Densities

Paducah Gaseous Diffusion Plant (PGDP) reported one CH-TRU waste stream, which will be packaged in 55-gallon drums and then be placed in SWBs for shipment to and disposal in WIPP

(Crawford 2003g). The volume of the waste in this waste stream is the waste volume associated with the 55-gallon drums that will be loaded into the SWB, which does not reflect the volume of waste that will be disposed in WIPP. Therefore, the volume of waste was recalculated in the routine calculation identified below. Because the steel and plastic packaging material densities reported by the site corresponded to the packaging configuration for four 55-gallon drums overpacked in an SWB (steel and plastic packaging material densities were reported as 212 kg/m³, and 17.5 kg/m³, respectively), they were not recalculated in the routine calculation.

The updated volume of waste that will be received at the WIPP, the corresponding waste and packaging material densities, and the radionuclide concentrations were determined and documented in *Calculation of Waste Stream Volumes, Waste and Container Material Densities, and Radionuclide Concentrations for PA-A015 at PGDP for the Compliance Recertification Application* (Trone and Sparks 2003f). The packaging material densities for these CH-waste streams were adjusted according to the results of this calculation.

REFERENCES

- Cooney, F. M. 2003. TWBIR, RL Handling Correction Data Package, [Corrected Container and Volume Data for RL Waste Streams (RH to CH Correction)]. ERMS# 530628.
- Crawford, B. 2003a. Record Package for Argonne National Laboratory, East (ANL-E), Los Alamos National Laboratory, Carlsbad, NM. ERMS# 526109.
- Crawford, B. 2003b. Record Package for Argonne National Laboratory, West (ANL-W), Los Alamos National Laboratory, Carlsbad, NM. ERMS# 526407.
- Crawford, B. 2003c. Record Package for Battelle Columbus (BCL), Los Alamos National Laboratory, Carlsbad, NM. ERMS# 526424.
- Crawford, B. 2003d. Record Package for Energy Technology Engineering [Center] (ETEC), Los Alamos National Laboratory, Carlsbad, NM. ERMS# 526444.
- Crawford, B. 2003e. Record Package for Knolls Atomic Power Laboratory (KAPL), Los Alamos National Laboratory, Carlsbad, NM. ERMS# 526087.
- Crawford, B. 2003f. Record Package for Lawrence Livermore National Laboratory (LLNL), Los Alamos National Laboratory, Carlsbad, NM. ERMS# 526536.
- Crawford, B. 2003g. Record Package for Paducah Gaseous Diffusion Plant, Los Alamos National Laboratory, Carlsbad, NM. ERMS# 526074.
- Department of Energy (DOE). 2004a. *CH TRUPACT II Authorized Methods for Payload Control (TRAMPAC)*, Revision 1, DOE/WIPP-02-3122, November 15, 2004.
- Department of Energy (DOE). 2004b. Title 40 CFR 191 Subpart B and C, *Compliance Recertification Application 2004*. DOE/WIPP 2004-3231, March 2004.
- Department of Energy (DOE). 2003. *Guidance on Estimating Repository TRU Waste Inventory*. Correspondence. ERMS# 530629. Carlsbad, NM. Department of Energy Carlsbad Field Office. August 12, 2003.
- Department of Energy (DOE). 1995. *Transuranic Waste Baseline Inventory Report*, Revision 2, DOE/CAO-95-1121, December 1995.
- Fox, B. and S. Lott, 2003. *Calculation of Final Form Values for IN-AE-AGHC-01, IN-INTEC-SFS-01, IN-NRF-153, IN-W219.914, IN-W322.851, IN-W323.562, IN-W337.957, IN-W341.954, IN-W342.652, IN-W358.854, IN-W358.949, IN-W373.832, and IN-W372.918 for the CRA*, Revision 0. Sandia National Laboratories, Carlsbad, NM. ERMS# 530679.
- Leigh, C., J.F. Kanney, L.H. Brush, J.W. Garner, G.R Kirkes, T.S. Lowry, M.B. Nemer, J.S. Stein, E.D. Vugrin, S. Wagner, and T.B. Kirchner 2005a. *2004 Compliance Recertification Application Performance Assessment Baseline Calculation*, Revision 0, Sandia National Laboratories, Carlsbad, NM. ERMS# 541521.

- Leigh, C., J. Trone, and B. Fox 2005b. *TRU Waste Inventory for the 2004 Compliance Recertification Application Performance Assessment Baseline Calculation*. Sandia National Laboratories, Carlsbad, NM. ERMS# 541118.
- Leigh C. and L. Sparks 2003. *Calculation of Final Form Waste Stream Volumes, Waste and Container Material Densities, and Radionuclide Concentrations for LL-T002, LL-T005, and LL-W034 at LLNL For the Compliance Recertification Application*, Revision 0, Sandia National Laboratories, Carlsbad, NM. ERMS #530662.
- Lott, S and C. Leigh, 2003a. *Calculation of Waste Stream Volumes, Waste Material Densities, Container Material Densities, and Radionuclide Concentrations for Corrected Hanford (RL) Waste Streams for the Compliance Recertification Application*, Revision 0. Los Alamos National Laboratory, Carlsbad, NM. ERMS# 530693.
- Lott, S and C. Leigh, 2003b. *Calculation of Waste Stream Volumes, Waste and Container Material Densities, and Radionuclide Concentrations for RP RH TRU Waste Streams RP-W013 and RP-W016 for the Compliance Recertification Application*, Revision 0. Los Alamos National Laboratory, Carlsbad, NM. ERMS# 530675.
- Lott, S and C. Leigh, 2003c. *Calculation of Waste Stream Volume, Waste and Container Material Densities, and Radionuclide Concentrations for INEEL Waste Stream IN-BN-510 for the Compliance Recertification Application*, Revision 0. Los Alamos National Laboratory, Carlsbad, NM. ERMS# 530666.
- Lott, S and C. Leigh, 2003d. *Calculation of Waste Stream Volumes, Waste and Container Material Densities, and Radionuclide Concentrations for Non Debris AMWTF Waste Streams at INEEL for the Compliance Recertification Application*, Revision 0. Los Alamos National Laboratory, Carlsbad, NM. ERMS #530688.
- Leigh 2003. *FW, AMWTF TRU Waste Containers Disposed of at WIPP, [INEEL CH]*. Sandia National Laboratories, Carlsbad, NM. ERMS# 530423.
- Sandia National Laboratories (SNL). 2001. NP 9-1, *Analyses*, Revision 4, Sandia National Laboratories Nuclear Waste Management Program Procedure, August 29, 2001. ERMS# 519375.
- Sparks, L and C. Leigh 2003. *Calculation of Waste Stream Volumes, Waste Material Densities, Container Material Densities, and Radionuclide Concentrations for LANL Waste Streams for the Compliance Recertification Application*, Revision 0, Los Alamos National Laboratory, Carlsbad, NM. ERMS #530717.
- Trone, J. and L. Sparks, 2003a. *Calculation of Waste Stream Volumes, Waste and Container Material Densities, and Radionuclide Concentrations for AE-T009 at ANL-E for the Compliance Recertification Application*, Revision 0, Sandia National Laboratories, Carlsbad, NM. ERMS #530643.

Trone, J. and L. Sparks 2003b. *Calculation of Waste Stream Volumes, Waste and Container Material Densities, and Radionuclide Concentrations for RH Waste Streams at ANL-W for the Compliance Recertification Application*, Revision 0. Sandia National Laboratories, Carlsbad, NM. ERMS# 530639.

Trone, J. and L. Sparks 2003c. *Calculation of Waste Stream Volumes, Waste and Container Material Densities, and Radionuclide Concentrations for RH Waste Streams at BCL for the Compliance Recertification Application*, Revision 0, Sandia National Laboratories, Carlsbad, NM. ERMS# 530634.

Trone, J. and L. Sparks 2003d. *Calculation of Waste Stream Volumes, Waste and Container Material Densities, and Radionuclide Concentrations for ET-R1-DLR and ET-R2-D107 at ETEC for the Compliance Recertification Application*, Revision 0, Sandia National Laboratories, Carlsbad, NM. ERMS# 530658.

Trone, J. and L. Sparks 2003e. *Calculation of Waste Stream Volumes, Waste and Container Material Densities, and Radionuclide Concentrations for KA-T001 and KA-W016 at KAPL for the Compliance Recertification Application*, Revision 0, Sandia National Laboratories, Carlsbad, NM. ERMS# 530648.

Trone, J. and L. Sparks 2003f. *Calculation of Waste Stream Volumes, Waste and Container Material Densities, and Radionuclide Concentrations for PA-A015 At PGDP for the Compliance Recertification Application*, Revision 0, Sandia National Laboratories, Carlsbad, NM. ERMS# 530670.

Wells, J. 2003. Confirmation of Review, [INEEL CH], Idaho National Engineering and Environmental Laboratory, Idaho Falls, ID. ERMS #528171.

APPENDIX E

**WASTE STREAM LEVEL RADIONUCLIDE ACTIVITIES FOR THE COMPLIANCE
RECERTIFICATION APPLICATION**

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E-1.0 INTRODUCTION

This appendix consists of two tables. They provide the decayed radionuclide inventory by waste stream for waste streams included in Appendix J and Appendix K. The volumes and activities in CRA Tables E-1 and E-2 have been scaled to a full repository in accordance with the Transuranic Waste Inventory Update Report, 2003 Computational Methodology (LANL 2003). These tables are similar to the Transuranic Waste Baseline Inventory Report, Revision 3 (DOE 1996 Appendix B, Table 1). Both tables contain all 767 waste streams reported in the Transuranic Waste Baseline Inventory Database, Revision 2.1 Version 3.13 Data Version D.4.16 (LANL 2005) and the activity in each waste stream for 20 radionuclides specified in the Giambalvo letter (Giambalvo 2002). The projected volume has been scaled (using the scaling factors found in Table 3 of the main body) in each waste stream such that the sum of all waste stream volumes equals a full WIPP repository for CH and RH waste. The radionuclides have been decayed to December 31, 2001.

REFERENCES

Department of Energy 1996, *Transuranic Waste Baseline Inventory Report*, DOE/CAO-95-1121, Revision 3, June 1996.

Giambalvo, E. 2002, *Sandia's WIPP Inventory Data Needs for Performance Assessment*, Letter to J. Harvill, April 22, 2002, Carlsbad, NM.

Los Alamos National Laboratory (LANL) 2003, *Transuranic Waste Inventory 2003 Update Report, Computational Methodology*, Revision 2, ERMS# 527821. Carlsbad, NM: Los Alamos National Laboratory.

LANL 2005, *Transuranic Waste Baseline Inventory Database*, Revision 2.1, Data version D.4.16, ERMS# 538934, Los Alamos National Laboratory, Carlsbad, NM.

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Volume	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240
AE	AE-T001	189.43	6.84E+01			4.40E+00	8.11E-01	1.47E+01	1.73E+02	1.02E+02
AE	AE-T003	44.05	5.95E+00			1.24E-02	2.74E-02	2.01E+00	5.46E+01	2.11E+01
AW	AW-N026.82	0.21				3.03E-01				
AW	AW-N027.531	11.97	3.48E-02				1.12E-08	5.14E+01	3.90E+01	2.36E-01
AW	AW-T033.1325	38.22	1.11E-01				3.58E-08	1.64E+02	1.25E+02	7.53E-01
AW	AW-W049	12.81							5.51E-01	
BC	BCLCH-MT01	5.24	6.49E+00					1.78E+03	2.87E+01	7.54E+00
BT	BT-T002	18.60	8.43E-03	3.96E-05	2.53E-03	2.14E+01	5.64E-05	9.30E-01	7.25E-04	1.48E-03
ET	ET-C1-B55	0.84	4.83E-02				1.90E-07	1.06E-02	6.21E-02	3.10E-02
ET	ET-C1-D139	0.21	6.67E-03				2.82E-08	1.47E-03	8.73E-03	4.36E-03
ET	ET-C2-SEFOR	1.25	1.77E-01			1.62E-02	7.74E-07		1.37E-01	4.61E-02
IN	IN-BN-510	19874.76	9.75E+03	6.05E-03			2.17E-01	5.45E+04	2.94E+04	7.20E+03
IN	IN-GEM-01	145.92	6.57E+01					7.12E-01	3.18E+01	7.30E+00
IN	IN-GEM-02	34.68	1.56E+01					1.69E-01	7.56E+00	1.73E+00
IN	IN-ICP-002	12480.60	3.89E+04	2.99E+01			1.00E+00	2.97E+03	1.45E+04	3.81E+03
IN	IN-ICP-003	5262.46	1.64E+04	1.26E+01			4.23E-01	1.25E+03	6.10E+03	1.61E+03
IN	IN-ICP-004	1084.86	3.38E+03	2.60E+00			8.73E-02	2.58E+02	1.26E+03	3.25E+02
IN	IN-ICP-005	7239.39	2.26E+04	1.73E+01			5.82E-01	1.72E+03	8.39E+03	2.21E+03
IN	IN-W157.144	745.55	7.30E+01				2.77E-04	9.08E+00	2.80E+02	6.16E+01
IN	IN-W163.1007	11.47	5.47E+00				1.28E-05	2.83E+00	8.68E+01	1.91E+01
IN	IN-W164.153	4.79	5.20E-02				1.22E-07	2.68E-02	8.23E-01	1.82E-01
IN	IN-W167.149	383.30	1.62E+01				5.27E-05	4.36E+00	1.34E+02	2.95E+01
IN	IN-W174.154	431.07						2.46E+03	1.79E+00	3.45E+00
IN	IN-W177.156	802.90	7.24E-03				1.69E-08	5.26E+03	1.69E+00	1.00E-02
IN	IN-W179.158	1995.78	4.87E-02				1.14E-07	5.22E+03	9.80E-02	4.96E-02
IN	IN-W181.162	80.29	2.53E+00				5.91E-06	8.70E-01	2.72E+01	6.17E+00
IN	IN-W188.160	149.11	4.64E+00				1.09E-05	2.39E+00	7.36E+01	1.62E+01
IN	IN-W216.98	12743.17	1.60E+05				6.81E-01	1.95E+02	6.00E+03	1.32E+03
IN	IN-W218.909	2082.75	1.61E+03				6.80E-03	1.04E+01	3.25E+02	7.38E+01
IN	IN-W219.110	3.95	4.51E-01				1.05E-06	1.55E-01	4.86E+00	1.10E+00
IN	IN-W219.914	1.89	7.10E-02				1.66E-07	2.44E-02	7.67E-01	1.74E-01
IN	IN-W220.114	1892.55	5.65E+03				2.40E-02	1.54E+01	5.07E+02	1.08E+02
IN	IN-W221.927	39.20	1.73E+00				4.04E-06	8.88E-01	2.73E+01	6.03E+00
IN	IN-W222.116	259.02	6.01E+01				1.44E-04	3.01E+01	9.24E+02	2.04E+02
IN	IN-W228.101	8063.41	1.46E+03				6.16E-03	9.82E+00	3.01E+02	6.66E+01
IN	IN-W240.931	396.66	9.12E+01				3.41E-04	1.25E+01	3.85E+02	8.48E+01
IN	IN-W243.808	773.28	9.94E+01				3.41E-04	2.20E+01	6.75E+02	1.49E+02
IN	IN-W245.301	752.23	8.79E+01				2.14E-04	4.30E+01	1.32E+03	2.92E+02
IN	IN-W247.810	761.81	4.26E+01				1.03E-04	2.10E+01	6.45E+02	1.42E+02
IN	IN-W249.527	6.68						1.47E+03	1.14E+01	
IN	IN-W263.520	280.07	4.24E-02				9.92E-08	3.69E+02	1.90E+01	3.02E-02
IN	IN-W267.1005	11.47	9.86E+00				2.31E-05	5.09E+00	1.56E+02	3.44E+01
IN	IN-W309.609	7730.78	5.53E+02				2.04E-03	8.60E+01	2.63E+03	5.77E+02
IN	IN-W315.601	34.41	2.19E+03				9.30E-03	9.04E-01	2.84E+01	6.42E+00
IN	IN-W319.584	4.79	1.52E+00				3.56E-06	7.87E-01	2.40E+01	5.31E+00
IN	IN-W321.1023	11.47	1.32E+01				3.08E-05	6.80E+00	2.09E+02	4.60E+01
IN	IN-W322.851	1.89							9.12E+00	1.89E+00
IN	IN-W322.952	1.66							2.43E+01	5.04E+00
IN	IN-W323.562	1.89	4.47E-02				1.04E-07	1.22E+00	2.49E-01	
IN	IN-W323.951	0.21	5.28E-02				1.23E-07	1.45E-02	2.97E-01	

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Volume	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240
IN	IN-W332.661	4.79						1.52E+01	1.19E-01	
IN	IN-W337.673	0.21							3.04E+00	6.30E-01
IN	IN-W337.957	1.89							9.12E+00	1.89E+00
IN	IN-W342.652	1.89	4.55E+00				1.94E-05		4.02E-02	1.04E-17
IN	IN-W342.953	0.42	3.04E+00				1.29E-05		2.69E-02	6.98E-18
IN	IN-W347.818	153.90	2.64E+00				1.12E-05		7.65E+01	1.36E+02
IN	IN-W348.1012	22.94	2.45E+01				5.76E-05	1.25E+01	3.85E+02	8.50E+01
IN	IN-W353.917	0.21					6.92E-05		2.50E-02	
IN	IN-W357.1022	4.79	4.77E-02				1.12E-07	2.46E-02	7.52E-01	1.66E-01
IN	IN-W358.854	1.89						3.92E+02	1.88E+00	3.63E+00
IN	IN-W358.855	3.33						2.09E+03	1.00E+01	1.93E+01
IN	IN-W358.948	0.21						4.36E+02	2.09E+00	4.02E+00
IN	IN-W361.1021	11.47	4.65E+00				1.09E-05	2.38E+00	7.30E+01	1.61E+01
IN	IN-W362.1020	45.88	6.02E+01				1.41E-04	3.11E+01	9.54E+02	2.10E+02
IN	IN-W363.1019	4.79	2.83E+00				6.62E-06	1.46E+00	4.49E+01	9.85E+00
IN	IN-W364.1011	4.79	4.67E+00				1.09E-05	2.41E+00	7.37E+01	1.63E+01
IN	IN-W365.1010	11.47	3.52E+02				1.49E-03	1.91E+00	5.88E+01	1.29E+01
IN	IN-W366.841	16.26	4.38E+00				1.26E-05	1.63E+00	4.97E+01	1.09E+01
IN	IN-W372.832	1.89	4.55E+00				1.94E-05		4.02E-02	1.04E-17
IN	IN-W375.1096	199.78	1.16E+00				2.72E-06	6.00E-01	1.84E+01	4.07E+00
KN	KN-B234TRU	310.50	1.08E+02					1.84E+01	2.19E+02	7.36E+01
LA	LA-IT-00-01	9.78	2.35E+00		1.63E+00		2.10E-05	4.16E+00	5.85E-01	8.16E-03
LA	LA-OS-00-01	50.20	3.77E+03				1.22E-03	1.34E+05	8.90E+02	
LA	LA-PX-00-01	0.62	1.62E-02				2.99E-08	8.01E-03	9.05E-02	2.13E-02
LA	LA-SL-00-01	0.42					5.14E-03	1.69E-01	1.53E-01	
LA	LA-TA-03-12	221.33	1.91E-01	8.39E-06		8.28E-09	1.12E-05	3.91E+00	4.36E-01	1.52E-01
LA	LA-TA-03-13	46.38	2.46E-01	1.09E-04			1.10E-05	1.24E+01	6.81E-01	1.60E-01
LA	LA-TA-03-19	179.85	5.18E-01	4.05E-04			3.73E-05	1.85E+01	1.33E+00	3.85E-01
LA	LA-TA-03-20	30.07	2.64E-01				8.81E-05	8.78E+00	5.86E-01	2.07E-01
LA	LA-TA-03-24	29.95	3.71E-01	5.17E-07			5.49E-05	3.42E+01	1.09E+00	3.31E-01
LA	LA-TA-03-26	24.27	1.69E-02				1.08E-07	1.41E+00	2.64E+00	4.33E-02
LA	LA-TA-03-28	5.84						4.88E-01	2.47E-01	
LA	LA-TA-03-30	0.83	7.12E-01				3.98E-06	3.48E-01	5.03E+00	1.46E+00
LA	LA-TA-03-31	0.21	1.10E+00				1.05E-05	4.40E-01	2.14E+00	5.20E-03
LA	LA-TA-03-40	266.02						2.75E-02	5.47E-02	
LA	LA-TA-03-42	299.98	1.69E-05				1.03E-10	6.89E-04	3.42E-03	4.51E-05
LA	LA-TA-21-06	226.38	1.64E-01				9.54E-07	7.58E+01	9.57E-01	2.93E-01
LA	LA-TA-21-12	263.95	6.09E-01				3.73E-06	4.57E+02	3.32E+00	9.94E-01
LA	LA-TA-21-13	16.22	1.24E+00				1.28E-05		2.94E-01	
LA	LA-TA-21-14	7.90	1.24E-04				2.49E-10	8.72E+00	4.49E+00	5.25E-05
LA	LA-TA-21-15	3.54	8.78E-02				4.95E-07	2.40E-02	1.39E+00	2.38E-01
LA	LA-TA-21-16	71.67	1.05E+00				6.39E-06	3.70E-01	1.06E+01	2.54E+00
LA	LA-TA-21-40	1022.49	1.22E-04				5.43E-10	1.65E+00	3.33E-01	3.70E-04
LA	LA-TA-21-41	41.51							7.09E-01	
LA	LA-TA-21-42	690.71	1.70E-02				3.71E-07	5.36E-01	1.64E-01	1.12E-02
LA	LA-TA-21-43	2533.70	2.54E+03				2.53E-02	6.14E+01	1.77E+03	
LA	LA-TA-21-44	137.73	7.63E-02				9.27E-08	6.53E+01	1.29E+02	2.60E-01
LA	LA-TA-48-01	0.62	8.50E-02		2.62E+01		1.60E-05	1.40E-02	1.18E-01	4.24E-01
LA	LA-TA-49-01	96.22	7.84E-03				3.69E-08	1.31E+02	7.44E+01	2.19E-02
LA	LA-TA-50-10	1.04	3.27E-02				5.31E-08	1.27E-02	4.59E-02	

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Volume	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240
LA	LA-TA-50-11	8.57	4.67E-02				2.36E-07	1.67E-02	4.66E-01	1.04E-01
LA	LA-TA-50-15	159.12	1.07E-01			7.53E-03	6.35E-07	1.92E+00	3.40E-01	7.65E-02
LA	LA-TA-50-17	174.70	1.45E+01	6.87E-11		4.62E-03	8.67E-05	1.26E+00	1.47E+01	3.47E-04
LA	LA-TA-50-18	98.41	1.07E+00				1.07E-05	2.06E-01	2.97E+00	5.36E-06
LA	LA-TA-50-19	1179.79	3.41E-01			3.64E-10	3.89E-06	9.18E-02	3.95E-01	4.59E-03
LA	LA-TA-50-20	0.62	9.37E-03				7.43E-08		9.74E-03	
LA	LA-TA-50-40	24.53	3.55E-03				1.66E-08	1.24E-03	1.06E-02	4.97E-03
LA	LA-TA-50-41	35.91	2.56E-03				5.98E-09	1.25E-03	4.70E-02	1.10E-02
LA	LA-TA-55-19	2576.98	5.56E+00	4.83E-09			4.33E-05	1.31E+00	2.10E+01	5.94E+00
LA	LA-TA-55-20	450.87	6.92E+01				1.25E-02	1.35E+01	4.57E+02	1.10E+02
LA	LA-TA-55-21	98.99	8.93E-01	4.69E-05	2.27E-03		3.82E-06	2.16E-01	4.52E+00	1.09E+00
LA	LA-TA-55-22	14.18	2.32E+00				2.33E-04	1.22E+00	1.59E+01	3.74E+00
LA	LA-TA-55-23	12.48	2.14E+00				6.50E-06	1.02E+00	1.09E+01	2.71E+00
LA	LA-TA-55-24	1.25	6.98E-01				1.21E-06	1.60E-01	5.72E+00	1.34E+00
LA	LA-TA-55-25	22.64	3.57E+00				6.18E-06	9.33E-01	2.84E+01	6.67E+00
LA	LA-TA-55-28	3.74	1.26E+00				2.51E-06	5.17E-01	8.72E+00	2.07E+00
LA	LA-TA-55-30	2713.31	3.36E+01	7.52E-04	1.77E-05		2.32E-04	5.07E+00	1.17E+02	2.84E+01
LA	LA-TA-55-32	4.78	3.05E+00				1.84E-05	3.46E+01	1.13E+01	3.51E+00
LA	LA-TA-55-33	6.66	4.64E-01				2.85E-06	8.93E-02	1.49E+00	4.78E-01
LA	LA-TA-55-34	205.67	3.43E+01				1.82E-04	6.34E+00	1.77E+02	4.52E+01
LA	LA-TA-55-38	744.30	1.26E+02	2.91E-03			9.39E-04	2.39E+00	4.48E+01	1.21E+01
LA	LA-TA-55-39	2.91	9.97E+00				2.77E-05	2.01E+00	7.61E+01	1.72E+01
LA	LA-TA-55-41	35.38	2.92E+02				1.23E-03	3.37E+00	7.64E+01	1.84E+01
LA	LA-TA-55-43	64.90	7.76E-02				1.85E-07	2.73E+02	1.42E-01	5.00E-02
LA	LA-TA-55-44	230.66	1.02E+00				6.90E-06	6.43E+02	2.63E+00	7.34E-01
LA	LA-TA-55-48	23.34	3.02E-01				1.60E-06	2.97E+02	2.06E-01	1.03E-01
LA	LA-TA-55-49	18.30	1.67E+01				1.14E-04	3.34E+03	3.09E+01	8.73E+00
LA	LA-TA-55-53	174.68	6.22E+01				3.84E-04	5.57E+00	2.14E+02	5.01E+01
LA	LA-TA-55-56	685.19	5.12E+01				5.74E-04	1.86E+02	2.77E+02	6.98E+01
LA	LA-TA-55-60	211.31	3.71E-02				2.34E-05	6.49E-02	7.20E-02	2.57E-02
LA	LA-TA-55-61	226.49	3.01E-02				1.31E-07	2.99E-01	1.39E-01	4.74E-02
LA	LA-TA-55-62	73.58	7.64E-03				3.22E-08	2.84E-03	2.33E-02	1.12E-02
LA	LA-TA-55-63	5.66	4.64E-03				1.36E-08	1.92E-03	7.47E-02	1.74E-02
LL	LL-M001	31.11	8.06E+01		9.43E+01			7.65E+01	6.41E+01	2.88E+01
LL	LL-T001	276.82	2.52E+02						3.86E+02	1.75E+02
LL	LL-T002	1507.73	2.70E+03					4.83E+02	3.75E+03	1.55E+03
LL	LL-T003	761.83	1.03E+02					5.35E+01	7.56E+01	6.11E+01
LL	LL-T004	23.43	6.58E+01					1.11E+01	4.83E+01	3.89E+01
LL	LL-T005	852.06	4.18E+02		3.39E+03			1.36E+02	1.87E+02	1.53E+02
LL	LL-W018	2.11	2.19E-02						1.85E-02	4.28E-02
LL	LL-W019	15.30	1.90E+01						1.21E+01	1.01E+01
LL	LL-W034	20.98	9.44E+00		7.59E+01			3.15E+00	4.20E+00	3.36E+00
MC	MC-W001	2.50	1.56E-01				4.03E-07		6.06E-02	
MU	MU-W002	1.46	2.17E+00				4.73E-04		5.26E-02	
NT	NT-JAS-01	681.40	9.20E+01					4.78E+01	6.76E+01	5.46E+01
NT	NT-W001	626.75	3.06E+02	1.25E+00	2.30E+00	2.83E-02	6.50E-03	1.33E+02	2.84E+03	1.90E+01
NT	NT-W021	5.67	3.20E+00				9.41E-06	9.60E-01	3.22E+01	7.38E+00
OR	OR-W201	86.24	3.04E+03	1.23E-02	1.14E+02	1.20E-02	6.76E-02	2.05E+03	1.54E+03	1.52E+03
OR	OR-W202	417.76	6.77E+02	1.40E+01	2.38E+03	5.53E+03	1.14E+00	5.92E+03	3.95E+02	3.83E+02
OR	OR-W203	142.79	1.47E+00	9.18E-02	8.27E+01	3.24E+00	7.68E-06	8.51E-01	1.77E-02	1.04E+00

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Volume	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240
OR	OR-W204	27.50	3.67E-01		3.43E-04	1.07E+00	2.05E-06	9.59E-01	3.02E-01	2.05E-01
PA	PA-A015	14.19					5.18E-02		3.43E-01	
RF	RF-MT0001	8.15	1.95E+03				7.63E-03	8.38E+00	1.96E+02	4.49E+01
RF	RF-MT0002	0.63	1.50E+02				5.86E-04	6.43E-01	1.51E+01	3.45E+00
RF	RF-MT0003	1.67	3.01E-01				6.60E-07	1.47E-01	3.45E+00	7.90E-01
RF	RF-MT0007	0.83	1.69E+00				6.59E-06		4.30E-01	9.83E-02
RF	RF-MT0089	0.42	2.92E-03				6.27E-09	1.47E-03	3.45E-02	7.89E-03
RF	RF-MT0090	2.50	1.34E+01				4.73E-05	2.08E+00	8.86E+01	2.01E+01
RF	RF-MT0091	148.83	7.50E+02				2.52E-03	2.11E+02	5.92E+03	1.35E+03
RF	RF-MT0092	21.47	1.09E+02				3.67E-04	2.66E+01	8.48E+02	1.97E+02
RF	RF-MT0093	23.35	1.49E+02				1.26E-03	2.74E+01	9.15E+02	2.16E+02
RF	RF-MT0097	1.46	7.28E+00				2.58E-05	1.21E+00	4.78E+01	9.82E+00
RF	RF-MT0099	0.63	4.39E-03				9.41E-09	2.21E-03	5.17E-02	1.18E-02
RF	RF-MT0290	18.97	1.09E+01				2.33E-05	5.47E+00	1.28E+02	2.93E+01
RF	RF-MT-0292	23.97	1.37E+01				2.94E-05	6.91E+00	1.62E+02	3.70E+01
RF	RF-MT-0299	31.06	3.30E+03				1.23E-02	1.77E+02	4.15E+03	9.50E+02
RF	RF-MT0302	0.42	3.94E-02				2.64E-07	7.02E-03	1.79E-01	4.11E-02
RF	RF-MT0320	7.09	5.06E+01				2.56E-04	7.27E+00	1.74E+02	3.99E+01
RF	RF-MT0321	36.90	2.96E+01				4.75E-04	1.92E+00	4.97E+01	1.13E+01
RF	RF-MT-0328	2.61	1.59E+00				1.59E-05	2.09E-01	4.90E+00	1.12E+00
RF	RF-MT0330	4.38	1.91E+01				1.04E-04	2.55E+00	1.11E+02	2.72E+01
RF	RF-MT-0331	24.60	1.29E+02				7.06E-04	1.77E+01	5.41E+02	1.21E+02
RF	RF-MT0332	1.46	1.02E-02				2.19E-08	5.16E-03	1.21E-01	2.76E-02
RF	RF-MT-0335	0.83	1.36E+00				1.56E-05	2.37E-01	6.23E+00	1.43E+00
RF	RF-MT0336	14.29	1.03E+02				3.75E-04	1.57E+01	4.42E+02	1.01E+02
RF	RF-MT0337	13.97	6.07E+01				2.25E-04	8.63E+00	2.70E+02	6.07E+01
RF	RF-MT0339	215.30	1.25E+02				3.32E-03	1.95E+01	4.90E+02	1.11E+02
RF	RF-MT-0342	0.42	8.09E-01				1.12E-05	1.97E-01	5.47E+00	1.23E+00
RF	RF-MT0371	20.43	2.96E+02				3.18E-03	4.56E+01	1.07E+03	2.44E+02
RF	RF-MT-0372	1.46	1.07E+00				5.33E-06	3.21E-01	7.46E+00	1.71E+00
RF	RF-MT0373	3.96	2.12E+01				7.48E-05	3.30E+00	1.40E+02	3.18E+01
RF	RF-MT0374	0.63	5.76E-01				6.78E-06	1.18E-01	2.77E+00	6.33E-01
RF	RF-MT0376	0.21	4.74E-01				3.31E-06	9.53E-02	2.76E+00	6.41E-01
RF	RF-MT0377	74.42	2.73E+02				4.01E-03	5.49E+01	1.29E+03	2.94E+02
RF	RF-MT0378	0.63	2.69E+00				2.41E-05	7.59E-01	1.78E+01	4.07E+00
RF	RF-MT0419	4.79	5.67E+00				5.95E-05	7.09E-01	1.66E+01	3.80E+00
RF	RF-MT0420	0.83	9.86E-01				1.03E-05	1.23E-01	2.88E+00	6.60E-01
RF	RF-MT0423	1.04	9.86E+00				3.70E-05	1.00E+00	4.16E+01	9.23E+00
RF	RF-MT0425	0.21	2.47E-01				2.59E-06	3.08E-02	7.21E-01	1.65E-01
RF	RF-MT-0438	0.63	2.17E+00				9.94E-06	4.04E-01	1.28E+01	2.90E+00
RF	RF-MT0440	2.29	7.49E-01				1.57E-05	1.45E-01	4.64E+00	1.08E+00
RF	RF-MT0442	0.83	2.88E-01				1.79E-06	6.27E-02	1.59E+00	3.63E-01
RF	RF-MT0443	19.39	2.49E+00				8.47E-06	1.03E+00	2.47E+01	5.65E+00
RF	RF-MT0444	44.44	2.58E+01				2.27E-04	4.98E+00	1.17E+02	2.68E+01
RF	RF-MT0480	112.89	7.22E+01			5.32E-03	3.93E-04	1.34E+01	3.17E+02	7.24E+01
RF	RF-MT0488	406.67	9.39E+01				1.33E-03	1.64E+01	3.84E+02	8.80E+01
RF	RF-MT0490	1.89	4.93E-01				4.41E-06	1.23E-01	2.93E+00	6.71E-01
RF	RF-MT-0491	0.63	4.85E-02				4.86E-07	5.62E-03	1.33E-01	3.03E-02
RF	RF-MT0523A	10.84	3.81E+01				3.31E-04	4.47E+00	1.05E+02	2.40E+01
RF	RF-MT0523B	10.84	3.81E+01				3.31E-04	4.47E+00	1.05E+02	2.40E+01

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Volume	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240
RF	RF-MT0523C	10.84	3.81E+01				3.31E-04	4.47E+00	1.05E+02	2.40E+01
RF	RF-MT0523D	10.84	3.81E+01				3.31E-04	4.47E+00	1.05E+02	2.40E+01
RF	RF-MT0523E	10.84	3.81E+01				3.31E-04	4.47E+00	1.05E+02	2.40E+01
RF	RF-MT0531	0.21	1.46E-03				3.14E-09	7.36E-04	1.72E-02	3.94E-03
RF	RF-MT0532E	15.63	1.34E+02				3.41E-03	9.57E+00	2.29E+02	5.23E+01
RF	RF-MT0532F	15.63	1.34E+02				3.41E-03	9.57E+00	2.29E+02	5.23E+01
RF	RF-MT0541	4.38	5.43E+00				2.08E-05	1.38E-01	3.25E+00	7.42E-01
RF	RF-MT0545	0.21	1.33E-02				2.85E-08	6.68E-03	1.57E-01	3.58E-02
RF	RF-MT0800	62.48	1.17E+03				4.59E-03	3.31E+00	7.75E+01	1.77E+01
RF	RF-MT0801	101.83	1.26E+02				4.85E-04	3.22E+00	7.56E+01	1.73E+01
RF	RF-MT0803	2.29	2.85E+00				1.09E-05	7.25E-02	1.70E+00	3.88E-01
RF	RF-MT0806	0.21	1.11E+00				3.94E-06	1.74E-01	7.39E+00	1.67E+00
RF	RF-MT0807	84.18	1.46E+01				5.26E-05	1.34E+00	3.14E+01	7.19E+00
RF	RF-MT0816	0.42	1.44E+00				4.97E-06	1.89E-01	4.43E+00	1.01E+00
RF	RF-MT-0823	0.21	7.34E-01				6.36E-06	8.60E-02	2.02E+00	4.62E-01
RF	RF-MT0827	9.90	3.41E+01				1.18E-04	4.49E+00	1.05E+02	2.41E+01
RF	RF-MT0831	59.92	6.00E+01				5.36E-04	1.31E+01	3.03E+02	6.94E+01
RF	RF-MT0832	166.26	3.76E+02				3.30E-03	4.07E+01	1.01E+03	2.30E+02
RF	RF-MT0833	100.26	1.11E+02				9.95E-04	1.17E+01	2.83E+02	6.48E+01
RF	RF-MT0855	1.67	1.25E-02				2.69E-08	6.31E-03	1.48E-01	3.38E-02
RF	RF-MT0857	0.21	1.11E+00				3.93E-06	1.73E-01	7.37E+00	1.67E+00
RF	RF-MT0H61	7.71	4.12E+01				1.46E-04	6.43E+00	2.73E+02	6.20E+01
RF	RF-MT2116	2.08	4.71E+00				4.14E-05	5.10E-01	1.26E+01	2.88E+00
RF	RF-MT3010	42.81	1.82E+01				3.03E-04	4.06E+00	9.61E+01	2.20E+01
RF	RF-MT3011	420.26	1.61E+02				3.41E-03	2.75E+01	6.45E+02	1.48E+02
RF	RF-MT420P	160.94	1.20E+03				4.63E-03	1.67E+02	6.35E+03	1.45E+03
RF	RF-MT532A	27.50	2.35E+02				6.00E-03	1.68E+01	4.03E+02	9.20E+01
RF	RF-MT532B	123.42	1.06E+03				2.69E-02	7.56E+01	1.81E+03	4.13E+02
RF	RF-MT532C	247.47	2.12E+03				5.40E-02	1.52E+02	3.63E+03	8.28E+02
RF	RF-MT532D	1.56	1.34E+01				3.41E-04	9.57E-01	2.29E+01	5.23E+00
RF	RF-TT0069	0.21	8.59E-02				3.73E-06	1.59E-02	3.73E-01	8.53E-02
RF	RF-TT0200	0.63	4.46E+00				2.26E-05	6.42E-01	1.53E+01	3.52E+00
RF	RF-TT0299	0.21	2.21E+01				8.27E-05	1.19E+00	2.79E+01	6.38E+00
RF	RF-TT0300	42.32	1.26E+02				8.23E-04	3.33E+01	7.87E+02	1.81E+02
RF	RF-TT0301	5.84	1.74E+01				1.13E-04	4.60E+00	1.09E+02	2.50E+01
RF	RF-TT0302	9.28	8.77E-01				5.88E-06	1.56E-01	3.99E+00	9.14E-01
RF	RF-TT0303	1.25	5.69E+00				6.78E-05	9.76E-01	2.29E+01	5.23E+00
RF	RF-TT0310	3.13	1.87E+01				1.21E-04	4.58E+00	1.03E+02	2.43E+01
RF	RF-TT0312	57.95	4.77E+02				2.04E-03	8.27E+01	2.25E+03	5.10E+02
RF	RF-TT0317	0.21	1.87E-01				4.17E-07	8.99E-02	2.11E+00	4.82E-01
RF	RF-TT0320	26.27	1.88E+02				9.48E-04	2.70E+01	6.45E+02	1.48E+02
RF	RF-TT0330	15.95	6.95E+01				3.80E-04	9.31E+00	4.03E+02	9.92E+01
RF	RF-TT-0331	69.21	3.62E+02				1.99E-03	4.99E+01	1.52E+03	3.41E+02
RF	RF-TT-0334	4.07	8.63E+01				3.26E-04	3.61E+01	8.45E+02	1.93E+02
RF	RF-TT0335	94.40	1.54E+02				1.76E-03	2.68E+01	7.05E+02	1.62E+02
RF	RF-TT0336	22.52	1.63E+02				5.91E-04	2.48E+01	6.96E+02	1.59E+02
RF	RF-TT0337	47.46	2.06E+02				7.65E-04	2.93E+01	9.17E+02	2.06E+02
RF	RF-TT0338	142.93	8.31E+02				5.21E-03	1.03E+02	3.45E+03	7.77E+02
RF	RF-TT0340	7.30	4.18E+00				8.96E-06	2.10E+00	4.92E+01	1.13E+01
RF	RF-TT0342	20.85	4.05E+01				5.58E-04	9.87E+00	2.74E+02	6.14E+01

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Volume	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240
RF	RF-TT0360	0.63	3.65E+00				4.69E-05	5.33E-01	1.30E+01	3.01E+00
RF	RF-TT0368	12.51	7.30E+01				9.38E-04	1.07E+01	2.61E+02	6.03E+01
RF	RF-TT0370	17.09	1.40E+02				5.12E-03	2.31E+01	5.81E+02	1.33E+02
RF	RF-TT0371	0.21	3.02E+00				3.24E-05	4.65E-01	1.09E+01	2.49E+00
RF	RF-TT0372	0.42	3.06E-01				1.52E-06	9.16E-02	2.13E+00	4.88E-01
RF	RF-TT0374	10.74	9.89E+00				1.16E-04	2.03E+00	4.75E+01	1.09E+01
RF	RF-TT0375A	2.30	5.63E-02				1.27E-07	2.66E-02	6.22E-01	1.42E-01
RF	RF-TT0375B	2.30	5.63E-02				1.27E-07	2.66E-02	6.22E-01	1.42E-01
RF	RF-TT0376	11.46	2.61E+01				1.82E-04	5.24E+00	1.52E+02	3.52E+01
RF	RF-TT0377	3.23	1.19E+01				1.74E-04	2.39E+00	5.59E+01	1.28E+01
RF	RF-TT0391	0.42	3.53E+00				1.58E-05	4.01E-01	1.69E+01	3.81E+00
RF	RF-TT0392	0.21	1.25E+00				4.30E-06	2.52E-01	8.83E+00	2.01E+00
RF	RF-TT0393	11.05	9.38E+01				1.24E-02	1.76E+01	4.11E+02	9.41E+01
RF	RF-TT0398	0.42	2.20E+00				7.48E-06	4.64E-01	1.65E+01	3.74E+00
RF	RF-TT0409	0.21	2.23E+00				8.32E-06	2.17E-01	8.52E+00	1.93E+00
RF	RF-TT0412	0.21	2.23E+00				8.32E-06	2.17E-01	8.52E+00	1.93E+00
RF	RF-TT0414	6.46	6.91E+01				2.58E-04	6.71E+00	2.64E+02	5.97E+01
RF	RF-TT0430	0.21	9.95E-03				2.13E-08	5.01E-03	1.17E-01	2.68E-02
RF	RF-TT0431	22.20	2.55E+00				7.65E-06	1.19E+00	2.80E+01	6.40E+00
RF	RF-TT0438	70.32	2.44E+02				1.12E-03	4.54E+01	1.43E+03	3.26E+02
RF	RF-TT0440	60.17	1.97E+01				4.12E-04	3.79E+00	1.22E+02	2.84E+01
RF	RF-TT0441	143.32	1.10E+02				6.80E-04	2.10E+01	4.96E+02	1.13E+02
RF	RF-TT0442	47.35	1.63E+01				1.01E-04	3.56E+00	9.03E+01	2.06E+01
RF	RF-TT0443	1.46	1.88E-01				6.38E-07	7.79E-02	1.86E+00	4.26E-01
RF	RF-TT0479	1.04	2.16E+00				4.63E-06	1.09E+00	2.54E+01	5.82E+00
RF	RF-TT0480	294.34	1.88E+02			1.39E-02	1.03E-03	3.50E+01	8.25E+02	1.89E+02
RF	RF-TT0481	0.21	1.33E-01			9.82E-06	7.26E-07	2.48E-02	5.84E-01	1.34E-01
RF	RF-TT0483	0.83	2.66E-01				5.70E-07	1.34E-01	3.13E+00	7.17E-01
RF	RF-TT0484	9.80	1.85E+00				1.74E-05	5.55E-01	1.30E+01	2.98E+00
RF	RF-TT0485	5.42	1.82E-01				5.95E-07	3.43E-02	8.02E-01	1.84E-01
RF	RF-TT0486	14.38	1.08E+00				6.58E-06	2.03E-01	4.76E+00	1.09E+00
RF	RF-TT0487	2.19	4.95E+00				4.35E-05	5.36E-01	1.33E+01	3.03E+00
RF	RF-TT0489	9.38	1.49E+00				1.24E-05	3.10E-01	7.26E+00	1.66E+00
RF	RF-TT0490	252.23	6.58E+01				5.88E-04	1.64E+01	3.91E+02	8.95E+01
RF	RF-TT0491	27.79	2.15E+00				2.16E-05	2.50E-01	5.90E+00	1.35E+00
RF	RF-TT0492	1.89	6.03E-01				5.11E-06	1.50E-01	3.50E+00	8.02E-01
RF	RF-TT0523A	1.46	5.13E+00				4.45E-05	6.02E-01	1.41E+01	3.23E+00
RF	RF-TT0523B	1.46	5.13E+00				4.45E-05	6.02E-01	1.41E+01	3.23E+00
RF	RF-TT0523C	1.46	5.13E+00				4.45E-05	6.02E-01	1.41E+01	3.23E+00
RF	RF-TT0523D	1.46	5.13E+00				4.45E-05	6.02E-01	1.41E+01	3.23E+00
RF	RF-TT0523E	1.46	5.13E+00				4.45E-05	6.02E-01	1.41E+01	3.23E+00
RF	RF-TT0532A	16.05	1.37E+02				3.50E-03	9.83E+00	2.35E+02	5.37E+01
RF	RF-TT0532B	16.05	1.37E+02				3.50E-03	9.83E+00	2.35E+02	5.37E+01
RF	RF-TT0541	0.21	1.19E-01				2.56E-07	6.01E-02	1.41E+00	3.22E-01
RF	RF-TT0545	0.42	2.66E-02				5.69E-08	1.34E-02	3.13E-01	7.17E-02
RF	RF-TT0601	2.71	1.58E+01				2.03E-04	2.31E+00	5.65E+01	1.31E+01
RF	RF-TT0802	56.43	1.89E+03				6.75E-03	1.87E+02	4.41E+03	1.00E+03
RF	RF-TT0809	4.07	1.36E+02				4.87E-04	1.35E+01	3.18E+02	7.24E+01
RF	RF-TT0821	237.15	2.93E+02				2.52E-03	5.43E+01	1.38E+03	3.16E+02
RF	RF-TT0822	222.17	3.13E+02				3.21E-03	3.77E+01	9.24E+02	2.10E+02

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Volume	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240
RF	RF-TT0823	0.21	7.34E-01				6.36E-06	8.60E-02	2.02E+00	4.62E-01
RF	RF-TT0824	1025.18	5.64E+02				5.61E-03	1.00E+02	2.41E+03	5.52E+02
RF	RF-TT0825	566.73	5.51E+02				7.13E-03	7.82E+01	1.96E+03	4.47E+02
RF	RF-TT0832	151.04	3.41E+02				3.00E-03	3.69E+01	9.16E+02	2.09E+02
RF	RF-TT0854	2.19	7.28E-02				1.56E-07	3.66E-02	8.58E-01	1.96E-01
RF	RF-TT0886	0.21	1.33E-02				2.84E-08	6.67E-03	1.56E-01	3.58E-02
RF	RF-TT2216	3.13	7.06E+00				6.20E-05	7.65E-01	1.90E+01	4.32E+00
RF	RF-TT3010	519.26	2.21E+02				3.67E-03	4.93E+01	1.17E+03	2.67E+02
RF	RF-TT3011	1763.69	6.74E+02				1.43E-02	1.16E+02	2.71E+03	6.19E+02
RF	RF-TT301U	15.63	6.34E+01				4.14E-04	1.51E+01	3.63E+02	8.44E+01
RF	RF-TT310P	2.71	2.13E+01				8.15E-05	3.93E+00	1.22E+02	2.65E+01
RF	RF-TT338S	0.42	3.74E-01				8.33E-07	1.80E-01	4.21E+00	9.64E-01
RF	RF-TT390P	0.42	3.59E+00				1.25E-05	4.88E-01	2.05E+01	4.31E+00
RF	RF-TT391P	22.72	1.92E+02				8.61E-04	2.19E+01	9.21E+02	2.07E+02
RF	RF-TT392P	65.24	3.91E+02				1.34E-03	7.89E+01	2.76E+03	6.29E+02
RF	RF-TT393R	12.51	5.59E+01				2.01E-04	1.34E+01	4.22E+02	9.68E+01
RF	RF-TT394P	0.62	8.14E+00				8.47E-05	8.29E-01	3.26E+01	6.91E+00
RF	RF-TT395P	0.83	1.09E+01				1.13E-04	1.11E+00	4.36E+01	9.23E+00
RF	RF-TT396P	0.21	2.72E+00				2.83E-05	2.77E-01	1.09E+01	2.31E+00
RF	RF-TT398P	43.15	2.28E+02				7.75E-04	4.80E+01	1.71E+03	3.87E+02
RF	RF-TT398R	69.83	2.44E+03				3.06E-02	8.92E+01	2.76E+03	6.26E+02
RF	RF-TT411R	7.71	8.25E+01				3.08E-04	8.01E+00	3.15E+02	7.13E+01
RF	RF-TT429R	2.08	1.97E+02				1.83E-03	1.72E+00	7.30E+01	1.62E+01
RF	RF-TT433X	0.63	6.19E+01				2.42E-04	4.76E-01	2.10E+01	4.21E+00
RF	RF-TT436R	7.09	4.43E+02				4.89E-03	6.89E+00	2.75E+02	6.21E+01
RF	RF-TT454X	0.42	2.60E+01				2.87E-04	4.05E-01	1.62E+01	3.66E+00
RL	RL-T101	567.94				2.51E+01		2.46E+01	8.75E+02	1.96E+02
RL	RL-T102	200.12				1.23E-01		3.13E-04	1.12E-02	2.50E-03
RL	RL-T103	99.63	5.03E+01			2.90E-01		2.98E+01	3.82E+02	8.50E+01
RL	RL-T104	4.99				4.30E-04		4.47E-04	1.59E-02	3.58E-03
RL	RL-T105	80.40	1.37E-02			3.91E-02		1.69E-01	6.04E+00	1.35E+00
RL	RL-T106	8.11				7.13E-04		1.66E-01	5.90E+00	1.32E+00
RL	RL-T107	6156.09	3.95E+00			3.71E+01		9.75E+04	1.63E+04	3.64E+03
RL	RL-T108	192.62				1.96E-02		1.68E+01	9.28E+00	2.08E+00
RL	RL-T109	19.72	7.32E-02			1.07E-02		3.46E-01	1.23E+01	2.76E+00
RL	RL-T110	494.03	2.77E+00			5.20E+00		6.60E+01	1.41E+03	3.17E+02
RL	RL-T112	137.74	6.08E+01			1.17E-01		2.79E+01	1.87E+02	4.19E+01
RL	RL-T113	42.80				8.64E-03		5.39E-02	6.16E-01	1.38E-01
RL	RL-T114	19.58				5.10E-02		2.63E+00	9.36E+01	2.10E+01
RL	RL-T115	1025.43	1.57E+02			1.94E-01		8.52E+01	1.23E+03	2.76E+02
RL	RL-T116	11.02				1.05E+01		4.32E+00	1.53E+02	3.44E+01
RL	RL-T118	261.96	3.79E+01			3.99E-01		3.45E+01	1.52E+02	3.41E+01
RL	RL-T120	133.81	6.60E+00			7.22E-02		3.62E+00	4.50E+01	1.00E+01
RL	RL-T122	29.30				8.98E+00		1.53E-01	5.42E+00	1.22E+00
RL	RL-T123	0.62						4.48E-01	1.59E+01	3.58E+00
RL	RL-T125	15.18	1.07E+02			1.59E-03		1.11E+02	3.33E+02	1.72E+02
RL	RL-T127	283.60	3.23E+02			9.06E-01		2.79E+01	9.95E+02	2.23E+02
RL	RL-T128	0.42	7.08E-01			2.14E-02		6.78E-07	2.42E-05	5.41E-06
RL	RL-T129	28.75				7.51E-02		1.29E+02	1.37E+01	3.05E+00
RL	RL-T130	0.21				8.35E-02		8.15E-04	2.91E-02	6.51E-03

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Volume	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240
RL	RL-T131	30.16	8.15E-01			8.14E-04		4.45E-01	5.54E+00	1.23E+00
RL	RL-T132	28.70				1.24E-01		7.86E+01	2.81E+03	6.29E+02
RL	RL-T133	0.21	2.71E-03			9.92E-05		1.26E-03	4.61E-02	1.03E-02
RL	RL-T134	0.21				7.72E-01		3.39E-03	1.21E-01	2.70E-02
RL	RL-T135	0.42				9.63E-05		1.59E-02	5.66E-01	1.27E-01
RL	RL-T137	151.63	6.30E+02			7.91E-01		3.47E+02	4.31E+03	9.60E+02
RL	RL-T140	138.11	9.93E+02			7.20E-01		3.30E+02	4.17E+03	1.03E+03
RL	RL-T143	403.71				1.11E-01		1.89E+00	6.74E+01	1.51E+01
RL	RL-T145	711.19				1.28E+00		5.39E+00	1.92E+02	4.29E+01
RL	RL-W407	348.21	2.88E+01					8.23E+00	3.14E+02	7.02E+01
RL	RL-W408	3.80	1.18E-04					4.86E-05	1.78E-03	3.99E-04
RL	RL-W415	59.94	1.87E-03					7.66E-04	2.81E-02	6.29E-03
RL	RL-W418	12.30	9.95E-03					3.21E-03	1.21E-01	2.70E-02
RL	RL-W438	3.79	1.18E-04					4.84E-05	1.77E-03	3.97E-04
RL	RL-W444	744.95	6.17E+01					1.76E+01	6.71E+02	1.50E+02
RL	RL-W447	9.87	7.09E-03					2.91E-03	1.06E-01	2.39E-02
RL	RL-W448	1.68	5.24E-05					2.15E-05	7.87E-04	1.76E-04
RL	RL-W449	1.05	1.28E+00					7.87E-04	2.25E-02	5.04E-03
RL	RL-W450	0.84	7.91E-04					3.24E-04	1.19E-02	2.66E-03
RL	RL-W451	0.42	1.13E-04					4.62E-05	1.69E-03	3.79E-04
RL	RL-W452	7.60	6.14E-03					1.99E-03	7.45E-02	1.67E-02
RL	RL-W453	0.21	1.96E-03					5.60E-04	2.14E-02	4.78E-03
RL	RL-W454	0.21	2.74E-02					7.83E-03	2.99E-01	6.69E-02
RL	RL-W455	0.21	6.53E-03					2.11E-03	7.91E-02	1.77E-02
RL	RL-W456	9.03	9.36E-01					2.76E-01	1.05E+01	2.35E+00
RL	RL-W457	0.63	9.11E-02					2.68E-02	1.02E+00	2.28E-01
RL	RL-W458	0.21	1.96E-01			1.03E-04		1.37E-01	4.19E-01	2.34E-01
RL	RL-W459	6.12	1.75E+00			5.13E-03		1.41E+00	1.04E+01	3.19E+00
RL	RL-W460	0.21	1.74E-02					4.96E-03	1.89E-01	4.24E-02
RL	RL-W461	0.42	3.41E-02							
RL	RL-W462	0.21	4.13E-03					1.44E-03	5.35E-02	1.20E-02
RL	RL-W463	0.42	2.55E-02					7.28E-03	2.78E-01	6.22E-02
RL	RL-W464	0.42	1.18E-02					3.35E-03	1.28E-01	2.86E-02
RL	RL-W465	0.84	7.12E-02					2.27E-02	8.52E-01	1.91E-01
RL	RL-W466	14.07	1.01E+00					3.09E-01	1.17E+01	2.62E+00
RL	RL-W467	1.26	4.72E-02					1.59E-02	5.96E-01	1.33E-01
RL	RL-W468	0.21	2.35E-04					8.19E-05	3.05E-03	6.83E-04
RL	RL-W469	1.26	1.09E-01					3.29E-02	1.24E+00	2.79E-01
RL	RL-W470	0.21	1.48E+00			2.20E-05		1.53E+00	4.60E+00	2.38E+00
RL	RL-W474	1.89	2.61E-01					1.69E-01	1.05E-02	9.00E-03
RL	RL-W476	4.78	1.96E-01			8.90E-02		6.08E-02	2.30E+00	5.17E-01
RL	RL-W480	0.42	3.01E-02					9.74E-03	3.65E-01	8.19E-02
RL	RL-W481	0.63	4.73E-02					1.53E-02	5.73E-01	1.28E-01
RL	RL-W482	2.50	6.29E+01					5.09E+00	7.29E-02	1.36E-01
RL	RL-W483	1.04	4.70E+00					3.95E-01	4.72E-03	9.66E-03
RL	RL-W484	0.84	4.19E-02			5.49E-01		3.18E-03	6.59E-02	1.58E-02
RL	RL-W485	0.21	2.77E-03					4.50E-04	7.13E-03	1.71E-03
RL	RL-W486	0.21	1.17E-03					1.90E-04	3.01E-03	7.19E-04
RL	RL-W487	0.21	1.41E-01					2.44E-02	4.31E-01	1.19E-01
RL	RL-W488	0.21				1.44E-03				

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Volume	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240
RL	RL-W489	0.21	3.55E-02			1.20E-03		2.30E-02	5.58E-01	1.27E-01
RL	RL-W490	1.90				7.19E-05				
RL	RL-W491	0.21	1.38E-02			1.00E-03		1.94E-02	5.85E-02	1.29E-02
RL	RL-W492	0.21	8.01E-04			1.00E-04		4.78E-04	1.17E-02	2.65E-03
RL	RL-W493	0.21				1.44E-03				
RL	RL-W494	77.49	3.10E+01					2.77E+01	2.95E-01	2.53E-01
RL	RL-W495	0.42	5.53E-01					7.53E-02	2.83E-03	2.26E-03
RL	RL-W496	0.21	3.62E+00					8.67E-01	9.30E-03	7.49E-03
RL	RL-W497	0.21	2.74E-01					1.71E-01	5.58E-01	2.54E-01
RL	RL-W498	508.95	5.61E-01					1.81E-01	6.80E+00	1.52E+00
RL	RL-W499	0.21	7.06E-06					2.28E-06	8.55E-05	1.92E-05
RL	RL-W500	0.21	5.11E-04					2.83E-04	3.49E-03	7.78E-04
RL	RL-W501	38.91	2.62E+01					4.51E+00	7.98E+01	2.20E+01
RL	RL-W502	3.15	3.76E-03					1.22E-03	4.56E-02	1.02E-02
RL	RL-W503	0.42	2.12E-01			1.22E-03		1.25E-01	1.61E+00	3.58E-01
RL	RL-W504	0.21	1.41E-01					2.44E-02	4.31E-01	1.19E-01
RL	RL-W505	0.21	2.73E-03			1.00E-04		1.28E-03	4.66E-02	1.04E-02
RL	RL-W506	0.63	1.38E-03					5.03E-04	1.53E-02	3.43E-03
RL	RL-W507	0.63	1.36E-04					4.40E-05	1.65E-03	3.69E-04
RL	RL-W508	0.63	2.62E+00			3.29E-03		1.44E+00	1.79E+01	3.99E+00
RL	RL-W509	4.83	3.47E+01			2.52E-02		1.15E+01	1.46E+02	3.59E+01
RL	RL-W510	3.36	2.10E+00					1.18E+00	1.45E+01	3.23E+00
RL	RL-W511	52.92	3.48E+02					5.69E+01	1.94E+03	4.26E+02
RL	RL-W512	31.29	3.61E+02					3.84E+01	1.17E+03	2.92E+02
RL	RL-W513	6266.68	2.45E+04					1.11E+04	1.36E+04	6.79E+03
RL	RL-W514	0.42	5.91E-04					1.79E-04	6.77E-03	1.52E-03
RL	RL-W515	8.02	2.18E-02					7.02E-03	2.64E-01	5.90E-02
RL	RL-W516	26.60	3.02E-02					9.75E-03	3.65E-01	8.19E-02
RL	RL-W517	0.21	2.51E-10					8.72E-11	3.25E-09	7.27E-10
RL	RL-W518	0.84	9.74E-01					3.67E-01	4.66E+00	1.13E+00
RL	RL-W519	1.68	1.46E-01					4.35E-02	1.65E+00	3.69E-01
RL	RL-W520	0.42	1.30E-02					4.90E-03	1.81E-01	4.05E-02
RL	RL-W521	0.21	2.78E-04					8.99E-05	3.37E-03	7.56E-04
RL	RL-W522	2.31	8.29E+00					3.34E+00	2.23E+01	6.41E+00
RL	RL-W523	0.21	3.06E+00					1.27E+00	1.48E+00	9.03E-01
RL	RL-W524	2.73	1.20E+01					4.86E+00	1.36E+01	5.29E+00
RL	RL-W525	0.63	9.59E-01					3.29E-01	1.61E+00	5.35E-01
RL	RL-W526	14.35	2.19E+00			2.71E-03		1.19E+00	1.72E+01	3.86E+00
RL	RL-W527	0.21	2.18E-01					1.72E-01	1.82E+00	4.34E-01
RL	RL-W528	5.26	2.01E+02					7.31E+01	5.80E+01	5.58E+01
RL	RL-W529	1.90	9.37E-02			1.03E-03		5.14E-02	6.40E-01	1.42E-01
RL	RL-W530	0.42	1.06E+00					5.96E-01	7.31E+00	1.63E+00
RL	RL-W531	5.47	1.11E+02					5.98E+01	3.16E+01	2.29E+01
RL	RL-W532	30.40	2.01E-01					6.50E-02	2.44E+00	5.46E-01
RL	RL-W533	3.80	1.03E-01			1.03E-04		5.61E-02	6.98E-01	1.55E-01
RL	RL-W534	0.21	5.62E-06					1.81E-06	6.81E-05	1.53E-05
RL	RL-W535	23.75	4.64E+01					1.79E+01	8.73E+01	2.68E+01
RL	RL-W536	6.51	8.30E-01					2.41E-01	3.03E+00	6.90E-01
RL	RL-W537	5.04	3.16E+01					5.44E+00	1.86E+02	4.10E+01
RL	RL-W538	1.68	7.13E-05					2.30E-05	8.65E-04	1.94E-04

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Volume	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240
RL	RL-W539	0.42	6.87E-03					2.59E-03	9.56E-02	2.14E-02
RL	RL-W540	30.87	2.52E+01					1.14E+01	3.44E+01	1.19E+01
RL	RL-W541	0.63	2.08E-02					7.47E-03	2.77E-01	6.20E-02
RL	RL-W542	3.99	1.15E+00					5.55E-01	7.01E+00	1.63E+00
RL	RL-W543	4.01	3.33E-03					1.08E-03	4.06E-02	9.10E-03
RL	RL-W544	0.21	8.74E-02					4.41E-02	4.62E-01	1.16E-01
RL	RL-W545	3.80	2.01E-02					6.48E-03	2.43E-01	5.45E-02
RL	RL-W546	0.84	8.79E-04					2.84E-04	1.07E-02	2.39E-03
RL	RL-W547	56.14	2.25E-05					7.26E-06	2.72E-04	6.10E-05
RL	RL-W548	0.42	1.85E-05					6.30E-06	2.35E-04	5.27E-05
RL	RL-W549	4.00	5.68E+00					2.53E+00	1.21E+01	3.62E+00
RL	RL-W550	4.41	2.84E+01					4.79E+00	1.64E+02	3.62E+01
RL	RL-W551	15.58	6.00E+01					7.08E+00	1.85E+02	4.72E+01
RL	RL-W552	0.84	1.11E-02					3.92E-03	1.46E-01	3.26E-02
RL	RL-W553	0.42	3.21E-04			1.12E-01		3.70E-04	1.30E-02	2.91E-03
RL	RL-W554	9.50	1.70E-02					5.49E-03	2.06E-01	4.62E-02
RL	RL-W555	12.03	7.82E-03					2.53E-03	9.49E-02	2.12E-02
RL	RL-W563	0.21	1.20E-01					6.33E-02	7.87E-01	1.75E-01
RL	RL-W564	1.26	6.07E-02					4.20E-02	5.09E-01	1.13E-01
RL	RL-W565	0.21	6.78E-03					2.36E-03	8.79E-02	1.97E-02
RL	RL-W566	2.31	1.04E-01					3.46E-02	1.29E+00	2.90E-01
RL	RL-W567	0.21	4.91E+00					8.84E-01	3.97E-02	3.22E-02
RL	RL-W568	3.74	7.64E+01					1.86E+01	1.88E+00	1.50E+00
RL	RL-W569	2.10	7.74E-02					1.40E-02	6.27E-04	5.10E-05
RL	RL-W570	0.42	7.95E-03			8.90E-03		2.45E-03	9.32E-02	2.08E-02
RL	RL-W571	12.48	1.72E+01					8.32E+00	7.56E+00	3.80E+00
RL	RL-W572	2.29	1.38E-02					2.49E-03	4.07E-03	9.10E-05
RL	RL-W573	14.98	1.84E+02					3.19E+01	2.23E+00	1.68E+00
RL	RL-W574	81.89	7.62E+02					1.38E+02	8.52E+00	6.22E+00
RL	RL-W575	284.11	5.45E+03					9.29E+02	8.15E+01	4.97E+01
RL	RL-W576	41.07	3.56E+02					6.49E+01	4.15E+00	3.00E+00
RL	RL-W579	0.42	1.06E-01					1.71E-03	2.08E-02	4.67E-03
RL	RL-W580	2.11				3.01E-04			1.66E-01	2.72E-02
RL	RL-W581	0.42	1.16E+00							
RL	RL-W582	0.21	7.05E-03			1.03E-03		1.45E-03	5.32E-03	2.77E-03
RL	RL-W583	0.21	2.76E-03					7.88E-04	3.00E-02	6.73E-03
RL	RL-W584	0.21	1.01E-01			2.05E-04		5.17E-02	1.75E-01	8.62E-02
RL	RL-W585	0.42	2.18E-01			3.24E-06		2.75E-01	1.02E+00	5.24E-01
RL	RL-W586	0.21	4.36E-05					1.24E-05	4.74E-04	1.06E-04
RL	RL-W587	0.42	8.83E-04					2.68E-04	1.01E-02	2.27E-03
RL	RL-W588	0.21	6.86E-02			2.05E-04		4.36E-02	1.48E-01	7.26E-02
RL	RL-W589	0.21				2.96E-05				
RL	RL-W590	0.62	7.86E-01					9.30E-01	1.14E-02	2.04E-02
RL	RL-W591	0.21	3.89E+00					1.05E+00	1.41E-02	2.64E-02
RL	RL-W592	2.50	2.11E+01					1.15E+01	6.54E-01	8.54E-01
RL	RL-W593	0.62							2.36E-02	4.01E-02
RL	RL-W594	2.50	4.64E+01					2.07E+00	2.92E-02	5.42E-02
RL	RL-W595	0.62	4.62E-02					2.16E-01	2.00E-02	3.94E-02
RL	RL-W596	9.45	1.74E-02					1.68E-02	2.06E-04	3.70E-04
RL	RL-W597	3.12	3.12E+01					7.39E+00	3.99E-01	6.71E-01

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Volume	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240
RL	RL-W598	8.74	3.43E+01					4.36E+01	5.56E-01	8.37E-01
RL	RL-W599	0.21	1.31E+00					3.52E-01	4.70E-03	8.82E-03
RL	RL-W600	0.74	1.09E-07					3.11E-08	1.19E-06	2.66E-07
RL	RL-W601	1.05	1.40E-04			9.37E-05		1.61E-04	5.66E-03	1.27E-03
RL	RL-W602	2.53	4.28E-01					1.49E-01	5.54E+00	1.24E+00
RL	RL-W603	7.60	2.72E+00					9.46E-01	3.52E+01	7.89E+00
RL	RL-W604	0.21	1.12E-02			3.57E-02		2.48E-03	1.71E-02	8.50E-03
RL	RL-W605	0.21	4.68E-04			7.54E-04		5.39E-04	1.89E-02	4.24E-03
RL	RL-W606	0.21	1.89E-04			3.67E-03		2.17E-04	7.62E-03	1.71E-03
RL	RL-W607	0.21	1.90E-03			3.14E-02		4.20E-04	2.89E-03	1.44E-03
RL	RL-W608	6.12	1.98E-02			1.30E+00		1.63E-02	3.76E-03	4.67E-03
RL	RL-W610	3.80	3.05E+00					8.72E-01	3.32E+01	7.44E+00
RL	RL-W612	7.11	5.16E-03			9.24E-02		1.51E-03	5.80E-02	1.30E-02
RL	RL-W615	1.89							3.38E-01	
RL	RL-W622	1.89	1.20E-04					3.44E-05	1.31E-03	2.93E-04
RL	RL-W625	0.21	1.56E-03					5.23E-03	6.69E-03	6.62E-03
RL	RL-W626	0.21	3.50E-01					1.19E-01	2.62E-01	1.58E-01
RL	RL-W627	0.21	7.30E-04			9.46E-04		1.59E-04	1.24E-06	
RL	RL-W628	0.21	3.29E-04					9.99E-05	3.78E-03	8.46E-04
RL	RL-W629	0.21	1.82E-05					6.87E-06	2.54E-04	5.68E-05
RL	RL-W630	0.42	2.06E-01					1.28E-01	2.94E+00	6.85E-01
RL	RL-W631	0.42	1.12E-03			2.25E-08		1.29E-03	4.51E-02	1.01E-02
RL	RL-W632	0.21	1.34E+00			2.20E-03		1.74E-01	5.96E+00	1.97E+00
RL	RL-W633	0.21	6.17E-03					1.01E-03	9.36E-04	8.32E-04
RL	RL-W634	0.21							1.02E-02	
RL	RL-W635	15.39	2.38E+01			8.70E-01		3.41E+01	4.34E+00	6.53E+00
RL	RL-W636	1.05	3.75E-01			9.31E-02		6.44E-02	5.67E-02	5.05E-02
RL	RL-W637	0.63	6.55E-04			1.98E-02		1.64E-03	6.38E-04	6.30E-04
RL	RL-W638	4.01	3.35E-02			3.60E-01		1.67E-02	6.25E-03	5.92E-03
RL	RL-W639	0.63	1.32E-03					4.27E-04	1.60E-02	3.58E-03
RL	RL-W640	0.21	4.70E-02					1.42E-02	5.39E-01	1.21E-01
RL	RL-W641	5.46	2.28E+00			5.35E-01		3.12E+00	2.59E+00	1.07E+00
RL	RL-W642	1.68	6.25E-02			1.07E+00		3.24E-04	3.16E-02	1.62E-04
RL	RL-W643	1.68	7.02E-01			1.65E-01		9.61E-01	7.98E-01	3.30E-01
RL	RL-W644	0.84				5.34E-01			5.49E-02	
RL	RL-W645	1.47	8.26E-03					4.32E-03	1.08E-01	2.55E-02
RL	RL-W646	0.42	1.42E-02			3.75E-02		3.86E-03	2.58E-02	1.26E-02
RL	RL-W647	0.21	3.59E-02					5.77E-01	1.10E-01	1.75E-02
RL	RL-W648	0.21	2.68E-04			2.26E-02		9.86E-04	6.01E-05	1.19E-04
RL	RL-W649	1.90	9.87E-04			8.30E-02		3.63E-03	2.21E-04	4.37E-04
RL	RL-W653	0.42	7.45E-05					2.60E-05	9.66E-04	2.16E-04
RL	RL-W654	0.21	4.39E-04					1.42E-04	5.32E-03	1.19E-03
RL	RL-W655	1.46	9.55E+01					3.36E+01	2.11E-01	5.01E-01
RL	RL-W656	3.12	3.06E+02					1.51E+01	4.96E-01	5.15E-01
RL	RL-W657	14.86	2.09E+02					2.23E+01	2.44E-01	4.90E-01
RL	RL-W659	0.42	2.80E+01					5.03E+00	4.70E-02	5.87E-02
RL	RL-W660	2.08	1.45E+02					6.05E+01	8.67E-01	1.56E+00
RL	RL-W661	0.21	1.19E+00					7.57E-02	4.18E-04	3.83E-03
RL	RL-W662	0.21	6.68E-02					4.51E-03	1.07E-04	1.93E-04
RL	RL-W665	8.53	4.05E+02					3.61E+02	1.31E+00	1.77E+00

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Volume	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240
RL	RL-W666	1.46	1.10E+01					8.84E-01	5.49E-02	5.82E-02
RL	RL-W668	30.49	1.79E+00			3.57E+00		1.98E-02	1.03E-01	2.96E-02
RL	RL-W669	1.26	5.26E-01			1.24E-01		7.21E-01	5.98E-01	2.47E-01
RL	RL-W670	0.21	4.63E-02			9.17E-02		5.13E-04	2.68E-03	7.66E-04
RL	RL-W671	9.45	5.40E+00					2.63E-01	4.91E-03	5.14E-03
RL	RL-W672	9.45	3.67E+01					1.79E+00	3.35E-02	3.49E-02
RL	RL-W673	49.14	3.54E+01			1.84E+01		1.72E+00	3.24E-02	3.37E-02
RL	RL-W674	25.02	4.88E-02					5.77E-02	8.37E+00	7.35E-02
RL	RL-W675	0.21	3.78E-01			2.02E+02		4.25E-01	1.31E-01	1.14E-01
RL	RL-W676	4.41	1.67E-02			8.48E-02		2.55E-03	1.47E-01	2.15E-03
RL	RL-W677	3.15	3.80E+01			4.60E+00		6.32E+00	5.74E+00	5.02E+00
RL	RL-W678	0.42	3.60E-02			5.66E-01		5.28E-02	5.16E-02	4.58E-02
RL	RL-W679	3.80	7.49E-01			1.24E-03		1.18E-01	1.11E-01	9.86E-02
RL	RL-W680	0.21	9.48E-05			4.57E-03		1.66E-04	1.74E-05	3.15E-05
RL	RL-W681	0.21	2.35E-05			3.04E-04		6.73E-05	4.67E-04	2.34E-04
RL	RL-W685	102.64	1.50E-01					4.29E-02	1.64E+00	3.66E-01
RL	RL-W689	0.21	1.13E-02			3.68E-02		7.18E-04	3.87E-04	
RL	RL-W690	0.42	1.82E-01			1.75E-02		5.28E-02	2.03E+00	4.53E-01
RL	RL-W691	0.21	4.22E-03			8.74E-03		1.23E-03	4.70E-02	1.05E-02
RL	RL-W692	0.42	1.67E-01			1.75E-02		4.87E-02	1.86E+00	4.16E-01
RL	RL-W693	0.62	2.07E-01			2.62E-02		6.01E-02	2.30E+00	5.15E-01
RL	RL-W694	2.29	2.17E+00			9.61E-02		6.31E-01	2.43E+01	5.40E+00
RL	RL-W695	0.84	3.82E-03						2.39E-03	
RL	RL-W696	0.21	1.62E-03					2.30E-03	2.91E-03	2.89E-03
RL	RL-W697	0.21	1.15E+00					4.87E+00	6.93E-03	9.57E-04
RL	RL-W698	0.21	9.97E-02			9.66E-02			3.29E-05	
RL	RL-W699	0.42	8.07E-03					3.24E-04	2.20E-03	2.60E-04
RL	RL-W700	1.26	2.63E-03					8.50E-04	3.19E-02	7.15E-03
RL	RL-W702	0.21								
RL	RL-W703	0.21				8.92E-03				
RL	RL-W704	0.42	1.75E-01			4.12E-02		2.40E-01	1.99E-01	8.25E-02
RL	RL-W705	0.62	7.11E-04			2.32E-03		2.21E-04	8.36E-03	1.88E-03
RL	RL-W706	0.21				6.43E-02				
RL	RL-W707	1.87	2.55E-02			3.39E-04		7.86E-03	2.98E-01	6.68E-02
RL	RL-W708	0.62	3.84E-03			5.36E-05		1.19E-03	4.52E-02	1.01E-02
RL	RL-W709	0.21	1.33E+00			8.92E-04		4.10E-01	1.56E+01	3.49E+00
RL	RL-W710	0.21	7.92E-05			1.79E-05		2.45E-05	9.32E-04	2.08E-04
RL	RL-W711	0.21	2.48E-02			8.92E-05		7.65E-03	2.91E-01	6.51E-02
RL	RL-W712	0.21	3.20E-02			2.14E-04		9.90E-03	3.76E-01	8.42E-02
RL	RL-W713	0.21	2.77E-02			8.92E-04		8.55E-03	3.24E-01	7.28E-02
RL	RL-W714	0.21								
RL	RL-W715	0.42	5.04E-04					1.44E-04	5.49E-03	1.23E-03
RL	RL-W716	0.84	5.25E-03					1.50E-03	5.72E-02	1.28E-02
RL	RL-W717	0.21	1.31E-03					3.75E-04	1.43E-02	3.20E-03
RL	RL-W718	0.42	2.32E-04					6.61E-05	2.52E-03	5.64E-04
RL	RL-W719	0.42	1.04E-03					2.98E-04	1.14E-02	2.55E-03
RL	RL-W720	2.52	6.47E-03					1.85E-03	7.04E-02	1.58E-02
RL	RL-W721	2.31	4.38E-03					1.25E-03	4.76E-02	1.07E-02
RL	RL-W723	0.62	1.45E-02			1.05E-04		4.22E-03	1.62E-01	3.62E-02
RL	RL-W724	3.33	9.65E-02			9.55E-03		2.81E-02	1.07E+00	2.41E-01

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Volume	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240
RL	RL-W725	1.25	3.05E-02			7.15E-04		8.86E-03	3.39E-01	7.60E-02
RL	RL-W726	1.66	2.40E-02			1.15E-03		6.99E-03	2.68E-01	5.99E-02
RL	RL-W727	6.24	1.47E-01			1.09E-02		4.29E-02	1.64E+00	3.68E-01
RL	RL-W728	8.32	1.34E-01			9.90E-03		3.91E-02	1.50E+00	3.35E-01
RL	RL-W729	2.91	6.20E-02			1.50E-03		1.81E-02	6.90E-01	1.55E-01
RL	RL-W730	85.29	3.68E+01							
RL	RL-W731	0.21	1.66E-05			3.86E-02			4.51E-04	1.86E-06
RL	RL-W732	46.16	9.33E+00					7.33E+00	9.10E+01	2.02E+01
RL	RL-W733	0.63	2.28E-01			7.26E-05		1.34E-01	1.38E+00	3.44E-01
RL	RL-W734	0.42	7.56E-01			1.28E-06		4.47E-01	4.76E+00	1.16E+00
RL	RL-W735	0.21	6.49E-01					3.41E-01	3.71E+00	9.25E-01
RL	RL-W736	0.21	1.21E-03					7.27E-07	2.46E-03	6.38E-04
RL	RL-W737	0.84	5.98E-01					3.11E-01	3.52E+00	8.61E-01
RL	RL-W738	2.31	2.29E+00					1.07E+00	1.12E+01	2.97E+00
RL	RL-W739	0.21	1.84E-01					9.44E-02	1.82E+00	4.17E-01
RL	RL-W740	13.23	9.13E+00			6.45E-06		3.46E+00	4.43E+01	1.16E+01
RL	RL-W741	1.05	2.03E+01					8.14E+00	8.63E+00	6.16E+00
RL	RL-W742	0.21	6.26E-01					2.45E-01	2.80E+00	6.63E-01
RL	RL-W743	0.21	2.17E-03			1.26E-01		6.65E-05	1.81E-03	
RL	RL-W744	0.21							9.03E-02	7.72E-02
RL	RL-W745	0.21	1.44E-03					4.65E-04	1.75E-02	3.91E-03
RL	RL-W746	0.42	5.55E-03					1.79E-03	6.72E-02	1.51E-02
RL	RL-W747	0.21	1.50E-02					4.85E-03	1.82E-01	4.08E-02
RL	RL-W748	13.23	9.45E+01					1.36E+01	3.02E-01	4.99E-01
RL	RL-W749	3.78	1.34E-01					4.16E-02	1.58E+00	3.53E-01
RL	RL-W750	0.42	1.59E+02					2.06E+01	4.95E-01	8.15E-01
RL	RL-W751	0.21	1.44E+02					1.86E+01	4.45E-01	7.39E-01
RL	RL-W752	9.87	6.26E+01					8.08E+00	1.94E-01	3.21E-01
RL	RL-W753	12.15	8.42E+02					1.09E+02	2.61E+00	4.31E+00
RP	RP-W754	1484.07	7.44E+01			2.57E+02	3.00E-04	1.38E+01	1.86E+03	1.53E+02
RP	RP-W755	2447.97	4.43E+02			1.15E+03	2.94E-03	8.27E+00	1.39E+03	1.16E+02
SA	SA-T001	5.41	9.07E-01		4.78E+00		1.81E-05	1.98E-01	3.03E+00	4.73E-03
SA	SA-W134	16.02	7.20E+00	1.22E-02	1.85E-03	6.89E+01	1.24E-01	1.35E+00	1.38E+00	4.39E-01
SA	SA-W134M	2.08	9.35E-01	1.59E-03	2.40E-04	8.95E+00	1.62E-02	1.75E-01	1.80E-01	5.70E-02
SR	T001-221F-HET	1963.82	9.72E+02				3.03E-03	1.38E+05	2.51E+04	6.22E+02
SR	T001-221H-HET	3898.35	1.93E+03				6.02E-04	2.73E+05	4.99E+04	1.23E+03
SR	T001-235F-HET	184.90	9.15E+01				2.86E-04	1.30E+04	2.36E+03	5.86E+01
SR	T001-772F-HET	1468.39	7.27E+02				2.27E-03	1.03E+05	1.88E+04	4.65E+02
SR	T001-773A-CLAS	22.64	1.12E+01				3.50E-05	1.59E+03	2.90E+02	7.17E+00
SR	T001-773A-HET	203.20	1.01E+02				3.14E-04	1.43E+04	2.60E+03	6.44E+01
SR	W006-773A-VIT	0.62	2.77E-03				9.04E-09		5.37E+02	
SR	W026-221F-HET	785.95	3.89E+02				1.21E-03	5.51E+04	1.01E+04	2.49E+02
SR	W026-221H-HET	587.63	2.91E+02				9.08E-04	4.12E+04	7.52E+03	1.86E+02
SR	W026-235F-HET	9.15	4.53E+00				1.41E-05	6.42E+02	1.17E+02	2.90E+00
SR	W026-772F-HET	2.50	1.24E+00				3.86E-06	1.75E+02	3.19E+01	7.90E-01
SR	W026-773A-HET	40.66	2.01E+01				6.28E-05	2.85E+03	5.20E+02	1.29E+01
SR	W027-221F-HET	3051.42	1.97E+03				1.51E-02	1.86E+05	3.90E+04	9.64E+02
SR	W027-221H-HET	1335.12	8.61E+02				6.60E-03	8.12E+04	1.71E+04	4.22E+02
SR	W027-235F-HET	401.73	2.59E+02				1.99E-03	2.44E+04	5.14E+03	1.27E+02
SR	W027-772F-HET	729.74	4.71E+02				3.61E-03	4.44E+04	9.33E+03	2.31E+02
SR	W027-773A-HET	1088.76	7.02E+02				5.38E-03	6.62E+04	1.39E+04	3.44E+02
SR	W027-999-HET	886.79	5.72E+02				4.38E-03	5.39E+04	1.13E+04	2.80E+02
SR	W053-773A-VIT	0.62							3.99E+02	
WP	WP-INW169.001	17.01	3.31E+00				1.06E-06	4.77E-01	1.54E+01	3.44E+00
WP	WP-INW198.001	44.73	3.91E+00				1.25E-06	8.32E-01	2.76E+01	6.12E+00
WP	WP-INW211.001	286.23	4.39E+02				1.41E-04	7.81E+01	2.56E+03	5.68E+02
WP	WP-INW216.001-A	888.30	2.51E+04				1.63E-02	4.49E+01	1.48E+03	3.30E+02
WP	WP-INW216.001-B	308.70	6.90E+03				4.48E-03	1.21E+01	4.01E+02	8.90E+01
WP	WP-INW218.001-A	756.76	4.57E+02				1.48E-04	7.92E+00	2.58E+02	5.74E+01
WP	WP-INW218.001-B	24.99	1.50E+00				4.82E-07	2.18E-01	7.02E+00	1.56E+00

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Volume	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240
WP	WP-INW222.001	30.24	1.67E+01				5.38E-06	2.35E+00	6.86E+01	1.54E+01
WP	WP-INW243.001	67.20	4.30E+01				2.75E-05	5.07E+00	1.44E+02	3.24E+01
WP	WP-INW247.001R1	108.36	5.25E+01				3.34E-05	1.18E+01	2.76E+02	6.30E+01
WP	WP-INW276.001	10.29	3.82E+00				5.84E-06	1.15E+00	2.73E+01	6.24E+00
WP	WP-INW276.002	16.17	6.21E+00				9.53E-06	1.73E+00	4.01E+01	9.36E+00
WP	WP-INW276.003	185.85	2.28E+02				1.45E-04	6.43E+01	1.49E+03	3.41E+02
WP	WP-INW276.004	46.62	5.76E+01				3.67E-05	1.36E+01	3.15E+02	7.20E+01
WP	WP-INW296.001-A	10.92	2.37E+01				1.52E-05	3.23E+00	7.91E+01	1.80E+01
WP	WP-INW296.001-B	81.06	6.78E+01				4.33E-05	1.14E+01	2.80E+02	6.36E+01
WP	WP-LA-TA-55-19.01-A	5.88	1.28E+00	2.79E-04		5.73E-07	6.35E-05	5.30E-01	2.09E+00	5.07E-01
WP	WP-LA-TA-55-19.01-B	75.20	5.06E+01	3.47E-03		4.76E-08	2.83E-03	1.78E+01	2.13E+02	5.22E+01
WP	WP-LA-TA-55-43.01	189.88	2.10E-01	9.57E-06			2.61E-05	4.15E+02	3.23E-01	1.37E-01
WP	WP-RF001.01	477.00	1.04E+02	6.53E-07			2.85E-02	1.44E+01	4.10E+02	9.37E+01
WP	WP-RF002.01-A	350.66	9.78E+01	3.14E-04			9.12E-04	1.92E+01	4.62E+02	1.06E+02
WP	WP-RF002.01-B	0.21	1.15E-01				1.80E-07	1.33E-02	5.00E-01	1.14E-01
WP	WP-RF003.01	232.26	1.47E+03				4.75E-03	3.09E+02	8.83E+03	2.02E+03
WP	WP-RF004.01	5.67	6.06E-01				8.43E-06	2.07E-01	5.09E+00	1.17E+00
WP	WP-RF005.01	120.54	5.17E+03				9.05E-03	1.57E+02	4.67E+03	1.06E+03
WP	WP-RF005.02	78.33	6.30E+03				1.03E-02	8.11E+01	2.79E+03	6.29E+02
WP	WP-RF006.01	220.92	1.68E+03				1.26E-02	2.95E+02	7.94E+03	1.82E+03
WP	WP-RF008.01	80.01	3.88E+02				5.51E-03	1.05E+02	2.32E+03	5.41E+02
WP	WP-RF009.01	1299.06	6.23E+04				4.00E-01	1.29E+03	5.09E+04	1.14E+04
WP	WP-RF010.01	55.50	1.43E+01				1.39E-04	3.27E+00	7.69E+01	1.76E+01
WP	WP-RF029.01-A	48.88	3.55E+00	7.51E-07			7.42E-05	6.15E-01	1.35E+01	3.10E+00
WP	WP-RF029.01-B	18.80	6.88E+00	3.42E-05			1.11E-03	4.87E-01	1.07E+01	2.45E+00
WP	WP-RF118.01	1273.44	8.86E+03	6.12E-04			4.26E-02	2.45E+03	5.14E+04	1.15E+04
WP	WP-RLMPDT.001	7.35	1.84E+00			3.65E-07	5.88E-07	7.15E-01	7.36E+00	1.92E+00
WP	WP-RLNPDT.002	90.72	2.36E+01	9.60E-05		2.34E-04	1.49E-05	6.81E+00	7.23E+01	1.95E+01
WP	WP-SR2001.001.00	61.74	4.19E-01			5.99E-05	2.48E-07	7.83E-01	6.83E+00	1.36E+00
WP	WP-SR-W027-221F-HETA	141.12	5.43E+00			9.03E-05	2.89E-05	2.30E+00	1.96E+01	5.49E+00
Total:		1.68E+05	4.75E+05	7.78E+01	6.17E+03	7.38E+03	6.22E+00	1.45E+06	5.78E+05	9.41E+04

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234
AE	AE-T001	1.97E+02	8.28E-02		3.10E+00	1.70E-04	1.52E-06	7.50E-05	1.14E-01	1.09E-02
AE	AE-T003	1.11E+02	5.90E-04		3.16E-02	2.36E-05	6.81E-09	3.03E-15	1.80E-02	9.55E-05
AW	AW-N026.82				1.51E+00					
AW	AW-N027.531	2.09E-01	2.97E-06			3.40E-10	3.00E-09	1.73E-19	3.63E-06	4.06E-04
AW	AW-T033.1325	6.67E-01	9.48E-06			1.09E-09	9.57E-09	5.51E-19	1.16E-05	1.30E-03
AW	AW-W049									
BC	BCLCH-MT01	3.60E+02	1.23E-03							
BT	BT-T002	1.58E-01	1.15E-05	6.62E-13	2.14E+01			5.64E-14		1.99E-03
ET	ET-C1-B55	2.79E-01				2.09E-15	2.75E-08	3.84E-18	5.21E-12	2.36E-04
ET	ET-C1-D139	3.71E-02	1.98E-06			3.57E-16	3.96E-12	6.27E-19	8.30E-13	6.18E-08
ET	ET-C2-SEFOR	5.72E-01			1.16E-02	1.00E-14		6.62E-18	2.31E-11	
IN	IN-BN-510	8.89E+04	5.74E-01			1.01E+00	1.26E-04	2.44E+00	8.31E+02	2.12E+00
IN	IN-GEM-01	3.94E+01	3.75E-04							
IN	IN-GEM-02	9.36E+00	8.91E-05							
IN	IN-ICP-002					1.01E-03	4.39E-03	1.01E-09	3.38E-01	1.54E+01
IN	IN-ICP-003					4.27E-04	1.85E-03	4.28E-10	1.43E-01	6.50E+00
IN	IN-ICP-004					8.81E-05	3.88E-04	8.82E-11	2.94E-02	1.36E+00
IN	IN-ICP-005					5.88E-04	2.55E-03	5.89E-10	1.96E-01	8.94E+00
IN	IN-W157.144	6.18E+02	1.12E-02			2.96E-12	2.10E-08	7.63E-15	7.45E-09	3.53E-04
IN	IN-W163.1007	1.91E+02	4.22E-03			7.95E-14	6.53E-09	2.37E-15	2.53E-10	1.10E-04
IN	IN-W164.153	1.81E+00	3.36E-05			7.54E-16	6.19E-11	2.25E-17	2.40E-12	1.04E-06
IN	IN-W167.149	2.93E+02	5.37E-03			5.02E-13	1.01E-08	3.66E-15	1.32E-09	1.69E-04
IN	IN-W174.154						5.69E-06	4.28E-16		9.57E-02
IN	IN-W177.156	2.53E-01	1.45E-05			1.05E-16	1.21E-05	1.24E-18	3.34E-13	2.04E-01
IN	IN-W179.158	1.70E+00	1.09E-04			7.07E-16	1.21E-05	6.15E-18	2.25E-12	2.03E-01
IN	IN-W181.162	8.80E+01	4.45E-04			3.67E-14	2.01E-09	7.65E-16	1.17E-10	3.38E-05
IN	IN-W188.160	1.62E+02	3.00E-03			6.74E-14	5.53E-09	2.01E-15	2.14E-10	9.30E-05
IN	IN-W216.98	1.32E+04	2.40E-01			7.81E-09	4.51E-07	1.64E-13	1.92E-05	7.59E-03
IN	IN-W218.909	1.05E+03	5.31E-03			7.77E-11	2.40E-08	9.15E-15	1.91E-07	4.03E-04
IN	IN-W219.110	1.57E+01	7.93E-05			6.54E-15	3.58E-10	1.36E-16	2.08E-11	6.01E-06
IN	IN-W219.914	2.48E+00	1.25E-05			1.03E-15	5.63E-11	2.15E-17	3.28E-12	9.47E-07
IN	IN-W220.114	1.04E+03	1.88E-02			9.80E-04	3.55E-08	1.34E-14	8.04E-01	5.96E-04
IN	IN-W221.927	6.02E+01	1.11E-03			2.51E-14	2.05E-09	7.47E-16	7.97E-11	3.45E-05
IN	IN-W222.116	2.04E+03	3.70E-02			9.31E-13	6.97E-08	2.53E-14	2.90E-09	1.17E-03
IN	IN-W228.101	6.64E+02	1.20E-02			7.05E-11	2.27E-08	8.25E-15	1.73E-07	3.82E-04
IN	IN-W240.931	8.48E+02	1.54E-02			3.62E-12	2.89E-08	1.05E-14	9.14E-09	4.86E-04
IN	IN-W243.808	1.48E+03	2.70E-02			3.39E-12	5.08E-08	1.85E-14	8.78E-09	8.54E-04
IN	IN-W245.301	2.91E+03	5.26E-02			1.43E-12	9.94E-08	3.61E-14	4.38E-09	1.67E-03
IN	IN-W247.810	1.42E+03	2.57E-02			6.83E-13	4.84E-08	1.76E-14	2.11E-09	8.14E-04
IN	IN-W249.527						3.40E-06			5.71E-02
IN	IN-W263.520	1.48E+00	2.64E-05			6.16E-16	8.53E-07	3.74E-18	1.96E-12	1.43E-02
IN	IN-W267.1005	3.44E+02	8.05E-03			1.43E-13	1.18E-08	4.26E-15	4.55E-10	1.98E-04
IN	IN-W309.609	5.79E+03	1.04E-01			2.13E-11	1.99E-07	7.15E-14	5.41E-08	3.34E-03
IN	IN-W315.601	9.15E+01	4.61E-04			1.07E-10	2.09E-09	7.96E-16	2.62E-07	3.51E-05
IN	IN-W319.584	5.31E+01	1.40E-03			2.21E-14	1.82E-09	6.58E-16	7.02E-11	3.05E-05
IN	IN-W321.1023	4.59E+02	6.77E-03			1.91E-13	1.57E-08	5.70E-15	6.08E-10	2.64E-04
IN	IN-W322.851							2.34E-16		
IN	IN-W322.952							6.24E-16		
IN	IN-W323.562	1.56E+00				6.48E-16	2.83E-09		2.06E-12	4.76E-05
IN	IN-W323.951	1.84E+00				7.66E-16	3.35E-11		2.44E-12	5.64E-07

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234
IN	IN-W332.661						3.50E-08			5.90E-04
IN	IN-W337.673							7.81E-17		
IN	IN-W337.957							2.34E-16		
IN	IN-W342.652			1.88E-14		2.22E-13			5.47E-10	
IN	IN-W342.953			1.25E-14		1.49E-13			3.65E-10	
IN	IN-W347.818					1.29E-13	2.09E-12	2.86E-05	3.17E-10	3.58E-08
IN	IN-W348.1012	8.49E+02	1.53E-02			3.60E-13	2.90E-08	1.05E-14	1.14E-09	4.87E-04
IN	IN-W353.917					2.37E-12			3.89E-09	
IN	IN-W357.1022	1.66E+00	3.42E-05			6.93E-16	5.67E-11	2.06E-17	2.20E-12	9.54E-07
IN	IN-W358.854						2.54E-07	1.30E-16		8.00E-03
IN	IN-W358.855						1.36E-06	6.93E-16		4.27E-02
IN	IN-W358.948						2.83E-07	1.44E-16		8.90E-03
IN	IN-W361.1021	1.61E+02	2.84E-03			6.88E-14	5.50E-09	2.00E-15	2.17E-10	9.25E-05
IN	IN-W362.1020	2.10E+03	3.62E-02			8.74E-13	7.17E-08	2.60E-14	2.78E-09	1.21E-03
IN	IN-W363.1019	9.86E+01	1.52E-03			4.11E-14	3.38E-09	1.22E-15	1.31E-10	5.68E-05
IN	IN-W364.1011	1.63E+02	3.78E-03			6.78E-14	5.56E-09	2.01E-15	2.15E-10	9.35E-05
IN	IN-W365.1010	1.29E+02	2.49E-03			1.71E-11	4.42E-09	1.60E-15	4.20E-08	7.44E-05
IN	IN-W366.841	1.10E+02	1.92E-03			1.06E-13	3.76E-09	1.36E-15	2.94E-10	6.33E-05
IN	IN-W372.832			1.88E-14		2.22E-13			5.47E-10	
IN	IN-W375.1096	4.06E+01	7.39E-04			1.69E-14	1.39E-09	5.04E-16	5.38E-11	2.33E-05
KN	KN-B234TRU	3.85E+02	5.68E-04					4.04E-05	2.09E-02	1.47E-03
LA	LA-IT-00-01	9.85E-08				2.53E-08	4.46E-08	1.83E-18	9.98E-06	3.55E-04
LA	LA-OS-00-01					8.34E-14	1.71E-06		2.67E-09	3.81E-01
LA	LA-PX-00-01	1.63E-01				7.00E-17	3.80E-12	5.61E-19	3.77E-13	1.40E-07
LA	LA-SL-00-01					7.07E-10	1.68E-09		5.80E-07	1.39E-05
LA	LA-TA-03-12	9.66E-01	3.81E-05	2.09E-12		1.85E-12	5.43E-08	1.39E-16	1.35E-09	3.82E-04
LA	LA-TA-03-13	1.28E+00	2.60E-04	2.39E-10		4.11E-13	3.50E-08	6.33E-17	6.36E-10	5.33E-04
LA	LA-TA-03-19	1.98E+00	2.27E-04	1.32E-10		6.26E-12	2.53E-07	3.56E-16	4.55E-09	1.79E-03
LA	LA-TA-03-20	1.62E+00	4.57E-05			1.10E-11	8.00E-08	9.50E-17	9.46E-09	6.89E-04
LA	LA-TA-03-24	1.68E+00	5.72E-05			1.03E-11	4.95E-07	2.34E-16	7.16E-09	3.41E-03
LA	LA-TA-03-26	1.47E-01	2.55E-06			4.33E-15	2.63E-07	5.64E-15	5.50E-12	1.01E-03
LA	LA-TA-03-28						6.11E-09			4.52E-05
LA	LA-TA-03-30	7.70E+00	2.20E-04			1.25E-13	4.04E-09	8.39E-16	1.79E-10	3.10E-05
LA	LA-TA-03-31	2.30E-02				6.08E-13	5.07E-07	3.21E-18	6.69E-10	1.96E-03
LA	LA-TA-03-40						3.70E-10			2.64E-06
LA	LA-TA-03-42	1.61E-04	2.61E-09			3.73E-18	9.28E-12	2.98E-20	4.97E-15	6.61E-08
LA	LA-TA-21-06	1.66E+00	5.46E-05			3.22E-14	9.49E-07	1.81E-16	4.45E-11	7.01E-03
LA	LA-TA-21-12	5.70E+00	1.97E-04			8.17E-04	5.73E-06	6.14E-16	3.01E-01	4.23E-02
LA	LA-TA-21-13					8.43E-13			8.67E-10	
LA	LA-TA-21-14	2.31E-03				7.63E-19	5.66E-09	1.88E-21	3.57E-15	1.78E-04
LA	LA-TA-21-15	9.37E-01	1.38E-05			1.57E-14	2.79E-10	1.37E-16	2.24E-11	2.13E-06
LA	LA-TA-21-16	9.89E+00	2.17E-04			2.34E-13	4.98E-09	1.67E-15	3.11E-10	3.55E-05
LA	LA-TA-21-40	1.85E-03	2.14E-08			1.12E-17	1.26E-08	1.44E-19	1.97E-14	1.18E-04
LA	LA-TA-21-41									
LA	LA-TA-21-42	6.01E-02	6.48E-07			5.23E-14	7.75E-09	7.92E-18	3.93E-11	5.34E-05
LA	LA-TA-21-43	9.99E-03				1.56E-09	3.96E-03		1.66E-06	1.47E+01
LA	LA-TA-21-44	5.69E+00				1.63E-16	4.24E-08	9.34E-18	9.64E-13	1.33E-03
LA	LA-TA-48-01	5.56E-01	1.68E-05			4.76E-06	1.18E-10	2.89E-16	2.12E-03	1.06E-06
LA	LA-TA-49-01	1.09E-01				8.42E-16	7.21E-05	9.24E-18	1.41E-12	3.39E-01
LA	LA-TA-50-10					8.87E-17	4.17E-12		5.67E-13	1.84E-07

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234
LA	LA-TA-50-11	5.50E-01	6.03E-06			5.76E-15	1.24E-09	3.70E-17	9.40E-12	1.25E-05
LA	LA-TA-50-15	4.67E-01	5.60E-06		7.42E-03	1.62E-14	1.15E-08	3.76E-17	2.65E-11	1.21E-04
LA	LA-TA-50-17	3.45E-02	8.76E-08			7.12E-07	5.19E-08	8.25E-20	4.22E-04	3.54E-04
LA	LA-TA-50-18	1.26E-03	1.61E-09			5.78E-07	2.78E-09	3.54E-21	2.06E-04	1.98E-05
LA	LA-TA-50-19	1.56E-02	2.65E-07			3.07E-13	8.70E-09	3.23E-18	2.90E-10	3.56E-05
LA	LA-TA-50-20					2.93E-15			3.89E-12	
LA	LA-TA-50-40	5.00E-02	1.65E-06			3.73E-16	1.04E-11	2.10E-18	6.29E-13	9.31E-08
LA	LA-TA-50-41	8.91E-02	6.36E-07			3.71E-17	2.88E-12	1.37E-18	1.18E-13	4.84E-08
LA	LA-TA-55-19	4.00E+01	1.81E-02	2.14E-08		4.47E-07	2.76E-07	8.68E-15	1.99E-04	1.33E-03
LA	LA-TA-55-20	9.06E+02	8.20E-03			4.90E-10	8.52E-06	2.69E-13	7.49E-07	6.79E-02
LA	LA-TA-55-21	1.04E+01	2.12E-03	1.82E-09		5.01E-14	4.24E-10	1.15E-16	1.15E-10	7.73E-06
LA	LA-TA-55-22	3.22E+01	2.86E-04	7.74E-11		6.64E-12	2.39E-09	3.94E-16	1.19E-08	4.36E-05
LA	LA-TA-55-23	3.17E+01	1.70E-02	1.93E-08		4.78E-14	1.66E-09	2.40E-16	1.45E-10	3.31E-05
LA	LA-TA-55-24	1.51E+01	7.70E-05			2.72E-15	7.59E-11	3.53E-17	1.49E-11	2.79E-06
LA	LA-TA-55-25	7.73E+01	3.04E-03			1.39E-14	4.42E-10	1.76E-16	7.60E-11	1.63E-05
LA	LA-TA-55-28	2.51E+01	1.06E-02	6.90E-09		7.65E-15	3.35E-10	7.44E-17	3.59E-11	1.06E-05
LA	LA-TA-55-30	1.50E+02	2.69E-02	3.20E-08		6.95E-07	9.70E-08	1.32E-14	3.09E-04	6.34E-04
LA	LA-TA-55-32	2.29E+01	5.25E-03	6.51E-09		5.60E-13	4.76E-07	6.31E-15	8.28E-10	3.50E-03
LA	LA-TA-55-33	3.22E+00	7.45E-05			8.83E-14	6.80E-10	1.85E-16	1.30E-10	6.39E-06
LA	LA-TA-55-34	2.98E+02	1.78E-02	1.86E-08		2.89E-06	4.30E-07	1.63E-14	1.54E-03	2.58E-03
LA	LA-TA-55-38	7.92E+01	1.52E-02	1.57E-08		9.11E-07	3.26E-07	1.19E-06	4.23E-04	1.66E-03
LA	LA-TA-55-39	1.59E+02	1.02E-03			1.69E-13	2.70E-09	1.26E-15	5.61E-10	5.93E-05
LA	LA-TA-55-41	1.62E+02	6.13E-02	7.83E-08		1.41E-11	7.79E-09	2.28E-15	3.47E-08	1.31E-04
LA	LA-TA-55-43	1.76E+00	3.34E-05			8.84E-16	2.96E-07	2.97E-18	3.29E-12	7.24E-03
LA	LA-TA-55-44	5.20E+00	2.29E-04	4.84E-11		2.43E-13	5.37E-06	3.71E-16	3.37E-10	4.82E-02
LA	LA-TA-55-48	2.91E+00	8.45E-05			3.95E-14	1.87E-06	3.35E-17	6.48E-11	1.92E-02
LA	LA-TA-55-49	6.35E+01	1.92E-03			3.83E-12	2.55E-05	3.67E-15	5.45E-09	2.39E-01
LA	LA-TA-55-53	2.81E+02	8.54E-03	7.32E-09		1.07E-11	3.67E-08	1.62E-14	1.67E-08	3.70E-04
LA	LA-TA-55-56	5.82E+02	6.24E-03			1.95E-11	5.88E-07	1.22E-14	3.00E-08	8.49E-03
LA	LA-TA-55-60	4.74E-01	2.58E-03	2.45E-09		2.50E-12	4.94E-10	9.98E-18	2.33E-09	4.64E-06
LA	LA-TA-55-61	4.61E-01	9.72E-05	8.24E-11		2.57E-15	1.88E-09	1.53E-17	4.65E-12	1.94E-05
LA	LA-TA-55-62	1.24E-01	3.70E-06			6.04E-16	1.97E-11	3.99E-18	1.11E-12	1.94E-07
LA	LA-TA-55-63	1.22E-01	1.00E-06			1.31E-16	6.84E-12	3.27E-18	3.36E-13	9.32E-08
LL	LL-M001	8.81E+02								
LL	LL-T001	5.40E+03								
LL	LL-T002	4.77E+04								
LL	LL-T003	1.87E+03								
LL	LL-T004	1.19E+03								
LL	LL-T005	4.62E+03								
LL	LL-W018	1.25E+00								
LL	LL-W019	3.08E+02								
LL	LL-W034	1.04E+02								
MC	MC-W001	1.88E-01				1.73E-15			6.93E-12	
MU	MU-W002					1.50E-12	4.80E-17		8.01E-09	2.67E-12
NT	NT-JAS-01	1.67E+03								
NT	NT-W001	1.63E+02	8.90E-02	1.02E-06	9.56E-05	2.76E-03	1.21E-06	3.57E-15	1.84E+00	1.15E-02
NT	NT-W021	8.39E+01	6.53E-04			9.01E-14	3.41E-09	1.39E-15	2.31E-10	4.65E-05
OR	OR-W201	6.26E+04	1.26E-01	2.69E-09	4.21E-06	6.19E-02	4.74E-03	4.07E-05	3.88E+01	3.10E+01
OR	OR-W202	2.01E+03	4.26E-01	5.41E-09	3.26E+03	2.76E-01	5.92E-05	1.97E-03	1.73E+02	3.22E-01
OR	OR-W203	5.10E+00	1.21E-02	3.90E-10	2.37E+01	1.45E-13	3.43E-09	1.93E-16	2.77E-10	4.39E-05

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234
OR	OR-W204		5.47E-07		1.03E-02	8.06E-04	3.89E-09	4.78E-17	5.06E-01	4.97E-05
PA	PA-A015					1.77E-09	6.95E-02		2.91E-06	
RF	RF-MT0001	6.45E+02	5.68E-03			7.44E-11	1.64E-08	4.74E-15	1.98E-07	2.99E-04
RF	RF-MT0002	4.95E+01	4.36E-04			5.71E-12	1.26E-09	3.64E-16	1.52E-08	2.30E-05
RF	RF-MT0003	1.13E+01	1.00E-04			3.61E-15	2.89E-10	8.34E-17	1.22E-11	5.27E-06
RF	RF-MT0007	1.31E+00				6.41E-14		1.04E-17	1.71E-10	
RF	RF-MT0089	1.13E-01	9.98E-07			3.30E-17	2.88E-12	8.33E-19	1.14E-13	5.26E-08
RF	RF-MT0090	1.13E+02	1.23E-03			4.33E-13	4.08E-09	2.12E-15	1.18E-09	7.45E-05
RF	RF-MT0091	9.33E+03	8.40E-02			2.23E-11	7.45E-07	1.43E-13	6.14E-08	1.06E-02
RF	RF-MT0092	1.29E+03	1.26E-02			3.26E-12	5.20E-08	2.08E-14	8.98E-09	9.48E-04
RF	RF-MT0093	1.10E+03	1.44E-02			2.60E-11	5.36E-08	2.28E-14	5.09E-08	9.78E-04
RF	RF-MT0097	6.01E+01	4.92E-04			2.37E-13	2.36E-09	1.04E-15	6.45E-10	4.30E-05
RF	RF-MT0099	1.70E-01	1.50E-06			4.94E-17	4.32E-12	1.25E-18	1.71E-13	7.89E-08
RF	RF-MT0290	4.21E+02	3.71E-03			1.22E-13	1.07E-08	3.09E-15	4.22E-10	1.95E-04
RF	RF-MT-0292	5.32E+02	4.69E-03			1.55E-13	1.35E-08	3.91E-15	5.34E-10	2.47E-04
RF	RF-MT-0299	1.37E+04	1.20E-01			1.17E-10	3.47E-07	1.00E-13	3.15E-07	6.33E-03
RF	RF-MT0302	5.32E-01	4.67E-06			5.04E-15	1.83E-09	4.33E-18	1.01E-11	1.71E-05
RF	RF-MT0320	5.35E+02	4.89E-03			3.95E-12	1.56E-08	4.21E-15	8.52E-09	2.72E-04
RF	RF-MT0321	1.33E+02	1.52E-03			1.17E-11	2.35E-07	1.19E-15	2.17E-08	2.21E-03
RF	RF-MT-0328	1.61E+01	1.42E-04			3.53E-13	2.98E-08	1.18E-16	6.74E-10	2.80E-04
RF	RF-MT0330	1.69E+02	1.87E-03			1.70E-12	5.00E-09	2.87E-15	3.60E-09	9.13E-05
RF	RF-MT-0331	1.09E+03	1.27E-02			1.15E-11	2.27E-06	1.28E-14	2.44E-08	2.14E-02
RF	RF-MT0332	3.97E-01	3.49E-06			1.15E-16	1.01E-11	2.91E-18	3.98E-13	1.84E-07
RF	RF-MT-0335	1.62E+01	1.52E-04			3.61E-13	5.90E-08	1.51E-16	6.82E-10	5.51E-04
RF	RF-MT0336	9.50E+02	1.17E-02			3.68E-12	2.27E-07	1.06E-14	9.68E-09	2.38E-03
RF	RF-MT0337	4.64E+02	5.76E-03			2.25E-12	4.32E-07	6.40E-15	5.87E-09	4.16E-03
RF	RF-MT0339	1.39E+03	1.19E-02			8.82E-11	1.56E-06	1.17E-14	1.61E-07	1.48E-02
RF	RF-MT-0342	1.23E+01	1.15E-04			2.72E-13	6.70E-09	1.30E-16	5.05E-10	6.55E-05
RF	RF-MT0371	3.51E+03	3.09E-02			7.24E-11	2.29E-07	2.58E-14	1.37E-07	2.92E-03
RF	RF-MT-0372	2.17E+01	1.94E-04			8.78E-14	2.65E-08	1.80E-16	1.84E-10	2.51E-04
RF	RF-MT0373	1.79E+02	1.94E-03			6.86E-13	6.46E-09	3.36E-15	1.87E-09	1.18E-04
RF	RF-MT0374	9.07E+00	8.00E-05			1.60E-13	5.89E-10	6.68E-17	3.00E-10	7.54E-06
RF	RF-MT0376	6.69E+00	6.21E-05			6.47E-14	1.82E-09	6.76E-17	1.28E-10	1.85E-05
RF	RF-MT0377	4.22E+03	3.72E-02			9.88E-11	1.21E-06	3.11E-14	1.83E-07	1.22E-02
RF	RF-MT0378	5.84E+01	5.15E-04			5.37E-13	1.49E-09	4.29E-16	1.02E-09	2.71E-05
RF	RF-MT0419	5.46E+01	4.80E-04			1.34E-12	1.39E-09	4.01E-16	2.55E-09	2.53E-05
RF	RF-MT0420	9.49E+00	8.35E-05			2.33E-13	2.41E-10	6.97E-17	4.44E-10	4.40E-06
RF	RF-MT0423	3.76E+01	5.37E-04			3.52E-13	1.96E-09	9.74E-16	9.45E-10	3.58E-05
RF	RF-MT0425	2.37E+00	2.09E-05			5.82E-14	6.03E-11	1.74E-17	1.11E-10	1.10E-06
RF	RF-MT-0438	2.35E+01	2.43E-04			1.40E-13	2.21E-09	3.06E-16	3.12E-10	2.76E-05
RF	RF-MT0440	9.68E+00	9.99E-05			4.07E-13	1.81E-08	1.14E-16	7.44E-10	1.70E-04
RF	RF-MT0442	3.59E+00	3.30E-05			3.25E-14	1.04E-08	3.83E-17	6.61E-11	9.71E-05
RF	RF-MT0443	7.49E+01	6.68E-04			1.05E-13	1.91E-08	5.97E-16	2.43E-10	1.95E-04
RF	RF-MT0444	3.83E+02	3.38E-03			4.89E-12	1.21E-08	2.82E-15	9.42E-09	2.00E-04
RF	RF-MT0480	9.48E+02	8.47E-03			6.59E-12	2.78E-07	7.64E-15	1.38E-08	2.81E-03
RF	RF-MT0488	1.26E+03	1.11E-02			3.24E-11	2.62E-06	9.28E-15	6.03E-08	2.45E-02
RF	RF-MT0490	9.00E+00	8.01E-05			9.68E-14	1.45E-09	7.08E-17	1.85E-10	1.56E-05
RF	RF-MT-0491	4.21E-01	3.74E-06			1.07E-14	2.28E-10	3.20E-18	2.06E-11	2.21E-06
RF	RF-MT0523A	3.43E+02	3.03E-03			6.97E-12	3.64E-08	2.54E-15	1.35E-08	4.16E-04
RF	RF-MT0523B	3.43E+02	3.03E-03			6.97E-12	3.64E-08	2.54E-15	1.35E-08	4.16E-04

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234
RF	RF-MT0523C	3.43E+02	3.03E-03			6.97E-12	3.64E-08	2.54E-15	1.35E-08	4.16E-04
RF	RF-MT0523D	3.43E+02	3.03E-03			6.97E-12	3.64E-08	2.54E-15	1.35E-08	4.16E-04
RF	RF-MT0523E	3.43E+02	3.03E-03			6.97E-12	3.64E-08	2.54E-15	1.35E-08	4.16E-04
RF	RF-MT0531	5.67E-02	4.99E-07			1.65E-17	1.44E-12	4.16E-19	5.69E-14	2.63E-08
RF	RF-MT0532E	7.31E+02	7.63E-03			8.97E-11	1.38E-07	5.52E-15	1.64E-07	1.45E-03
RF	RF-MT0532F	7.31E+02	7.63E-03			8.97E-11	1.38E-07	5.52E-15	1.64E-07	1.45E-03
RF	RF-MT0541	1.07E+01	9.39E-05			2.01E-13	2.71E-10	7.82E-17	5.37E-10	4.94E-06
RF	RF-MT0545	5.15E-01	4.53E-06			1.50E-16	1.31E-11	3.78E-18	5.17E-13	2.39E-07
RF	RF-MT0800	2.55E+02	2.24E-03			4.48E-11	5.87E-08	1.87E-15	1.19E-07	6.02E-04
RF	RF-MT0801	2.48E+02	2.18E-03			4.67E-12	6.30E-09	1.82E-15	1.25E-08	1.15E-04
RF	RF-MT0803	5.58E+00	4.92E-05			1.05E-13	1.42E-10	4.10E-17	2.81E-10	2.59E-06
RF	RF-MT0806	9.43E+00	1.02E-04			3.61E-14	3.40E-10	1.77E-16	9.83E-11	6.21E-06
RF	RF-MT0807	1.03E+02	9.09E-04			4.88E-13	2.63E-09	7.58E-16	1.32E-09	4.79E-05
RF	RF-MT0816	1.46E+01	1.28E-04			4.49E-14	3.70E-10	1.07E-16	1.23E-10	6.75E-06
RF	RF-MT-0823	6.60E+00	5.83E-05			1.34E-13	7.01E-10	4.88E-17	2.60E-10	8.00E-06
RF	RF-MT0827	3.46E+02	3.05E-03			1.07E-12	8.79E-09	2.54E-15	2.92E-09	1.60E-04
RF	RF-MT0831	9.70E+02	8.59E-03			1.17E-11	1.35E-06	7.32E-15	2.24E-08	1.27E-02
RF	RF-MT0832	2.96E+03	2.81E-02			6.95E-11	3.16E-06	2.43E-14	1.35E-07	3.00E-02
RF	RF-MT0833	8.64E+02	8.43E-03			2.11E-11	8.45E-07	6.83E-15	4.10E-08	8.04E-03
RF	RF-MT0855	4.86E-01	4.28E-06			1.41E-16	1.24E-11	3.57E-18	4.87E-13	2.25E-07
RF	RF-MT0857	9.41E+00	1.02E-04			3.60E-14	3.39E-10	1.76E-16	9.81E-11	6.19E-06
RF	RF-MT0H61	3.49E+02	3.78E-03			1.34E-12	1.26E-08	6.54E-15	3.64E-09	2.30E-04
RF	RF-MT2116	3.71E+01	3.53E-04			8.72E-13	3.96E-08	3.04E-16	1.69E-09	3.76E-04
RF	RF-MT3010	3.05E+02	2.68E-03			7.63E-12	4.04E-08	2.33E-15	1.41E-08	4.46E-04
RF	RF-MT3011	2.12E+03	1.87E-02			8.85E-11	7.55E-07	1.56E-14	1.62E-07	7.48E-03
RF	RF-MT420P	8.30E+03	1.11E-01			4.90E-11	1.41E-06	1.53E-13	1.25E-07	1.60E-02
RF	RF-MT532A	1.29E+03	1.34E-02			1.58E-10	2.43E-07	9.71E-15	2.88E-07	2.55E-03
RF	RF-MT532B	5.77E+03	6.02E-02			7.08E-10	1.09E-06	4.36E-14	1.29E-06	1.14E-02
RF	RF-MT532C	1.16E+04	1.21E-01			1.42E-09	2.19E-06	8.74E-14	2.59E-06	2.29E-02
RF	RF-MT532D	7.30E+01	7.62E-04			8.97E-12	1.38E-08	5.52E-16	1.64E-08	1.45E-04
RF	RF-TT0069	1.23E+00	1.08E-05			1.03E-13	7.97E-09	9.01E-18	1.85E-10	7.41E-05
RF	RF-TT0200	4.72E+01	4.31E-04			3.48E-13	1.38E-09	3.71E-16	7.52E-10	2.40E-05
RF	RF-TT0299	9.16E+01	8.07E-04			7.85E-13	2.33E-09	6.73E-16	2.11E-09	4.25E-05
RF	RF-TT0300	2.19E+03	1.93E-02			1.58E-11	9.51E-07	1.91E-14	3.15E-08	9.40E-03
RF	RF-TT0301	3.02E+02	2.66E-03			2.18E-12	1.31E-07	2.63E-15	4.34E-09	1.30E-03
RF	RF-TT0302	1.18E+01	1.04E-04			1.12E-13	4.07E-08	9.64E-17	2.25E-10	3.80E-04
RF	RF-TT0303	7.51E+01	6.62E-04			1.59E-12	1.14E-07	5.52E-16	3.00E-09	1.07E-03
RF	RF-TT0310	2.75E+02	2.61E-03			2.27E-12	2.90E-08	2.56E-15	4.56E-09	3.49E-04
RF	RF-TT0312	5.79E+03	5.31E-02			2.69E-11	3.53E-07	5.38E-14	6.17E-08	4.72E-03
RF	RF-TT0317	6.92E+00	6.10E-05			2.34E-15	1.76E-10	5.08E-17	7.82E-12	3.21E-06
RF	RF-TT0320	1.98E+03	1.81E-02			1.46E-11	5.78E-08	1.56E-14	3.16E-08	1.01E-03
RF	RF-TT0330	6.14E+02	6.82E-03			6.18E-12	1.82E-08	1.05E-14	1.31E-08	3.32E-04
RF	RF-TT-0331	3.07E+03	3.58E-02			3.24E-11	6.39E-06	3.60E-14	6.86E-08	6.01E-02
RF	RF-TT-0334	2.78E+03	2.45E-02			4.72E-12	7.07E-08	2.04E-14	1.02E-08	1.29E-03
RF	RF-TT0335	1.83E+03	1.72E-02			4.09E-11	6.68E-06	1.71E-14	7.72E-08	6.23E-02
RF	RF-TT0336	1.50E+03	1.85E-02			5.80E-12	3.58E-07	1.67E-14	1.52E-08	3.75E-03
RF	RF-TT0337	1.58E+03	1.96E-02			7.63E-12	1.47E-06	2.18E-14	2.00E-08	1.41E-02
RF	RF-TT0338	6.79E+03	7.28E-02			9.29E-11	1.03E-06	8.19E-14	1.91E-07	1.13E-02
RF	RF-TT0340	1.62E+02	1.43E-03			4.71E-14	4.12E-09	1.19E-15	1.62E-10	7.51E-05
RF	RF-TT0342	6.14E+02	5.74E-03			1.36E-11	3.35E-07	6.48E-15	2.53E-08	3.28E-03

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234
RF	RF-TT0360	3.85E+01	3.57E-04			1.11E-12	1.73E-09	3.18E-16	2.09E-09	2.54E-05
RF	RF-TT0368	7.71E+02	7.15E-03			2.23E-11	3.45E-08	6.36E-15	4.18E-08	5.07E-04
RF	RF-TT0370	1.64E+03	1.48E-02			1.40E-10	8.92E-07	1.40E-14	2.52E-07	8.67E-03
RF	RF-TT0371	3.58E+01	3.15E-04			7.39E-13	2.34E-09	2.63E-16	1.40E-09	2.98E-05
RF	RF-TT0372	6.20E+00	5.55E-05			2.51E-14	7.57E-09	5.14E-17	5.26E-11	7.17E-05
RF	RF-TT0374	1.56E+02	1.37E-03			2.74E-12	1.01E-08	1.15E-15	5.15E-09	1.29E-04
RF	RF-TT0375A	2.05E+00	1.80E-05			7.29E-16	5.20E-11	1.50E-17	2.41E-12	9.49E-07
RF	RF-TT0375B	2.05E+00	1.80E-05			7.29E-16	5.20E-11	1.50E-17	2.41E-12	9.49E-07
RF	RF-TT0376	3.68E+02	3.42E-03			3.56E-12	1.00E-07	3.72E-15	7.07E-09	1.02E-03
RF	RF-TT0377	1.83E+02	1.62E-03			4.29E-12	5.25E-08	1.35E-15	7.96E-09	5.29E-04
RF	RF-TT0391	3.83E+01	2.74E-04			2.17E-13	7.85E-10	4.02E-16	4.90E-10	1.43E-05
RF	RF-TT0392	1.33E+01	1.29E-04			3.86E-14	5.12E-10	2.12E-16	1.06E-10	9.17E-06
RF	RF-TT0393	1.35E+03	1.19E-02			3.56E-10	3.44E-08	9.93E-15	6.36E-07	6.27E-04
RF	RF-TT0398	2.51E+01	2.27E-04			6.68E-14	9.18E-10	3.94E-16	1.84E-10	1.67E-05
RF	RF-TT0409	9.65E+00	1.51E-04			7.88E-14	4.92E-10	2.03E-16	2.12E-10	8.37E-06
RF	RF-TT0412	9.65E+00	1.51E-04			7.88E-14	4.92E-10	2.03E-16	2.12E-10	8.37E-06
RF	RF-TT0414	2.99E+02	4.68E-03			2.44E-12	1.53E-08	6.30E-15	6.57E-09	2.59E-04
RF	RF-TT0430	3.85E-01	3.40E-06			1.12E-16	9.81E-12	2.83E-18	3.87E-13	1.79E-07
RF	RF-TT0431	8.89E+01	7.81E-04			8.60E-14	2.56E-08	6.76E-16	2.05E-10	2.58E-04
RF	RF-TT0438	2.64E+03	2.74E-02			1.57E-11	2.48E-07	3.44E-14	3.51E-08	3.10E-03
RF	RF-TT0440	2.54E+02	2.62E-03			1.07E-11	4.75E-07	3.00E-15	1.95E-08	4.47E-03
RF	RF-TT0441	1.59E+03	1.41E-02			1.25E-11	5.34E-07	1.20E-14	2.53E-08	5.32E-03
RF	RF-TT0442	2.04E+02	1.87E-03			1.84E-12	5.88E-07	2.18E-15	3.75E-09	5.51E-03
RF	RF-TT0443	5.65E+00	5.03E-05			7.95E-15	1.44E-09	4.50E-17	1.83E-11	1.47E-05
RF	RF-TT0479	8.36E+01	7.37E-04			2.43E-14	2.13E-09	6.14E-16	8.39E-11	3.88E-05
RF	RF-TT0480	2.47E+03	2.21E-02			1.72E-11	7.25E-07	1.99E-14	3.60E-08	7.33E-03
RF	RF-TT0481	1.75E+00	1.56E-05			1.22E-14	5.13E-10	1.41E-17	2.55E-11	5.19E-06
RF	RF-TT0483	1.03E+01	9.07E-05			2.99E-15	1.86E-06	7.57E-17	1.03E-11	1.72E-02
RF	RF-TT0484	4.28E+01	3.77E-04			3.94E-13	1.31E-08	3.14E-16	7.46E-10	1.31E-04
RF	RF-TT0485	2.64E+00	2.32E-05			5.16E-15	3.01E-08	1.94E-17	1.43E-11	2.79E-04
RF	RF-TT0486	1.56E+01	1.38E-04			1.20E-13	2.49E-08	1.15E-16	2.44E-10	2.35E-04
RF	RF-TT0487	3.90E+01	3.71E-04			9.16E-13	4.17E-08	3.20E-16	1.78E-09	3.95E-04
RF	RF-TT0489	2.39E+01	2.10E-04			2.65E-13	1.15E-08	1.75E-16	5.11E-10	1.12E-04
RF	RF-TT0490	1.20E+03	1.07E-02			1.29E-11	1.94E-07	9.45E-15	2.47E-08	2.09E-03
RF	RF-TT0491	1.87E+01	1.66E-04			4.78E-13	1.01E-08	1.42E-16	9.15E-10	9.84E-05
RF	RF-TT0492	1.15E+01	1.01E-04			1.11E-13	2.93E-10	8.46E-17	2.12E-10	5.34E-06
RF	RF-TT0523A	4.62E+01	4.08E-04			9.38E-13	4.91E-09	3.41E-16	1.82E-09	5.60E-05
RF	RF-TT0523B	4.62E+01	4.08E-04			9.38E-13	4.91E-09	3.41E-16	1.82E-09	5.60E-05
RF	RF-TT0523C	4.62E+01	4.08E-04			9.38E-13	4.91E-09	3.41E-16	1.82E-09	5.60E-05
RF	RF-TT0523D	4.62E+01	4.08E-04			9.38E-13	4.91E-09	3.41E-16	1.82E-09	5.60E-05
RF	RF-TT0523E	4.62E+01	4.08E-04			9.38E-13	4.91E-09	3.41E-16	1.82E-09	5.60E-05
RF	RF-TT0532A	7.50E+02	7.83E-03			9.21E-11	1.42E-07	5.67E-15	1.68E-07	1.49E-03
RF	RF-TT0532B	7.50E+02	7.83E-03			9.21E-11	1.42E-07	5.67E-15	1.68E-07	1.49E-03
RF	RF-TT0541	4.63E+00	4.08E-05			1.34E-15	1.18E-10	3.40E-17	4.64E-12	2.15E-06
RF	RF-TT0545	1.03E+00	9.07E-06			2.99E-16	2.62E-11	7.56E-18	1.03E-12	4.78E-07
RF	RF-TT0601	1.67E+02	1.55E-03			4.83E-12	7.48E-09	1.38E-15	9.06E-09	1.10E-04
RF	RF-TT0802	1.44E+04	1.27E-01			6.24E-11	3.67E-07	1.06E-13	1.69E-07	6.69E-03
RF	RF-TT0809	1.04E+03	9.16E-03			4.49E-12	2.64E-08	7.63E-15	1.22E-08	4.82E-04
RF	RF-TT0821	3.42E+03	3.22E-02			5.33E-11	1.75E-05	3.33E-14	1.03E-07	1.63E-01
RF	RF-TT0822	2.72E+03	2.62E-02			7.16E-11	1.69E-05	2.22E-14	1.37E-07	1.57E-01

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234
RF	RF-TT0823	6.60E+00	5.83E-05			1.34E-13	7.01E-10	4.88E-17	2.60E-10	8.00E-06
RF	RF-TT0824	7.46E+03	6.67E-02			1.26E-10	5.80E-06	5.82E-14	2.40E-07	5.55E-02
RF	RF-TT0825	5.33E+03	4.97E-02			1.70E-10	7.99E-06	4.72E-14	3.18E-07	7.54E-02
RF	RF-TT0832	2.69E+03	2.56E-02			6.31E-11	2.87E-06	2.20E-14	1.23E-07	2.73E-02
RF	RF-TT0854	2.82E+00	2.48E-05			8.20E-16	6.27E-08	2.07E-17	2.83E-12	5.82E-04
RF	RF-TT0886	5.14E-01	4.52E-06			1.49E-16	1.31E-11	3.77E-18	5.15E-13	2.38E-07
RF	RF-TT2216	5.57E+01	5.29E-04			1.31E-12	5.94E-08	4.56E-16	2.54E-09	5.64E-04
RF	RF-TT3010	3.70E+03	3.26E-02			9.26E-11	4.90E-07	2.82E-14	1.71E-07	5.41E-03
RF	RF-TT3011	8.89E+03	7.83E-02			3.71E-10	3.17E-06	6.53E-14	6.79E-07	3.14E-02
RF	RF-TT301U	1.08E+03	1.03E-02			7.95E-12	4.66E-08	8.91E-15	1.59E-08	6.97E-04
RF	RF-TT310P	2.26E+02	1.94E-03			9.04E-13	8.09E-09	2.80E-15	2.24E-09	1.44E-04
RF	RF-TT338S	1.38E+01	1.22E-04			4.69E-15	3.52E-10	1.02E-16	1.56E-11	6.42E-06
RF	RF-TT390P	3.45E+01	2.26E-04			1.14E-13	4.06E-09	4.55E-16	3.11E-10	4.62E-05
RF	RF-TT391P	2.09E+03	1.49E-02			1.18E-11	4.28E-08	2.19E-14	2.67E-08	7.81E-04
RF	RF-TT392P	4.15E+03	4.04E-02			1.21E-11	1.60E-07	6.64E-14	3.32E-08	2.87E-03
RF	RF-TT393R	6.71E+02	6.14E-03			2.05E-12	4.50E-08	1.02E-14	5.28E-09	6.53E-04
RF	RF-TT394P	4.83E+01	3.68E-04			1.88E-12	2.39E-09	7.29E-16	3.60E-09	3.67E-05
RF	RF-TT395P	6.46E+01	4.91E-04			2.51E-12	3.19E-09	9.75E-16	4.81E-09	4.91E-05
RF	RF-TT396P	1.61E+01	1.23E-04			6.29E-13	7.99E-10	2.44E-16	1.20E-09	1.23E-05
RF	RF-TT398P	2.59E+03	2.35E-02			6.92E-12	9.50E-08	4.08E-14	1.90E-08	1.72E-03
RF	RF-TT398R	5.05E+03	4.77E-02			7.11E-10	1.75E-07	6.61E-14	1.34E-06	3.19E-03
RF	RF-TT411R	3.57E+02	5.59E-03			2.92E-12	1.82E-08	7.52E-15	7.84E-09	3.10E-04
RF	RF-TT429R	6.23E+01	8.19E-04			3.84E-11	3.36E-09	1.71E-15	7.50E-08	6.13E-05
RF	RF-TT433X	2.47E+01	2.03E-04			2.36E-12	9.32E-10	4.44E-16	6.27E-09	1.70E-05
RF	RF-TT436R	4.77E+02	3.94E-03			1.09E-10	1.35E-08	6.56E-15	2.09E-07	2.46E-04
RF	RF-TT454X	2.81E+01	2.32E-04			6.42E-12	7.94E-10	3.86E-16	1.23E-08	1.45E-05
RL	RL-T101	3.97E+03	1.18E-02		2.34E+01					1.99E-10
RL	RL-T102	5.04E-02	1.50E-07		1.15E-01					1.15E-06
RL	RL-T103	2.11E+03	4.91E-03		2.66E-01					
RL	RL-T104	7.22E-02	2.16E-07		4.01E-04					3.26E-08
RL	RL-T105	2.73E+01	8.12E-05		3.64E-02				9.41E-01	4.48E-05
RL	RL-T106	2.67E+01	7.95E-05		6.65E-04					
RL	RL-T107	7.33E+04	2.20E-01		3.46E+01			6.22E-05	4.16E-01	8.43E-01
RL	RL-T108	4.20E+01	1.25E-04		1.82E-02					2.93E-05
RL	RL-T109	5.57E+01	1.66E-04		9.93E-03				1.09E-01	2.33E-02
RL	RL-T110	6.40E+03	1.91E-02		4.84E+00			2.55E-03	1.14E-01	1.36E+00
RL	RL-T112	8.47E+02	2.52E-03		1.09E-01			2.69E-04	7.86E-03	7.36E-01
RL	RL-T113	2.79E+00	8.35E-06		8.09E-03					
RL	RL-T114	4.24E+02	1.26E-03		4.75E-02					
RL	RL-T115	6.24E+03	1.66E-02		1.77E-01			4.46E-05		4.13E-01
RL	RL-T116	6.96E+02	2.07E-03		9.75E+00			3.54E-02	4.71E+01	5.62E-02
RL	RL-T118	6.89E+02	2.06E-03		3.72E-01			3.30E-03	2.48E-02	8.33E-01
RL	RL-T120	2.42E+02	5.96E-04		6.59E-02					5.65E-07
RL	RL-T122	2.46E+01	7.33E-05		8.36E+00			1.11E-04		1.46E+00
RL	RL-T123	7.24E+01	2.16E-04					8.99E-06		5.97E-02
RL	RL-T125	1.13E+04	7.49E-02		1.46E-03			2.58E-03	4.43E+00	
RL	RL-T127	4.50E+03	1.34E-02		8.46E-01					8.00E-02
RL	RL-T128	1.09E-04	3.27E-10		2.00E-02					
RL	RL-T129	6.16E+01	1.84E-04		7.00E-02					7.68E-03
RL	RL-T130	1.31E-01	3.91E-07		7.79E-02					8.30E-05

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234
RL	RL-T131	2.96E+01	7.33E-05		7.43E-04					8.23E-03
RL	RL-T132	1.27E+04	3.79E-02		1.15E-01					2.45E-01
RL	RL-T133	1.80E-01	6.22E-07		9.04E-05					
RL	RL-T134	5.47E-01	1.63E-06		7.20E-01					
RL	RL-T135	2.56E+00	7.61E-06		8.98E-05					4.15E-03
RL	RL-T137	2.33E+04	5.70E-02		7.23E-01					6.23E-03
RL	RL-T140	1.98E+04	8.83E-02		6.59E-01					2.62E+01
RL	RL-T143	3.05E+02	9.08E-04		1.03E-01					3.86E-02
RL	RL-T145	8.68E+02	2.59E-03		1.20E+00			9.74E-05		8.96E-02
RL	RL-W407	9.42E+02	4.23E-03							
RL	RL-W408	6.80E-03	2.40E-08							
RL	RL-W415	1.07E-01	3.79E-07							
RL	RL-W418	3.99E-01	1.63E-06							
RL	RL-W438	6.77E-03	2.39E-08							
RL	RL-W444	2.02E+03	9.05E-03							
RL	RL-W447	4.07E-01	1.44E-06							
RL	RL-W448	3.01E-03	1.06E-08							
RL	RL-W449	5.46E-02	3.03E-07							
RL	RL-W450	4.54E-02	1.60E-07							
RL	RL-W451	6.47E-03	2.28E-08							
RL	RL-W452	2.46E-01	1.00E-06							
RL	RL-W453	6.41E-02	2.88E-07							
RL	RL-W454	8.96E-01	4.03E-06							
RL	RL-W455	2.62E-01	1.07E-06							
RL	RL-W456	3.23E+01	1.41E-04							
RL	RL-W457	3.13E+00	1.37E-05							
RL	RL-W458	1.26E+01	8.48E-05		9.36E-05					
RL	RL-W459	1.25E+02	7.18E-04		4.68E-03					
RL	RL-W460	5.68E-01	2.55E-06							
RL	RL-W461									
RL	RL-W462	1.86E-01	7.21E-07							
RL	RL-W463	8.33E-01	3.75E-06							
RL	RL-W464	3.84E-01	1.72E-06							
RL	RL-W465	2.78E+00	1.15E-05							
RL	RL-W466	3.70E+01	1.58E-04							
RL	RL-W467	2.03E+00	8.03E-06							
RL	RL-W468	1.06E-02	4.11E-08							
RL	RL-W469	3.90E+00	1.68E-05							
RL	RL-W470	1.57E+02	1.04E-03		2.01E-05					
RL	RL-W474		6.67E-09							
RL	RL-W476	7.08E+00	3.10E-05		8.03E-02					
RL	RL-W480	1.21E+00	4.93E-06							
RL	RL-W481	1.90E+00	7.73E-06							
RL	RL-W482	2.52E+03	9.14E-07							
RL	RL-W483	1.88E+02	2.37E-08							
RL	RL-W484	1.56E-01	8.43E-07		5.03E-01					
RL	RL-W485									
RL	RL-W486									
RL	RL-W487	1.45E+00	1.04E-05							
RL	RL-W488				1.31E-03					

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234
RL	RL-W489	2.34E+00	5.65E-06		1.10E-03					
RL	RL-W490				6.56E-05					
RL	RL-W491	8.50E-01	2.73E-06		9.13E-04					
RL	RL-W492	4.89E-02	1.18E-07		9.13E-05					
RL	RL-W493				1.31E-03					
RL	RL-W494	1.96E+03	2.28E-06							
RL	RL-W495	3.57E+01	6.95E-10							
RL	RL-W496	2.31E+02	3.24E-09							
RL	RL-W497	6.05E+00	4.71E-04							
RL	RL-W498	2.25E+01	9.18E-05							
RL	RL-W499	2.83E-04	1.15E-09							
RL	RL-W500	1.99E-02	4.63E-08							
RL	RL-W501	2.69E+02	1.93E-03							
RL	RL-W502	1.51E-01	6.16E-07							
RL	RL-W503	8.88E+00	2.07E-05		1.12E-03					
RL	RL-W504	1.45E+00	1.04E-05							
RL	RL-W505	1.82E-01	6.28E-07		9.13E-05					
RL	RL-W506	5.45E-02	2.06E-07							
RL	RL-W507	5.46E-03	2.23E-08							
RL	RL-W508	9.68E+01	2.37E-04		3.00E-03					
RL	RL-W509	6.94E+02	3.09E-03		2.30E-02					
RL	RL-W510	8.26E+01	1.92E-04							
RL	RL-W511	4.50E+03	4.68E-02							3.44E-04
RL	RL-W512	2.30E+03	2.60E-02							
RL	RL-W513	2.60E+05	4.37E+00							
RL	RL-W514	2.13E-02	9.14E-08							
RL	RL-W515	8.71E-01	3.56E-06							
RL	RL-W516	1.21E+00	4.93E-06							
RL	RL-W517	1.13E-08	4.38E-14							
RL	RL-W518	2.43E+01	9.48E-05							
RL	RL-W519	5.13E+00	2.22E-05							
RL	RL-W520	6.58E-01	2.44E-06							
RL	RL-W521	1.12E-02	4.55E-08							
RL	RL-W522	1.62E+02	8.60E-04							
RL	RL-W523	3.21E+01	6.34E-04							
RL	RL-W524	1.53E+02	1.70E-03							
RL	RL-W525	1.20E+01	6.08E-05							
RL	RL-W526	8.73E+01	2.32E-04		2.48E-03					
RL	RL-W527	1.02E+01	3.73E-05							
RL	RL-W528	1.56E+03	7.35E-02							
RL	RL-W529	3.44E+00	8.46E-06		9.36E-04					
RL	RL-W530	4.18E+01	9.69E-05							
RL	RL-W531	1.11E+03	2.84E-02							
RL	RL-W532	8.06E+00	3.29E-05							
RL	RL-W533	3.73E+00	9.23E-06		9.36E-05					
RL	RL-W534	2.25E-04	9.19E-10							
RL	RL-W535	6.86E+02	6.78E-03							
RL	RL-W536	1.57E+01	4.84E-05							3.20E-06
RL	RL-W537	4.39E+02	3.16E-03							2.72E-05
RL	RL-W538	2.86E-03	1.17E-08							

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234
RL	RL-W539	3.48E-01	1.29E-06							
RL	RL-W540	3.34E+02	5.65E-03							
RL	RL-W541	9.80E-01	3.74E-06							
RL	RL-W542	4.02E+01	1.32E-04							
RL	RL-W543	1.35E-01	5.48E-07							
RL	RL-W544	2.68E+00	9.65E-06							
RL	RL-W545	8.04E-01	3.28E-06							
RL	RL-W546	3.52E-02	1.44E-07							
RL	RL-W547	9.00E-04	3.67E-09							
RL	RL-W548	8.06E-04	3.17E-09							
RL	RL-W549	1.02E+02	1.03E-03							
RL	RL-W550	3.85E+02	2.80E-03							1.92E-05
RL	RL-W551	4.09E+02	4.48E-03							
RL	RL-W552	5.11E-01	1.96E-06							
RL	RL-W553	6.46E-02	1.75E-07		1.03E-01					
RL	RL-W554	6.81E-01	2.78E-06							
RL	RL-W555	3.14E-01	1.28E-06							
RL	RL-W563	4.28E+00	1.04E-05							
RL	RL-W564	3.29E+00	6.72E-06							
RL	RL-W565	3.05E-01	1.19E-06							
RL	RL-W566	4.34E+00	1.74E-05							
RL	RL-W567	3.68E+02	3.33E-08							
RL	RL-W568	7.60E+03	1.22E-06							
RL	RL-W569	5.83E+00	5.10E-10							
RL	RL-W570	2.87E-01	1.26E-06		8.07E-03					
RL	RL-W571	1.16E+03	4.57E-07							
RL	RL-W572	1.04E+00	9.08E-11							
RL	RL-W573	1.32E+04	1.51E-06							
RL	RL-W574	5.76E+04	6.39E-06							
RL	RL-W575	3.61E+05	1.11E-04							
RL	RL-W576	2.71E+04	2.46E-06							
RL	RL-W579	9.56E-02	2.79E-07							
RL	RL-W580				2.74E-04					
RL	RL-W581									
RL	RL-W582	1.55E-02	8.08E-08		9.36E-04					
RL	RL-W583	9.02E-02	4.05E-07							
RL	RL-W584	4.53E-01	2.53E-06		1.87E-04					
RL	RL-W585	1.38E+01	1.53E-04		2.96E-06					
RL	RL-W586	1.42E-03	6.40E-09							
RL	RL-W587	3.19E-02	1.37E-07							
RL	RL-W588	3.81E-01	2.13E-06		1.87E-04					
RL	RL-W589				2.70E-05					
RL	RL-W590	5.00E+01	1.04E-08							
RL	RL-W591	3.02E+02	1.33E-07							
RL	RL-W592	1.22E+03	2.80E-07							
RL	RL-W593									
RL	RL-W594	3.05E+02	1.02E-07							
RL	RL-W595	3.02E+00	2.39E-09							
RL	RL-W596	9.07E-01	1.88E-10							
RL	RL-W597	1.69E+03	7.33E-07							

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234
RL	RL-W598	1.75E+03	4.35E-07							
RL	RL-W599	1.01E+02	4.45E-08							
RL	RL-W600	3.56E-06	1.60E-11							
RL	RL-W601	2.82E-02	7.64E-08		8.60E-05					
RL	RL-W602	1.92E+01	7.48E-05							
RL	RL-W603	1.22E+02	4.75E-04							
RL	RL-W604	1.45E-01	8.34E-07		3.53E-04					
RL	RL-W605	9.41E-02	2.55E-07		6.92E-04					
RL	RL-W606	3.80E-02	1.03E-07		3.37E-03					
RL	RL-W607	2.45E-02	1.41E-07		3.12E-04					
RL	RL-W608	3.76E-01	1.08E-05		8.38E-01					
RL	RL-W610	9.98E+01	4.48E-04							
RL	RL-W612	1.70E-01	7.82E-07		8.18E-02					
RL	RL-W615									
RL	RL-W622	3.93E-03	1.77E-08							
RL	RL-W625	2.13E-01								
RL	RL-W626	3.72E+00	8.36E-05							
RL	RL-W627	4.42E-02			8.62E-04					
RL	RL-W628	1.19E-02	5.09E-08							
RL	RL-W629	9.24E-04	3.42E-09							
RL	RL-W630	1.00E+01	1.18E-04							
RL	RL-W631	2.25E-01	6.09E-07		2.06E-08					
RL	RL-W632	7.48E+01	8.32E-04		2.01E-03					
RL	RL-W633	9.21E-02								
RL	RL-W634									
RL	RL-W635	9.30E+02	2.29E-02		1.75E+00					
RL	RL-W636	5.65E+00	5.65E-05		1.86E-01					
RL	RL-W637	2.03E-02			7.58E-03					
RL	RL-W638	7.56E-01	4.36E-06		6.08E-01					
RL	RL-W639	5.29E-02	2.16E-07							
RL	RL-W640	1.70E+00	7.27E-06							
RL	RL-W641	2.73E+01	1.81E-04		9.28E-01					
RL	RL-W642	1.18E-02	7.73E-08		1.92E+00					
RL	RL-W643	8.40E+00	5.58E-05		2.85E-01					
RL	RL-W644				2.02E+00					
RL	RL-W645	4.59E-01	1.43E-06							
RL	RL-W646	2.23E-01			5.65E-02					
RL	RL-W647	7.47E-01								
RL	RL-W648	2.39E-02			4.50E-02					
RL	RL-W649	8.78E-02			1.66E-01					
RL	RL-W653	3.35E-03	1.30E-08							
RL	RL-W654	1.76E-02	7.18E-08							
RL	RL-W655	4.70E+03	2.69E-06							
RL	RL-W656	2.24E+04	1.59E-06							
RL	RL-W657	9.91E+03	5.50E-06							
RL	RL-W659	1.12E+03	2.09E-09							
RL	RL-W660	6.39E+03	2.87E-06							
RL	RL-W661	7.76E+01	3.41E-09							
RL	RL-W662	1.59E+00	9.34E-10							
RL	RL-W665	3.16E+04	1.17E-05							

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234
RL	RL-W666	4.57E+02	4.00E-08							
RL	RL-W668	7.72E-01			3.39E+01					
RL	RL-W669	6.30E+00	4.19E-05		2.14E-01					
RL	RL-W670	2.00E-02			8.33E-01					
RL	RL-W671	6.57E+01								
RL	RL-W672	4.46E+02								
RL	RL-W673	4.30E+02								
RL	RL-W674	2.26E+00	2.69E-05							
RL	RL-W675	7.31E+00	1.88E-04							
RL	RL-W676	2.17E-01	2.43E-06		3.24E-02					
RL	RL-W677	5.23E+02	5.57E-03		1.76E+00					
RL	RL-W678	4.10E+00	5.14E-05							
RL	RL-W679	1.05E+01	1.11E-04		4.72E-04					
RL	RL-W680	4.51E-03	1.30E-07		2.94E-03					
RL	RL-W681	3.75E-03	2.30E-08		1.46E-04					
RL	RL-W685	4.91E+00	2.21E-05							
RL	RL-W689	6.56E-03			6.83E-03					
RL	RL-W690	5.95E+00	2.74E-05		1.58E-02					
RL	RL-W691	1.38E-01	6.34E-07		7.88E-03					
RL	RL-W692	5.45E+00	2.51E-05		1.58E-02					
RL	RL-W693	6.74E+00	3.10E-05		2.36E-02					
RL	RL-W694	7.09E+01	3.25E-04		8.67E-02					
RL	RL-W695									
RL	RL-W696	9.73E-02								
RL	RL-W697		2.87E-07							
RL	RL-W698									
RL	RL-W699	4.09E-01	4.45E-10							
RL	RL-W700	1.06E-01	4.31E-07							
RL	RL-W702									
RL	RL-W703				8.09E-03					
RL	RL-W704	2.10E+00	1.40E-05		7.14E-02					
RL	RL-W705	2.58E-02	1.13E-07		2.10E-03					
RL	RL-W706				5.82E-02					
RL	RL-W707	9.17E-01	4.02E-06		3.07E-04					
RL	RL-W708	1.39E-01	6.09E-07		4.85E-05					
RL	RL-W709	4.80E+01	2.10E-04		8.09E-04					
RL	RL-W710	2.87E-03	1.26E-08		1.62E-05					
RL	RL-W711	8.94E-01	3.91E-06		8.09E-05					
RL	RL-W712	1.16E+00	5.08E-06		1.94E-04					
RL	RL-W713	1.00E+00	4.39E-06		8.09E-04					
RL	RL-W714									
RL	RL-W715	1.65E-02	7.40E-08							
RL	RL-W716	1.72E-01	7.71E-07							
RL	RL-W717	4.29E-02	1.93E-07							
RL	RL-W718	7.56E-03	3.40E-08							
RL	RL-W719	3.42E-02	1.53E-07							
RL	RL-W720	2.11E-01	9.49E-07							
RL	RL-W721	1.43E-01	6.43E-07							
RL	RL-W723	4.74E-01	2.18E-06		9.48E-05					
RL	RL-W724	3.15E+00	1.45E-05		8.62E-03					

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234
RL	RL-W725	9.95E-01	4.58E-06		6.47E-04					
RL	RL-W726	7.84E-01	3.61E-06		1.04E-03					
RL	RL-W727	4.81E+00	2.22E-05		9.86E-03					
RL	RL-W728	4.38E+00	2.02E-05		8.99E-03					
RL	RL-W729	2.02E+00	9.32E-06		1.36E-03					
RL	RL-W730									
RL	RL-W731				1.33E+00					
RL	RL-W732	5.17E+02	1.18E-03							
RL	RL-W733	7.87E+00	3.06E-05							
RL	RL-W734	2.34E+01	9.88E-05							
RL	RL-W735	1.82E+01	7.98E-05							
RL	RL-W736	5.57E-03	7.01E-08							
RL	RL-W737	1.57E+01	7.28E-05							
RL	RL-W738	5.69E+01	2.59E-04							
RL	RL-W739	5.17E+00	3.03E-05							
RL	RL-W740	2.61E+02	1.27E-03							
RL	RL-W741	1.96E+02	4.84E-03							
RL	RL-W742	1.68E+01	5.60E-05							
RL	RL-W743				3.58E-02					
RL	RL-W744									
RL	RL-W745	5.77E-02	2.36E-07							
RL	RL-W746	2.22E-01	9.07E-07							
RL	RL-W747	6.02E-01	2.46E-06							
RL	RL-W748	4.53E+03	4.62E-06							
RL	RL-W749	4.84E+00	2.13E-05							
RL	RL-W750	6.41E+03	7.61E-06							
RL	RL-W751	5.78E+03	6.86E-06							
RL	RL-W752	2.51E+03	2.99E-06							
RL	RL-W753	3.38E+04	4.02E-05							
RP	RP-W754	3.12E+02	6.15E-03		6.29E+03				2.72E-07	3.53E-01
RP	RP-W755	2.33E+02	1.56E-03		4.63E+04				1.09E-05	1.26E+01
SA	SA-T001					2.43E-13	1.69E-10	3.95E-03	6.21E-10	4.64E-06
SA	SA-W134	5.94E+00	6.77E-08		6.51E+01	9.85E-07	7.49E-06	8.03E-18	2.10E-03	1.67E-01
SA	SA-W134M	7.72E-01	8.79E-09		8.46E+00	1.28E-07	9.73E-07	1.04E-18	2.73E-04	2.16E-02
SR	T001-221F-HET	1.70E+04				2.54E-11	2.70E-04	6.56E-14	7.15E-08	4.92E+00
SR	T001-221H-HET	3.37E+04				5.04E-11	5.35E-04	1.30E-13	1.42E-07	9.77E+00
SR	T001-235F-HET	1.60E+03				2.39E-12	2.54E-05	6.18E-15	6.73E-09	4.63E-01
SR	T001-772F-HET	1.27E+04				1.90E-11	2.02E-04	4.91E-14	5.35E-08	3.68E+00
SR	T001-773A-CLAS	1.96E+02				2.93E-13	3.11E-06	7.56E-16	8.24E-10	5.67E-02
SR	T001-773A-HET	1.76E+03				2.63E-12	2.79E-05	6.79E-15	7.40E-09	5.09E-01
SR	W006-773A-VIT					6.12E-17			1.95E-13	
SR	W026-221F-HET	6.79E+03				1.02E-11	1.08E-04	2.63E-14	2.86E-08	1.97E+00
SR	W026-221H-HET	5.08E+03				7.60E-12	8.07E-05	1.96E-14	2.14E-08	1.47E+00
SR	W026-235F-HET	7.91E+01				1.18E-13	1.26E-06	3.06E-16	3.33E-10	2.29E-02
SR	W026-772F-HET	2.16E+01				3.23E-14	3.43E-07	8.34E-17	9.09E-11	6.25E-03
SR	W026-773A-HET	3.51E+02				5.26E-13	5.58E-06	1.36E-15	1.48E-09	1.02E-01
SR	W027-221F-HET	1.11E+04				7.52E-10	2.50E-03	6.37E-13	8.68E-07	1.78E+01
SR	W027-221H-HET	4.85E+03				3.29E-10	1.09E-03	2.79E-13	3.80E-07	7.80E+00
SR	W027-235F-HET	1.46E+03				9.90E-11	3.29E-04	8.38E-14	1.14E-07	2.35E+00
SR	W027-772F-HET	2.65E+03				1.80E-10	5.98E-04	1.52E-13	2.08E-07	4.26E+00
SR	W027-773A-HET	3.96E+03				2.68E-10	8.92E-04	2.27E-13	3.10E-07	6.36E+00
SR	W027-999-HET	3.22E+03				2.19E-10	7.27E-04	1.85E-13	2.52E-07	5.18E+00
SR	W053-773A-VIT									
WP	WP-INW169.001	3.99E+01	3.86E-04			7.22E-17	1.48E-09	2.52E-18	2.31E-12	1.65E-04
WP	WP-INW198.001	6.55E+01	5.71E-04			1.26E-08	7.25E-10	4.48E-18	1.34E-04	8.18E-05
WP	WP-INW211.001	7.42E+03	7.41E-02			6.76E-07	1.68E-08	4.16E-16	7.20E-03	1.98E-03
WP	WP-INW216.001-A	4.10E+03	4.29E-02			1.78E-06	4.97E-06	9.66E-16	9.50E-03	2.77E-01
WP	WP-INW216.001-B	1.11E+03	1.15E-02			1.18E-06	4.97E-07	2.61E-16	6.29E-03	2.76E-02
WP	WP-INW218.001-A	7.42E+02	7.35E-03			2.69E-07	3.48E-06	4.20E-17	2.87E-03	3.86E-01
WP	WP-INW218.001-B	2.10E+01	2.03E-04			3.27E-17	3.36E-07	1.14E-18	1.05E-12	3.74E-02

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234
WP	WP-INW222.001	1.78E+02	1.54E-03			3.66E-16	5.13E-09	1.12E-17	1.17E-11	5.74E-04
WP	WP-INW243.001	3.60E+02	3.34E-03			2.40E-07	1.54E-08	9.50E-17	1.28E-03	8.68E-04
WP	WP-INW247.001R1	6.24E+02	4.79E-03			7.23E-07	7.93E-10	1.85E-16	3.85E-03	7.76E-05
WP	WP-INW276.001	5.29E+01	4.59E-04			9.43E-15	3.78E-10	1.14E-16	6.10E-11	1.67E-05
WP	WP-INW276.002	7.94E+01	6.82E-04			1.99E-07	6.32E-10	1.71E-16	4.24E-04	2.65E-05
WP	WP-INW276.003	3.34E+03	2.52E-02			5.47E-06	4.77E-09	9.98E-16	2.91E-02	4.49E-04
WP	WP-INW276.004	7.05E+02	5.32E-03			4.86E-06	1.92E-09	2.11E-16	2.59E-02	1.46E-04
WP	WP-INW296.001-A	1.81E+02	1.45E-03			4.12E-15	5.07E-10	5.27E-17	6.60E-11	3.74E-05
WP	WP-INW296.001-B	6.52E+02	5.33E-03			1.04E-06	5.80E-09	1.86E-16	5.54E-03	3.55E-04
WP	WP-LA-TA-55-19.01-A	6.48E+00	2.09E-05			5.15E-14	2.41E-05	1.48E-18	5.50E-10	2.64E-03
WP	WP-LA-TA-55-19.01-B	6.44E+02	1.61E-01			2.30E-12	1.57E-06	1.53E-16	2.46E-08	8.72E-02
WP	WP-LA-TA-55-43.01	5.77E+00	3.36E-04			8.25E-14	8.69E-07	2.62E-06	4.41E-10	2.65E-02
WP	WP-RF001.01	6.49E+02	8.35E-03			6.06E-05	1.22E-06	1.55E-14	4.31E-02	9.33E-03
WP	WP-RF002.01-A	1.43E+03	1.01E-02			7.06E-06	7.95E-07	1.93E-15	1.51E-02	1.78E-02
WP	WP-RF002.01-B	8.99E-01	9.33E-06			2.96E-16	4.34E-12	2.08E-18	1.90E-12	1.92E-07
WP	WP-RF003.01	2.36E+04	1.62E-01			3.81E-06	2.75E-07	3.69E-14	8.13E-03	8.34E-03
WP	WP-RF004.01	1.35E+01	8.28E-05			2.53E-14	4.54E-09	1.37E-17	1.37E-10	1.27E-04
WP	WP-RF005.01	9.40E+03	6.73E-02			1.46E-11	3.28E-08	1.25E-14	9.70E-08	1.81E-03
WP	WP-RF005.02	4.82E+03	3.96E-02			1.55E-11	2.70E-08	7.37E-15	1.06E-07	1.21E-03
WP	WP-RF006.01	1.22E+04	2.24E-01			6.55E-10	3.27E-06	9.71E-13	7.41E-07	2.56E-02
WP	WP-RF008.01	8.05E+03	6.07E-02			1.65E-11	2.35E-08	6.34E-15	8.95E-08	1.26E-03
WP	WP-RF009.01	9.25E+04	9.34E-01			1.10E-09	4.78E-07	1.34E-13	6.10E-06	2.07E-02
WP	WP-RF010.01	2.85E+02	1.88E-03			6.20E-13	3.18E-08	3.22E-16	2.72E-09	7.31E-04
WP	WP-RF029.01-A	6.53E+01	3.92E-04			2.27E-13	2.61E-08	3.63E-17	1.22E-09	7.30E-04
WP	WP-RF029.01-B	5.17E+01	3.10E-04			3.53E-12	8.08E-08	2.87E-17	1.88E-08	2.25E-03
WP	WP-RF118.01	1.70E+05	1.10E+00			6.82E-11	5.52E-06	7.60E-14	5.03E-07	2.15E-01
WP	WP-RLMPDT.001	3.73E+01	2.07E-04			3.98E-17	9.17E-12	1.41E-18	1.28E-12	2.04E-06
WP	WP-RLNPDT.002	4.28E+02	2.07E-03			3.99E-15	3.51E-10	5.70E-17	6.42E-11	3.89E-05
WP	WP-SR2001.001.00	2.33E+01	1.37E-04			6.41E-17	4.04E-11	3.98E-18	1.04E-12	4.48E-06
WP	WP-SR-W027-221F-HETA	1.05E+02	1.82E-03			1.07E-05	1.67E-06	4.02E-18	1.14E-01	1.86E-01
Total:		1.96E+06	1.22E+01	1.24E-06	5.61E+04	1.36E+00	9.53E-02	2.50E+00	1.10E+03	1.97E+02

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	U-235	U-236	U-238
AE	AE-T001	3.41E-03	7.25E-05	6.02E-02
AE	AE-T003	1.43E-04	8.77E-06	3.15E-03
AW	AW-N026.82			
AW	AW-N027.531	2.49E-05	6.99E-09	9.25E-08
AW	AW-T033.1325	7.96E-05	2.23E-08	2.95E-07
AW	AW-W049	5.43E-10		
BC	BCLCH-MT01			
BT	BT-T002	2.60E-05	2.98E-04	1.20E-07
ET	ET-C1-B55	7.97E-10	1.20E-08	
ET	ET-C1-D139	1.21E-10	1.81E-09	4.17E-15
ET	ET-C2-SEFOR	1.89E-09	1.91E-08	
IN	IN-BN-510	8.38E-02	2.78E-03	2.15E-02
IN	IN-GEM-01			
IN	IN-GEM-02			
IN	IN-ICP-002	1.24E+00	6.44E-01	2.62E+01
IN	IN-ICP-003	5.23E-01	2.71E-01	1.11E+01
IN	IN-ICP-004	1.08E-01	5.60E-02	2.28E+00
IN	IN-ICP-005	7.19E-01	3.73E-01	1.52E+01
IN	IN-W157.144	3.58E-06	2.38E-05	2.19E-11
IN	IN-W163.1007	1.11E-06	7.38E-06	8.28E-12
IN	IN-W164.153	1.06E-08	7.01E-08	6.60E-14
IN	IN-W167.149	1.71E-06	1.14E-05	1.05E-11
IN	IN-W174.154	2.30E-08	1.33E-06	
IN	IN-W177.156	2.17E-08	3.87E-09	2.85E-14
IN	IN-W179.158	1.26E-09	1.91E-08	2.13E-13
IN	IN-W181.162	3.49E-07	2.38E-06	8.73E-13
IN	IN-W188.160	9.44E-07	6.26E-06	5.88E-12
IN	IN-W216.98	7.69E-05	5.10E-04	4.70E-10
IN	IN-W218.909	4.16E-06	2.85E-05	1.04E-11
IN	IN-W219.110	6.23E-08	4.25E-07	1.56E-13
IN	IN-W219.914	9.83E-09	6.71E-08	2.46E-14
IN	IN-W220.114	7.98E-05	4.18E-05	3.69E-11
IN	IN-W221.927	4.28E-04	2.32E-06	2.17E-12
IN	IN-W222.116	1.19E-05	7.87E-05	7.27E-11
IN	IN-W228.101	3.87E-06	2.57E-05	2.36E-11
IN	IN-W240.931	1.53E-04	3.27E-05	3.02E-11
IN	IN-W243.808	4.86E-04	5.75E-05	3.29E-05
IN	IN-W245.301	1.69E-05	1.12E-04	1.03E-10
IN	IN-W247.810	3.22E-04	5.49E-05	5.05E-11
IN	IN-W249.527	1.46E-07		
IN	IN-W263.520	2.44E-07	1.16E-08	5.19E-14
IN	IN-W267.1005	2.00E-06	1.33E-05	1.58E-11
IN	IN-W309.609	3.37E-05	2.23E-04	2.05E-10
IN	IN-W315.601	3.63E-07	2.48E-06	9.05E-13
IN	IN-W319.584	3.08E-07	2.05E-06	2.74E-12
IN	IN-W321.1023	2.67E-06	1.78E-05	1.33E-11
IN	IN-W322.851	2.48E-04	7.28E-07	
IN	IN-W322.952	6.59E-04	1.95E-06	
IN	IN-W323.562	9.58E-05		
IN	IN-W323.951	1.14E-04		

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	U-235	U-236	U-238
IN	IN-W332.661	1.53E-09		
IN	IN-W337.673	8.24E-05	2.43E-07	
IN	IN-W337.957	2.48E-04	7.28E-07	
IN	IN-W342.652	5.16E-10	1.13E-24	
IN	IN-W342.953	3.44E-10	7.58E-25	
IN	IN-W347.818	9.28E-05	5.25E-05	9.77E-04
IN	IN-W348.1012	4.94E-06	3.28E-05	3.00E-11
IN	IN-W353.917	3.20E-10		
IN	IN-W357.1022	9.64E-09	6.40E-08	6.70E-14
IN	IN-W358.854	1.30E-08	7.53E-07	
IN	IN-W358.855	6.93E-08	4.01E-06	
IN	IN-W358.948	1.44E-08	8.35E-07	
IN	IN-W361.1021	9.36E-07	6.23E-06	5.58E-12
IN	IN-W362.1020	1.22E-05	8.11E-05	7.09E-11
IN	IN-W363.1019	5.76E-07	3.80E-06	2.99E-12
IN	IN-W364.1011	9.46E-07	6.27E-06	7.41E-12
IN	IN-W365.1010	7.54E-07	4.99E-06	4.88E-12
IN	IN-W366.841	6.38E-07	4.22E-06	3.76E-12
IN	IN-W372.832	5.16E-10	1.13E-24	
IN	IN-W375.1096	2.37E-07	1.57E-06	1.45E-12
KN	KN-B234TRU	6.98E-05		5.56E-03
LA	LA-IT-00-01	1.56E-08	3.82E-09	8.35E-07
LA	LA-OS-00-01	8.77E-07		
LA	LA-PX-00-01	5.35E-10	3.79E-09	
LA	LA-SL-00-01	3.91E-09		
LA	LA-TA-03-12	3.23E-07	1.62E-07	6.15E-09
LA	LA-TA-03-13	5.00E-07	1.25E-07	7.84E-08
LA	LA-TA-03-19	1.95E-06	4.12E-07	2.82E-06
LA	LA-TA-03-20	1.45E-08	1.54E-07	1.72E-13
LA	LA-TA-03-24	2.89E-06	3.05E-07	2.49E-06
LA	LA-TA-03-26	2.28E-04	3.70E-06	2.52E-07
LA	LA-TA-03-28	7.08E-09		
LA	LA-TA-03-30	1.39E-07	1.21E-06	9.28E-13
LA	LA-TA-03-31	6.12E-08	4.48E-09	
LA	LA-TA-03-40	8.92E-07		
LA	LA-TA-03-42	1.01E-10	4.02E-11	1.18E-17
LA	LA-TA-21-06	4.51E-06	2.53E-07	2.39E-13
LA	LA-TA-21-12	1.53E-05	8.57E-07	2.14E-05
LA	LA-TA-21-13	8.99E-09		
LA	LA-TA-21-14	3.10E-08	1.09E-11	
LA	LA-TA-21-15	3.83E-08	1.98E-07	5.81E-14
LA	LA-TA-21-16	6.28E-05	2.26E-06	9.83E-13
LA	LA-TA-21-40	7.56E-09	2.53E-10	7.42E-17
LA	LA-TA-21-41	1.61E-08		
LA	LA-TA-21-42	7.48E-08	1.03E-08	3.03E-15
LA	LA-TA-21-43	5.23E-05		
LA	LA-TA-21-44	8.92E-07	5.40E-08	
LA	LA-TA-48-01	2.81E-09	3.85E-07	1.47E-04
LA	LA-TA-49-01	1.76E-06	1.56E-08	
LA	LA-TA-50-10	2.26E-10		

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	U-235	U-236	U-238
LA	LA-TA-50-11	1.01E-08	6.81E-08	1.83E-01
LA	LA-TA-50-15	1.16E-05	6.08E-08	1.05E-09
LA	LA-TA-50-17	1.34E-04	1.86E-10	2.38E-16
LA	LA-TA-50-18	8.80E-08	4.77E-12	7.30E-18
LA	LA-TA-50-19	3.19E-06	4.22E-09	1.53E-08
LA	LA-TA-50-20	2.31E-10		
LA	LA-TA-50-40	2.52E-10	3.54E-09	5.96E-15
LA	LA-TA-50-41	6.03E-10	4.26E-09	1.25E-15
LA	LA-TA-55-19	5.08E-05	9.44E-06	2.18E-05
LA	LA-TA-55-20	2.58E-03	4.12E-04	2.91E-04
LA	LA-TA-55-21	5.47E-06	3.88E-07	7.23E-08
LA	LA-TA-55-22	1.88E-07	1.33E-06	5.19E-13
LA	LA-TA-55-23	8.91E-05	8.82E-07	9.71E-06
LA	LA-TA-55-24	3.39E-08	2.38E-07	6.98E-14
LA	LA-TA-55-25	3.23E-05	1.19E-06	3.18E-07
LA	LA-TA-55-28	6.18E-06	4.31E-07	9.60E-09
LA	LA-TA-55-30	1.23E-05	2.12E-05	9.91E-05
LA	LA-TA-55-32	3.64E-05	6.75E-06	2.98E-07
LA	LA-TA-55-33	7.29E-06	3.26E-07	6.09E-07
LA	LA-TA-55-34	1.04E-04	2.99E-05	4.47E-03
LA	LA-TA-55-38	6.76E-05	1.02E-05	2.25E-03
LA	LA-TA-55-39	7.51E-07	5.11E-06	1.53E-12
LA	LA-TA-55-41	9.79E-07	7.09E-06	1.20E-10
LA	LA-TA-55-43	1.26E-09	1.34E-08	4.54E-14
LA	LA-TA-55-44	7.41E-07	5.74E-07	1.58E-05
LA	LA-TA-55-48	4.28E-09	6.45E-08	2.68E-13
LA	LA-TA-55-49	6.37E-05	6.21E-06	4.17E-04
LA	LA-TA-55-53	4.74E-06	3.12E-05	2.59E-09
LA	LA-TA-55-56	8.50E-06	3.19E-05	1.27E-05
LA	LA-TA-55-60	1.63E-09	1.76E-08	2.23E-09
LA	LA-TA-55-61	2.88E-09	2.96E-08	3.08E-13
LA	LA-TA-55-62	5.06E-10	7.33E-09	1.23E-14
LA	LA-TA-55-63	1.18E-09	8.26E-09	2.42E-15
LL	LL-M001			
LL	LL-T001			
LL	LL-T002			
LL	LL-T003			
LL	LL-T004			
LL	LL-T005			
LL	LL-W018			
LL	LL-W019			
LL	LL-W034			
MC	MC-W001	4.78E-10		
MU	MU-W002	2.08E-10		2.41E-07
NT	NT-JAS-01			
NT	NT-W001	1.52E-04	9.04E-06	1.57E-04
NT	NT-W021	5.08E-07	3.50E-06	1.58E-12
OR	OR-W201	3.71E-03	7.84E-04	3.25E-02
OR	OR-W202	1.19E-02	4.35E-04	6.85E-02
OR	OR-W203	2.97E-10	4.78E-07	3.10E-11

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	U-235	U-236	U-238
OR	OR-W204	8.27E-05	1.09E-07	4.26E-04
PA	PA-A015	4.40E-09		
RF	RF-MT0001	2.32E-06	1.60E-05	1.03E-11
RF	RF-MT0002	1.78E-07	1.23E-06	7.90E-13
RF	RF-MT0003	1.22E-06	2.81E-07	1.81E-13
RF	RF-MT0007	5.09E-09	3.50E-08	
RF	RF-MT0089	4.08E-10	2.81E-09	1.81E-15
RF	RF-MT0090	1.05E-06	7.15E-06	2.22E-12
RF	RF-MT0091	1.69E-04	4.81E-04	8.73E-07
RF	RF-MT0092	1.00E-05	7.01E-05	2.28E-11
RF	RF-MT0093	1.08E-05	7.70E-05	2.60E-11
RF	RF-MT0097	5.66E-07	3.50E-06	8.91E-13
RF	RF-MT0099	6.12E-10	4.21E-09	2.71E-15
RF	RF-MT0290	1.52E-06	1.04E-05	6.71E-12
RF	RF-MT-0292	1.92E-06	1.32E-05	8.48E-12
RF	RF-MT-0299	4.91E-05	3.39E-04	3.79E-03
RF	RF-MT0302	5.44E-07	1.46E-08	4.78E-09
RF	RF-MT0320	2.46E-06	1.42E-05	3.56E-09
RF	RF-MT0321	6.96E-05	4.01E-06	6.11E-07
RF	RF-MT-0328	8.83E-06	3.99E-07	7.76E-08
RF	RF-MT0330	1.31E-06	9.69E-06	3.39E-12
RF	RF-MT-0331	6.75E-04	4.31E-05	1.37E-05
RF	RF-MT0332	1.43E-09	9.83E-09	6.33E-15
RF	RF-MT-0335	1.69E-05	5.09E-07	1.55E-06
RF	RF-MT0336	6.39E-05	3.58E-05	5.19E-07
RF	RF-MT0337	1.27E-04	2.16E-05	1.10E-06
RF	RF-MT0339	2.20E-04	3.94E-05	5.38E-05
RF	RF-MT-0342	1.95E-06	4.37E-07	1.15E-06
RF	RF-MT0371	5.44E-05	8.69E-05	3.70E-07
RF	RF-MT-0372	7.81E-06	6.08E-07	6.83E-08
RF	RF-MT0373	1.66E-06	1.13E-05	3.52E-12
RF	RF-MT0374	6.24E-07	2.25E-07	3.53E-06
RF	RF-MT0376	5.19E-07	2.28E-07	9.36E-07
RF	RF-MT0377	3.39E-04	1.05E-04	2.85E-06
RF	RF-MT0378	2.10E-07	1.45E-06	9.32E-13
RF	RF-MT0419	1.96E-07	1.35E-06	8.70E-13
RF	RF-MT0420	3.41E-08	2.35E-07	1.51E-13
RF	RF-MT0423	4.93E-07	3.29E-06	9.72E-13
RF	RF-MT0425	8.54E-09	5.88E-08	3.78E-14
RF	RF-MT-0438	5.76E-07	1.03E-06	3.76E-09
RF	RF-MT0440	5.46E-06	3.85E-07	1.63E-06
RF	RF-MT0442	2.96E-06	1.29E-07	3.23E-07
RF	RF-MT0443	6.77E-06	2.01E-06	1.49E-04
RF	RF-MT0444	2.10E-06	9.53E-06	6.30E-09
RF	RF-MT0480	7.93E-05	2.58E-05	3.73E-05
RF	RF-MT0488	7.76E-04	3.13E-05	6.82E-06
RF	RF-MT0490	7.84E-07	2.39E-07	6.62E-05
RF	RF-MT-0491	1.72E-07	1.08E-08	5.74E-10
RF	RF-MT0523A	3.53E-04	8.56E-06	4.10E-04
RF	RF-MT0523B	3.53E-04	8.56E-06	4.10E-04

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	U-235	U-236	U-238
RF	RF-MT0523C	3.53E-04	8.56E-06	4.10E-04
RF	RF-MT0523D	3.53E-04	8.56E-06	4.10E-04
RF	RF-MT0523E	3.53E-04	8.56E-06	4.10E-04
RF	RF-MT0531	2.04E-10	1.40E-09	9.04E-16
RF	RF-MT0532E	4.34E-05	1.86E-05	7.19E-04
RF	RF-MT0532F	4.34E-05	1.86E-05	7.19E-04
RF	RF-MT0541	3.85E-08	2.64E-07	1.70E-13
RF	RF-MT0545	1.85E-09	1.28E-08	8.21E-15
RF	RF-MT0800	7.01E-05	6.31E-06	8.46E-06
RF	RF-MT0801	8.95E-07	6.14E-06	3.95E-12
RF	RF-MT0803	2.02E-08	1.38E-07	8.90E-14
RF	RF-MT0806	8.74E-08	5.96E-07	1.85E-13
RF	RF-MT0807	2.04E-05	2.56E-06	1.65E-12
RF	RF-MT0816	1.40E-04	3.61E-07	2.32E-13
RF	RF-MT-0823	6.79E-06	1.65E-07	7.88E-06
RF	RF-MT0827	3.32E-03	8.57E-06	5.52E-12
RF	RF-MT0831	3.98E-04	2.47E-05	9.01E-05
RF	RF-MT0832	9.42E-04	8.18E-05	9.11E-04
RF	RF-MT0833	2.52E-04	2.31E-05	3.48E-04
RF	RF-MT0855	1.75E-09	1.20E-08	7.75E-15
RF	RF-MT0857	8.72E-08	5.95E-07	1.85E-13
RF	RF-MT0H61	3.23E-06	2.21E-05	6.85E-12
RF	RF-MT2116	1.18E-05	1.03E-06	1.14E-05
RF	RF-MT3010	1.08E-05	7.85E-06	3.97E-07
RF	RF-MT3011	2.19E-04	5.25E-05	1.63E-04
RF	RF-MT420P	3.98E-04	5.17E-04	2.85E-06
RF	RF-MT532A	7.64E-05	3.28E-05	1.26E-03
RF	RF-MT532B	3.43E-04	1.47E-04	5.68E-03
RF	RF-MT532C	6.88E-04	2.95E-04	1.14E-02
RF	RF-MT532D	4.34E-06	1.86E-06	7.19E-05
RF	RF-TT0069	8.48E-06	3.04E-08	6.58E-04
RF	RF-TT0200	2.17E-07	1.25E-06	3.14E-10
RF	RF-TT0299	3.30E-07	2.27E-06	2.54E-05
RF	RF-TT0300	2.74E-04	6.44E-05	1.55E-04
RF	RF-TT0301	3.78E-05	8.88E-06	2.14E-05
RF	RF-TT0302	1.21E-05	3.25E-07	1.06E-07
RF	RF-TT0303	3.37E-05	1.86E-06	2.76E-05
RF	RF-TT0310	7.20E-06	8.64E-06	5.29E-08
RF	RF-TT0312	8.35E-05	1.81E-04	1.26E-05
RF	RF-TT0317	2.49E-08	1.71E-07	1.10E-13
RF	RF-TT0320	9.12E-06	5.26E-05	1.32E-08
RF	RF-TT0330	4.77E-06	3.53E-05	1.24E-11
RF	RF-TT-0331	1.90E-03	1.21E-04	3.87E-05
RF	RF-TT-0334	1.00E-05	6.89E-05	4.43E-11
RF	RF-TT0335	1.91E-03	5.76E-05	1.76E-04
RF	RF-TT0336	1.01E-04	5.65E-05	8.19E-07
RF	RF-TT0337	4.32E-04	7.34E-05	3.73E-06
RF	RF-TT0338	5.30E-04	2.77E-04	3.04E-05
RF	RF-TT0340	5.83E-07	4.01E-06	2.58E-12
RF	RF-TT0342	9.75E-05	2.19E-05	5.77E-05

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	U-235	U-236	U-238
RF	RF-TT0360	3.58E-07	1.07E-06	1.81E-09
RF	RF-TT0368	7.17E-06	2.15E-05	3.61E-08
RF	RF-TT0370	2.61E-04	4.73E-05	2.25E-06
RF	RF-TT0371	5.55E-07	8.87E-07	3.78E-09
RF	RF-TT0372	2.23E-06	1.74E-07	1.95E-08
RF	RF-TT0374	1.07E-05	3.87E-06	6.06E-05
RF	RF-TT0375A	7.36E-09	5.07E-08	3.26E-14
RF	RF-TT0375B	7.36E-09	5.07E-08	3.26E-14
RF	RF-TT0376	2.86E-05	1.25E-05	5.15E-05
RF	RF-TT0377	1.47E-05	4.55E-06	1.24E-07
RF	RF-TT0391	2.00E-07	1.35E-06	4.96E-13
RF	RF-TT0392	1.10E-07	7.16E-07	4.73E-11
RF	RF-TT0393	4.87E-06	3.35E-05	2.16E-11
RF	RF-TT0398	1.98E-07	1.33E-06	2.56E-11
RF	RF-TT0409	1.21E-07	6.86E-07	1.80E-10
RF	RF-TT0412	1.21E-07	6.86E-07	1.80E-10
RF	RF-TT0414	3.76E-06	2.13E-05	5.58E-09
RF	RF-TT0430	1.39E-09	9.55E-09	6.15E-15
RF	RF-TT0431	7.29E-06	2.28E-06	6.17E-08
RF	RF-TT0438	6.47E-05	1.16E-04	4.23E-07
RF	RF-TT0440	1.43E-04	1.01E-05	4.28E-05
RF	RF-TT0441	1.56E-04	4.04E-05	3.59E-04
RF	RF-TT0442	1.68E-04	7.34E-06	1.83E-05
RF	RF-TT0443	5.10E-07	1.52E-07	1.12E-05
RF	RF-TT0479	3.01E-07	2.07E-06	1.33E-12
RF	RF-TT0480	2.07E-04	6.72E-05	9.73E-05
RF	RF-TT0481	1.46E-07	4.76E-08	6.89E-08
RF	RF-TT0483	1.05E-03	2.55E-07	1.29E-01
RF	RF-TT0484	8.67E-06	1.06E-06	5.31E-04
RF	RF-TT0485	3.22E-05	6.53E-08	2.49E-03
RF	RF-TT0486	2.63E-05	3.87E-07	2.04E-03
RF	RF-TT0487	1.24E-05	1.08E-06	1.20E-05
RF	RF-TT0489	1.17E-05	5.92E-07	9.02E-04
RF	RF-TT0490	1.05E-04	3.19E-05	8.83E-03
RF	RF-TT0491	7.66E-06	4.80E-07	2.55E-08
RF	RF-TT0492	4.15E-08	2.85E-07	1.84E-13
RF	RF-TT0523A	4.76E-05	1.15E-06	5.52E-05
RF	RF-TT0523B	4.76E-05	1.15E-06	5.52E-05
RF	RF-TT0523C	4.76E-05	1.15E-06	5.52E-05
RF	RF-TT0523D	4.76E-05	1.15E-06	5.52E-05
RF	RF-TT0523E	4.76E-05	1.15E-06	5.52E-05
RF	RF-TT0532A	4.46E-05	1.91E-05	7.38E-04
RF	RF-TT0532B	4.46E-05	1.91E-05	7.38E-04
RF	RF-TT0541	1.67E-08	1.15E-07	7.38E-14
RF	RF-TT0545	3.71E-09	2.55E-08	1.64E-14
RF	RF-TT0601	1.55E-06	4.65E-06	7.83E-09
RF	RF-TT0802	5.47E-02	3.57E-04	2.36E-04
RF	RF-TT0809	3.94E-03	2.58E-05	1.70E-05
RF	RF-TT0821	5.53E-03	1.12E-04	1.43E-04
RF	RF-TT0822	5.03E-03	7.48E-05	5.05E-04

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	U-235	U-236	U-238
RF	RF-TT0823	6.79E-06	1.65E-07	7.88E-06
RF	RF-TT0824	2.47E-03	1.96E-04	3.51E-03
RF	RF-TT0825	2.37E-03	1.59E-04	1.58E-03
RF	RF-TT0832	8.55E-04	7.43E-05	8.27E-04
RF	RF-TT0854	6.70E-05	6.99E-08	5.20E-03
RF	RF-TT0886	1.85E-09	1.27E-08	8.19E-15
RF	RF-TT2216	1.77E-05	1.54E-06	1.71E-05
RF	RF-TT3010	1.31E-04	9.52E-05	4.81E-06
RF	RF-TT3011	9.19E-04	2.20E-04	6.82E-04
RF	RF-TT301U	1.04E-05	3.00E-05	1.02E-04
RF	RF-TT310P	1.56E-06	9.44E-06	1.05E-09
RF	RF-TT338S	4.98E-08	3.43E-07	2.21E-13
RF	RF-TT390P	1.17E-06	1.53E-06	8.21E-09
RF	RF-TT391P	1.09E-05	7.38E-05	2.70E-11
RF	RF-TT392P	3.44E-05	2.24E-04	1.48E-08
RF	RF-TT393R	1.06E-05	3.45E-05	4.93E-08
RF	RF-TT394P	6.15E-07	2.46E-06	2.03E-09
RF	RF-TT395P	8.22E-07	3.29E-06	2.71E-09
RF	RF-TT396P	2.06E-07	8.22E-07	6.77E-10
RF	RF-TT398P	2.05E-05	1.38E-04	2.65E-09
RF	RF-TT398R	3.27E-05	2.23E-04	8.63E-11
RF	RF-TT411R	4.48E-06	2.54E-05	6.66E-09
RF	RF-TT429R	8.64E-07	5.77E-06	1.48E-12
RF	RF-TT433X	2.48E-07	1.50E-06	3.67E-13
RF	RF-TT436R	3.25E-06	2.21E-05	7.14E-12
RF	RF-TT454X	1.91E-07	1.30E-06	4.20E-13
RL	RL-T101	8.92E-12		1.94E-10
RL	RL-T102	5.14E-08		1.11E-06
RL	RL-T103			
RL	RL-T104	1.46E-09		3.17E-08
RL	RL-T105	4.60E-06		4.95E-08
RL	RL-T106			
RL	RL-T107	1.89E-02		3.51E-01
RL	RL-T108	1.31E-06		2.85E-05
RL	RL-T109	3.10E-04		7.95E-03
RL	RL-T110	6.57E-02		1.91E-01
RL	RL-T112	5.11E-02		3.20E-02
RL	RL-T113			
RL	RL-T114			
RL	RL-T115	1.17E-03		4.56E-02
RL	RL-T116	5.78E-03		6.22E-05
RL	RL-T118	1.66E-02		1.57E-01
RL	RL-T120	2.53E-08		5.50E-07
RL	RL-T122	1.50E-01		1.62E-03
RL	RL-T123	6.12E-03		6.61E-05
RL	RL-T125			
RL	RL-T127	1.69E-04		9.42E-03
RL	RL-T128			
RL	RL-T129	5.32E-04		1.65E-03
RL	RL-T130	8.51E-06		9.15E-08

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	U-235	U-236	U-238
RL	RL-T131	8.38E-04		1.72E-05
RL	RL-T132	1.09E-02		2.38E-01
RL	RL-T133			
RL	RL-T134			
RL	RL-T135	7.40E-06		4.62E-04
RL	RL-T137	2.79E-04		6.05E-03
RL	RL-T140	4.89E-02		2.93E+00
RL	RL-T143	2.36E-03		2.70E-02
RL	RL-T145	5.30E-03		1.24E-02
RL	RL-W407			
RL	RL-W408			
RL	RL-W415			
RL	RL-W418			
RL	RL-W438			
RL	RL-W444			
RL	RL-W447			
RL	RL-W448			
RL	RL-W449			
RL	RL-W450			
RL	RL-W451			
RL	RL-W452			
RL	RL-W453			
RL	RL-W454			
RL	RL-W455			
RL	RL-W456			
RL	RL-W457			
RL	RL-W458			
RL	RL-W459			
RL	RL-W460			
RL	RL-W461			
RL	RL-W462			
RL	RL-W463			
RL	RL-W464			
RL	RL-W465			
RL	RL-W466			
RL	RL-W467			
RL	RL-W468			
RL	RL-W469			
RL	RL-W470			
RL	RL-W474			
RL	RL-W476			
RL	RL-W480			
RL	RL-W481			
RL	RL-W482			
RL	RL-W483			
RL	RL-W484			
RL	RL-W485			
RL	RL-W486			
RL	RL-W487			
RL	RL-W488			

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	U-235	U-236	U-238
RL	RL-W489			
RL	RL-W490			
RL	RL-W491			
RL	RL-W492			
RL	RL-W493			
RL	RL-W494			
RL	RL-W495			
RL	RL-W496			
RL	RL-W497			
RL	RL-W498			
RL	RL-W499			
RL	RL-W500			
RL	RL-W501			
RL	RL-W502			
RL	RL-W503			
RL	RL-W504			
RL	RL-W505			
RL	RL-W506			
RL	RL-W507			
RL	RL-W508			
RL	RL-W509			
RL	RL-W510			
RL	RL-W511	1.19E-04	1.41E-05	9.80E-07
RL	RL-W512			
RL	RL-W513			
RL	RL-W514			
RL	RL-W515			
RL	RL-W516			
RL	RL-W517			
RL	RL-W518			
RL	RL-W519			
RL	RL-W520			
RL	RL-W521			
RL	RL-W522			
RL	RL-W523			
RL	RL-W524			
RL	RL-W525			
RL	RL-W526			
RL	RL-W527			
RL	RL-W528			
RL	RL-W529			
RL	RL-W530			
RL	RL-W531			
RL	RL-W532			
RL	RL-W533			
RL	RL-W534			
RL	RL-W535			
RL	RL-W536	1.40E-06	1.31E-07	9.12E-09
RL	RL-W537	9.39E-06	1.11E-06	7.76E-08
RL	RL-W538			

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	U-235	U-236	U-238
RL	RL-W539			
RL	RL-W540			
RL	RL-W541			
RL	RL-W542			
RL	RL-W543			
RL	RL-W544			
RL	RL-W545			
RL	RL-W546			
RL	RL-W547			
RL	RL-W548			
RL	RL-W549			
RL	RL-W550	6.67E-06	7.89E-07	5.49E-08
RL	RL-W551	2.14E-06		4.30E-05
RL	RL-W552			
RL	RL-W553			
RL	RL-W554			
RL	RL-W555			
RL	RL-W563			
RL	RL-W564			
RL	RL-W565			
RL	RL-W566			
RL	RL-W567			
RL	RL-W568			
RL	RL-W569			
RL	RL-W570			
RL	RL-W571			
RL	RL-W572			
RL	RL-W573			
RL	RL-W574			
RL	RL-W575			
RL	RL-W576			
RL	RL-W579			
RL	RL-W580			
RL	RL-W581			
RL	RL-W582			
RL	RL-W583			
RL	RL-W584			
RL	RL-W585			
RL	RL-W586			
RL	RL-W587			
RL	RL-W588			
RL	RL-W589			
RL	RL-W590			
RL	RL-W591			
RL	RL-W592			
RL	RL-W593			
RL	RL-W594			
RL	RL-W595			
RL	RL-W596			
RL	RL-W597			

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	U-235	U-236	U-238
RL	RL-W598			
RL	RL-W599			
RL	RL-W600			
RL	RL-W601			
RL	RL-W602			
RL	RL-W603			
RL	RL-W604			
RL	RL-W605			
RL	RL-W606			
RL	RL-W607			
RL	RL-W608			
RL	RL-W610			
RL	RL-W612			
RL	RL-W615			
RL	RL-W622			
RL	RL-W625			
RL	RL-W626	1.97E-06		1.36E-06
RL	RL-W627			
RL	RL-W628			
RL	RL-W629			
RL	RL-W630			2.95E-06
RL	RL-W631			
RL	RL-W632			
RL	RL-W633			
RL	RL-W634			
RL	RL-W635	1.95E-04		
RL	RL-W636			
RL	RL-W637			
RL	RL-W638			
RL	RL-W639			
RL	RL-W640			
RL	RL-W641			
RL	RL-W642			
RL	RL-W643			
RL	RL-W644			
RL	RL-W645			
RL	RL-W646			
RL	RL-W647			
RL	RL-W648			
RL	RL-W649			
RL	RL-W653			
RL	RL-W654			
RL	RL-W655			
RL	RL-W656			
RL	RL-W657			
RL	RL-W659			
RL	RL-W660			
RL	RL-W661			
RL	RL-W662			
RL	RL-W665			

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	U-235	U-236	U-238
RL	RL-W666			
RL	RL-W668			
RL	RL-W669			
RL	RL-W670			
RL	RL-W671			
RL	RL-W672			
RL	RL-W673			
RL	RL-W674	1.34E-07		6.69E-05
RL	RL-W675			
RL	RL-W676	4.47E-09		2.23E-06
RL	RL-W677	8.99E-05		3.43E-03
RL	RL-W678			
RL	RL-W679			
RL	RL-W680			
RL	RL-W681			
RL	RL-W685			
RL	RL-W689			
RL	RL-W690			
RL	RL-W691			
RL	RL-W692			
RL	RL-W693			
RL	RL-W694			
RL	RL-W695			
RL	RL-W696			
RL	RL-W697			
RL	RL-W698			
RL	RL-W699			
RL	RL-W700			
RL	RL-W702			
RL	RL-W703			
RL	RL-W704			
RL	RL-W705			
RL	RL-W706			
RL	RL-W707			
RL	RL-W708			
RL	RL-W709			
RL	RL-W710			
RL	RL-W711			
RL	RL-W712			
RL	RL-W713			
RL	RL-W714			
RL	RL-W715			
RL	RL-W716			
RL	RL-W717			
RL	RL-W718			
RL	RL-W719			
RL	RL-W720			
RL	RL-W721			
RL	RL-W723			
RL	RL-W724			

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	U-235	U-236	U-238
RL	RL-W725			
RL	RL-W726			
RL	RL-W727			
RL	RL-W728			
RL	RL-W729			
RL	RL-W730			
RL	RL-W731	1.22E-06		
RL	RL-W732			
RL	RL-W733			
RL	RL-W734			
RL	RL-W735			
RL	RL-W736			
RL	RL-W737			
RL	RL-W738			
RL	RL-W739			
RL	RL-W740	1.39E-07		
RL	RL-W741			
RL	RL-W742			
RL	RL-W743			
RL	RL-W744			
RL	RL-W745			
RL	RL-W746			
RL	RL-W747			
RL	RL-W748			
RL	RL-W749			
RL	RL-W750			
RL	RL-W751			
RL	RL-W752			
RL	RL-W753			
RP	RP-W754	1.48E-02	3.31E-03	3.35E-01
RP	RP-W755	5.63E-01	1.02E-01	1.29E+01
SA	SA-T001	2.39E-08	5.90E-10	
SA	SA-W134	1.09E-02	6.50E-08	7.96E-03
SA	SA-W134M	1.41E-03	8.45E-09	1.03E-03
SR	T001-221F-HET	2.97E-04	2.21E-04	
SR	T001-221H-HET	5.90E-04	4.39E-04	
SR	T001-235F-HET	2.80E-05	2.08E-05	
SR	T001-772F-HET	2.22E-04	1.65E-04	
SR	T001-773A-CLAS	3.43E-06	2.55E-06	
SR	T001-773A-HET	3.08E-05	2.29E-05	
SR	W006-773A-VIT	5.29E-06		
SR	W026-221F-HET	1.19E-04	8.86E-05	
SR	W026-221H-HET	8.90E-05	6.62E-05	
SR	W026-235F-HET	1.39E-06	1.03E-06	
SR	W026-772F-HET	3.78E-07	2.81E-07	
SR	W026-773A-HET	6.16E-06	4.58E-06	
SR	W027-221F-HET	1.15E-03	8.59E-04	
SR	W027-221H-HET	5.05E-04	3.76E-04	
SR	W027-235F-HET	1.52E-04	1.13E-04	
SR	W027-772F-HET	2.76E-04	2.05E-04	
SR	W027-773A-HET	4.12E-04	3.06E-04	
SR	W027-999-HET	3.36E-04	2.50E-04	
SR	W053-773A-VIT	3.94E-06		
WP	WP-INW169.001	5.28E-05	1.02E-07	2.97E-06
WP	WP-INW198.001	2.47E-05	1.81E-07	4.82E-05
WP	WP-INW211.001	6.11E-04	1.68E-05	6.66E-04
WP	WP-INW216.001-A	4.92E-02	1.95E-05	2.10E+00
WP	WP-INW216.001-B	8.65E-03	5.28E-06	3.82E-02
WP	WP-INW218.001-A	4.81E-02	1.70E-06	3.95E+00
WP	WP-INW218.001-B	4.55E-03	4.63E-08	4.23E-01

Table E-1. Scaled Volume and Activities for Selected Radionuclides for Each CH Waste Stream

Site_Code	WIPP_ID	U-235	U-236	U-238
WP	WP-INW222.001	7.60E-05	4.55E-07	5.37E-03
WP	WP-INW243.001	2.68E-04	1.92E-06	1.35E-04
WP	WP-INW247.001R1	3.89E-06	3.74E-06	1.45E-12
WP	WP-INW276.001	2.92E-07	9.25E-07	3.46E-13
WP	WP-INW276.002	6.58E-07	1.39E-06	5.14E-13
WP	WP-INW276.003	2.89E-05	2.02E-05	7.60E-07
WP	WP-INW276.004	2.26E-05	4.27E-06	1.61E-12
WP	WP-INW296.001-A	6.25E-06	1.07E-06	4.37E-13
WP	WP-INW296.001-B	9.17E-05	3.77E-06	1.18E-04
WP	WP-LA-TA-55-19.01-A	1.35E-04	3.01E-08	6.30E-15
WP	WP-LA-TA-55-19.01-B	6.40E-05	3.10E-06	5.10E-05
WP	WP-LA-TA-55-43.01	1.27E-09	1.62E-08	2.03E-13
WP	WP-RF001.01	2.57E-03	4.17E-05	7.68E-05
WP	WP-RF002.01-A	7.30E-04	1.56E-05	5.13E-04
WP	WP-RF002.01-B	2.47E-09	1.69E-08	7.04E-15
WP	WP-RF003.01	1.68E-04	2.99E-04	6.72E-06
WP	WP-RF004.01	4.05E-06	1.39E-07	3.57E-08
WP	WP-RF005.01	5.78E-05	1.26E-04	4.06E-11
WP	WP-RF005.02	2.00E-05	7.46E-05	7.98E-08
WP	WP-RF006.01	2.40E-04	1.46E-03	1.09E-07
WP	WP-RF008.01	1.85E-05	6.42E-05	1.19E-08
WP	WP-RF009.01	3.87E-04	1.35E-03	1.64E-06
WP	WP-RF010.01	2.24E-05	2.61E-06	7.43E-06
WP	WP-RF029.01-A	2.34E-05	3.67E-07	2.06E-07
WP	WP-RF029.01-B	7.23E-05	2.91E-07	6.39E-07
WP	WP-RF118.01	6.41E-03	1.03E-03	5.53E-05
WP	WP-RLMPDT.001	7.26E-09	5.70E-08	3.12E-14
WP	WP-RLNPDT.002	1.43E-07	1.15E-06	6.24E-13
WP	WP-SR2001.001.00	1.35E-08	8.06E-08	4.13E-14
WP	WP-SR-W027-221F-HETA	6.23E-05	1.63E-07	1.51E-02
Total:		3.90E+00	1.47E+00	7.91E+01

Table E-2. Scaled Volume and Activities for Selected Radionuclides for each RH Waste Stream

Site Code	WIPP_ID	Volume	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240	Pu-241
AE	AE-T009	104.78	8.84E+00	2.78E-05	1.64E-01	3.99E+01	1.45E-03	8.05E+00	1.54E+01	3.36E+00	2.61E+01
AW	AW-T031.1322	22.99	5.34E-01	2.62E-04	2.16E-03	8.20E+03	8.49E-04	5.79E-01	1.99E-03	9.56E+00	1.59E+01
AW	AW-W012.10	17.62	4.10E-01	2.01E-04	1.65E-03	5.19E+02	6.51E-04	4.44E-01	1.16E+01	7.33E+00	1.22E+01
AW	AW-W020.13	18.32	7.49E+00			3.20E+02	1.50E-04		1.03E+01	3.22E+00	6.74E+02
AW	AW-W026	6.23	1.11E+00			1.25E+00	2.17E-06		1.97E-01		
AW	AW-W028	9.44				2.54E+00			2.52E-01	1.33E-02	
AW	AW-W046	2.30	4.10E-01			5.74E+02	8.01E-07		9.19E-02		
AW	AW-W047	2.30	4.10E-01			1.05E+02	8.01E-07		6.25E-04		
AW	AW-W048	3.83	6.83E-01			1.37E+03	1.33E-06		3.32E-04		
BC	BCLRH-MT01	0.89	2.55E+00	1.91E-02	2.06E+00	5.09E+01	2.31E-04	2.46E+00	3.16E-01	5.14E-01	4.15E+01
BC	BCLRH-T001	0.89	1.77E-02	1.33E-04	1.42E-02	3.53E-01	1.59E-06	1.71E-02	2.19E-03	3.57E-03	2.87E-01
BC	BCLRH-T002	1.78	9.49E-01		4.95E-01	8.33E-01		1.11E+00	1.17E-01	1.90E-01	
BC	BCLRH-T003	16.79	2.40E+00	1.80E-02	1.93E+00	4.78E+01	2.17E-04	2.30E+00	2.97E-01	4.83E-01	3.89E+01
BC	BCLRH-T004	15.01	6.90E+01	5.16E-01	5.55E+01	1.37E+03	6.23E-03	6.65E+01	8.54E+00	1.40E+01	1.12E+03
BC	BCLRH-T005	0.89	3.64E+00	2.71E-02	2.93E+00	7.24E+01	3.28E-04	3.51E+00	4.49E-01	7.32E-01	5.91E+01
BC	BCLRH-T006	0.89	8.53E-01	6.38E-03	6.86E-01	1.70E+01	7.70E-05	8.21E-01	1.06E-01	1.73E-01	1.39E+01
BC	BCLRH-T007	0.89	7.05E-03	5.26E-05	5.68E-03	1.41E-01	6.35E-07	6.78E-03	8.71E-04	1.42E-03	1.15E-01
BC	BCLRH-T008	0.89	8.40E-02	6.28E-04	6.78E-02	1.68E+00	7.58E-06	8.11E-02	1.04E-02	1.70E-02	1.37E+00
BC	BCLRH-T009	1.78	5.66E-01	4.24E-03	4.56E-01	1.13E+01	5.11E-05	5.47E-01	7.01E-02	1.14E-01	9.18E+00
BC	BCLRH-T010	0.89	4.99E+00	6.97E-02	3.66E+00	7.16E+02	4.47E-03	1.49E-02	1.27E-03	1.56E-02	1.75E-01
BC	BCLRH-T011	4.45	5.96E-02		2.39E-02	7.16E-01		3.52E-02	1.33E-02		
BT	BT-T001	2.00	2.54E+00	1.19E-02	7.64E-01	6.44E+03	1.69E-02	2.80E+02	2.18E-01	4.46E-01	4.76E+01
ET	ET-R1-DLR	4.13	9.43E-02			9.77E+00	2.39E-07	1.48E-02	6.06E-01	1.13E-01	3.51E-01
ET	ET-R2-D107	0.89	5.52E-01			5.12E-02	2.41E-06		4.62E-01	1.62E-01	1.86E+00
IN	IN-AE-AGHC-01	184.23	2.94E-01			1.96E+02	3.54E-07		1.90E+01	7.64E+00	2.21E+01
IN	IN-AW-161	0.89				6.37E-01			2.46E+00	5.26E-02	
IN	IN-INTEC-SFS-01	0.89	5.82E-01			5.12E+00	7.01E-07	2.00E+00	2.42E-01	2.80E-01	4.38E+01
IN	IN-NRF-153	8.90	4.72E-03				5.69E-09	3.02E-01	3.60E-03	3.90E-03	3.55E-01
IN	IN-TRA-150	2.67	2.88E+01				6.56E-05	3.18E+01			
IN	IN-TRA-157	3.56	1.86E-01			2.48E-01	4.23E-07	1.56E-01	4.34E-03		
IN	IN-W358.949	6.06						2.67E+03	1.28E+01	2.46E+01	
IN	IN-W372.918	11.90	4.17E-01			5.58E-01	9.51E-07	3.51E-01	9.76E-03		
KA	KA-T001	105.74	2.38E-02	4.13E-05	1.18E-03	6.02E+01	6.65E-04	2.21E+00	5.91E-03	1.48E-03	2.10E-01
KA	KA-W016	10.73	2.42E-03	4.19E-06	1.20E-04	6.12E+00	6.77E-05	2.26E-01	6.01E-04	1.50E-04	2.14E-02
LA	LA-TA-03-27	124.60	2.49E-02			1.57E+01	1.57E-07	1.34E-02	2.53E+00	2.74E-02	2.24E-01
OR	OR-W211	65.90	1.28E+00	8.03E-02	7.22E+01	2.82E+00	6.67E-06	7.65E-02	1.54E-02	9.07E-01	4.45E+00
OR	OR-W212	166.28	3.22E+00	2.03E-01	1.82E+02	7.11E+00	1.68E-05	1.93E-01	3.88E-02	2.29E+00	1.12E+01
OR	OR-W213	169.34	9.03E-06	5.79E-09	2.68E-07	2.73E-04	1.43E-08	3.96E-06	9.45E-06	9.45E-06	6.13E-06
OR	OR-W214	1.53	1.89E-01		9.43E-03	1.49E+00	3.58E-05	2.80E-02	3.08E-01	2.39E-05	
OR	OR-W215	165.51	2.74E+02		7.67E+02	1.37E+04	1.52E-03	2.11E+02	1.17E+02	2.62E+01	1.14E+02
RL	RL-T121	53.40				3.01E+01		9.53E-01	6.25E+00	3.11E+00	1.54E+02
RL	RL-T124	0.89				2.47E+01					
RL	RL-T147	27.59	9.89E+00			2.07E+03		5.21E+01	3.42E+02	1.70E+02	8.04E+03
RL	RL-T148	24.03				3.97E+04		5.73E+01	3.75E+02	1.87E+02	8.84E+03
RL	RL-T149	69.42				1.89E+03		2.70E-01	1.77E+00	8.82E-01	4.17E+01
RL	RL-W161	5.34				7.49E-01		1.10E-02	7.21E-02	3.59E-02	1.70E+00
RL	RL-W162	18.69				5.39E+00		1.14E-04	7.48E-04	3.72E-04	1.76E-02
RL	RL-W419	3.07	9.56E-05					3.92E-05	1.44E-03	3.22E-04	5.48E-03
RL	RL-W420	22.99	1.86E-02					6.00E-03	2.25E-01	5.05E-02	7.45E-01
RL	RL-W421	272.02	8.48E-03					3.48E-03	1.27E-01	2.85E-02	4.87E-01

Table E-2. Scaled Volume and Activities for Selected Radionuclides for each RH Waste Stream

Site Code	WIPP_ID	Volume	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240	Pu-241
RL	RL-W428	18.39	3.26E-02					3.16E-02	3.87E-04	6.95E-04	1.70E+00
RL	RL-W433	37.55	6.66E-02					6.46E-02	7.90E-04	1.42E-03	3.48E+00
RL	RL-W436	420.68	6.17E+01					3.98E+01	2.49E+00	2.13E+00	
RL	RL-W445	114.74	2.84E+02			1.27E+02		1.06E+02	8.15E-01	1.45E+00	3.30E+04
RL	RL-W446	22.25	2.21E+02			3.94E+01		2.45E+01	2.40E-01	5.20E-01	1.92E+04
RL	RL-W613	45.39	7.18E+01			4.17E+04		3.28E+00	6.30E+00	1.53E+00	4.77E+01
RL	RL-W614	33.52	3.10E+02			6.70E+04		1.53E+01	2.86E+00	2.79E+00	1.37E+02
RL	RL-W616	5.34	1.25E+01			2.96E+03		5.62E-01	1.75E-01	1.72E-01	8.04E+00
RL	RL-W617	1.78	5.87E-01			1.42E+02		2.66E-02	8.24E-03	8.05E-03	3.95E-01
RL	RL-W618	1.78	6.23E+00			5.34E+02		1.05E+00	1.39E-01	1.32E-01	4.49E+02
RL	RL-W619	24.92	2.83E+02			8.85E+04		2.00E+01	3.90E+00	3.83E+00	1.82E+02
RL	RL-W620	1.78	1.65E-01			3.97E+01		7.44E-03	2.31E-03	2.26E-03	1.11E-01
RL	RL-W621	12.46	7.79E-02			1.27E+01		1.37E-01	1.42E-02	2.59E-02	3.69E+00
RL	RL-W623	9.79	3.05E-01			3.15E+02		6.84E-02	1.15E-02	1.12E-02	5.26E-01
RL	RL-W658	37.67	8.68E-01			7.28E+01		3.20E+00	1.95E-01	3.85E-01	7.71E+01
RL	RL-W663	16.02	6.81E+02			8.07E+01		1.09E+02	6.08E+00	7.85E+00	3.41E+04
RL	RL-W664	2.67	1.41E-02			1.19E+00		5.20E-02	3.16E-03	6.25E-03	1.26E+00
RL	RL-W682	7.02	1.34E+01			1.54E+04		3.77E+00	4.21E+00	3.99E+00	7.30E+01
RL	RL-W683	0.89	3.76E+01			6.70E+03		6.75E+01	9.50E+01	6.52E+01	5.53E+03
RL	RL-W686	0.89	1.52E-03			2.14E-01		4.90E-04	3.43E-03	1.70E-03	5.49E-02
RL	RL-W687	0.89	9.52E-01			7.86E+00		2.94E-01	2.07E+00	1.03E+00	3.20E+01
RL	RL-W688	0.89	3.71E+00			1.84E+01		1.16E+00	8.11E+00	4.03E+00	1.26E+02
RL	RL-W701	0.89	2.86E-08					8.17E-09	3.11E-07	6.97E-08	9.34E-07
RP	RP-W013	525.10	2.40E+03			4.88E+04	5.99E-01	1.80E-01	3.07E+03	6.88E+02	1.80E+04
RP	RP-W016	3943.59	8.99E+03			7.53E+04	3.67E-02	9.90E+00	1.11E+03	3.36E+02	3.53E+02
SA	SA-W135	4.58	2.13E+01		4.16E-01	4.89E+02	9.04E-04	4.22E+00	2.84E+00	4.26E-01	2.48E-02
SR	T003-773A-HET	19.49		3.57E-02		5.31E+01		3.09E+00	4.10E-06		
Total:		7.08E+03	1.38E+04	9.92E-01	1.09E+03	4.26E+05	6.70E-01	3.81E+03	5.24E+03	1.58E+03	1.31E+05

Table E-2. Scaled Volume and Activities for Selected Radionuclides for each RH Waste Stream

Site Code	WIPP_ID	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234	U-235	U-236
AE	AE-T009			2.25E+01	4.08E-07	8.64E-08	1.80E-15	1.61E-04	6.87E-04	1.37E-04	2.70E-06
AW	AW-T031.1322	2.67E-04		8.97E+03	1.34E-10	1.70E-07	2.29E-14	2.48E-07	3.16E-03	1.99E-03	7.80E-05
AW	AW-W012.10	2.04E-04		4.54E+02	1.02E-10	1.31E-07	1.75E-14	1.90E-07	2.42E-03	7.90E-05	5.98E-05
AW	AW-W020.13			6.21E+01	1.15E-04	2.08E-07	8.50E-17	2.05E-01	3.85E-03	2.60E-03	5.73E-07
AW	AW-W026			4.46E+00	5.24E-15	1.24E-15		2.79E-11	4.61E-11	2.02E-05	
AW	AW-W028			7.06E+00		3.16E-15	3.51E-19		1.17E-10	1.30E-05	2.37E-09
AW	AW-W046			1.64E+00	1.93E-15	4.59E-16		1.03E-11	1.70E-11	2.19E-04	
AW	AW-W047			1.64E+00	1.93E-15	4.59E-16		1.03E-11	1.70E-11	7.47E-06	
AW	AW-W048			1.49E+03	3.22E-15	7.65E-16		1.72E-11	2.84E-11	3.32E-04	
BC	BCLRH-MT01	1.54E-03		3.35E+01				2.74E-08	8.80E-04	1.28E-05	1.70E-04
BC	BCLRH-T001	1.07E-05		2.31E-01				1.90E-10	6.11E-06	8.90E-08	1.18E-06
BC	BCLRH-T002			3.37E+01				1.61E-08	5.20E-04	7.80E-06	1.03E-04
BC	BCLRH-T003	1.45E-03		3.14E+01				2.57E-08	8.26E-04	1.20E-05	1.60E-04
BC	BCLRH-T004	4.17E-02		9.05E+02				7.41E-07	2.37E-02	3.48E-04	4.61E-03
BC	BCLRH-T005	2.20E-03		4.74E+01				3.90E-08	1.25E-03	1.83E-05	2.43E-04
BC	BCLRH-T006	5.16E-04		1.12E+01				9.17E-09	2.94E-04	4.31E-06	5.70E-05
BC	BCLRH-T007	4.24E-06		9.26E-02				7.55E-11	2.43E-06	3.56E-08	4.70E-07
BC	BCLRH-T008	5.07E-05		1.10E+00				8.99E-10	2.90E-05	4.25E-07	5.62E-06
BC	BCLRH-T009	3.42E-04		7.42E+00				6.09E-09	1.96E-04	2.85E-06	3.79E-05
BC	BCLRH-T010	9.61E-06		3.87E+02				4.33E-07	5.38E-06	4.85E-08	1.05E-06
BC	BCLRH-T011			3.87E-01					2.53E-05	9.03E-07	
BT	BT-T001	3.48E-03	1.99E-10	6.44E+03			1.69E-11		5.96E-01	7.84E-03	8.94E-02
ET	ET-R1-DLR			9.48E+00	1.02E-15	1.44E-11	5.28E-18	4.08E-12	3.97E-07	8.99E-04	2.67E-08
ET	ET-R2-D107			3.58E-02	3.12E-14		2.32E-17	7.19E-11		6.38E-09	6.72E-08
IN	IN-AE-AGHC-01				6.11E-16		2.74E-16	3.65E-12		1.30E-03	1.59E-06
IN	IN-AW-161						1.89E-18			1.46E-06	1.09E-08
IN	IN-INTEC-SFS-01	1.01E-03			1.21E-15	1.29E-09	1.01E-17	7.24E-12	4.08E-05	8.60E-06	5.82E-08
IN	IN-NRF-153	1.29E-05			9.83E-18	1.96E-10	1.40E-19	5.87E-14	6.18E-06	5.27E-05	8.08E-10
IN	IN-TRA-150				2.16E-13	2.06E-08		9.88E-10	6.50E-04		
IN	IN-TRA-157				1.40E-15	1.01E-10		6.37E-12	3.19E-06	3.00E-11	
IN	IN-W358.949					1.73E-06	8.84E-16		5.45E-02	8.86E-08	5.11E-06
IN	IN-W372.918				3.13E-15	2.28E-10		1.43E-11	7.18E-06	6.74E-11	
KA	KA-T001	5.65E-06	1.34E-12	5.73E+01	7.50E-10	1.08E-06	3.23E-11	3.04E-07	3.76E-03	5.63E-05	5.34E-04
KA	KA-W016	5.74E-07	1.36E-13	5.83E+00	7.63E-11	1.10E-07	3.28E-12	3.09E-08	3.83E-04	5.73E-06	5.43E-05
LA	LA-TA-03-27	1.64E-05		1.54E+01	6.13E-15	5.47E-09	1.53E-16	7.89E-12	2.03E-05	1.00E-04	1.12E-07
OR	OR-W211	3.49E-03	3.39E-10	2.07E+01	1.26E-13	3.09E-10	1.68E-16	2.40E-10	3.95E-06	2.58E-10	4.16E-07
OR	OR-W212	8.81E-03	8.55E-10	5.21E+01	3.19E-13	7.79E-10	4.25E-16	6.07E-10	9.97E-06	6.50E-10	1.05E-06
OR	OR-W213	5.13E-09		1.98E-06	1.44E-07	2.68E-08	5.64E-08	3.93E-07	3.37E-07	2.03E-09	
OR	OR-W214			2.09E-01	5.71E-06	1.32E-10	1.96E-21	3.58E-03	1.70E-06	5.16E-09	6.67E-12
OR	OR-W215	4.90E-02	5.53E-03	4.83E+04	1.85E-01	1.87E-03	8.77E-01	1.16E+02	1.23E+01	2.38E-01	4.22E-02
RL	RL-T121	9.18E-05		2.81E+01							
RL	RL-T124			2.30E+01			1.39E-04	1.81E-01			
RL	RL-T147	5.02E-03		1.93E+03			2.92E-04	5.10E-01	1.22E+00	1.19E-01	
RL	RL-T148	5.50E-03		3.71E+04			1.29E-03	2.69E-01	1.64E+00	1.60E-01	
RL	RL-T149	2.60E-05		1.84E+03			4.14E-02	7.57E+00	4.50E-03	4.62E-04	
RL	RL-W161	1.06E-06		6.95E-01							
RL	RL-W162	1.10E-08		5.02E+00					1.71E-06	7.65E-08	
RL	RL-W419	1.94E-08									
RL	RL-W420	3.04E-06									
RL	RL-W421	1.72E-06									

Table E-2. Scaled Volume and Activities for Selected Radionuclides for each RH Waste Stream

Site Code	WIPP_ID	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234	U-235	U-236
RL	RL-W428	3.53E-10									
RL	RL-W433	7.21E-10									
RL	RL-W436	1.58E-06									
RL	RL-W445			1.31E+02							
RL	RL-W446	3.74E-06		3.50E+01							
RL	RL-W613	5.81E-02		2.04E+04							
RL	RL-W614	4.66E-03		5.01E+04							
RL	RL-W616	2.87E-04		2.94E+03							
RL	RL-W617	1.34E-05		1.41E+02							
RL	RL-W618	2.18E-06		2.08E+01							
RL	RL-W619	5.89E-03		5.55E+04							
RL	RL-W620	3.78E-06		3.96E+01							
RL	RL-W621	1.07E-04		8.17E+00							
RL	RL-W623	1.87E-05		1.69E+02							
RL	RL-W658			1.46E+02							
RL	RL-W663	3.91E-03		4.92E+01						1.06E-04	
RL	RL-W664			1.68E+00							
RL	RL-W682	2.69E-03		5.87E+03						7.67E-06	
RL	RL-W683	6.27E-02		2.45E+03					3.39E-03	2.64E-03	2.05E-04
RL	RL-W686	5.02E-08		1.94E-01							
RL	RL-W687	3.03E-05		7.11E+00							
RL	RL-W688	1.19E-04		1.67E+01							
RL	RL-W701	4.20E-12									
RP	RP-W013	1.64E-01		5.04E+04				3.42E-01	1.91E-01	8.03E-03	4.62E-03
RP	RP-W016	5.17E-02		2.48E+04				1.94E+00	1.44E+01	5.48E-01	1.17E+00
SA	SA-W135			4.87E+02	4.60E-12	3.31E-07	7.79E-18	1.93E-08	7.38E-03	5.49E-04	6.31E-08
SR	T003-773A-HET			5.00E+01		2.64E-09			7.25E-05	1.08E-14	
Total:		4.79E-01	5.53E-03	3.22E+05	1.85E-01	1.88E-03	9.20E-01	1.27E+02	3.04E+01	1.09E+00	1.31E+00

Table E-2. Scaled Volume and Activities for Selected Radionuclides for each RH Waste Stream

Site Code	WIPP_ID	U-238
AE	AE-T009	5.34E-05
AW	AW-T031.1322	8.42E-06
AW	AW-W012.10	6.45E-06
AW	AW-W020.13	4.20E-04
AW	AW-W026	2.75E-06
AW	AW-W028	7.00E-06
AW	AW-W046	1.02E-06
AW	AW-W047	1.02E-06
AW	AW-W048	1.69E-06
BC	BCLRH-MT01	2.49E-04
BC	BCLRH-T001	1.73E-06
BC	BCLRH-T002	1.48E-04
BC	BCLRH-T003	2.33E-04
BC	BCLRH-T004	6.76E-03
BC	BCLRH-T005	3.56E-04
BC	BCLRH-T006	8.34E-05
BC	BCLRH-T007	6.89E-07
BC	BCLRH-T008	8.23E-06
BC	BCLRH-T009	5.54E-05
BC	BCLRH-T010	1.29E-06
BC	BCLRH-T011	5.38E-06
BT	BT-T001	3.62E-05
ET	ET-R1-DLR	2.25E-03
ET	ET-R2-D107	
IN	IN-AE-AGHC-01	
IN	IN-AW-161	
IN	IN-INTEC-SFS-01	1.06E-12
IN	IN-NRF-153	1.36E-14
IN	IN-TRA-150	
IN	IN-TRA-157	
IN	IN-W358.949	
IN	IN-W372.918	
KA	KA-T001	2.47E-07
KA	KA-W016	2.51E-08
LA	LA-TA-03-27	4.40E-07
OR	OR-W211	8.92E-12
OR	OR-W212	2.25E-11
OR	OR-W213	6.74E-09
OR	OR-W214	5.30E-03
OR	OR-W215	1.10E+01
RL	RL-T121	
RL	RL-T124	
RL	RL-T147	8.91E-03
RL	RL-T148	1.15E-02
RL	RL-T149	4.95E-06
RL	RL-W161	
RL	RL-W162	1.66E-06
RL	RL-W419	
RL	RL-W420	
RL	RL-W421	

Table E-2. Scaled Volume and Activities for Selected Radionuclides for each RH Waste Stream

Site_Code	WIPP_ID	U-238
RL	RL-W428	
RL	RL-W433	
RL	RL-W436	
RL	RL-W445	
RL	RL-W446	
RL	RL-W613	
RL	RL-W614	
RL	RL-W616	
RL	RL-W617	
RL	RL-W618	
RL	RL-W619	
RL	RL-W620	
RL	RL-W621	
RL	RL-W623	
RL	RL-W658	
RL	RL-W663	
RL	RL-W664	
RL	RL-W682	3.83E-03
RL	RL-W683	2.19E-03
RL	RL-W686	
RL	RL-W687	
RL	RL-W688	
RL	RL-W701	
RP	RP-W013	1.60E-01
RP	RP-W016	1.27E+02
SA	SA-W135	1.83E-04
SR	T003-773A-HET	
Total:		1.38E+02

APPENDIX F
NON-WIPP SCREENING CRITERIA MEMO

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*Earth and Environmental Division (EES)
Carlsbad Operations
115 North Main Street
Carlsbad, New Mexico 88220
(505) 628-3934 FAX (505) 628-3238*

Date: February 24, 2003
Refer To: EES-12:03-099

Cynthia Zvonar
Office of Environmental Compliance, Assistant Manager
CBFO
Carlsbad, NM 88220

Subject: TRU Waste Inventory Report – 2003 Update

Dear Cindy,

In order to screen WIPP restricted waste streams from the Inventory LANL needs CBFO concurrence/guidance. We wish to have a meeting with you, Inés and members of your team to discuss these criteria. Specifically the following screening criteria obtained from the TWBIR rev. 3 and regulatory requirements must be considered:

- PCBs > 50ppm
- Dose > 1000 R/hr
- Classified
- Commercial/non-defense
- Pre- 1970 buried – Pit 9 at INEEL
- Unknown waste streams
- D001, D002 or D003 waste streams
- High tritium (Beryllium containing waste streams from INEEL)
- 23 Ci/L or (2300 Ci/m³) of maximum activity level averaged over the volume of the canister.

In addition, we would like to address excess Remote Handled Waste above the allocated 7080 m³ limit.

Please contact me at 628-1372 (cell: 505-706-0224) to provide a date and time that is convenient for this discussion.

Sincerely,

(SIGNATURE COPY ON FILE)

Sheila Lott
EES-12, Carlsbad Operations

SL:kag

Cynthia Zvonar

-2-

2/24/03

Cy: Inés Triay, CBFO
Russ Patterson, CBFO
Steve Casey, CBFO
David Moody, LANL
Bev Crawford, LANL
EES-12 Files

Memorandum to File
March 7, 2003

The LANL-CO Inventory Team met with the Carlsbad Field Office Recertification Staff to discuss the TRU waste streams. Categories consistent with the baseline reports were discussed, as well as the placement of questionable waste components. The two categories are "Acceptable" (Appendix P) and "Excluded" (Appendix O) wastes. Wastes categorized as excluded can be further categorized into "potential future waste streams" and "all other waste streams."

The 2003 Compliance Recertification Application will provide data on emplaced TRU waste and anticipated inventory. In the Transuranic Baseline Inventory Report there was a section that had a separate appendix denoting wastes excluded from WIPP and possible future wastes for WIPP. The LANL-CO team wanted to discuss the screening criteria that will be used for the Transuranic Waste Inventory Update Report, 2003 for these wastes.

For purposes of demonstrating compliance with the long-term disposal regulations, the WIPP performance assessment (PA) process will examine the 2003 inventory (both received and anticipated) for differences from the compliance basis (Compliance Certification Application, 1996). If different, the PA will utilize the updated values to assess the long-term behavior of the repository. The inventory data to be analyzed will include the acceptable waste streams, and the excluded – potential future waste listed in the table below.

Screening Criteria	Decision Made
PCBs > 50ppm	Acceptable (pending EPA – Region 6 approval)
Dose > 1000 R/hr	Excluded
Classified waste	Acceptable
Commercial	Excluded
Non-defense waste that is likely defense, but no official determination	Acceptable (with indicating explanation)
Pre-1970 buried waste	Excluded
Pit 9 waste at INEEL	Acceptable (test waste only [~120 m ³])
Unknown waste streams	Excluded
D001, D002, D003 waste streams	Acceptable (with treatment to remove the EPA codes)
Beryllium-containing waste streams, (e.g., beryllium reflectors at INEEL)	Excluded
>23 Ci/L or (23,000Ci/ cubic meters) of maximum activity level averaged over the volume of the canister	Excluded
Sodium-Bearing Waste from INEEL	Excluded – Potential Future Waste
RH TRU waste > 7,080 cubic meter limit	Excluded

The team was reminded to keep in mind when scaling the RH TRU waste of the 5% limit of RH TRU between 100R/hr and 1000R/hr.

DOE/CBFO Recertification Representative
Recertification Representative


Steve Casey

LANL-CO Inventory Lead


Sheila Lott

APPENDIX G
DATA REQUIREMENTS

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1



Sandia National Laboratories

Operated for the U.S. Department of Energy by
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April 22, 2002

Joe Harvill, T-141, GSA-101, (234-7652)
Westinghouse TRU Solutions
Carlsbad, New Mexico

Subject: Sandia's WIPP Inventory Data Needs for Performance Assessment

Per your request [Harvill, 2002], this letter details Sandia's additional data needs regarding the inventory data to be included in the 2002 update to the Transuranic Waste Baseline Inventory Report (TWBIR). In order to conduct a performance assessment of the WIPP for the Compliance Recertification Application (CRA) that (1) accounts for revisions to inventory estimates since certification of the repository, (2) accounts for both currently emplaced waste and to-be-emplaced waste, and (3) is defensible against concerns regarding heterogeneous waste emplacement, we will need the 2002 update to the TWBIR to include the following inventories:

1. **Waste stream volumes.**
2. **Inventory of radionuclides on a waste stream basis for both CH- and RH-TRU waste, decayed to a common base year.** For calculating releases due to cuttings, cavings, and spallings we need inventories on a waste-stream basis for the key radionuclides (i.e. those accounting for >99% of the EPA units in the WIPP plus some of their parents and daughters) [Sanchez et al., 1997]. For the Compliance Certification Application, the key radionuclides were determined to be ^{241}Am , ^{244}Cm , ^{238}Pu , ^{239}Pu , ^{240}Pu , ^{241}Pu , ^{233}U , ^{234}U , ^{137}Cs , and ^{90}Sr [Sanchez et al., 1997]. Because Sandia will re-evaluate the determination of key radionuclides, this list may grow.

For assessing the impact of heterogeneous waste emplacement on direct brine releases, we will require inventories on a waste-stream basis for a subset of the radionuclides accounted for in the direct brine release model. The required radionuclides are ^{241}Am , ^{243}Am , ^{244}Cm , ^{237}Np , ^{238}Pu , ^{239}Pu , ^{240}Pu , ^{241}Pu , ^{242}Pu , ^{244}Pu , ^{229}Th , ^{230}Th , ^{232}Th , ^{233}U , ^{234}U , ^{235}U , ^{236}U , and ^{238}U .

For performance assessment calculations of direct brine release and subsurface transport of radionuclides, for determining the waste unit factor, and for re-evaluating key radionuclide determinations, we will require inventories on a WIPP-scale basis for a greater number of radionuclides. Fifteen radionuclides contribute to the waste unit factor: ^{241}Am , ^{243}Am , ^{249}Cf , ^{251}Cf , ^{243}Cm , ^{245}Cm , ^{246}Cm , ^{247}Cm , ^{248}Cm , ^{237}Np , ^{238}Pu , ^{239}Pu , ^{240}Pu , ^{242}Pu , and ^{244}Pu [Sanchez, 1996]. Performance assessment models track 29 radionuclides on a WIPP-scale basis: ^{241}Am , ^{243}Am , ^{252}Cf , ^{243}Cm , ^{244}Cm , ^{245}Cm , ^{248}Cm , ^{137}Cs , ^{237}Np , ^{231}Pa , ^{210}Pb , ^{147}Pm , ^{238}Pu , ^{239}Pu , ^{240}Pu , ^{241}Pu , ^{242}Pu , ^{244}Pu , ^{226}Ra , ^{228}Ra , ^{90}Sr , ^{229}Th , ^{230}Th , ^{232}Th , ^{233}U , ^{234}U , ^{235}U , ^{236}U , ^{238}U [Garner, 1996; Sanchez et al., 1997]. Re-evaluation of key radionuclides may benefit from tracking 14 additional radionuclides that per EPA regulation contribute to the number of EPA units in the WIPP: ^{227}Ac , ^{14}C , ^{135}Cs , ^{129}I , ^{59}Ni , ^{63}Ni , ^{107}Pd , ^{79}Se , ^{151}Sm , $^{121\text{m}}\text{Sn}$, ^{126}Sn , ^{99}Tc , ^{232}U , and ^{93}Zr [Sanchez, 1996]. Radionuclide inventories for these purposes may be provided on a WIPP-scale basis prior to completion of the 2002 update to the TWBIR, if you wish to minimize the number of radionuclides that must be tracked on a waste stream basis, or may be provided on a waste stream basis within the update. If WIPP-scale inventories are provided prior to completion of the 2002 update to the TWBIR, the same inventories should be included in the 2002 update to the TWBIR.

In summary, please provide waste-stream level inventories of at least

^{241}Am , ^{243}Am , ^{244}Cm , ^{237}Np , ^{238}Pu , ^{239}Pu , ^{240}Pu , ^{241}Pu , ^{242}Pu , ^{244}Pu , ^{229}Th , ^{230}Th , ^{232}Th , ^{233}U , ^{234}U , ^{235}U , ^{236}U , ^{238}U , ^{137}Cs , and ^{90}Sr .

✓ Please provide WIPP-scale inventories of

^{241}Am , ^{243}Am , ^{249}Cf , ^{251}Cf , ^{252}Cf , ^{243}Cm , ^{244}Cm , ^{245}Cm , ^{246}Cm , ^{247}Cm , ^{248}Cm , ^{137}Cs , ^{237}Np , ^{231}Pa , ^{210}Pb , ^{147}Pm , ^{238}Pu , ^{239}Pu , ^{240}Pu , ^{241}Pu , ^{242}Pu , ^{244}Pu , ^{226}Ra , ^{228}Ra , ^{90}Sr , ^{229}Th , ^{230}Th , ^{232}Th , ^{233}U , ^{234}U , ^{235}U , ^{236}U , and ^{238}U .

✓ Consider providing WIPP-scale inventories of

^{227}Ac , ^{14}C , ^{135}Cs , ^{129}I , ^{59}Ni , ^{63}Ni , ^{107}Pd , ^{79}Se , ^{151}Sm , $^{121\text{m}}\text{Sn}$, ^{126}Sn , ^{99}Tc , ^{232}U , and ^{93}Zr .

3. **Inventory of all nonradioactive waste material parameters that were previously tracked in the TWBIR.** These inventories should be provided on a waste stream basis for both CH- and RH-TRU waste. Nonradioactive waste material parameters include: Iron Base Metal/Alloy; Aluminum Base Metal/Alloy; Other Metal/Alloy; Other Inorganic Materials; Vitrified; Cellulosics; Rubber; Plastics; Solidified Inorganic Material; Solidified Organic Material; Cement; Soils; Steel (container material); Plastic/Liners (container material); and Lead (container material for RH-TRU waste only) [US DOE, 1996].

The Cellulosics inventory should include plywood waste boxes and other waste container materials made of cellulosics. This inventory will contribute to gas generation.

If Solidified Organic Material or Solidified Inorganic Material occurs in a waste stream, please specify what materials were used to solidify the waste, and if feasible, in what proportions. The specification can be made within the waste stream

description or in a separate field. These materials may have implications for actinide solubility.

Include only portland cement (and concrete or other cements containing CaO or Ca(OH)₂) in the inventory of Cement. Specify whether the partial mass density of Cement is based on unreacted (dry) cement, reacted (hydrated) cement, or a combination. Do not list portland cement inventory under Other Inorganic Material, Solidified Organic Material, Solidified Inorganic Material, or other waste material parameter. Cement may affect the pH of WIPP brines.

If Vitrified, Solidified Inorganic Material, Solidified Organic Material, or Cement is expected to occur in the final waste form and final waste form inventory data is not yet available, please estimate the partial densities of these waste material parameters that will occur in the final waste form. Appendix B-7 in the TWBIR Rev. 3 [US DOE, 1996] provides an example of how final waste form partial densities may be estimated.

If possible, specify whether a waste stream contains pyrochemical salts, and whether the pyrochemical salts resulted from Direct Oxygen Reduction (DOR) or O₂ sparging. The specification can be made within the waste stream description or in a separate field. This information may have implications for actinide oxidation state.

4. **Inventory of any other nonradioactive waste materials that are discovered to account for a significant portion of a waste stream as a result of changes to the inventory.** We suggest that inventory should be taken for any material not included in the existing waste material parameters and accounting for >5% by weight or volume of a waste stream. These inventories, if they exist, should be provided on a waste stream basis for both CH- and RH-TRU waste.
5. **Inventory of Cellulosics, Plastics, Rubbers, and other biodegradable materials used to facilitate emplacement of waste and MgO in the WIPP.** Waste and MgO emplacement in the WIPP is facilitated by the use of plastic shrinkwrap, cardboard stabilizers, and other materials. Inventory estimates for these materials should be included on a WIPP-scale basis. These materials may contribute to gas generation.
6. **Inventory of organic ligands and of SO₄, NO₃, and PO₄.** We understand from informal conversations with you and members of your team that new estimates of organic ligand concentrations and of SO₄, NO₃, and PO₄ concentrations would not improve upon the estimates available in the TWBIR Rev. 3. Therefore, for waste streams included in the TWBIR Rev 3. (and similar waste streams), we do not need updated inventories of these waste components to be included in the 2002 update to the TWBIR.

If organic ligands (acetate, citrate, oxalate, or EDTA), SO₄, NO₃, or PO₄ will be added to new waste streams during environmental restoration, decontamination and decommissioning, or similar activities, include inventory estimates for these waste components in the new waste streams. These components may affect actinide solubility or gas generation rates.

The 2002 update to the TWBIR should have the following characteristics:

- ✓ 1. Waste-stream level inventories of radionuclides and nonradioactive waste material parameters for waste currently emplaced in the WIPP should be included. The currently emplaced inventory should be distinct from the inventory remaining at waste generator sites. Inventories supplied by the waste generator sites should not include waste already sent to the WIPP.
2. Waste-stream level inventories of radionuclides and nonradioactive waste material parameters supplied by the waste generator sites should include estimates for (1) stored inventory, (2) projected inventory, (3) stored plus projected inventory (anticipated inventory), and (4) inventory scaled to fill the WIPP (disposal inventory). A definition for each type of inventory is given in the TWBIR Rev. 3 [US DOE, 1996].
3. To the extent possible, the waste streams identified in the 2002 update to the TWBIR should remain the same as the waste streams identified in previous versions of the TWBIR. Such consistency will (1) ensure that inventory data is available at the level of detail required for performance assessment calculations, and (2) allow us to continue to reference previous versions of the TWBIR for any information not collected for the 2002 update.

In order for the 2002 update to the TWBIR to be fully incorporated into CRA performance assessment calculations, we will need to receive it by your proposed deadline of the end of October, 2002. If any of the preliminary assessments of inventory issues that we carry out prior to October, 2002 indicate a need for additional or more specific data, we will notify you immediately in writing.

Sincerely,

Dr. Emily R. Giambalvo
(Senior Member of Technical Staff)

References:

- Garner, J.W., 1996. "Radioisotopes to be used in the 1996 CCA calculations," Memo to C. T. Stockman, 15 March 1996, Albuquerque, NM: Sandia National Laboratories, WPO 35202.
- Harvill, J., 2002. "Inventory Information," Email to E. R. Giambalvo, 9 April 2002, Carlsbad, NM.
- Sanchez, L.C., 1996. "Identification of important radionuclides used in 1996 CCA WIPP performance assessment," Memo to "Distribution," 25 April 1996, Albuquerque, NM: Sandia National Laboratories, WPO 37431.

Sanchez, L.C., J. Liscum-Powell, J.S. Rath and H. Trelue, 1997. "WIPP PA Analysis Report for EPAUNI: Estimating Probability Distribution of EPA Unit Loading in the WIPP Repository for Performance Assessment Calculations, version 1.01," 17 February 1997, Sandia National Laboratories, Albuquerque, NM, WPO 243843.

US DOE, 1996. "Transuranic Waste Baseline Inventory Report, Revision 3," June 1996, United States Department of Energy, Carlsbad, NM.

ERG:6821:erg/(2002-1002, Rev. A)

Copy to:

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R. Nelson, DOE, CBFO
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MS-1395, M.K. Knowles [Dept. 6821]
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Dr. Emily R. Giambalvo
 Senior Member of Technical Staff
 Sandia National Laboratories
 Performance Assessment and Decision Analysis Dept. 6821

June 10, 2002

Joe Harvill, T-141, GSA-101, (234-7652)
 Westinghouse TRU Solutions
 Carlsbad, New Mexico

Subject: Waste Inventory: Level of Detail Required for Performance Assessment

At the April 22, 2002 meeting between Westinghouse TRU Solutions and Sandia National Laboratories regarding Sandia's waste inventory needs for performance assessment (Giambalvo, 2002), you indicated that:

1. The waste categories included in the 2002 update to the Transuranic Waste Baseline Inventory Report (TWBIR) would be more coarsely defined than were the waste streams included in the TWBIR Revisions 2 and 3. This coarsening would decrease the number of waste categories from ~970 contact-handled (CH-) and remote-handled (RH-) transuranic (TRU) waste streams to <200 CH- and RH-TRU waste categories.
2. As planned, the 2002 update to the TWBIR will account for all of the waste currently emplaced in WIPP in a single waste category. No significant difficulty would arise from categorizing the emplaced waste by waste stream or other waste category that could capture the heterogeneity of the emplaced waste.

In subsequent informal conversations, you indicated that the waste categories included in the 2002 update to the TWBIR are likely to remain very similar to the waste streams in Revisions 2 and 3 of the TWBIR due to the way in which the generator sites categorize the waste.

This letter is intended to clarify Sandia's needs regarding categorization of waste. The points listed below, where different from those listed in my letter to you of April 22, 2002 (Giambalvo 2002), supercede the points made in the previous letter.

1. A probabilistic Performance Assessment (PA) can be carried out with a lesser number of waste categories than were provided by the waste stream classification in Revisions 2 and 3 of the TWBIR. Using a very small number of waste categories may lead to PA results being questioned by the regulator and/or stakeholders.
2. If the waste categories used in the 2002 update to the TWBIR are not the same as the waste streams defined in Revisions 2 and 3 of the TWBIR (plus any new waste streams), then we prefer that
 - a) the waste categories be called something other than "waste streams,"
 - b) the 2002 update to the TWBIR include a description of how the new waste categories relate to the old waste streams, and

Exceptional Service in the National Interest

- 2 of 2 -

- c) the 2002 update to the TWBIR include a justification for the change in waste categorization method.

These conditions are required so that Sandia may explain to the regulator the associated differences in PA calculations, and so that we may continue to reference Revisions 2 and 3 of the TWBIR for any information not collected for the 2002 update to the TWBIR.

3. The emplaced waste inventory should be provided with the same level of detail that is provided for the waste remaining at the generator sites (to-be-emplaced waste). If to-be-emplaced waste is categorized by waste stream, then the emplaced inventory should be categorized by waste stream. If to-be-emplaced waste is more coarsely categorized, then the emplaced inventory should be categorized with a similar resolution of detail. For instance, the emplaced waste could be categorized according to final waste form (US DOE, 1996), waste matrix group (Strum, 2002), or other characteristic consistent with the categorization scheme used for the to-be-emplaced waste.

As you gather information for the 2002 update to the TWBIR, please let me know if any of the requests made in this letter or in the letter dated April 22, 2002 (Giambalvo, 2002) cannot be fulfilled.

Sincerely,

Emily R. Giambalvo

References:

US DOE, 1996. "Transuranic Waste Baseline Inventory Report, Revision 3," June, 1996, United States Department of Energy, Carlsbad, NM.

Giambalvo, E.R., 2002. "Sandia's WIPP Inventory Data Needs for Performance Assessment," Letter to J. Harvill, 22 April 2002, Carlsbad, NM: Sandia National Laboratories. WPO 521948

Strum, M., 2002. "WIPP Waste Information System (WWIS) User's Guide," 17 May 2002, Westinghouse TRU Solutions, Carlsbad, NM, 190 pp.

ERG:6821:erg/(2002-1002, Rev. A)

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APPENDIX H
CLARIFICATION OF DATA REQUIREMENTS

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4100 National Parks Highway
Carlsbad, NM 88220

March 12, 2003

Dr. Beverly Crawford
Los Alamos National Laboratories
Carlsbad Office
115 N. Main St.
Carlsbad, NM 88220Subject: Clarification of Requirements for the Transuranic Waste Baseline Inventory Database
Revision 2.1 from the Giambalvo Letter dated April 22, 2002

Dear Dr. Crawford:

The stated reference (Giambalvo 2003a) includes the following description of requirements for the
Transuranic Waste Baseline Inventory Database Revision 2.1.“Waste-stream level inventories of radionuclides and nonradioactive waste material parameters
supplied by the waste generator sites should include estimates for (1) stored inventory, (2)
projected inventory, (3) stored plus projected inventory (anticipated inventory, and (4) inventory
scaled to fill the WIPP (disposal inventory). A definition for each type of inventory is given in the
TWBIR Rev. 3 [US DOE, 1996].”The purpose of this letter is to clarify the application of this statement to the waste material
parameter data for individual waste streams supplied by the waste generator site. For the
performance assessment calculations that will be performed in support of the Compliance
Recertification Application, Sandia National Laboratories needs to know the average density of the
waste material parameters throughout the repository assuming that waste material parameters are
distributed homogeneously throughout the repository. That value should be calculated as follows:*Exceptional Service in the National Interest*

Dr. Beverly Crawford

- 2 -

March 12, 2003

$${}^{\text{WMP}}\rho_{\text{ave Rep}} = \sum {}^{\text{WMP}}\rho_{\text{ave } i} \cdot (v_p + v_s + v_e) / (V_p + V_s + V_e) \quad (1)$$

Where

- v_p is the projected volume for waste stream i,
- v_s is the stored volume for waste stream i,
- v_e is the emplaced volume for waste stream i,
- V_p is the total projected volume
- V_s is the total stored volume
- V_e is the total emplaced volume
- ${}^{\text{WMP}}\rho_{\text{ave Rep}}$ is the average density of a WMP throughout the repository
- ${}^{\text{WMP}}\rho_{\text{ave } i}$ is the average density of a WMP in waste stream i

None of the values in Equation 1 should be "scaled" values. This is the average density that will accommodate calculation of gas generation in our repository models.

Please note this clarification and proceed with implementation of Equation 1 for repository waste material parameter density in the TWBID Revision 2.1

If you have any questions or comments regarding this information, please contact Christi Leigh at 234-0038.

Sincerely,



Christi Leigh

Copy to:
Laurie Sparks-Roybal
Sheila Lott
Bill McCulla

APPENDIX I
WASTE STREAM PROFILES – NON-WIPP

The following waste stream profiles contain information on waste streams that were not compliant with the Contact-Handled Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (CH-WAC; DOE 2000) as of the inventory date, September 30, 2002. The following waste stream profiles contain information on waste streams that are not being considered for shipment to WIPP at this time due to content, radiological composition, or lack of information about the waste streams. Appendix F contains a memo that lists the limiting conditions (screening criteria) that were used to screen these waste streams out of the inventory. The TRU waste sites that have reported non-WIPP waste streams are:

1.	Argonne National Laboratory – West	AW
2.	Babcock and Wilcox, Lynchburg	BL
3.	Framatome (Richland)	FR
4.	General Electric Vallecitos Nuclear Center	GE
5.	Idaho National Engineering and Environmental Laboratory	IN
6.	Knolls Atomic Power Laboratory – Nuclear Fuels Service	KN
7.	Los Alamos National Laboratory	LA
8.	Lawrence Berkeley National Laboratory	LB
9.	Paducah Gaseous Diffusion Plant	PA
10.	Rocky Flats Environmental Technology Site	RF
11.	Hanford (Richland Operations)	RL
12.	Sandia National Laboratories (Albuquerque)	SA
13.	Separations Process Research Unit	SP
14.	Savannah River Site	SR
15.	West Valley Demonstration Project	WV

REFERENCES

Department of Energy (DOE) 2002. *Contact-Handled Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant*, Revision 0, DOE/WIPP-02-3122, May 17, 2002.

Waste Stream ID: **AW-W018**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	AW-W018	Stream Name	SODIUM - TRU			Inventory Date	9/30/2002
Local ID	CH-ANL-180T	Handling	RH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	X7520
						Activity Concentrations as of CY	1996

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Liner / 0.1m3	14.1	0.0	14.1
Liner / 0.3m3	29.1	0.0	29.1
Liner / 0.5m3	197.0	0.0	197.0
As-Generated Total	240.2	0.0	240.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Canister used to overpack 45 gallon drums	240.7	0.0	240.7
Final Form Total	240.7	0.0	240.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.83E+02
Cs-137	1.77E+05
Pu-238	9.53E+02
Pu-239	1.69E+04
Pu-240	2.84E+03
Pu-241	7.05E+04
Sr-90	7.24E+04

Waste Stream Description

Sodium is used as a primary and was used as a secondary coolant for the EBR-II reactor. Waste sodium metal is a hazardous constituent of some of the TRU waste stored at the ANL-W Radioactive Scrap and Waste Facility (RSWF). The waste is generated during maintenance and operational activities. The sodium typically coats waste metal equipment, experiments, and components removed during reactor operations and maintenance activities or is contained in blanket elements. This waste will require treatment prior to disposal at WIPP. Final waste form has not been determined yet.

Management Comments

Alpha Containment, THE WASTE MATERIAL PARAMETERS HAVE NOT BEEN DEVELOPED FOR THIS WASTE STREAM. THE WASTE STREAM NEEDS TO BE TREATED AND FURTHER CHARACTERIZED BECAUSE IT DOES NOT MEET THE WIPP WAC REQUIREMENTS.

Waste Stream ID: **AW-W019**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	AW-W019	Stream Name	SODIUM POTASSIUM -NaK- TRU			Inventory Date	9/30/2002
Local ID	CH-ANL-182T	Handling	RH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	X7520
						Activity Concentrations as of CY	1996

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Liner / 0.1m3	0.7	0.0	0.7
Liner / 0.3m3	1.2	0.0	1.2
Liner / 0.5m3	2.0	0.0	2.0
As-Generated Total	3.9	0.0	3.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Canister used to overpack 45 gallon drums	4.1	0.0	4.1
Final Form Total	4.1	0.0	4.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.78E+02
Cs-137	2.21E+05
Pu-238	1.19E+03
Pu-239	2.11E+04
Pu-240	3.55E+03
Pu-241	8.80E+04
Sr-90	9.04E+04

Waste Stream Description

Sodium potassium alloy (NaK) is used as a coolant for some components of the EBR-II Reactor. Waste NaK metal is a hazardous constituent of some transuranic wastes stored at the ANL-W Radioactive Scrap and Waste Facility (RSWF). The remote-handled NaK waste at RSWF is contained in stainless steel capsules or tubing and placed inside carbon steel waste cans which then are placed in stainless steel outer cans. The entire package is then stored in RSWF storage liners (carbon steel soil storage vaults). The NaK is generated during maintenance and operational activities. NaK waste is in canisters with TRU waste metal pieces and rods from reactor experiments. This waste will require treatment prior to disposal at WIPP. Final waste form has not been determined yet.

Management Comments

THE WASTE MATERIAL PARAMETERS HAVE NOT BEEN DEVELOPED FOR THIS WASTE STREAM. THE WASTE STREAM NEEDS TO BE TREATED AND FURTHER CHARACTERIZED BECAUSE IT DOES NOT MEET THE WIPP WAC REQUIREMENTS.

Waste Stream ID: **AW-W029**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	RSWF TRANSURANIC WASTE			Inventory Date	9/30/2002
Local ID	CH-ANL-538	Handling	RH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111
						Activity Concentrations as of CY	1996

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Liner / 0.1m3	2.6	0.0	2.6	
Liner / 0.3m3	4.5	0.0	4.5	
Liner / 0.5m3	37.0	0.0	37.0	
As-Generated Total		44.1	0.0	44.1

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
RH Canister used to overpack 45 gallon drums	44.2	0.0	44.2	
Final Form Total		44.2	0.0	44.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	126.90
Aluminum-Base Metal/Alloys	2.40
Other Metal/Alloys	266.50
Other Inorganic Materials	14.60
Cellulosics	8.30
Rubber	0.50
Plastics	5.40
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	526.00
Packaging Material, Plastic	26.00
Packaging Material, Lead	464.70
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.79E+02
Cs-137	8.28E+04
Pu-238	4.46E+02
Pu-239	7.92E+03
Pu-240	1.33E+03
Pu-241	3.30E+04
Sr-90	3.39E+04

Waste Stream Description

Radioactive Scrap and Waste Facility (RSWF) Waste containers storing TRU waste from various facilities. Waste includes analytical samples, EBR-I waste and subassembly hardware.

Management Comments

N/A

Waste Stream ID: **BL-001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Reactor Fuel Test Specimens			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	N/A
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category:

Defense Determination
Pending

 Source:

N/A

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	45.1	0.0	45.1
As-Generated Total	45.1	0.0	45.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	45.1	0.0	45.1
Final Form Total	45.1	0.0	45.1

Waste Stream Description

This waste consists mostly of cellulostics, rubber, and lead-lined gloves.

Management Comments

N/A

Waste Stream ID: **FM-MOX-MT02**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Framatome MOX Fuel Plant D&D Mixed TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations as of CY	1997

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon in overpack	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	305.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	56.00
Rubber	21.00
Plastics	4.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	143.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.43E-06
Pu-238	1.48E-06
Pu-239	7.20E-07
Pu-240	4.30E-07
Pu-241	6.07E-05
Pu-242	1.00E-08

Waste Stream Description

This waste is from the D&D of a Mixed Oxide fuel fabrication plant. Wastes consist of discarded equipment (motors, grinders, scales, etc.) and decontamination wastes (rags, protective clothing, sweeps, etc.) from the D&D of the facility.

Management Comments

Waste will be accepted into the Hanford TRU Program and characterized to meet all certification requirements for shipment to WIPP.

Waste Stream ID: **FM-MOX-T01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Framatome MOX Fuel Plant D&D TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations as of CY	1997

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon in overpack	6.9	0.0	6.9
As-Generated Total	6.9	0.0	6.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	6.9	0.0	6.9
Final Form Total	6.9	0.0	6.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	305.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	56.00
Rubber	21.00
Plastics	4.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	143.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	59.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.43E-06
Pu-238	1.48E-06
Pu-239	7.20E-07
Pu-240	4.30E-07
Pu-241	6.07E-05
Pu-242	1.00E-08

Waste Stream Description

This waste is from the D&D of a Mixed Oxide fuel fabrication plant. Wastes consist of discarded equipment (motors, grinders, scales, etc.) and decontamination wastes (rags, protective clothing, sweeps, etc.) from the D&D of the facility. The 6M container includes 85 mixed oxide pellets.

Management Comments

Waste will be accepted into the Hanford TRU Program and characterized to meet all certification requirements for shipment to WIPP.

Waste Stream ID: VN-CHT001

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	N/A
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Non-defense TRU Waste Source: N/A

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.0	20.2	20.2
As-Generated Total	0.0	20.2	20.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	20.2	20.2
Final Form Total	0.0	20.2	20.2

Waste Stream Description

This waste will be generated from refurbishment of an alpha high-level hot cell.

Management Comments

N/A

Waste Stream ID: VN-RHT001

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	N/A	Waste Matrix Code	N/A
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Non-defense TRU Waste Source: N/A

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	12.5	12.5
As-Generated Total	0.0	12.5	12.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	12.5	12.5
Final Form Total	0.0	12.5	12.5

Waste Stream Description

The waste will be generated from the refurbishment of an alpha high-level hot cell.

Management Comments

N/A

Waste Stream ID: **IN-SBW-01A**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	SBW Treatment Option 1 - Calcine Process - Calcine			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3000
						Activity Concentrations as of CY	2009

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Other	0.0	0.0	0.0
As-Generated Total	0.0	0.0	0.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	1100.0	1100.0
Final Form Total	0.0	1100.0	1100.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	1200.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	499.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.11E-01
Am-243	8.04E-05
Cm-244	1.16E-02
Cs-137	2.00E+02
Np-237	6.28E-03
Pu-238	3.79E+00
Pu-239	4.51E-01
Pu-240	3.73E-02
Pu-241	2.00E+00
Pu-242	5.96E-05
Pu-244	5.10E-13
Sr-90	1.61E+02
Th-230	6.00E-07
U-233	3.62E-07
U-234	3.92E-03
U-235	1.07E-04
U-236	1.73E-04
U-238	1.03E-04

Waste Stream Description

The liquid SBW would be transferred from the storage tanks to the calcine process over a 2.5-year period. The calciner is a fluidized bed reactor that converts the metals dissolved in the nitric acid into a dry granular powder. The fluidized bed operates at temperature between 550 and 600 degrees centigrade. The SBW feed to the calcine process would be mixed with aluminum nitrate and calcium nitrate, to tie up sodium and potassium and fluoride in the fluidized bed. The calcine would be removed pneumatically from the fluidized bed and transferred to the canning facility and placed in to 72-B canisters. The calciner off-gas is scrubbed with nitric acid to cool and remove fine calcine, mercury and chlorides from the off-gas. The off-gas would then pass through HEPA filters. The calcine would be RH-TRU waste, dried to 1% moisture, and would generate approximately 1375 canisters with a surface dose rate <100 Rem/hr.

This treatment option was selected to be input into the 2002 update to the TWBIR, since only one option can be input. This is the bounding case for RH-TRU. Inventory will be adjusted accordingly when final option is determined.

Management Comments

The total inventory figures as to the waste volume and number of containers is based on preliminary process design calculation and could change as the waste is retrieved and treated to a final waste form. Retrieval of the waste from the storage tanks, treatment, and shipping is planned to start in 2009 and be completed in 2012.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

The calcine generated by the SBW Calcine/MACT Treatment Process would generate approximately 1375 72-B canisters with a surface dose rate of 50 Rem/hr. Calcine is a dry granular product.

Waste Stream ID: **IN-SBW-01B**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	SBW Treatment Option 1 - Calcine Process - Grouted Scrub			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3000
						Activity Concentrations as of CY	2009

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Other	0.0	0.0	0.0
As-Generated Total	0.0	0.0	0.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Canister	0.0	30.4	30.4
Final Form Total	0.0	30.4	30.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	1600.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	499.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.22E-02
Am-243	3.15E-06
Cm-244	4.53E-04
Cs-137	7.84E+00
Np-237	2.46E-04
Pu-238	1.49E-01
Pu-239	1.78E-02
Pu-240	1.47E-03
Pu-241	7.86E-02
Pu-242	2.34E-06
Pu-244	2.00E-14
Sr-90	6.30E+00
Th-230	2.35E-08
U-233	1.42E-08
U-234	1.54E-04
U-235	4.19E-06
U-236	6.77E-06
U-238	4.05E-06

Waste Stream Description

The liquid SBW would be transferred from the storage tanks to the calcine process over a 2.5-year period. The calciner is a fluidized bed reactor that converts the metals dissolved in the nitric acid into a dry granular powder. The fluidized bed operates at temperature between 550 and 600 degrees centigrade. The SBW feed to the calcine process would be mixed with aluminum nitrate and calcium nitrate, to tie up sodium and potassium and fluoride in the fluidized bed. The calcine would be removed pneumatically from the fluidized bed and transferred to the canning facility and placed in to 72-B canisters. The calciner off-gas is scrubbed with nitric acid to cool and remove fine calcine, mercury and chlorides from the off-gas. The scrubber blowdown would be grouted with 14 wt % Ca(OH)2, 9 wt % blast furnace slag and 7 wt % Portland cement. The grout would contain 30% moisture and packaged in RH-canister and generate approximately 38 canisters with a surface dose rate <100 Rem/hr.

Management Comments

The total inventory figures as to the waste volume and number of containers is based on preliminary process design calculation and could change as the waste is retrieved and treated to a final waste form. Retrieval of the waste from the storage tanks, treatment, and shipping is planned to start in 2009 and be completed in 2012.

Grouted Scrub waste stream will generate approximately 38 canisters with a surface dose rate <100 Rem/hr.

Waste Stream ID: **IN-TRA-BE-01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	TRA Beryllium Blocks			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5000
						Activity Concentrations as of CY	1995

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Other	4.0	5.0	9.0
As-Generated Total	4.0	5.0	9.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Canister	11.6	12.5	24.0
Final Form Total	11.6	12.5	24.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	337.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	454.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.89E-02
Cs-137	6.11E+00
Pu-238	2.95E-02
Pu-239	5.90E-03
Pu-240	1.54E-02
Pu-241	1.97E+00
Pu-242	3.23E-04
Sr-90	1.80E+00
U-233	2.15E-05
U-234	5.50E-06
U-238	1.88E-06

Waste Stream Description

This waste stream consists of beryllium reflector blocks and outer shim control cylinders (OSCCs) removed from the Advanced Test Reactor (ATR) at INEEL.

Management Comments

This is a new waste stream and was not included in the previous Transuranic Waste Baseline Inventory Report submittal.

Waste Stream ID: **IN-W146.699**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W146	Stream Name	TRU HEAVY METAL SLUDGE			Inventory Date	4/30/1995
Local ID	ID-TRA-291T	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3120
						Activity Concentrations as of CY	1989

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Drum	2.1	0.0	2.1
As-Generated Total	2.1	0.0	2.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	2.3	0.0	2.3
Final Form Total	2.3	0.0	2.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	394.20
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	399.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.24E-01
Cm-244	4.06E-01
Cs-137	3.07E+01
Pu-238	3.70E-01
Pu-239	3.03E-01
Sr-90	4.18E+01

Waste Stream Description

The waste stream was sludge generated from four catch tanks that were removed from service. The sludge was generated from activity in the TRA Hot Cell and the TRA Chemistry Laboratories. This was generated only "one time."

Management Comments

Contact radiation readings range from 800 mR/hr to 5000 mR/hr.

Waste Stream ID: **IN-W159.1072**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W159	Stream Name	EVAPORATOR AND DISSOLVER SLUDGE:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-MDO-811T	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3125
						Activity Concentrations as of CY	1989

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Pollution Control or Waste Treatment Process

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	0.8	0.0	0.8
As-Generated Total			0.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	1.9	0.0	1.9
Final Form Total			1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	211.00
Packaging Material, Plastic	16.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	0.00E+00
Pu-238	7.88E+02
Pu-239	5.85E+00
Pu-240	0.00E+00
Pu-241	0.00E+00
Pu-242	0.00E+00

Waste Stream Description

This waste stream, generated at Mound Laboratory, consists of dry evaporator and dissolver sludge and insoluble residue. The consistency ranges from powder to sand-like particles. Limited amounts of other noncombustible wastes including Content Codes 803, 805, 810, 813, 814, 826, and 832 may be included. A few containers may have limited amounts of beryllium-contaminated wastes including glass, paper, gloves, and sample precipitates.

There is a potential for and lack of information on fines. In addition the drums may contain free liquids. The expected organic content in the drums is less than 14lb/ft3. No explosive, pyrophoric, or corrosive materials should be in the waste.

After removal from the bottom of dissolver pots, the dried sludge is rinsed with nitric acid and dried on a hotplate. Dried sludges are packaged in 1/2-gallon metal cans and sealed in a PE bag, or else packed in 1/2-gallon plastic-coated cardboard cartons and sealed in a PE bag. Each container is assayed and placed in PVC or PE sleeve bags. Sleeve bags can hold up to 5 containers per bag. Up to 8 sleeve bags are placed in each prepared 55-gallon drum. Drums are prepared according to post-1972 procedures, with plywood spacers as needed between on top of the rigid drum liner lid.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W325.1076**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W325	Stream Name	CLASSIFIED PARTS:Cert-repack			Inventory Date	4/30/1995
Local ID	ID-MDO-815T	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S9000
						Activity Concentrations as of CY	1989

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Source Information Not Compiled

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.30
Other Inorganic Materials	11.10
Cellulosics	63.00
Rubber	19.30
Plastics	191.80
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	3.23E+01

Waste Stream Description

There is no content information for this waste stream, which was generated at Mound Laboratory. It is thought that there may be classified parts in this waste. Classified parts will be removed prior to shipment to WIPP and the stream will be declassified in final form.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W325.679**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W325	Stream Name	CLASSIFIED PARTS:Direct Ship			Inventory Date	4/30/1995
Local ID	ID-MDO-815T	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S9000
						Activity Concentrations as of CY	1989

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Source Information Not Compiled

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	0.2	0.0	0.2
As-Generated Total		0.2	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
SWB used to overpack 55 gallon drums	0.6	0.0	0.6
Final Form Total		0.8	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.17
Other Inorganic Materials	6.44
Cellulosics	36.55
Rubber	11.20
Plastics	111.27
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	191.75
Packaging Material, Plastic	22.38
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	3.23E+01

Waste Stream Description

There is no content information for this waste stream, which was generated at Mound Laboratory. It is thought that there may be classified parts in this waste. Classified parts will be removed prior to shipment to WIPP and the stream will be declassified in final form.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Original data shoed 1 SWB. Int. volume and # stored changed to more accurately reflect the waste volume of 0.5 m3 as follows: .5m3/.208 m3/drum = 2.404 drums. Rounded to 3 drums Tb 3/27/03.

Waste Stream ID: **IN-W341.671**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID Stream Name Inventory Date
 Local ID Handling Final Waste Form Waste Matrix Code Activity Concentrations as of CY

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Insert	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-239	9.39E+00
Pu-239	9.39E+00
U-235	1.33E-03
U-235	1.33E-03

Waste Stream Description

This wastestream, which was generated at ANL-W was generated during analytical chemistry and metallography operations. Item Description Code (IDC) 153 was replaced by IDC 160, ANL-W HFEF Analytical Chemistry and Metallographic Combsutibles. The waste package contains lead as shielding.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W341.954**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W341	Stream Name	ANL-W HFEF ANALYTICAL CHEMISTRY AND META:Direct Ship			Inventory Date	N/A
Local ID	ID-ANL-160T	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations as of CY	1989

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Source Information Not Compiled

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Insert	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB used to overpack 55 gallon drums	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	211.00
Packaging Material, Plastic	16.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-239	3.10E+00
Pu-239	3.10E+00
U-235	4.38E-04

Waste Stream Description

This wastestream, which was generated at ANL-W was generated during analytical chemistry and metallography operations. Item Description Code (IDC) 153 was replaced by IDC 160, ANL-W HFEF Analytical Chemistry and Metallographic Combsutibles. The waste package contains lead as shielding.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W350.650**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W350	Stream Name	SPECIAL SOURCE MATERIAL:Direct Ship			Inventory Date	4/30/1995
Local ID	ID-AEO-106T	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S9000
						Activity Concentrations as of CY	1989

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Source Information Not Compiled

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	0.2	0.0	0.2
As-Generated Total			0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
SWB used to overpack 55 gallon drums	0.6	0.0	0.6
Final Form Total			0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	191.75
Packaging Material, Plastic	22.38
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-239	5.74E+01
Pu-240	1.76E+02

Waste Stream Description

There is no descriptive or constituent information available for this waste, which was generated at ANL-E.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Original data showed 1 SWB. Int. volume and # stored changed to more accurately reflect the waste volume of 0.5 m3 as follows:
 .5 m3 / .208 m3 / drum = 2.404 drums, rounded to 3 drums.
 Tb 3/27/03.

Waste Stream ID: **IN-W350.923**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W350	Stream Name	SPECIAL SOURCE MATERIAL: Cert-repack			Inventory Date	4/30/1995
Local ID	ID-AEO-106T	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S9000
						Activity Concentrations as of CY	1989

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Source Information Not Compiled

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-239	5.74E+01
Pu-240	1.76E+02

Waste Stream Description

There is no descriptive or constituent information available for this waste, which was generated at ANL-E.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W353.859**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W353	Stream Name	SOLIDIFIED SOLUTIONS:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-BTO-050TN	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3113
						Activity Concentrations as of CY	1989

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Source Information Not Compiled

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	0.2	0.0	0.2
As-Generated Total		0.2	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	1.9	0.0	1.9
Final Form Total		1.9	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	211.00
Packaging Material, Plastic	16.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Np-237	3.33E-04
Pu-239	1.20E-01

Waste Stream Description

This waste stream is from Bettis Atomic Power Laboratory. It consists of a single drum of TRU. No more information is available, but the waste is thought to be solidified inorganic solutions.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W359.853**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W359	Stream Name	NEUTRON SOURCES			Inventory Date	4/30/1995
Local ID	ID-BTO-015TN	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S9000
						Activity Concentrations as of CY	1989

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Source Information Not Compiled

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	0.6	0.0	0.6
As-Generated Total		0.6	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
Final Form Total		0.8	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	1.41E+02

Waste Stream Description

There is no descriptive or constituent information available for this waste, which was generated at Bettis Atomic Power Laboratory.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W360.852**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W360	Stream Name	MISCELLANEOUS SOURCES:RH Direct Ship			Inventory Date	4/30/1995
Local ID	ID-BTO-012TN	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S9000
						Activity Concentrations as of CY	1989

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Source Information Not Compiled

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	191.75
Packaging Material, Plastic	22.38
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
SWB used to overpack 55 gallon drums	0.6	0.0	0.6
Final Form Total	0.8	0.0	0.8

Waste Stream Description

There is no descriptive or constituent information available for this waste, which was generated at Bettis Atomic Power Laboratory.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Original data showed 1 SWB. Int. volume and # stored changed to more accurately reflect the waste volume of 0.5 m3 as follows:
 .5 m3 / .208 m3 / drum = 2.404 drums, rounded to 3 drums.
 Tb 3/27/03.

Waste Stream ID: **IN-W360.912**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W360	Stream Name	MISCELLANEOUS SOURCES:Cert-repack			Inventory Date	4/30/1995
Local ID	ID-BTO-012TN	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S9000
						Activity Concentrations as of CY	1989

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Source Information Not Compiled

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Stream Description

There is no descriptive or constituent information available for this waste, which was generated at Bettis Atomic Power Laboratory.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-Z001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-Z001	Stream Name	RFP Buried TRU Waste at INEEL (Pre-1970)			Inventory Date	11/5/2004
Local ID	N/A	Handling	U	Final Waste Form	N/A	Waste Matrix Code	U9999
						Activity Concentrations as of CY	1970

Final Waste Form Descriptors

Category: Defense TRU Waste Source: INEEL Pit 1, 2, 4, 5, 6, 9, 10

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Not contained	439.0	0.0	439.0	
As-Generated Total		439.0	0.0	439.0

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
55 Gallon Drum	0.0	645.0	645.0	
Final Form Total		0.0	645.0	645.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	947.70
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.28E+00
Am-243	2.40E-03
Np-237	4.73E-05
Pu-238	3.06E-01
Pu-239	1.16E+00
Pu-240	3.06E-01
Pu-241	
Pu-242	
U-233	2.71E-05
U-234	1.21E-03
U-235	9.93E-05
U-236	5.13E-05
U-238	2.10E-03

Waste Stream Description

This waste stream is the remaining sludge left as undefined sludge from the original IN-Z001 waste stream.

Management Comments

Since this sludge is undefined, its characteristics are unknown and will remain in this waste stream until further information is known about this sludge.

Waste Stream ID: **IN-Z001A**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	INEEL Disposed Irradiated Beryllium Reflector Waste			Inventory Date	9/30/2002
Local ID	New	Handling	RH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5000
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Not contained	2.6	0.0	2.6
As-Generated Total		2.6	0.0
			2.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
	0.0	0.0	0.0
Final Form Total		0.0	0.0
			0.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.38E-01
Am-243	7.63E-02
Cm-244	1.26E+01
Cs-137	2.74E+01
Np-237	4.57E-03
Pu-238	1.49E-01
Pu-239	5.06E-01
Pu-240	2.45E-01
Pu-241	1.09E+01
Pu-242	2.60E-01
Pu-244	3.78E-05
Sr-90	7.55E+00
Th-229	7.60E-07
Th-230	3.68E-07
U-233	8.61E-03
U-234	5.06E-03
U-235	1.50E-03
U-236	1.97E-02
U-238	1.67E+01

Waste Stream Description

The INEEL disposed of 2.562 m3 of highly active irradiated beryllium reflector waste in the Radioactive Waste Management Complex (RWMC) Subsurface Disposal Area (SDA) between 1970 and 1993. It originated from the Advanced Test Reactor, the Engineering Test Reactor, and the Materials Test Reactor at INEEL and was buried in trenches and soil vault rows at the SDA. This TRU waste will be retrieved in accordance with the Settlement Agreement of 1995, the Record of Decision in 1998, and the U.S. District Court ruling of April 1, 2003. The treatment methods, if any, and the final form of the waste are yet to be determined. For planning purposes, it is assumed that the final form of this TRU waste (2.562 m3) will have an activity of at least 100 nCi/g and will, therefore, be eligible for disposal/storage at WIPP, from a minimum concentration requirement. (In fact, the activity is high enough that it is expected to require remote handling.) The volume of material shown in this profile represents only the waste. It does not include any contaminated soil that may meet the 100 nCi/g criterion, making it eligible for disposal/storage at WIPP also. Since no soil is included in the volume, there is also no dilution of high activity concentrations. For performance assessment purposes, it is suggested that decay be initiated on January 1, 1994.

Source for Profile Data:

Mullen, Carlan K. et al, 2003, Beryllium Waste Transuranic Inventory in the Subsurface Disposal Area, Operable Unit 7-13/14, INEEL/EXT-01-01678, Rev 2, Idaho National Engineering and Environmental Laboratory (INEEL), Idaho. (Tables 1-1, 7-15, 7-23, and 7-24.)

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Management Comments

N/A

Waste Stream ID: **KN-B234PCBTRU**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Building 234 PCB TRU Waste			Inventory Date	9/30/2002
Local ID	B234PCBTRU	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations as of CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.4	0.2	0.6
As-Generated Total	0.4	0.2	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.2	0.6
Final Form Total	0.4	0.2	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	10.70
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	2.10
Rubber	21.50
Plastics	2.20
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.58E-02
Pu-238	2.68E-03
Pu-239	3.18E-02
Pu-240	1.07E-02
Pu-241	5.63E-02
Pu-242	1.15E-06
Th-232	8.29E-08
U-233	4.55E-05
U-234	3.04E-06
U-235	1.45E-07
U-238	1.66E-06

Waste Stream Description

This waste is non-hazardous debris and soil from Building 234. The debris consists of metal chips/shavings, dust, cheesecloth, gloves, and plastic bottles from the cleanout of the shear baler used to decommission process equipment and glove boxes. It also includes rubber gasket material used to install glove boxes.

Management Comments

N/A

Waste Stream ID: **LA-OS-00-02**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Isotopic sources waiting determination of eligibility for WIPP disposal.				Inventory Date	9/30/2002	
Local ID	OS-00-02	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5100	Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Non-defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC	0.0	157.2	157.2
As-Generated Total	0.0	157.2	157.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
POC	0.0	157.2	157.2
Final Form Total	0.0	157.2	157.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	2.97E+00

Waste Stream Description

Not provided

Management Comments

Former WS IDs: LAT009, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-00-01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Containers waiting assignment to waste streams			Inventory Date	9/30/2002
Local ID	TA-00-01	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	1975

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	8.9	0.0	8.9
85 gal	1.0	0.0	1.0
Other (large)	63.0	0.0	63.0
Other (medium)	4.0	0.0	4.0
Other (small)	0.0	0.0	0.0
As-Generated Total	76.9	0.0	76.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	8.9	0.0	8.9
85 gal	1.0	0.0	1.0
Other (large)	63.0	0.0	63.0
Other (medium)	4.0	0.0	4.0
Other (small)	0.0	0.0	0.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	20.51
Aluminum-Base Metal/Alloys	2.80
Other Metal/Alloys	2.28
Other Inorganic Materials	102.54
Cellulosics	2.22
Rubber	1.16
Plastics	4.59
Solidified, Inorganic Matrix	0.18
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	1.09
Soils	0.18
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.88E-04
Cm-244	2.88E-02
Pu-238	3.38E-02
Pu-239	3.98E-03
Pu-240	1.20E-04
Pu-241	2.44E-03
Pu-242	1.46E-08
U-235	2.12E-10

Waste Stream Description	Final Form Total	76.9	0.0	76.9
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Containers waiting assignment to waste streams

Management Comments

Former WS IDs: LAM003, LAM009, LAMR01, LAT001, LAT005, LAT008, and LAT009

Waste Stream ID: **LA-TA-00-02**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Containers waiting assignment to waste streams			Inventory Date	9/30/2002
Local ID	TA-00-02	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	1973

Final Waste Form Descriptors

Category: Source:

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.16E-04
Am-243	8.40E-09
Cs-137	1.45E-09
Np-237	2.39E-08
Pu-238	1.89E-02
Pu-239	3.05E-03
Pu-240	5.09E-04
Pu-241	8.15E-03
Pu-242	3.87E-08
Pu-244	1.51E-08
U-233	4.52E-10
U-234	1.17E-08
U-235	1.07E-08
U-236	4.60E-11
U-238	3.86E-08

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
30 gal	0.1	0.0	0.1
55 Gallon Drum	8.1	0.0	8.1
FRP Box	65.2	0.0	65.2
Other (large)	26.0	0.0	26.0
Other (small)	0.1	0.0	0.1
RH Can (2 gal)	0.0	0.0	0.0
Standard Waste Box	5.7	0.0	5.7
As-Generated Total	105.2	0.0	105.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
30 gal	0.1	0.0	0.1
55 Gallon Drum	8.1	0.0	8.1
FRP Box	65.2	0.0	65.2
Other (large)	26.0	0.0	26.0
Other (small)	0.1	0.0	0.1
RH Can (2 gal)	0.0	0.0	0.0
Standard Waste Box	5.7	0.0	5.7

Waste Stream Description

Containers waiting assignment to waste streams			
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Management Comments

Former WS IDs: LAM001, LAM005, LAM009, LAT004, LAT005, LAT006, LAT009, and LATR07; also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-00-03**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Containers waiting assignment to waste streams			Inventory Date	9/30/2002
Local ID	TA-00-03	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	1979

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	7.1	0.0	7.1
85 Gal	0.6	0.0	0.6
As-Generated Total	7.7	0.0	7.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	7.1	0.0	7.1
85 Gal	0.6	0.0	0.6
Final Form Total	7.7	0.0	7.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.66E-03
Cm-244	2.75E-01
Pu-238	2.55E-01
Pu-239	5.61E-02
Pu-240	1.21E-02
Pu-241	3.17E-01
Pu-242	2.78E-06

Waste Stream Description

Containers waiting assignment to waste streams

Management Comments

Former WS ID: LAM009

Waste Stream ID: **LA-TA-00-04**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Containers waiting assignment to waste streams			Inventory Date	9/30/2002
Local ID	TA-00-04	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	1974

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Crate	36.1	0.0	36.1
FRP Box	154.0	0.0	154.0
Other (large)	22.9	0.0	22.9
As-Generated Total	213.0	0.0	213.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Crate	36.1	0.0	36.1
FRP Box	154.0	0.0	154.0
Other (large)	22.9	0.0	22.9
Final Form Total	213.0	0.0	213.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.48E-06
Pu-238	1.01E-02
Pu-239	1.88E-03
Pu-240	4.12E-04
Pu-241	8.64E-03
Pu-242	6.31E-08
U-235	5.79E-11

Waste Stream Description

Containers waiting assignment to waste streams

Management Comments

Former WS IDs: LAM001, LAM005, LAM009, LAT005, and LAT009.

Waste Stream ID: **LA-TA-00-05**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Containers waiting assignment to waste streams			Inventory Date	9/30/2002
Local ID	TA-00-05	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	1974

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
30 gal drum	5.5	0.0	5.5
55 Gallon Drum	21.6	0.0	21.6
Other (large)	390.6	0.0	390.6
As-Generated Total	417.8	0.0	417.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
30 gal drum	5.5	0.0	5.5
55 Gallon Drum	21.6	0.0	21.6
Other (large)	390.6	0.0	390.6
Final Form Total	417.8	0.0	417.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.18E-03
Pu-238	2.72E-03
Pu-239	7.35E-04
Pu-240	1.57E-04
Pu-241	2.41E-03
Pu-242	9.87E-09
U-234	1.85E-08
U-235	9.11E-10
U-238	1.73E-08

Waste Stream Description

Containers waiting assignment to waste streams

Management Comments

Former WS IDs: LAM001, LAM002, LAM003, LAM004, LAM006, LAT004, LAT005, and LAT006.

Waste Stream ID: **LA-TA-00-06**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Containers waiting assignment to waste streams			Inventory Date	9/30/2002
Local ID	TA-00-06	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	1998

Final Waste Form Descriptors

Category: Non-defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	33.3	0.0	33.3
Standard Waste Box	11.4	0.0	11.4
As-Generated Total	44.7	0.0	44.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	33.3	0.0	33.3
Standard Waste Box	11.4	0.0	11.4
Final Form Total	44.7	0.0	44.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.61E-03
Pu-238	2.40E+00
Pu-239	3.28E-03
Pu-240	1.52E-03
Pu-241	7.86E-02
Pu-242	8.08E-07
U-235	2.84E-07
U-238	1.10E-08

Waste Stream Description

Containers waiting assignment to waste streams

Management Comments

Former WS IDs: LAM004, LAM005, LAT004, LAT005, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-00-07**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Containers waiting assignment to waste streams			Inventory Date	9/30/2002
Local ID	TA-00-07	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	1998

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	14.1	0.0	14.1
Other (large)	3.7	0.0	3.7
As-Generated Total	17.8	0.0	17.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	14.1	0.0	14.1
Other (large)	3.7	0.0	3.7
Final Form Total	17.8	0.0	17.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.18E-02
Cs-137	6.78E-05
Pu-238	2.88E-01
Pu-239	3.57E-02
Pu-240	4.69E-03
Pu-241	8.45E-02
Pu-242	4.62E-07
U-234	6.58E-05
U-235	1.63E-06
U-238	6.94E-08

Waste Stream Description

Containers waiting assignment to waste streams

Management Comments

Former WS IDs: LAM004, LAM005, LAT004, LAT005, LAT009, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-03-29**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Plutonium contaminated soil (non-mixed)			Inventory Date	9/30/2002
Local ID	TA-03-29	Handling	CH	Final Waste Form	Soils	Waste Matrix Code	S4100
						Activity Concentrations as of CY	1981

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1.15
Aluminum-Base Metal/Alloys	0.45
Other Metal/Alloys	0.50
Other Inorganic Materials	0.18
Cellulosics	2.43
Rubber	1.27
Plastics	3.56
Solidified, Inorganic Matrix	14.47
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	76.26
Soils	10.55
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.87E-01
Pu-238	2.73E+04
Pu-239	1.12E+01
Pu-240	2.57E+00
Pu-241	3.86E+01
Pu-242	1.05E-03

Waste Stream Description

Soils contaminated with transuranic material.

Management Comments

Former WS IDs: LAT008

Waste Stream ID: **LA-TA-55-52**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Oil on vermiculite, corrosive waste not for disposal at WIPP (mixed).			Inventory Date	9/30/2002
Local ID	TA-55-52	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3200
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Source:

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.18
Aluminum-Base Metal/Alloys	0.18
Other Metal/Alloys	0.18
Other Inorganic Materials	0.18
Cellulosics	0.18
Rubber	0.18
Plastics	0.18
Solidified, Inorganic Matrix	165.82
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	828.39
Soils	110.61
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6

As-Generated Total 0.6 0.0 0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6

Final Form Total 0.6 0.0 0.6

Waste Stream Description

Oil on vermiculite, corrosive waste not for disposal at WIPP (mixed).

Management Comments

Contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LB-T001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	LB-T001	Stream Name	LBL - Waste			Inventory Date	5/31/1995
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	N/A
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Non-Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55-gallon	0.6	1.0	1.7

As-Generated Total 0.6 1.0 1.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	1.0	1.7

Final Form Total 0.6 1.0 1.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	390.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	425.00
Other Inorganic Materials	0.00
Cellulosics	150.00
Rubber	0.00
Plastics	450.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	150.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.32E-02
Am-243	3.85E-02
Cm-244	1.19E-01
Pu-238	2.54E-04
Pu-240	5.05E-03
Pu-242	1.01E-02
U-233	4.81E-03

Waste Stream Description

Transuranic wastes with isotopes only

Management Comments

N/A

Waste Stream ID: **PA-B015**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	PA-B015	Stream Name	Transuranic and Technetium Wastes - Liquid			Inventory Date	9/30/2002
Local ID	PA-B015	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	L1190
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum/55-gallon in overpack	2.4	0.0	2.4
As-Generated Total	2.4	0.0	2.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB used to overpack 55 gallon drums	2.5	0.0	2.5
Final Form Total	2.5	0.0	2.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	59.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	212.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Np-237	4.56E-02
Pu-239	1.66E-01

Waste Stream Description

Transuranic and Technetium waste class C Liquid

Management Comments

Original data showed 3 SWBs. Int. volume and # stored changed to more accurately reflect the waste volume of 2.4 m3 as follows:
 2.4 m3 / .208 m3 / drum = 11.538 drums, rounded to 12 drums.
 Tb 3/29/03.

Waste Stream ID: **PA-W014**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	PA-W014	Stream Name	Transuranic Waste Liquid			Inventory Date	9/30/2002
Local ID	PA-W014	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	L1220
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Source:

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum/55-gallon in overpack	0.3	0.0	0.3
As-Generated Total	0.3	0.0	0.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB used to overpack 55 gallon drums	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Stream Description

Transuranic Waste Basic class C Green Sludge

Management Comments

Original data showed 1 SWB. Int. volume and # stored changed to more accurately reflect the waste volume of .3 m3 as follows:
 .3 m3 / .208 m3 / drum = 1.442 drums, rounded to 2 drums.
 Tb 3/29/03.

Waste Stream ID: **RF-MT0375A**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W026	Stream Name	Used Absorbents/TRM			Inventory Date	9/30/2002
Local ID	IDC 375	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3113
						Activity Concentrations as of CY	1990

Final Waste Form Descriptors

Category: Source:

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
TBD	0.0	0.0	0.0
As-Generated Total	0.0	0.0	0.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
TBD	0.0	0.0	0.0
Final Form Total	0.0	0.0	0.0

Waste Stream Description

This waste form is vermiculite with absorbed organic liquid.

Management Comments

New Waste Stream being added to TWBIR. This waste is packaged in a 55 gallon carbon steel drum.

Waste Stream ID: **RF-MT0375B**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W026	Stream Name	Used Absorbents/TRM			Inventory Date	9/30/2002
Local ID	IDC 375	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3114
						Activity Concentrations as of CY	1990

Final Waste Form Descriptors

Category: Source:

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
TBD	0.0	0.0	0.0
As-Generated Total	0.0	0.0	0.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
TBD	0.0	0.0	0.0
Final Form Total	0.0	0.0	0.0

Waste Stream Description

This waste form is vermiculite with absorbed organic liquid.

Management Comments

New Waste Stream being added to TWBIR. This waste is packaged in a 55 gallon carbon steel drum.

Waste Stream ID: **RF-MT0503**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0503	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	TBD
						Activity Concentrations as of CY	1990

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Material Parameters

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Bottle / 2-Liter	0.0	0.0	0.0
Drum / 55 gallon	1.5	0.0	1.5
As-Generated Total	1.5	0.0	1.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.7	0.0	1.7
Final Form Total	1.7	0.0	1.7

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Waste Stream Description

N/A

Management Comments

Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.

Waste Stream ID: **RF-MT0505**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0505	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	TBD
						Activity Concentrations as of CY	1990

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Material Parameters

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Waste Stream Description

N/A

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT0529**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0529	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	TBD
						Activity Concentrations as of CY	1990

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Stream Description

N/A

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT0533**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0533	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	TBD
						Activity Concentrations as of CY	1990

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Material Parameters

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8804 Can	0.1	0.0	0.1
As-Generated Total	0.1	0.0	0.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	3.1	0.0	3.1
Final Form Total	3.1	0.0	3.1

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Waste Stream Description

N/A

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT0535**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0535	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	TBD
						Activity Concentrations as of CY	1990

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Material Parameters

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8804 Can	0.0	0.0	0.0
As-Generated Total	0.0	0.0	0.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Waste Stream Description

N/A

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT0828**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W013	Stream Name	Solidified Organics/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190
						Activity Concentrations as of CY	1990

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Decontamination and Decommissioning

Waste Material Parameters

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
TBD	0.0	0.0	0.0
As-Generated Total	0.0	0.0	0.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
TBD	0.0	0.0	0.0
Final Form Total	0.0	0.0	0.0

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Waste Stream Description

Polymerized aqueous - drum consists of 55-gallon drum quantities of aqueous liquids solidified with polymer such as Nochar A-660.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT0829**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W013	Stream Name	Solidified Organics/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190
						Activity Concentrations as of CY	1990

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Decontamination and Decommissioning

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
TBD	0.0	0.0	0.0
As-Generated Total	0.0	0.0	0.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
TBD	0.0	0.0	0.0
Final Form Total	0.0	0.0	0.0

Waste Stream Description

Polymerized aqueous - small cans consists of small quantities of aqueous liquids solidified with polymer such as Nochar A-660.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0394**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W116	Stream Name	"Sand, Slag, and Crucible/TRU"			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129
						Activity Concentrations as of CY	1990

Final Waste Form Descriptors

Category: Source:

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	26.82
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	25.48
Cellulosics	167.07
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
TBD	0.0	0.0	0.0
As-Generated Total	0.0	0.0	0.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
TBD	0.0	0.0	0.0
Final Form Total	0.0	0.0	0.0

Waste Stream Description

"Magnesium oxide sand used as an insulating material in the annulus between the magnesium oxide crucible and the reaction vessel wall. Following the reduction of plutonium tetrafluoride to plutonium metal, the sand was screened from the slag and crucible material."

Management Comments

Waste Stream currently exists in the TWBIR as a residue, (i.e., RF-TRXXXX), but is being revised to transuranic, (i.e., RF-TTXXXX).

Waste Stream ID: **RF-TT0533**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-TT0533	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	TBD
						Activity Concentrations as of CY	1990

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Material Parameters

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8804 Can	0.0	0.0	0.0
As-Generated Total	0.0	0.0	0.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
Final Form Total	0.8	0.0	0.8

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Waste Stream Description

N/A

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0655**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W114	Stream Name	Mg Oxide Crucibles/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123
						Activity Concentrations as of CY	1990

Final Waste Form Descriptors

Category: Source:

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	6.70
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	90.70
Other Inorganic Materials	113.57
Cellulosics	102.83
Rubber	0.00
Plastics	36.16
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
TBD	0.0	0.0	0.0
As-Generated Total	0.0	0.0	0.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
TBD	0.0	0.0	0.0
Final Form Total	0.0	0.0	0.0

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **RF-TT0971**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W109	Stream Name	Metal/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5110
						Activity Concentrations as of CY	1990

Final Waste Form Descriptors

Category: Source:

Waste Material Parameters

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
TBD	0.0	0.0	0.0
As-Generated Total	0.0	0.0	0.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
TBD	0.0	0.0	0.0
Final Form Total	0.0	0.0	0.0

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Waste Stream Description

Non-PCB ballasts and capacitors.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0972**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W107	Stream Name	Soil and Cleanup Debris/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations as of CY	1990

Final Waste Form Descriptors

Category: Source:

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
TBD	0.0	0.0	0.0
As-Generated Total	0.0	0.0	0.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
TBD	0.0	0.0	0.0
Final Form Total	0.0	0.0	0.0

Waste Stream Description

"Miscellaneous PCB debris consists of such materials as wood, Kimwipes, plastic, PPE, glass bottles, and solidified liquid."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0973**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W109	Stream Name	Metal/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5110
						Activity Concentrations as of CY	1990

Final Waste Form Descriptors

Category: Source:

Waste Material Parameters

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
TBD	0.0	0.0	0.0
As-Generated Total	0.0	0.0	0.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
TBD	0.0	0.0	0.0
Final Form Total	0.0	0.0	0.0

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Waste Stream Description

"This waste stream consists of PCB ballasts and capacitors, leaking and non-leaking."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RL-W284**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W284	Stream Name	201C Unk form CH RCRA MTRU w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	U9999
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	41.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	3.10
Other Inorganic Materials	0.00
Cellulosics	17.20
Rubber	4.50
Plastics	30.20
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.47E+00
Pu-239	1.00E-02
Pu-240	0.00E+00
Pu-241	8.00E-02

Waste Stream Description

THE STREAM CONTAINS PLASTIC/POLYURETHANE, STAINLESS STEEL, PAPER/CARDBOARD, RUBBER, LEAD, CLOTH/RAGS/NYLON.

Management Comments

The assumption is that the WIPP No Migration Petition will be approved by EPA and the State of New Mexico. Under the assumption, treatment of the waste stream to meet LDR is not required nor planned.

Waste Stream ID: **RL-W327**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W327	Stream Name	2345Z Uncat met debris CH RC/TS MTRU w/ met(Hg)			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5400
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box	66.6	386.3	452.9
As-Generated Total	66.6	386.3	452.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	66.2	109.6	175.8
Final Form Total	66.2	109.6	175.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	198.10
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	21.70
Other Inorganic Materials	16.70
Cellulosics	3.30
Rubber	0.00
Plastics	15.90
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.00E-02
Pu-239	1.86E+00
Pu-240	4.20E-01
Pu-241	1.25E+01

Waste Stream Description

THE STREAM CONTAINS METAL/IRON/GALVANIZED/SHEET, PLASTIC/POLYURETHANE, WOOD/LUMBER/PLYWOOD, LEAD, CONCRETE, GLASS, CLOTH/RAGS/NYLON, OILS, PAPER/CARDBOARD.

Management Comments

The assumption is that the WIPP No Migration Petition will be approved by EPA and the State of New Mexico. Under the assumption, treatment of the waste stream to meet LDR is not required nor planned.

Waste Stream ID: **RL-W328**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W328	Stream Name	2345Z Pb/Cd debris CH RC/TS MTRU w/ met(Hg)			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Lead/Cadmium Metal	Waste Matrix Code	S5300
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box	3.2	0.0	3.2
As-Generated Total	3.2	0.0	3.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	3.8	0.0	3.8
Final Form Total	3.8	0.0	3.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	58.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	228.20
Other Inorganic Materials	2.80
Cellulosics	0.00
Rubber	0.00
Plastics	38.90
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.00E-02
Pu-239	1.86E+00
Pu-240	4.20E-01
Pu-241	1.25E+01

Waste Stream Description

THE STREAM CONTAINS PLASTIC/POLYURETHANE, LEAD, METAL/IRON/GALVANIZED/SHEET, GLASS.

Management Comments

The assumption is that the WIPP No Migration Petition will be approved by EPA and the State of New Mexico. Under the assumption, treatment of the waste stream to meet LDR is not required nor planned.

Waste Stream ID: **RL-W329**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W329	Stream Name	2345Z Solidif org CH RC/TS MTRU w/ ign			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	U9999
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.1	8.4	10.5
As-Generated Total	2.1	8.4	10.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.1	8.3	10.4
Final Form Total	2.1	8.3	10.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.20
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	84.20
Rubber	4.70
Plastics	71.30
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.00E-02
Pu-239	1.86E+00
Pu-240	4.20E-01
Pu-241	1.25E+01

Waste Stream Description

THE STREAM CONTAINS PLASTIC/POLYURETHANE, ORGANICS, CLOTH/RAGS/NYLON, RUBBER, METAL/IRON/GALVANIZED/SHEET.

Management Comments

The assumption is that the WIPP No Migration Petition will be approved by EPA and the State of New Mexico. Under the assumption, treatment of the waste stream to meet LDR is not required nor planned.

Waste Stream ID: **RL-W332**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W332	Stream Name	2345Z Unk form CH St MTRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	U9999
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Box	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.00E-02
Pu-239	1.86E+00
Pu-240	4.20E-01
Pu-241	1.25E+01

Waste Stream Description

Typically, 70 to 80% of the waste in the drums is combustible items such as wood, plastics, paper, absorbents, rubber and rags. Approximately 20 to 30% of the waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing fixtures and soil. Boxes typically contain whole and sectioned glove boxes, hoods, conduit, lathes, pumps, fans, light fixtures, tools conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oil have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

The assumption is that the WIPP No Migration Petition will be approved by EPA and the State of New Mexico. Under the assumption, treatment of the waste stream to meet LDR is not required nor planned.

Waste Stream ID: **RL-W333**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W333	Stream Name	2345Z Solidif org debris CH TSCA MTRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S5400
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.3	2.5	3.8
As-Generated Total	1.3	2.5	3.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.2	2.5	3.7
Final Form Total	1.2	2.5	3.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	56.30
Cellulosics	4.80
Rubber	1.30
Plastics	61.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	29.80
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.00E-02
Pu-239	1.86E+00
Pu-240	4.20E-01
Pu-241	1.25E+01

Waste Stream Description

THE STREAM CONTAINS ABSORBENT/KITY LTR/VERMICULITE, PLASTIC/POLYURETHANE, CONWEB PADS, OILS, CLOTH/RAGS/NYLON, DIRT/SOIL/DIATOMACEOUS EARTH, RUBBER, PCB.

Management Comments

The assumption is that the WIPP No Migration Petition will be approved by EPA and the State of New Mexico. Under the assumption, treatment of the waste stream to meet LDR is not required nor planned.

Waste Stream ID: **RL-W334**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W334	Stream Name	2345Z Uncat mt debris CH TSCA MTRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5400
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	261.90
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	76.20
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.00E-02
Pu-239	1.86E+00
Pu-240	4.20E-01
Pu-241	1.25E+01

Waste Stream Description

THE STREAM CONTAINS METAL/IRON/GALVANIZED/SHEET, PLASTIC/POLYURETHANE, CONWEB PADS, DIRT/SOIL/DIATOMACEOUS EARTH.

Management Comments

The assumption is that the WIPP No Migration Petition will be approved by EPA and the State of New Mexico. Under the assumption, treatment of the waste stream to meet LDR is not required nor planned.

Waste Stream ID: **RL-W357**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W357	Stream Name	KAPL Unk form CH/r TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	U9999
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	0.00E+00
Pu-239	0.00E+00
Pu-240	0.00E+00
Pu-241	0.00E+00

Waste Stream Description

THIS STREAM CONTAINS CHEMICALS.

Management Comments

N/A

Waste Stream ID: **RL-W366**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W366	Stream Name	202A Unk form CH TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	U9999
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.5	0.8	2.3
As-Generated Total	1.5	0.8	2.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.5	0.8	2.3
Final Form Total	1.5	0.8	2.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.00E-02
Pu-239	5.70E+00
Pu-240	1.32E+00
Pu-241	4.05E+01

Waste Stream Description

THIS STREAM CONTAINS MISCELLANEOUS/UNKNOWN/OTHER.

Management Comments

N/A

Waste Stream ID: **RL-W382**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W382	Stream Name	2345Z Unk form CH TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	U9999
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	18.7	61.4	80.2
As-Generated Total	18.7	61.4	80.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	18.7	61.4	80.1
Final Form Total	18.7	61.4	80.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.00E-02
Pu-239	3.37E+00
Pu-240	7.60E-01
Pu-241	2.11E+01

Waste Stream Description

THIS STREAM CONTAINS MISCELLANEOUS/UNKNOWN/OTHER.

Management Comments

N/A

Waste Stream ID: **RL-W391**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W391	Stream Name	308 Comb unk form CH TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	U9999
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	76.40
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	120.10
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.50E-01
Pu-239	3.56E+00
Pu-240	9.00E-01
Pu-241	2.20E+01

Waste Stream Description

THIS STREAM CONTAINS ORGANICS, METAL/IRON/GALVANIZED/SHEET.

Management Comments

N/A

Waste Stream ID: **RL-W471**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W471	Stream Name	202A MTRU CH unknown forms S9000 Mixed RCRA w/ org.met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.9	0.0	1.9
As-Generated Total	1.9	0.0	1.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.03
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	167.21
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.44
Solidified, Inorganic Matrix	72.05
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.01
Soils	255.76
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.02E+00
Pu-238	3.00E-03
Pu-239	3.60E-02
Pu-240	8.23E-03
Pu-241	1.04E-01
Pu-242	5.04E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W472**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W472	Stream Name	202A MTRU CH unknown forms S9000 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	192.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.23E-01
Pu-238	3.72E-02
Pu-239	1.41E+00
Pu-240	3.15E-01
Pu-241	4.44E+00
Pu-242	1.90E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W473**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W473	Stream Name	202A TRU RH solidified inorganic S3119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
As-Generated Total	0.9	0.0	0.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.01
Cellulosics	1.25
Rubber	0.00
Plastics	2.93
Solidified, Inorganic Matrix	9.29
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.65E+02
Pu-238	8.43E+01
Pu-239	9.13E-01
Pu-240	1.74E+00
Pu-241	5.32E+04
Pu-242	1.30E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W475**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W475	Stream Name	202A TRU CH combustible S5319 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	6.2	0.0	6.2
As-Generated Total	6.2	0.0	6.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	6.2	0.0	6.2
Final Form Total	6.2	0.0	6.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	2.92
Other Inorganic Materials	0.34
Cellulosics	4.41
Rubber	28.46
Plastics	27.65
Solidified, Inorganic Matrix	13.85
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.98E+02
Pu-238	1.29E+02
Pu-239	1.23E+00
Pu-240	2.12E+00
Pu-241	5.99E+04
Pu-242	1.48E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W477**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W477	Stream Name	202A TRU RH heterogeneous S5420 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	1.8	0.0	1.8
As-Generated Total	1.8	0.0	1.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	1.8	0.0	1.8
Final Form Total	1.8	0.0	1.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	102.17
Other Inorganic Materials	2.81
Cellulosics	5.21
Rubber	4.92
Plastics	28.17
Solidified, Inorganic Matrix	26.66
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.65E+02
Pu-238	1.12E+02
Pu-239	1.33E+00
Pu-240	2.35E+00
Pu-241	6.78E+04
Pu-242	1.70E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W478**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W478	Stream Name	202A TRU RH heterogeneous S5440 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	23.1	0.0	23.1
As-Generated Total	23.1	0.0	23.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	23.1	0.0	23.1
Final Form Total	23.1	0.0	23.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1.39
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	84.33
Other Inorganic Materials	8.26
Cellulosics	16.20
Rubber	12.36
Plastics	44.62
Solidified, Inorganic Matrix	22.11
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.40E+02
Pu-238	4.84E+01
Pu-239	5.94E-01
Pu-240	8.93E-01
Pu-241	2.29E+04
Pu-242	5.61E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W479**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W479	Stream Name	202A TRU RH heterogeneous S5900 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
As-Generated Total	0.9	0.0	0.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	35.35
Other Inorganic Materials	7.73
Cellulosics	3.63
Rubber	3.08
Plastics	17.10
Solidified, Inorganic Matrix	26.37
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.53E+02
Pu-238	5.97E+01
Pu-239	9.19E-01
Pu-240	1.36E+00
Pu-241	3.69E+04
Pu-242	8.43E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W556**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W556	Stream Name	2345Z MTRU CH unknown forms S9000 Mixed RCRA w/ org,met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	2.90
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1.10
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	5.43
Solidified, Inorganic Matrix	10.37
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.36E+00
Pu-238	1.22E+00
Pu-239	3.82E+01
Pu-240	8.47E+00
Pu-241	8.93E+01
Pu-242	6.49E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W557**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W557	Stream Name	2345Z MTRU CH unknown forms S9000 Mixed RCRA w/ org.ign			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	9.52
Rubber	0.00
Plastics	61.90
Solidified, Inorganic Matrix	47.62
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	36.67
Soils	110.95
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.18E-04
Pu-238	1.35E-04
Pu-239	5.07E-03
Pu-240	1.14E-03
Pu-241	1.68E-02
Pu-242	6.84E-08

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W558**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W558	Stream Name	2345Z MTRU CH unknown forms S9000 Mixed RCRA w/ org			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	6.00
Other Inorganic Materials	2.52
Cellulosics	0.00
Rubber	11.10
Plastics	51.71
Solidified, Inorganic Matrix	92.62
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	16.05
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.86E-01
Cs-137	5.11E-03
Pu-238	1.55E-01
Pu-239	1.94E+00
Pu-240	4.32E-01
Pu-241	1.05E+01
Pu-242	2.62E-05
Sr-90	4.68E-03

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W559**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W559	Stream Name	2345Z MTRU CH unknown forms S9000 Mixed RCRA w/ met,ign			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	3.86
Rubber	0.00
Plastics	153.57
Solidified, Inorganic Matrix	114.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	100.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.89E-03
Pu-238	1.60E-03
Pu-239	5.85E-02
Pu-240	1.31E-02
Pu-241	2.23E-01
Pu-242	7.89E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W560**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W560	Stream Name	2345Z MTRU CH unknown forms S9000 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	4.0	0.0	4.0
As-Generated Total	4.0	0.0	4.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	4.0	0.0	4.0
Final Form Total	4.0	0.0	4.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	78.52
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	2.72
Other Inorganic Materials	26.66
Cellulosics	1.37
Rubber	23.46
Plastics	15.99
Solidified, Inorganic Matrix	16.37
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	15.86
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.35E+00
Pu-238	8.30E-01
Pu-239	2.17E+01
Pu-240	5.69E+00
Pu-241	4.89E+01
Pu-242	5.06E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W561**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W561	Stream Name	2345Z MTRU CH unknown forms S9000 Mixed RCRA w/ met,Hg,cor			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.33
Other Inorganic Materials	0.38
Cellulosics	14.71
Rubber	33.52
Plastics	25.14
Solidified, Inorganic Matrix	166.95
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	44.67
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.16E-03
Pu-238	4.37E-04
Pu-239	1.61E-02
Pu-240	3.61E-03
Pu-241	5.87E-02
Pu-242	2.18E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W562**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W562	Stream Name	2345Z MTRU CH unknown forms S9000 Mixed RCRA w/ met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.0	0.0	1.0
As-Generated Total	1.0	0.0	1.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.0	0.0	1.0
Final Form Total	1.0	0.0	1.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	102.63
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	4.99
Other Inorganic Materials	3.24
Cellulosics	19.89
Rubber	100.57
Plastics	30.37
Solidified, Inorganic Matrix	53.51
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	51.86
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.68E-02
Pu-238	1.38E-02
Pu-239	5.09E-01
Pu-240	1.14E-01
Pu-241	1.85E+00
Pu-242	6.86E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W577**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W577	Stream Name	2345Z TRU RH unknown forms S9000 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	2.7	0.0	2.7
As-Generated Total	2.7	0.0	2.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	2.7	0.0	2.7
Final Form Total	2.7	0.0	2.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	10.11
Other Inorganic Materials	24.84
Cellulosics	0.00
Rubber	0.00
Plastics	24.72
Solidified, Inorganic Matrix	20.22
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	77.15
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.01E+02
Pu-238	4.70E+01
Pu-239	9.47E-01
Pu-240	3.88E+00
Pu-241	2.77E+04
Pu-242	3.65E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W578**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W578	Stream Name	2345Z TRU RH unknown forms U9999 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	N/A	Waste Matrix Code	U9999
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
RH Canister	5.3	0.0	5.3
As-Generated Total	5.3	0.0	5.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Canister	5.3	0.0	5.3
Final Form Total	5.3	0.0	5.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.10E+01
Pu-238	2.67E+00
Pu-239	1.28E-01
Pu-240	1.04E-01
Pu-241	7.26E+02
Pu-242	1.07E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W609**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W609	Stream Name	324 MTRU CH unknown forms S9000 Mixed RCRA w/ org,met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	985.71
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	480.95
Other Inorganic Materials	110.62
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	9.29
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.05E-04
Cs-137	2.94E-02
Pu-239	5.78E-04
Sr-90	2.90E-01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W650**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W650	Stream Name	325 TRU CH unknown forms S9000 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.63
Other Inorganic Materials	208.44
Cellulosics	3.35
Rubber	11.10
Plastics	76.48
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.92E-02
Cs-137	1.14E-01
Pu-238	7.98E-03
Pu-239	7.47E-03
Pu-240	6.62E-03
Pu-241	7.35E-01
Sr-90	4.89E-01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W651**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W651	Stream Name	325 MTRU CH unknown forms S9000 Mixed RCRA w/ org,met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.0	0.0	1.0
As-Generated Total	1.0	0.0	1.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.0	0.0	1.0
Final Form Total	1.0	0.0	1.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.02
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	42.86
Other Inorganic Materials	47.62
Cellulosics	0.16
Rubber	0.00
Plastics	52.38
Solidified, Inorganic Matrix	27.23
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.31E-01
Cs-137	1.05E-01
Pu-238	9.40E-02
Pu-239	4.90E-02
Pu-240	3.33E-03
Sr-90	2.03E+00

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W652**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W652	Stream Name	325 MTRU CH unknown forms S9000 Mixed RCRA w/ org			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	3.8	0.0	3.8
As-Generated Total	3.8	0.0	3.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	3.8	0.0	3.8
Final Form Total	3.8	0.0	3.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	374.67
Other Inorganic Materials	177.16
Cellulosics	0.29
Rubber	0.00
Plastics	5.11
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.31E-04
Cs-137	7.06E-01
Pu-238	1.46E-03
Pu-239	3.77E-03
Pu-240	9.01E-04
Pu-241	1.34E-02
Pu-242	4.47E-08
Sr-90	3.64E+00

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W667**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W667	Stream Name	325 TRU RH unknown forms S9000 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
As-Generated Total	0.9	0.0	0.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	11.57
Other Inorganic Materials	19.49
Cellulosics	1.07
Rubber	0.00
Plastics	1.69
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.02E+00
Pu-238	1.10E+00
Pu-239	1.25E-02
Pu-240	1.07E-02
Pu-241	4.06E+01
Pu-242	1.60E-08

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W684**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W684	Stream Name	327 TRU RH heterogeneous S5420 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Non-defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
As-Generated Total	0.9	0.0	0.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	75666.36
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	727.53
Other Inorganic Materials	214.72
Cellulosics	40.11
Rubber	38.31
Plastics	64.97
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	2.92
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.07E+03
Cs-137	3.61E+03
Pu-238	3.57E+02
Pu-239	2.50E+01
Pu-240	2.43E+01
Pu-241	1.80E+05
Pu-242	2.25E-02
Sr-90	1.41E+03
U-235	2.59E-04
U-238	1.76E-02

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the POST IRRADIATION TEST LABORATORY.

Management Comments

In the interim state, the waste stream consists of 33 containers, 31 of which have an internal container volume of 0.0126 m3. The container with the largest internal volume of 0.25 m3 holds highly enriched uranium oxides. The waste material is irradiated fuel element segments from LANL. It was repackaged at the 327 Building prior to shipment for storage as TRU waste. The U235 content is 50% by weight.

Waste Stream ID: **RL-W722**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W722	Stream Name	MCGEE TRU CH unknown forms S9000 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	S9000
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	124.80
Other Inorganic Materials	17.20
Cellulosics	0.00
Rubber	0.00
Plastics	15.84
Solidified, Inorganic Matrix	142.72
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	30.72
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.47E-02
Pu-238	4.19E-03
Pu-239	1.60E-01
Pu-240	3.58E-02
Pu-241	4.80E-01
Pu-242	2.16E-06

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Kerr McGee.

Management Comments

N/A

Waste Stream ID: **RL-W756**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	PFP Residues - Mixed Oxides Wastes in POC's: MTRU CH solidified inorganic S3150 Mixed RCRA w/ org.met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150
						Activity Concentrations as of CY	2003

Final Waste Form Descriptors

Category: N/A Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC	0.0	294.0	294.0
As-Generated Total	0.0	294.0	294.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
POC	0.0	294.0	294.0
Final Form Total	0.0	294.0	294.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	48.02
Solidified, Inorganic Matrix	129.80
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	9.52
Packaging Material, Steel	400.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.31E+01
Pu-238	1.81E+01
Pu-239	3.54E+01
Pu-240	2.15E+01
Pu-241	8.35E+02
Pu-242	9.59E-03
U-238	1.92E-03

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-Z001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-Z001	Stream Name	Hanford Buried TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	U	Final Waste Form	N/A	Waste Matrix Code	N/A
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Not contained	63629.0	0.0	63629.0
As-Generated Total	63629.0	0.0	63629.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
	0.0	0.0	0.0
Final Form Total	0.0	0.0	0.0

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **RL-Z002**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-Z002	Stream Name	324 TRU CH vitrified forms Z1120 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	Z1120
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	1.9	0.0	1.9
As-Generated Total	1.9	0.0	1.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	205.47
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	419.79
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-239	1.58E-01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-Z003**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-Z003	Stream Name	324 TRU RH vitrified forms Z1120 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	N/A	Waste Matrix Code	Z1120
						Activity Concentrations as of CY	2001

Final Waste Form Descriptors

Category: Non-defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	3.6	0.0	3.6
As-Generated Total	3.6	0.0	3.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	3.6	0.0	3.6
Final Form Total	3.6	0.0	3.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	556.29
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	1067.72
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.68E+00
Cs-137	1.36E+06
Pu-239	3.09E-02
Pu-240	4.29E-02
Pu-241	7.09E+02
Pu-242	1.25E-06
Sr-90	1.11E+06

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: SA-Z001

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	SA-Z001	Stream Name	Sandia National Laboratory/NM Buried TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	N/A
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Not contained	1.3	0.0	1.3
As-Generated Total	1.3	0.0	1.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
	0.0	0.0	0.0
Final Form Total	0.0	0.0	0.0

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **SP-T001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3120
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.0	50.1	50.1
As-Generated Total		0.0	50.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	50.1	50.1
Final Form Total		0.0	50.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	
Cs-137	
Pu-239	
Sr-90	

Waste Stream Description

Separations Process Research Unit.

Management Comments

Final form is unknown at this time. Tbrown assumed 55 gallon drums.

Waste Stream ID: **SR-T001-WSB-1**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	UNKNOWN			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	N/A
						Activity Concentrations as of CY	2007

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	0.0	4320.5	4320.5
As-Generated Total	0.0	4320.5	4320.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	0.0	4320.5	4320.5
Final Form Total	0.0	4320.5	4320.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	720.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.99E+02
Pu-238	6.77E-03
Pu-239	4.44E-02
Pu-240	1.69E-02
Pu-241	8.17E+00
U-234	1.32E-03
U-235	4.25E-05
U-236	6.83E-07
U-238	3.84E-07

Waste Stream Description

This waste stream is defense related, contact handled TRU and is a neutralized aqueous stream solidified in an inorganic matrix (cement).

Management Comments

No EPA codes or TRUCON CODES have been assigned

Delta between Total # Projected and 150/yr for 16 yrs (2400) is because Total # Projected was calculated from given volume and 150/yr was from given comment. Tbrown 3/22/03

Waste Stream ID: **SR-T001-WSB-3**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	UNKNOWN			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	N/A
						Activity Concentrations as of CY	2007

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Source Unknown

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.0	144.1	144.1
As-Generated Total	0.0	144.1	144.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	144.1	144.1
Final Form Total	0.0	144.1	144.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	250.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	6.15E-01
Pu-239	4.04E+00
Pu-240	1.48E+00
Pu-241	7.45E+00
U-234	4.51E-03
U-235	1.45E-04
U-238	1.31E-06

Waste Stream Description

This waste stream is defense related, contact handled TRU and is a neutralized aqueous stream in an inorganic sorbent.

Management Comments

Approximately 45 55-gallon drums per year will be produced. The inorganic sorbent will contain 15 grams of Pu and 15 grams of HEU. The distribution of the Pu is Pu239 – 90 to 95%, Pu240- 5 to 9%, Pu241- <1%, Pu242- <.1%, and Pu238- <.5%. The uranium distribution is U235- 93%, U238- 5.4%, U236- .5%, and U234- 1%. The TRUCON codes have not yet been assigned.

Delta between Total # Projected and 45/yr for 16 yrs (720) is because Total # Projected was calculated from given volume and 45/yr was from given comment. Tbrown 3/22/03

Waste Stream ID: **SR-W026-MFFF-1**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	UNKNOWN			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	N/A
						Activity Concentrations as of CY	2007

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.0	2640.1	2640.1
As-Generated Total	0.0	2640.1	2640.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	2640.1	2640.1
Final Form Total	0.0	2640.1	2640.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	3.13
Aluminum-Base Metal/Alloys	0.07
Other Metal/Alloys	0.04
Other Inorganic Materials	1.24
Cellulosics	2.20
Rubber	0.26
Plastics	15.30
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	5.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	4.11E-01
Pu-239	2.69E+00
Pu-240	9.86E-01
Pu-241	4.95E+00
U-234	3.00E-06
U-235	9.66E-07
U-236	1.58E-08
U-238	8.75E-09

Waste Stream Description

This waste stream is defense related, contact handled TRU and is composed of heterogeneous debris which can include HEPA filters, plastic, protective clothing, metal, gloves, lead lined gloves and sludges.

Management Comments

Delta between Total # Projected and 800/yr for 16 yrs (12800) is because Total # Projected was calculated from given volume and 800/yr was from given comment. Tbrown 3/22/03

Waste Stream ID: **SR-W026-PDCF-1**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	UNKNOWN			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	N/A
						Activity Concentrations as of CY	2010

Final Waste Form Descriptors

Category: Source:

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	3.13
Aluminum-Base Metal/Alloys	0.07
Other Metal/Alloys	0.04
Other Inorganic Materials	1.24
Cellulosics	2.20
Rubber	0.26
Plastics	15.30
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	137.00
Packaging Material, Plastic	5.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.0	1833.1	1833.1

As-Generated Total

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	1833.1	1833.1

Final Form Total

Waste Stream Description

This waste stream is defense related, contact handled TRU and is composed of heterogeneous debris which can include HEPA filters, plastic, protective clothing, metal ingots including beryllium, gloves, lead lined gloves and sludges.

Management Comments

The TRUCON and EPA codes have not yet been assigned.

Delta between Total # Projected and 680/yr for 13 yrs (8840) is because Total # Projected was calculated from given volume and 680/yr was from given comment. Tbrown 3/22/03

Waste Stream ID: **SR-W026-WSB-2**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	N/A
						Activity Concentrations as of CY	2007

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Drum / 55 gallon	0.0	672.0	672.0
As-Generated Total	0.0	672.0	672.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.0	672.0	672.0
Final Form Total	0.0	672.0	672.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	3.13
Aluminum-Base Metal/Alloys	0.07
Other Metal/Alloys	0.04
Other Inorganic Materials	1.24
Cellulosics	2.20
Rubber	0.26
Plastics	15.30
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.32E+02
Pu-238	9.66E-06
Pu-239	1.98E-01
Pu-240	9.86E-02
Pu-241	1.98E-01
Pu-242	7.54E-06
U-234	3.00E-04
U-235	9.66E-06
U-236	1.56E-07
U-238	9.08E-08

Waste Stream Description

This waste stream is defense related, contact handled TRU and is composed of heterogeneous debris with can include HEPA filters, plastic, protective clothing, metal, gloves, lead lined gloves, and sludges.

Management Comments

Delta between Total # Projected and 200/yr for 16 yrs (3200) is because Total # Projected was calculated from given volume and 200/yr was from given comment. Tbrown 3/22/03

Waste Stream ID: **WV-M005**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	WV-M005	Stream Name	TRU Filters			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category:	Defense Determination Pending	Source:	Facility/Equipment Operation and Maintenance Waste
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Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	351.20
Packaging Material, Plastic	0.40
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	
Cs-137	
Pu-238	
Pu-239	
Sr-90	

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
173.19ft3 Lead Shielded Box	14.7	0.0	14.7
60 cubic ft. lead shielded box	23.8	93.5	117.3
64 ft.3 Box	12.7	0.0	12.7
70 cubic ft. Type A waste box	23.8	0.0	23.8
84 ft.3 box	19.0	0.0	19.0
90 cubic ft. waste box	10.2	0.0	10.2
BOX / 28.7ft3	4.1	0.0	4.1
Box / 48 cubic ft. Lead Shielded	8.3	0.0	8.3
Box / Misc.	2.9	0.0	2.9
As-Generated Total	119.4	93.5	212.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	59.7	46.4	106.1
Final Form Total	59.7	46.4	106.1

Waste Stream Description

This waste stream consists of filters generated from normal site operations. The specific contents include pre-filters, High Efficiency Particulate Air (HEPA) filters, and roughing filters.

Management Comments

WVNS container ID numbers: 12-1513, 12-1514, TC-036, TC-042, TC-045, TC-073, TC-076, TC-086, 1994: TC-001, TC-043, TC-132, TC-134, TC-137, TC-139, TC-140, TC-141, TC-148, TC-152, TC-153, TC-154, TC-155, TC-156, TC-157, TC-158, TC-159, TC-187, TC-189, TC-190, TC138, TC-114, TC-115, TC-119, TC-126, TC-127, TC-128, TC-129, TC-130, TC-131, TC-171, TC-180, TC-181, TC-182, TC-125, TC-183, TC-091, TC-197, TC-199

Waste Stream ID: **WV-M007**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	WV-M007	Stream Name	TRU General Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	U9999
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category:	Defense Determination Pending	Source:	Facility/Equipment Operation and Maintenance Waste
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Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55-GALLON DRUM	10.8	0.0	10.8
As-Generated Total	10.8	0.0	10.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	10.8	0.0	10.8
Final Form Total	10.8	0.0	10.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	1.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	
Cs-137	
Sr-90	

Waste Stream Description

This waste stream consists of uncharacterized (i.e., requires hazardous characterization) general site waste generated from normal site operations. The specific contents of this waste stream are unknown.

Management Comments

WVNS Container ID #s for this waste stream are: 5046, 5047, 5069, 5099, 5153, 5253, 5263, 5304, 5321, 5334, 5348, 5382, 5563, 5856, 6310, TD-008, TD-017, TD-028, TD-034, TD-035, TD-036, TD-040, TD-043, TD-184, TD-240, TD-268, TD-271, TD-294, TD-304, TD-308, TD-367, TD-387, TD-389, TD-399, TD-402, TD-407, TD-546, TD-554, TD-581, TD-596, TD-606, TD-607, TD-622, TD-629, TD-634, TD-924, TD-926, TD-931, TD-432, TD-537, 6503.

Waste Stream ID: **WV-M008**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	WV-M008	Stream Name	TRU Concrete			Inventory Date	12/31/1994
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category:	Defense Determination Pending	Source:	Facility/Equipment Operation and Maintenance Waste
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Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-GALLON DRUM	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	1.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	
Cs-137	
Pu-238	
Pu-239	
Sr-90	

Waste Stream Description

This waste stream consists of samples solidified with cement generated from the on-site A&PC laboratory.

Management Comments

WVNS TD-076

Waste Stream ID: **WV-M010**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	WV-M010	Stream Name	TRU Spent Absorbents			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category:	Defense Determination Pending	Source:	Facility/Equipment Operation and Maintenance Waste
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Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-GALLON DRUM	0.8	0.0	0.8
As-Generated Total	0.8	0.0	0.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
Final Form Total	0.8	0.0	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	
Cs-137	
Pu-238	
Pu-239	
Sr-90	

Waste Stream Description

This waste stream consists of spent absorbents generated from site operations. The media absorbed is not known for this waste stream.

Management Comments

WVNS TD-707, WVNS TD-713,TD-937, TD-924

Waste Stream ID: **WV-M013**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	WV-M013	Stream Name	Sweeping Compound			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3131
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category:	Defense Determination Pending	Source:	Facility/Equipment Operation and Maintenance Waste
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Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55-GALLON DRUM	1.9	0.0	1.9
As-Generated Total	1.9	0.0	1.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	1.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	
Cs-137	
Pu-238	
Pu-239	
Sr-90	

Waste Stream Description

This waste stream consists of sweeping compound generated from normal site operations. The specific contents include grid and floor debris. This waste stream is considered as hazardous/radioactively contaminated based on the assumption that the waste contains lead and chromium contaminated paint chips.

Management Comments

WVNS TD-006, WVNS TD-009, WVNS TD-011, WVNS TD-025, WVNS TD-042, WVNS TD-048, WVNS TD-122, TD-026

Waste Stream ID: **WV-M015**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	WV-M015	Stream Name	Chemical Process Cell General Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Defense Determination Pending
 Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
370 cubic foot waste box	10.5	0.0	10.5
70 cubic ft. Type A waste box	2.0	0.0	2.0
Drum / 55 gallon	0.6	0.0	0.6
As-Generated Total	13.1	0.0	13.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	6.0	0.0	6.0
Final Form Total	6.0	0.0	6.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1.00
Other Inorganic Materials	1.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	435.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	465.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	
Cs-137	
Sr-90	

Waste Stream Description

This waste stream was generated as a result of the decommissioning and decontamination of the Chemical Process Cell (CPC). The CPC was previously used to reprocess spent fuel rods. The specific contents of this container include vacuum lines, air lines, floor debris, pipe, & hoses.

Management Comments

WVNS container ID's for these boxes: TC-172, TD-173, TD-174, TD-175, 3E-1/7E-5/7E-8

A portion of this waste stream will be repackaged into 55-gallon drums.

Waste Stream ID: **WV-T001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	WV-T001	Stream Name	Fissile Material - Solids			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5490
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Defense Determination Pending
 Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Box / 70 cubic ft. Type A Waste	15.8	0.0	15.8
Box / 90 cubic ft. Waste	15.3	0.0	15.3
Drum / 55 gallon	8.1	0.0	8.1
As-Generated Total	39.3	0.0	39.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	36.8	0.0	36.8
Final Form Total	36.8	0.0	36.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	1.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-239	0.00E+00

Waste Stream Description

This waste stream consists of solid fissile material generated from previous decontamination and decommissioning activities. The specific contents include CUNO filters, vacuum cans, glove box debris, piping, hoses, pumps, etc

Management Comments

WVNS 55-gallon drum container ID's: TD-583, TD-461, TD-507, TD-509, TD-502, TD-506, TD-505, TD-476, TD-500, TD-474, TD-471, TD-492, TD-602, TD-932, TD-715, TD-497, TD-797, TD-456, TD-493, TD-559, TD-941, TD-1225, TD-1226, TD-1257, TD-1263, TD-1266, TD-1267, TD-1271, TD-1272, TD-1273, TD-1274, TD-1277, TD-1278, TD-1283, TD-1285, TD-1286, TD-1287, TD-1171, TD-1215, TC-032, TC-065, TC-969, TC-144, TC-151, TC-150, TC-104, TC-143, TC-100B, TC-201, TC-146, TC-198, TC-084.

Waste Stream ID: **WV-T004**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	WV-T004	Stream Name	Fissile Material - Other			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	U9999
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category:

Defense Determination
Pending

 Source:

Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55-GALLON DRUM	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	1.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	
Pu-239	

Waste Stream Description

This waste stream consists of liquid waste with associated fissile material generated from previous decontamination and decommissioning activities. The specific contents are unknown.

Management Comments

WVNS TD-478, WVNS TD-640, WVNS TC-1309

Waste Stream ID: **WV-T006**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	WV-T006	Stream Name	TRU General Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5490
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category:	Defense Determination Pending	Source:	Facility/Equipment Operation and Maintenance Waste
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Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55-GALLON DRUM	10.4	10.2	20.6
As-Generated Total	10.4	10.2	20.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	10.4	10.2	20.6
Final Form Total	10.4	10.2	20.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1.00
Other Inorganic Materials	1.00
Cellulosics	0.00
Rubber	1.00
Plastics	1.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	143.40
Packaging Material, Plastic	17.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	
Cs-137	
Sr-90	

Waste Stream Description

This waste stream consists of radiologically and hazardous general site waste generated from normal site operations. The specific contents include but are not limited to anticontamination clothing, hoses, glove bags, and tools.

Management Comments

WVNS 55-gallon drum Container ID #s for this waste stream are: 4581, 6224, TD-002, TD-024, TD-027, TD-030, TD-037, TD-049, TD-058, TD-102, TD-103, TD-110, TD-113, TD-115, TD-117, TD-120, TD-132, TD-139, TD-142, TD-260, TD-305, TD-332, TD-379, TD-386, TD-395, TD-415, TD-422, TD-440, TD-441, TD-442, TD-445, TD-477, TD-522, TD-525, TD-528, TD-529, TD-531, TD-553, TD-573, TD-585, TD-587, TD-591, TD-595, TD-610, TD-632, TD-637, TD-647, TD-648, TD-649, TD-659, TD-719, TD-937. For 1994

Waste Stream ID: **WV-T009**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	WV-T009	Stream Name	TRU General Laboratory Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Defense Determination Pending
 Source: Analytical Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-GALLON DRUM	10.0	21.2	31.2
As-Generated Total	10.0	21.2	31.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	10.0	21.2	31.2
Final Form Total	10.0	21.2	31.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	1.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	
Cs-137	
Sr-90	

Waste Stream Description

This waste stream consists of general laboratory waste generated on-site. The specific contents include anticontamination clothing, bags, wipes, samples, etc.

Management Comments

WVNS Container ID's for these 10, 55-gallon drums; TD-026, TD-142, TD-659, TD-1009, TD-1028, TD-1029, TD-1043, TD-958, TD-963, TD-966, TD-969, TD-355, TD-1053, TD-1064, TD-1074, TD-1078, TD-1081, TD-1087, TD-1102, TD-1106, TD-1112, TD-1139, TD-1140, TD-1146, TD-1150, TD-1151, TD-1152, TD-1154, TD-1155, TD-1160, TD-1161, TD-1163, TD-1165, TD-1166, TD-1167, TD-1176, TD-1177, TD-1186, TD-1191, TD-1194, TD-1195, TD-1197, TD-1198, TD-1200, TD-1204, TD-1211, TD-1212, TD-1279.

Waste Stream ID: **WV-T011**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	WV-T011	Stream Name	TRU Glove Boxes			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Defense Determination Pending
 Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55-GALLON DRUM	0.2	0.0	0.2
Box / Misc.	33.9	0.0	33.9
As-Generated Total	34.1	0.0	34.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	10.2	0.0	10.2
Final Form Total	10.2	0.0	10.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	
Cs-137	
Sr-90	

Waste Stream Description

This waste stream consists of radiologically and hazardous glove boxes generated from decommissioning and decontamination activities. The specific contents include glove boxes and tools.

Management Comments

WVNS Container ID number is TD-370, TC-191, TC-192, TC-194.

Waste will be size reduced and repackaged into 55-gallon drums at a future date.

Waste Stream ID: **WV-T014**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	WV-T014	Stream Name	Chemical Process Cell Vessels			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Defense Determination Pending
 Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Various size metal waste boxes	270.0	0.0	270.0
As-Generated Total	270.0	0.0	270.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	10.6	0.0	10.6
Final Form Total	10.6	0.0	10.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	465.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	
Cs-137	
Sr-90	

Waste Stream Description

This waste stream was generated as a result of the decommissioning and decontamination of the Chemical Process Cell. The specific contents of these containers include evaporators, dissolvers, tanks, condensers, etc. These vessels were previously used to reprocess spent fuel rods.

Management Comments

3C-1 (fuel dissolver), 3C-2 (fuel dissolver), 7C-2 (LLW evaporator), 3E-2/3E-3 (dissolver condensers), 7C-4 (recycle evaporator), 7D-10 (LLW accountability and neutralizer tank), 7C-1 (HLW evaporator), 3D-1 (fuel accountability and feed adjustment tank), 7D-4 (HLW accountability and neutralizer tank)

These tanks/vessels will be size reduced and repackaged into 55-gallon drums.

Waste Stream ID: **WV-T016**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	WV-T016	Stream Name	Chemical Process Cell Miscellaneous Equipment			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Defense Determination Pending Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
432 cubic ft. 6ft by 6ft by 12 ft.	146.8	0.0	146.8
As-Generated Total	146.8	0.0	146.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	8.5	0.0	8.5
Final Form Total	8.5	0.0	8.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	465.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	
Cs-137	
Sr-90	

Waste Stream Description

This waste stream was generated as a result of the decommissioning and decontamination of the Chemical Process Cell (CPC). The specific contents of these containers include various jumpers and miscellaneous equipment, etc. The CPC was previously used to reprocess spent fuel rods.

Management Comments

Jumper Boxes J1 Through J-12 Each jumper box is 432 cubic feet and contains a inner container which houses the jumpers and misc. waste

These containers will be size reduced and repackaged into 55-gallon drums at a later date.

Waste Stream ID: **WV-T017**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	WV-T017	Stream Name	Spent Filter Media			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3115
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category:	Defense Determination Pending	Source:	Facility/Equipment Operation and Maintenance Waste
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Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
80 cubic foot HIC	2.3	0.0	2.3
As-Generated Total	2.3	0.0	2.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	2.5	0.0	2.5
Final Form Total	2.5	0.0	2.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	1.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	
Cs-137	
Pu-238	
Pu-239	
Sr-90	

Waste Stream Description

This waste stream consists of spent filter media generated from filtration of the Fuel Receiving & Storage pool where the remaining spent fuel rods are stored.

Management Comments

HIC-A 1, 80 cubic foot High Integrity Container

HIC filter media will be repackaged into 55-gallon drums at a later date.

Waste Stream ID: **WV-T018**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Head End Cell Debris			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	N/A
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category:

Defense Determination Pending

 Source:

Remediation/D&D Waste

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / 344ft3	19.5	0.0	19.5
Box / Misc.	146.9	11.3	158.2
Drum / 55 gallon with 30 gallon drum inside	5.0	25.6	30.6
As-Generated Total	171.4	36.9	208.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	54.1	25.6	79.7
Final Form Total	54.1	25.6	79.7

Waste Stream Description

This waste stream consists of debris generated as a result of decommissioning and decontaminating of head end cells. These cells were used to prep the fuel for reprocessing. Waste from the waste tank farm is also included.

Management Comments

SP-138, SP-144, HEC-021, HEC-022, HEC-023, HEC-024, HEC-027, HEC-028, HEC-029, HEC-030, HEC-031, HEC-034, HEC-035, HEC-039, HEC-041, various others.

Waste Stream ID: **WV-T019**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	FRS Pool Filters			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category:

Defense Determination
Pending

 Source:

Remediation/D&D Waste

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	1.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / 90 cubic ft. Waste	0.0	15.3	15.3
As-Generated Total	0.0	15.3	15.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	20.6	20.6
Final Form Total	0.0	20.6	20.6

Waste Stream Description

This waste stream consists of cartridge filters stored in sheild boxes

Management Comments

N/A

Waste Stream ID: **WV-T020**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	PPC/XC2 PPE and DAW			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	N/A	Waste Matrix Code	N/A
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category:

Defense Determination Pending

 Source:

Remediation/D&D Waste

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	1.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.0	226.7	226.7
As-Generated Total	0.0	226.7	226.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	226.7	226.7
Final Form Total	0.0	226.7	226.7

Waste Stream Description

This waste stream consists of PPE, piping, vessels, hoses, and other DAW.

Management Comments

N/A

Waste Stream ID: **WV-T021**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	RHWF Process			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category:

Defense Determination Pending

 Source:

Remediation/D&D Waste

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	10.00
Other Inorganic Materials	10.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.0	80.7	80.7
As-Generated Total	0.0	80.7	80.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	80.7	80.7
Final Form Total	0.0	80.7	80.7

Waste Stream Description

This waste consists of misc. metals, filters and plastics.

Management Comments

N/A

Waste Stream ID: **WV-W024**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	WV-W024	Stream Name	TRU Lead			Inventory Date	9/30/2002
Local ID	NA	Handling	CH	Final Waste Form	Lead/Cadmium Metal	Waste Matrix Code	S5112
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category: Defense Determination Pending Source: Discarding Excess/Expired Materials

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55-GALLON DRUM	1.7	0.0	1.7
BOX / 444 cubic ft	12.6	0.0	12.6
Box / 90 cubic ft. Waste	5.1	0.0	5.1
As-Generated Total	19.3	0.0	19.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	19.3	0.0	19.3
Final Form Total	19.3	0.0	19.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	
Cs-137	
Sr-90	

Waste Stream Description

This waste stream consists of transuranic lead in the following configurations: lead bricks and lead shielding. Note: The size of the waste stream components may be highly variable. In addition to the lead materials listed above, the following wastes are also part of the contents of the containers included in this waste stream: glassware, bags, bottles, oven, ultrasonic chiller, and an old style 8D-2 sample cask. The wastes included in this stream are characterized as mixed because they exhibit the characteristic of toxicity for lead.

Management Comments

WVNS Container ID #s for this waste stream are: TC-135D, TC-136, TC-193, TD-1070, TD-1168, TD-1228, TD-1232, TD-1259, TD-1282, TD-1316, TD-1361.

Waste Stream ID: **WV-Z001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	WV-Z001	Stream Name	West Valley Buried TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	U	Final Waste Form	N/A	Waste Matrix Code	N/A
						Activity Concentrations as of CY	N/A

Final Waste Form Descriptors

Category:

Defense Determination
Pending

 Source:

N/A

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Not contained	1353.0	0.0	1353.0
As-Generated Total	1353.0	0.0	1353.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
	0.0	0.0	0.0
Final Form Total	0.0	0.0	0.0

Waste Stream Description

N/A

Management Comments

N/A

APPENDIX J
WASTE STREAM PROFILES – WIPP

The following waste stream profiles contain information on waste streams that are being considered for shipment to WIPP at this time and are expected to meet the Contact-Handled Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (CH-WAC; DOE 2002) as of the inventory date, September 30, 2002. The TRU waste sites that have reported WIPP waste streams are:

Argonne National Laboratory – East	AE
Argonne National Laboratory – West	AW
Battelle Columbus Laboratory	BC
Bettis Atomic Power Laboratory	BT
Energy Technology Engineering Center	ET
Idaho National Engineering and Environmental Laboratory	IN
Knolls Atomic Power Laboratory – Schenectady	KA
Knolls Atomic Power Laboratory – Nuclear Fuels Service	KN
Los Alamos National Laboratory	LA
Lawrence Livermore National Laboratory	LL
U. S. Army Material Command	MC
University of Missouri Research Reactor	MU
Nevada Test Site	NT
Oak Ridge National Laboratory	OR
Paducah Gaseous Diffusion Plant	PA
Rocky Flats Environmental Technology Site	RF
Hanford (Richland)	RL
Hanford (River Protection)	RP
Sandia National Laboratories (Albuquerque)	SA
Savannah River Site	SR

REFERENCES

Department of Energy (DOE). 2002. *Contact-Handled Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant*, Revision 0, DOE/WIPP-02-3122, May 17, 2002.

Waste Stream ID: **AE-T001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	AE-T001	Stream Name	ANL-E Contact-Handled Mixed Debris			Inventory Date	9/30/2002
Local ID	AECHDM	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55-gallon	90.1	66.1	156.2
As-Generated Total	90.1	66.1	156.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	90.1	66.1	156.2
Final Form Total	90.1	66.1	156.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	77.00
Aluminum-Base Metal/Alloys	8.68
Other Metal/Alloys	23.30
Other Inorganic Materials	4.78
Cellulosics	5.99
Rubber	7.32
Plastics	63.40
Solidified, Inorganic Matrix	1.64
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.42
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.61E-01
Cs-137	2.32E-02
Np-237	4.28E-03
Pu-238	7.76E-02
Pu-239	9.11E-01
Pu-240	5.38E-01
Pu-241	1.04E+00
Pu-242	4.37E-04
Sr-90	1.64E-02
Th-229	9.00E-07
Th-230	8.05E-09
Th-232	3.96E-07
U-233	6.00E-04
U-234	5.78E-05
U-235	1.80E-05
U-236	3.82E-07
U-238	3.18E-04

Waste Stream Description

Organic debris, plastic, rubber, paper, cloth. Waste stream identifiers previously referred to as AE-W041 and AE-W042 are now included with waste stream AE-T001.

Management Comments

Waste stream identifiers previously referred to as AE-W041 and AE-W042 are now included with waste stream AE-T001.

Waste Stream ID: **AE-T003**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	AE-T003	Stream Name	ANL-E Contact-Handled Mixed Homogenous Solids			Inventory Date	9/30/2002
Local ID	AECHHM	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3110
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55-gallon	23.1	13.3	36.4
Drum / 85 gallon	1.0	0.0	1.0
As-Generated Total	24.1	13.3	37.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	23.1	13.3	36.4
85 gallon drum	1.0	0.0	1.0
Final Form Total	24.1	13.3	37.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	101.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	216.30
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	129.99
Packaging Material, Plastic	36.74
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.35E-01
Cs-137	2.82E-04
Np-237	6.21E-04
Pu-238	4.56E-02
Pu-239	1.24E+00
Pu-240	4.79E-01
Pu-241	2.52E+00
Pu-242	1.34E-05
Sr-90	7.17E-04
Th-229	5.37E-07
Th-230	1.55E-10
Th-232	6.89E-17
U-233	4.09E-04
U-234	2.17E-06
U-235	3.24E-06
U-236	1.99E-07
U-238	7.14E-05

Waste Stream Description

Solidified inorganic liquid waste from evaporator bottom. Waste stream identifiers previously referred to as AE-W038, AE-W039 and AE-W040 are now included with waste stream AE-T001.

Management Comments

Waste stream identifiers previously referred to as AE-W038, AE-W039 and AE-W040 are now included with waste stream AE-T001.

TB assumed all projected waste will be in 55 gallon drums.

Waste Stream ID: **AE-T009**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	RH TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5490
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: N/A Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 30 gallon	5.8	39.4	45.2
As-Generated Total	5.8	39.4	45.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	15.1	104.1	119.3
Final Form Total	15.1	104.1	119.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	61.60
Aluminum-Base Metal/Alloys	18.60
Other Metal/Alloys	79.60
Other Inorganic Materials	10.80
Cellulosics	0.90
Rubber	9.00
Plastics	21.10
Solidified, Inorganic Matrix	10.40
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	13.20
Soils	0.00
Packaging Material, Steel	481.00
Packaging Material, Plastic	15.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.44E-02
Am-243	2.65E-07
Cm-244	1.56E-03
Cs-137	3.81E-01
Np-237	1.39E-05
Pu-238	7.68E-02
Pu-239	1.47E-01
Pu-240	3.21E-02
Pu-241	2.49E-01
Sr-90	2.15E-01
Th-229	3.90E-09
Th-230	8.25E-10
Th-232	1.72E-17
U-233	1.54E-06
U-234	6.56E-06
U-235	1.30E-06
U-236	2.57E-08
U-238	5.10E-07

Waste Stream Description

This waste is generated primarily as a result of fuel research activities.

Management Comments

N/A

Waste Stream ID: **AW-N026.82**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	AW-W026	Stream Name	ALHC UPGRADE DECON DEBRIS			Inventory Date	9/30/2002
Local ID	CH-ANL-505T	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	236.00
Aluminum-Base Metal/Alloys	42.00
Other Metal/Alloys	7.00
Other Inorganic Materials	52.00
Cellulosics	81.00
Rubber	18.00
Plastics	68.00
Solidified, Inorganic Matrix	5.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	1.00
Soils	3.00
Packaging Material, Steel	108.00
Packaging Material, Plastic	59.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	1.46E+00
Sr-90	7.28E+00

Waste Stream Description

Paint scraping debris from analytical lab hot cell refurbishment.

Management Comments

This is a TRU waste packaged to meet the WIPP WAC. Particulate materials were solidified for immobilization.

Waste Stream ID: **AW-N027.531**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	AW-W027	Stream Name	LEAD CONTAMINATED WASTE			Inventory Date	9/30/2002
Local ID	CH-ANL-142T	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5311
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Analytical Lab gloveboxes

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	4.2	5.0
As-Generated Total	0.8	4.2	5.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	5.4	4.4	9.8
Final Form Total	5.4	4.4	9.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	109.00
Aluminum-Base Metal/Alloys	0.20
Other Metal/Alloys	10.00
Other Inorganic Materials	8.00
Cellulosics	191.00
Rubber	30.00
Plastics	59.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	108.00
Packaging Material, Plastic	59.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.90E-03
Np-237	9.38E-10
Pu-238	4.30E+00
Pu-239	3.26E+00
Pu-240	1.97E-02
Pu-241	1.74E-02
Pu-242	2.48E-07
Th-229	2.84E-11
Th-230	2.50E-10
Th-232	1.44E-20
U-233	3.03E-07
U-234	3.39E-05
U-235	2.08E-06
U-236	5.84E-10
U-238	7.73E-09

Waste Stream Description

This waste stream is typically lead lined gloves removed from casting laboratory glove box.

Management Comments

N/A

Waste Stream ID: **AW-T031.1322**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	AW-W031	Stream Name	FCF (RH) MISCELLANEOUS TRU WASTE			Inventory Date	9/30/2002
Local ID	CH-ANL-540	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
	0.0	0.0	0.0
As-Generated Total	0.0	0.0	0.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	26.7	26.7
Final Form Total	0.0	26.7	26.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	179.90
Aluminum-Base Metal/Alloys	32.30
Other Metal/Alloys	5.40
Other Inorganic Materials	40.00
Cellulosics	62.20
Rubber	13.70
Plastics	51.80
Solidified, Inorganic Matrix	3.60
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.60
Soils	2.30
Packaging Material, Steel	511.00
Packaging Material, Plastic	21.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.33E-02
Am-243	1.14E-05
Cm-244	9.38E-05
Cs-137	2.94E+01
Np-237	3.69E-05
Pu-238	2.52E-02
Pu-239	6.58E-01
Pu-240	4.16E-01
Pu-241	6.92E-01
Pu-242	1.16E-05
Sr-90	2.58E+01
Th-229	5.81E-12
Th-230	7.41E-09
Th-232	9.95E-16
U-233	1.08E-08
U-234	1.38E-04
U-235	4.48E-06
U-236	3.39E-06
U-238	3.66E-07

Waste Stream Description

Fuel Conditioning Facility (FCF) Remote-handled (RH) Radioactive Transuranic Miscellaneous waste: hot laboratory waste, filters, etc. This waste has not been generated yet.

Management Comments

N/A

Waste Stream ID: **AW-T033.1325**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	AW-W033	Stream Name	ANL-752 TRU WASTE			Inventory Date	9/30/2002
Local ID	CH-ANL-542	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5490
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Analytical Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	25.2	25.6
As-Generated Total			25.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	25.2	25.6
Final Form Total			25.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	236.00
Aluminum-Base Metal/Alloys	42.00
Other Metal/Alloys	7.00
Other Inorganic Materials	52.00
Cellulosics	81.00
Rubber	18.00
Plastics	68.00
Solidified, Inorganic Matrix	5.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	1.00
Soils	3.00
Packaging Material, Steel	108.00
Packaging Material, Plastic	59.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.90E-03
Np-237	9.38E-10
Pu-238	4.30E+00
Pu-239	3.26E+00
Pu-240	1.97E-02
Pu-241	1.74E-02
Pu-242	2.48E-07
Th-229	2.84E-11
Th-230	2.50E-10
Th-232	1.44E-20
U-233	3.03E-07
U-234	3.39E-05
U-235	2.08E-06
U-236	5.84E-10
U-238	7.73E-09

Waste Stream Description

Transuranic waste generated from plutonium casting laboratory (PCL) and Analytical laboratory (AL) Hot cell operations. This waste is typically packaged in 55-gallon drums.

Management Comments

N/A

Waste Stream ID: **AW-W012.10**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	AW-W012	Stream Name	ELECTROREFINER SALT			Inventory Date	9/30/2002
Local ID	CH-ANL-218T	Handling	RH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3141
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.0	15.4	15.4
As-Generated Total	0.0	15.4	15.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	20.5	20.5
Final Form Total	0.0	20.5	20.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	126.80
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.50
Other Inorganic Materials	56.50
Cellulosics	0.20
Rubber	0.00
Plastics	1.50
Solidified, Inorganic Matrix	315.90
Cement (Solidified)	296.40
Vitrified	22.70
Solidified, Organic Matrix	0.10
Soils	0.50
Packaging Material, Steel	511.00
Packaging Material, Plastic	21.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.33E-02
Am-243	1.14E-05
Cm-244	9.38E-05
Cs-137	2.94E+01
Np-237	3.69E-05
Pu-238	2.52E-02
Pu-239	6.58E-01
Pu-240	4.16E-01
Pu-241	6.92E-01
Pu-242	1.16E-05
Sr-90	2.58E+01
Th-229	5.81E-12
Th-230	7.41E-09
Th-232	9.95E-16
U-233	1.08E-08
U-234	1.38E-04
U-235	4.48E-06
U-236	3.39E-06
U-238	3.66E-07

Waste Stream Description

This waste stream consists of chloride salts containing residual amounts of cadmium and barium. This waste stream will be generated from the Fuel Conditioning Facility operations as a result of decommissioning the electrorefining equipment. The cadmium pool will be pumped out of the MK-IV electrorefiner using the bulk fluid handling system. It will be treated with the most economical and technically sound available process for treating hazardous metals. The two technologies currently being considered are amalgamation and encapsulation. Amalgamation involves mixing the cadmium with another metal. Encapsulation involves covering the solid cadmium with a layer of plastic. Research and development on one or both of these processes will be done during the inventory reduction phase of spent fuel treatment. If other more promising technologies are proposed in the near future, they will also be considered. The final destination for this waste should be WIPP if the RH canister container can meet the RH radiation limitations of <100 R/hr at contact.

Management Comments

Remote Handled

Waste Stream ID: **AW-W020.13**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	AW-W020	Stream Name	TRU-CD-HOT CELL WASTE			Inventory Date	9/30/2002
Local ID	CH-ANL-241T	Handling	RH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3113
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 45 Gallon	0.0	2.0	2.0
Liner / 0.1m3	0.8	0.0	0.8
Liner / 0.3m3	1.5	0.0	1.5
Liner / 0.5m3	9.5	0.0	9.5
As-Generated Total	11.8	2.0	13.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	16.0	2.7	18.7
Final Form Total	16.0	2.7	18.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	126.80
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.50
Other Inorganic Materials	56.50
Cellulosics	0.20
Rubber	0.00
Plastics	1.50
Solidified, Inorganic Matrix	315.90
Cement (Solidified)	296.40
Vitrified	22.70
Solidified, Organic Matrix	0.10
Soils	0.50
Packaging Material, Steel	511.00
Packaging Material, Plastic	21.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.09E-01
Cs-137	1.75E+01
Np-237	8.21E-06
Pu-239	5.62E-01
Pu-240	1.76E-01
Pu-241	3.68E+01
Sr-90	3.39E+00
Th-229	6.30E-06
Th-230	1.14E-08
Th-232	4.64E-18
U-233	1.12E-02
U-234	2.10E-04
U-235	1.42E-04
U-236	3.13E-08
U-238	2.29E-05

Waste Stream Description

This waste stream consisted of metallic cadmium, salts, and associated cleanup materials (paper towels and cloth rags). The waste is contaminated with activation and fission products as well as with plutonium. This waste stream is generated for Fuel Conditioning Facility Demonstration support experiments; the analysis of fuels in the hot cells.

Previous waste is stored in the Radioactive Scrap and Waste Facility in two liners. Future waste generation will be small because evaporation as part of the process will be done in the hot cell to minimize the volume.

Management Comments

Alpha Containment

Waste Stream ID: **AW-W026**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	ALHC Upgrade Decon Debris			Inventory Date	9/30/2002
Local ID	CH-ANL-50-5T	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Bin / Metal	4.7	0.0	4.7
Drum / Metal	0.0	0.0	0.0
As-Generated Total	4.7	0.0	4.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Canister	6.2	0.0	6.2
Final Form Total	6.2	0.0	6.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	97.00
Aluminum-Base Metal/Alloys	1.80
Other Metal/Alloys	203.60
Other Inorganic Materials	11.20
Cellulosics	6.30
Rubber	0.40
Plastics	4.10
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	511.00
Packaging Material, Plastic	21.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.78E-01
Cs-137	2.01E-01
Np-237	3.48E-07
Pu-239	3.16E-02
Sr-90	7.15E-01
Th-229	8.41E-16
Th-230	2.00E-16
U-233	4.48E-12
U-234	7.40E-12
U-235	3.25E-06
U-238	4.42E-07

Waste Stream Description

Waste packaged for WIPP containing: Radioactive cadmium debris from CH-ANL-242T, solidified to meet WIPP-WAC requirement for particulate immobilization, and bags of lead-lined gloves were placed in the solidified CO2 drums to fill the void spaces. The leftover gloves were placed in a separate 30 gallon drum. 1710 lbs of waste are in two TRU Pac containers: MW-S-94-02 AND MW-S-94-03.

Management Comments

Additional Source - Other Decontamination Waste.

Waste Stream ID: **AW-W028**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID Stream Name Inventory Date
 Local ID Handling Final Waste Form Waste Matrix Code Activity Concentrations Decayed to CY

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Bin / Metal	0.9	0.0	0.9
Drum / 45 Gallon	0.0	6.8	6.8
As-Generated Total	0.9	6.8	7.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	1.8	8.9	10.7
Final Form Total	1.8	8.9	10.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	28.90
Other Metal/Alloys	72.30
Other Inorganic Materials	57.80
Cellulosics	101.20
Rubber	28.90
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	511.00
Packaging Material, Plastic	21.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	2.69E-01
Pu-239	2.67E-02
Pu-240	1.41E-03
Sr-90	7.48E-01
Th-230	3.35E-16
Th-232	3.71E-20
U-234	1.24E-11
U-235	1.38E-06
U-236	2.51E-10
U-238	7.41E-07

Waste Stream Description

This waste stream consists of metal or wood framed filters. Filters are 2'x2'x0.5'. The filters have screen mesh covering high efficiency filtering media. The concentration of radioisotopes and RCRA metals varies in each filter. These filters were generated from the decontamination of the analytical hot cells in 1993 and 1994.

Management Comments

N/A

Waste Stream ID: **AW-W046**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	FCF RLWS Filters and Resin			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Pollution Control or Waste Treatment Process

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister used to overpack 45 gallon drums	0.0	2.0	2.0
As-Generated Total	0.0	2.0	2.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	2.7	2.7
Final Form Total	0.0	2.7	2.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	97.00
Aluminum-Base Metal/Alloys	1.80
Other Metal/Alloys	203.60
Other Inorganic Materials	11.20
Cellulosics	6.30
Rubber	0.40
Plastics	4.10
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	511.00
Packaging Material, Plastic	21.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.78E-01
Cs-137	2.01E-01
Np-237	3.48E-07
Pu-239	3.16E-02
Sr-90	7.15E-01
Th-229	8.41E-16
Th-230	2.00E-16
U-233	4.48E-12
U-234	7.40E-12
U-235	3.25E-06
U-238	4.42E-07

Waste Stream Description

The filters consist of two types. One is a depth filter made entirely of polypropylene. The other is a pleated filter made up of a glass fiber filter media with polyester support. This media is housed in a polypropylene cage with silicone O-rings. The filters are used primarily for the removal of cadmium. However, they also remove uranium and plutonium.

Management Comments

N/A

Waste Stream ID: **AW-W047**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	FCF Crucible (Graphite)			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Pollution Control or Waste Treatment Process

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister used to overpack 45 gallon drums	0.0	2.0	2.0
As-Generated Total	0.0	2.0	2.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	2.7	2.7
Final Form Total	0.0	2.7	2.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	97.00
Aluminum-Base Metal/Alloys	1.80
Other Metal/Alloys	203.60
Other Inorganic Materials	11.20
Cellulosics	6.30
Rubber	0.40
Plastics	4.10
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	511.00
Packaging Material, Plastic	21.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.78E-01
Cs-137	2.01E-01
Np-237	3.48E-07
Pu-239	3.16E-02
Sr-90	7.15E-01
Th-229	8.41E-16
Th-230	2.00E-16
U-233	4.48E-12
U-234	7.40E-12
U-235	3.25E-06
U-238	4.42E-07

Waste Stream Description

The crucible waste stream in the Fuel Conditioning Facility (FCF) has been characterized as TRU waste. Presently, three 45 gallon RH-TRU containers are filled with crushed crucible material, and are awaiting shipment to the radioactive scrap and waste facility (RSWF). Before crushing, crucibles are cleaned below their clean tare weight. Based on samples taken on crushed crucible material, there are only a few tenths of grams of fissile material (u-235 or Pu-239 present per crucible disposed).

Management Comments

N/A

Waste Stream ID: **AW-W048**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	FCF Indirect RH-MTRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
RH Canister used to overpack 45 gallon drums	0.0	3.4	3.4
As-Generated Total	0.0	3.4	3.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Canister	0.0	4.4	4.4
Final Form Total	0.0	4.4	4.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	179.90
Aluminum-Base Metal/Alloys	32.30
Other Metal/Alloys	5.40
Other Inorganic Materials	40.00
Cellulosics	39.30
Rubber	13.70
Plastics	51.80
Solidified, Inorganic Matrix	3.60
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.60
Soils	2.30
Packaging Material, Steel	511.00
Packaging Material, Plastic	21.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.78E-01
Cs-137	2.01E-01
Np-237	3.48E-07
Pu-239	3.16E-02
Sr-90	7.15E-01
Th-229	8.41E-16
Th-230	2.00E-16
U-233	4.48E-12
U-234	7.40E-12
U-235	3.25E-06
U-238	4.42E-07

Waste Stream Description

FCF Argon cell RH-MTRU waste - rags, plastic, glass, rubber, paper, cardboard, aluminum foil, metal, brushes, copper, bolts, smears, nylon sling, insulation, o-rings, etc.

Management Comments

N/A

Waste Stream ID: **AW-W049**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	FMF glovebox waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.0	8.5	8.5
As-Generated Total	0.0	8.5	8.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	8.5	8.5
Final Form Total	0.0	8.5	8.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	20.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	15.00
Cellulosics	90.00
Rubber	0.00
Plastics	90.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	115.00
Packaging Material, Plastic	30.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-239	4.30E-02
U-235	4.24E-11

Waste Stream Description

FMF experiment glovebox waste.

Management Comments

N/A

Waste Stream ID: **BCLCH-MT01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	JN-4 D&D Debris Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5490
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Bin/ M-111	3.8	0.0	3.8
Drum / 55 gallon	1.5	0.0	1.5
As-Generated Total	5.2	0.0	5.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.5	0.0	1.5
Standard Waste Box	3.8	0.0	3.8
Final Form Total	5.2	0.0	5.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	60.00
Aluminum-Base Metal/Alloys	60.00
Other Metal/Alloys	60.00
Other Inorganic Materials	72.00
Cellulosics	204.50
Rubber	122.41
Plastics	240.60
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	62.41
Vitrified	0.00
Solidified, Organic Matrix	36.05
Soils	0.00
Packaging Material, Steel	124.55
Packaging Material, Plastic	7.54
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.24E+00
Pu-238	3.40E+02
Pu-239	5.49E+00
Pu-240	1.44E+00
Pu-241	6.87E+01
Pu-242	2.34E-04

Waste Stream Description

JN-4 D&D Debris Waste consists of heterogeneous debris waste generated by the activities conducted in Building JN-4. The waste includes paper, plastic, rubber, paint chips, crushed metal cans, prefilters, glass, concrete, grout, lead shot, and miscellaneous laboratory equipment

Management Comments

TB @ LANL assumed M-111 bins repackaged into SWBs since volumes are the same. This allows us to capture the volume for PA purposes. Understand this is not a commitment by BCL.

Waste Stream ID: **BCLRH-MT01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Hazardous organic debris			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	28.60
Aluminum-Base Metal/Alloys	8.40
Other Metal/Alloys	101.00
Other Inorganic Materials	10.10
Cellulosics	204.00
Rubber	27.00
Plastics	101.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	18.50
Vitrified	0.00
Solidified, Organic Matrix	1.70
Soils	0.00
Packaging Material, Steel	770.00
Packaging Material, Plastic	17.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.87E+00
Am-243	2.15E-02
Cm-244	2.31E+00
Cs-137	5.72E+01
Np-237	2.59E-04
Pu-238	2.76E+00
Pu-239	3.55E-01
Pu-240	5.78E-01
Pu-241	4.66E+01
Pu-242	1.73E-03
Sr-90	3.76E+01
U-233	3.08E-08
U-234	9.89E-04
U-235	1.44E-05
U-236	1.91E-04
U-238	2.80E-04

Waste Stream Description

Hazardous organic debris consists of the materials generated during repackaging of the waste materials generated from research and development activities conducted in Building JN-1. This waste consists primarily of iron based metals, paper, plastic, cloth, aluminum, cellulosics, rubber, and lead items (bricks, shot, apron, and gloves).

Management Comments

N/A

Waste Stream ID: **BCLRH-T001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Pool Water Filter Resin			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3211
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	5.60
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	5.60
Cellulosics	6.70
Rubber	5.60
Plastics	6.70
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	33.70
Vitrified	0.00
Solidified, Organic Matrix	129.20
Soils	0.00
Packaging Material, Steel	770.00
Packaging Material, Plastic	17.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.99E-02
Am-243	1.49E-04
Cm-244	1.60E-02
Cs-137	3.97E-01
Np-237	1.79E-06
Pu-238	1.92E-02
Pu-239	2.46E-03
Pu-240	4.01E-03
Pu-241	3.23E-01
Pu-242	1.20E-05
Sr-90	2.60E-01
U-233	2.13E-10
U-234	6.87E-06
U-235	1.00E-07
U-236	1.33E-06
U-238	1.94E-06

Waste Stream Description

Pool Water Filter Resin consists of ion-exchange resin (nuclear grade), which was used for deionizing the Transfer/Storage Pool water. The CM-2 Regenerated Mixed Bed Resin used was contained in muslin bags (cotton bags). The matrix will also include Floor Dry (diatomaceous earth) used as an absorbent during the original packaging of this waste and 10 lbs. of absorbent (50:50 Floor Dry and Radsorb) added during repackaging to absorb any water from condensation or dewatering

Management Comments

N/A

Waste Stream ID: **BCLRH-T002**

Appendix J

DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Pool Water Prefilters and Debris			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	1.2	0.0	1.2
As-Generated Total	1.2	0.0	1.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	1.8	0.0	1.8
Final Form Total	1.8	0.0	1.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	8.40
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	379.30
Cellulosics	8.40
Rubber	8.40
Plastics	8.40
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	25.30
Vitrified	0.00
Solidified, Organic Matrix	18.50
Soils	0.00
Packaging Material, Steel	770.00
Packaging Material, Plastic	17.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.33E-01
Cm-244	2.78E-01
Cs-137	4.68E-01
Pu-238	6.23E-01
Pu-239	6.58E-02
Pu-240	1.07E-01
Sr-90	1.89E+01
U-233	9.04E-09
U-234	2.92E-04
U-235	4.38E-06
U-236	5.76E-05
U-238	8.34E-05

Waste Stream Description

Pool Water Prefilters and Debris consists of the cartridge prefilters and debris generated during the change-out of resin used for filtering the Transfer/Storage Pool water. The filter matrix is composed of glass and cellulose fibers combined with melamine resin. The end caps are polypropylene and the filters are placed in the canisters with rubber gaskets (butyl/nitrile). Other debris that may be present from the original packaging may include paper (blotter paper and Floor Dry bags), plastic liners, rubber gaskets, muslin resin bags, rubber gloves, and other miscellaneous plastic, cellulosics, and metal materials. The waste matrix will also include Floor Dry and Radsorb added during repackaging to absorb any water from condensation or dewatering.

Management Comments

N/A

Waste Stream ID: **BCLRH-T003**

Appendix J

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Organic Debris			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	11.0	0.2	11.2
As-Generated Total	11.0	0.2	11.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	16.0	0.9	16.9
Final Form Total	16.0	0.9	16.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	8.00
Aluminum-Base Metal/Alloys	8.00
Other Metal/Alloys	1.60
Other Inorganic Materials	9.60
Cellulosics	31.90
Rubber	23.90
Plastics	95.60
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	17.60
Vitrified	0.00
Solidified, Organic Matrix	1.60
Soils	1.60
Packaging Material, Steel	770.00
Packaging Material, Plastic	17.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.43E-01
Am-243	1.07E-03
Cm-244	1.15E-01
Cs-137	2.85E+00
Np-237	1.29E-05
Pu-238	1.37E-01
Pu-239	1.77E-02
Pu-240	2.88E-02
Pu-241	2.32E+00
Pu-242	8.63E-05
Sr-90	1.87E+00
U-233	1.53E-09
U-234	4.92E-05
U-235	7.17E-07
U-236	9.56E-06
U-238	1.39E-05

Waste Stream Description

Organic Debris consists of the materials generated during repackaging of the waste materials generated from research and development activities conducted in Building JN-1. This waste consists primarily of rubber debris material including polyethylene, polyvinyl chloride, nylon, Styrofoam, Tygon, plexiglass, and neoprene. Wood debris with no signs of hazardous waste contamination may also be included. Waste items may include non-deteriorated sheeting, hose/tubing, respirators, boots, rain suits, o-rings, electrical cords, safety glasses, plexiglass panels, plywood, and pallets. The waste matrix will also include Floor Dry and Radsorb added during repackaging to absorb any water from condensation or dewatering

Management Comments

N/A

Waste Stream ID: **BCLRH-T004**

Appendix J

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Inorganic Debris			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5190
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	10.0	0.2	10.2
As-Generated Total	10.0	0.2	10.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	14.2	0.9	15.1
Final Form Total	14.2	0.9	15.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	267.10
Aluminum-Base Metal/Alloys	121.60
Other Metal/Alloys	1.60
Other Inorganic Materials	113.20
Cellulosics	17.80
Rubber	3.20
Plastics	97.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	17.80
Vitrified	0.00
Solidified, Organic Matrix	1.60
Soils	40.40
Packaging Material, Steel	770.00
Packaging Material, Plastic	17.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.60E+00
Am-243	3.44E-02
Cm-244	3.70E+00
Cs-137	9.16E+01
Np-237	4.15E-04
Pu-238	4.43E+00
Pu-239	5.69E-01
Pu-240	9.30E-01
Pu-241	7.48E+01
Pu-242	2.78E-03
Sr-90	6.03E+01
U-233	4.94E-08
U-234	1.58E-03
U-235	2.32E-05
U-236	3.07E-04
U-238	4.50E-04

Waste Stream Description

Inorganic Debris consists of glass and metal debris generated during repackaging of the waste materials generated from research and development activities conducted in Building JN-1. Glass debris includes laboratory glassware, windows, and various glass apparatus. Metal debris may include deteriorated berry cans, cable wire, planchets, sign, valves, piping, strapping, tools, foil, sheeting, fixtures, equipment, hardware, fuel rod cladding, and Metmounts (sectioned metal material embedded in a plastic matrix). Metals of construction include stainless steel, aluminum, iron, copper, beryllium, and zirconium alloy (Zr-2, Zr-4). The waste matrix will also include Floor Dry and Radsorb added during repackaging to absorb any water from condensation or dewatering.

Management Comments

N/A

Waste Stream ID: **BCLRH-T005**

Appendix J

DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Tri-Nuc Filters			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	61.70
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	22.50
Cellulosics	5.60
Rubber	0.00
Plastics	39.30
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	16.90
Vitrified	0.00
Solidified, Organic Matrix	12.40
Soils	0.00
Packaging Material, Steel	770.00
Packaging Material, Plastic	17.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.09E+00
Am-243	3.05E-02
Cm-244	3.29E+00
Cs-137	8.13E+01
Np-237	3.68E-04
Pu-238	3.94E+00
Pu-239	5.05E-01
Pu-240	8.23E-01
Pu-241	6.64E+01
Pu-242	2.47E-03
Sr-90	5.33E+01
U-233	4.38E-08
U-234	1.41E-03
U-235	2.06E-05
U-236	2.73E-04
U-238	4.00E-04

Waste Stream Description

Tri-Nuc Filters consists of filter cartridges used in the underwater vacuum system for cleaning the surfaces and filtering the water of the Transfer/Storage Pool. The cartridges are 30" long and 6" in diameter and consist of media enclosed within a stainless steel screen shroud, and aluminum screen reinforced plastisol end caps. The filter media is composed of polypropylene, melt brown reinforced typar, and is available in 0.3, 1, 5, 10, and 20-micron mesh sizes. The waste matrix will also include Floor Dry (diatomaceous earth) and Radsorb (50:50 mix) added to each liner.

Management Comments

N/A

Waste Stream ID: **BCLRH-T006**

Appendix J

DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Slugs			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	3.40
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	16.80
Vitrified	0.00
Solidified, Organic Matrix	154.50
Soils	0.00
Packaging Material, Steel	770.00
Packaging Material, Plastic	17.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.58E-01
Am-243	7.17E-03
Cm-244	7.71E-01
Cs-137	1.91E+01
Np-237	8.65E-05
Pu-238	9.23E-01
Pu-239	1.19E-01
Pu-240	1.94E-01
Pu-241	1.56E+01
Pu-242	5.80E-04
Sr-90	1.26E+01
U-233	1.03E-08
U-234	3.30E-04
U-235	4.84E-06
U-236	6.40E-05
U-238	9.37E-05

Waste Stream Description

Slugs were produced in Alpha-Gamma Cell 7 by dissolving irradiated (burnup) fuel in an acid solution, which was then diluted several times and mixed with cement and water and allowed to solidify in Styrofoam cups. The slugs will contain only limited amounts of dissolved fuel because of the dilution. The Styrofoam cups will be segregated from the slugs prior to final packaging. The waste matrix will also include Floor Dry and Radsorb added during repackaging to absorb any water from condensation or dewatering

Management Comments

N/A

Waste Stream ID: **BCLRH-T007**

Appendix J

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Laundry Sludge			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	59.00
Cellulosics	10.10
Rubber	0.00
Plastics	3.40
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	10.10
Soils	0.00
Packaging Material, Steel	770.00
Packaging Material, Plastic	17.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.92E-03
Am-243	5.91E-05
Cm-244	6.38E-03
Cs-137	1.58E-01
Np-237	7.13E-07
Pu-238	7.62E-03
Pu-239	9.79E-04
Pu-240	1.60E-03
Pu-241	1.29E-01
Pu-242	4.77E-06
Sr-90	1.04E-01
U-233	8.48E-11
U-234	2.73E-06
U-235	4.00E-08
U-236	5.28E-07
U-238	7.74E-07

Waste Stream Description

Laundry sludge consists of a particulate sludge (dirt, debris, and lint) generated when the laundry system still box requires cleaning. The box is heated to boil off the water contained in the particulate material. The resulting sludge is raked into plastic bags containing Radsorb (10%-20% by weight) to absorb any water from condensation or dewatering.

Management Comments

N/A

Waste Stream ID: **BCLRH-T008**

Appendix J

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Laundry Sock Filters and Lint			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	6.70
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	39.30
Cellulosics	134.80
Rubber	0.00
Plastics	39.30
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	16.90
Vitrified	0.00
Solidified, Organic Matrix	12.40
Soils	0.00
Packaging Material, Steel	770.00
Packaging Material, Plastic	17.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.44E-02
Am-243	7.06E-04
Cm-244	7.62E-02
Cs-137	1.89E+00
Np-237	8.51E-06
Pu-238	9.11E-02
Pu-239	1.17E-02
Pu-240	1.91E-02
Pu-241	1.54E+00
Pu-242	5.70E-05
Sr-90	1.24E+00
U-233	1.01E-09
U-234	3.26E-05
U-235	4.77E-07
U-236	6.31E-06
U-238	9.25E-06

Waste Stream Description

Laundry Sock Filters and Lint are generated during the operation of the BCLDP TRU waste laundry system in the JN-1 Pump Room. This stream includes Rosedale polypropylene high-efficiency liquid filter bags and cotton lint from laundered mop heads and rags. No RCRA waste was processed through the laundry

Management Comments

N/A

Waste Stream ID: **BCLRH-T009**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Pressure Wash Filters			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	1.0	0.0	1.0
As-Generated Total	1.0	0.0	1.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	1.8	0.0	1.8
Final Form Total	1.8	0.0	1.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	22.50
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	168.60
Cellulosics	42.10
Rubber	8.40
Plastics	15.50
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	35.10
Vitrified	0.00
Solidified, Organic Matrix	91.20
Soils	0.00
Packaging Material, Steel	770.00
Packaging Material, Plastic	17.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.18E-01
Am-243	2.38E-03
Cm-244	2.56E-01
Cs-137	6.37E+00
Np-237	2.87E-05
Pu-238	3.07E-01
Pu-239	3.94E-02
Pu-240	6.43E-02
Pu-241	5.16E+00
Pu-242	1.92E-04
Sr-90	4.17E+00
U-233	3.42E-09
U-234	1.10E-04
U-235	1.60E-06
U-236	2.13E-05
U-238	3.11E-05

Waste Stream Description

Pressure Wash Filters used in the pressure wash water recovery system for filtering wash water transferred for evaporation. Three types of filter/cartridges were used. Cotton media filters consisting of cotton yarn and cotton media wound around a polypropylene core. Resin media type cartridges composed of glass and cellulose fibers combined with melamine resin, and a polypropylene sock filter consisting of polypropylene material supported by a carbon steel ring. Small quantities of sludge collected in the filter housings and settling tank bottoms are included in this waste stream. The waste matrix also includes Radsorb added to each liner.

Management Comments

N/A

Waste Stream ID: **BCLRH-T010**

Appendix J

DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Sabotage Pieces			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	129.20
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	14.60
Rubber	0.00
Plastics	14.60
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	770.00
Packaging Material, Plastic	17.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.61E+00
Am-243	7.83E-02
Cm-244	4.11E+00
Cs-137	8.04E+02
Np-237	5.02E-03
Pu-238	1.67E-02
Pu-239	1.43E-03
Pu-240	1.75E-02
Pu-241	1.97E-01
Pu-242	1.08E-05
Sr-90	4.35E+02
U-233	4.86E-07
U-234	6.05E-06
U-235	5.45E-08
U-236	1.18E-06
U-238	1.45E-06

Waste Stream Description

Sabotage Pieces consist of materials generated during repackaging of waste generated during research and development activities conducted on sabotage testing of model casks using simulated vitrified high-level waste. This waste stream consists primarily of iron-based metals.

Management Comments

N/A

Waste Stream ID: **BCLRH-T011**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Hydraulic Room Sludge and Debris			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3212
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	2.9	0.0	2.9
As-Generated Total	2.9	0.0	2.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	4.4	0.0	4.4
Final Form Total	4.4	0.0	4.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	7.90
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	23.60
Cellulosics	40.80
Rubber	7.90
Plastics	40.80
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	283.00
Vitrified	0.00
Solidified, Organic Matrix	141.30
Soils	0.00
Packaging Material, Steel	770.00
Packaging Material, Plastic	17.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.34E-02
Cm-244	5.37E-03
Cs-137	1.61E-01
Pu-238	7.92E-03
Pu-239	2.98E-03
Sr-90	8.70E-02
U-234	5.68E-06
U-235	2.03E-07
U-238	1.21E-06

Waste Stream Description

Hydraulic Room Sludge and Debris waste consists of rubble, sludge, and absorbent materials as well as the plastic bags that the waste is in. The hydraulic sludge was absorbed using a greater than 50% No Char and Radsorb polymers. Then the hydraulic sludge was packed in plastic bags with additional No Char, Radsorb, and Floor Dry. Prior to packaging, 10 pounds of absorbent (50:50 Floor Dry and Radsorb) was added to the liner to absorb and water from condensation or dewatering

Management Comments

N/A

Waste Stream ID: **BT-T001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	BT-T001	Stream Name	Irradiated TRU material waste			Inventory Date	9/30/2002
Local ID	BT-T001	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Insert	2.7	0.0	2.7
As-Generated Total			2.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister used to overpack 55 gallon drums	2.0	0.0	2.0
Final Form Total			2.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	200.00
Other Inorganic Materials	0.00
Cellulosics	10.00
Rubber	0.00
Plastics	500.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	1400.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.27E+00
Am-243	5.96E-03
Cm-244	3.82E-01
Cs-137	3.22E+03
Np-237	8.47E-03
Pu-238	1.40E+02
Pu-239	1.09E-01
Pu-240	2.23E-01
Pu-241	2.38E+01
Pu-242	1.74E-03
Pu-244	9.95E-11
Sr-90	3.22E+03
Th-232	8.47E-12
U-234	2.98E-01
U-235	3.92E-03
U-236	4.47E-02
U-238	1.81E-05

Waste Stream Description

Specimen processing fines, material, and debris.

Management Comments

Bettis is not a long-term storage facility. TRU will be shipped off-site as directed by DOE-HDQ.

Original data showed 3 SWBs. Int. volume and # stored changed to more accurately reflect the waste volume of 2 m3 as follows:

2 m3 / .200 m3 / drum = 9.615 drums, rounded to 10 drums.

Tb 3/27/03.

Waste Stream ID: **BT-T002**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	BT-T002	Stream Name	Contaminated Piping System			Inventory Date	9/30/2002
Local ID	BT-T002	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Standard Waste Box /	18.9	0.0	18.9	
As-Generated Total		18.9	0.0	18.9

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
Standard Waste Box	18.6	0.0	18.6	
Final Form Total		18.6	0.0	18.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	430.00
Aluminum-Base Metal/Alloys	35.00
Other Metal/Alloys	1.00
Other Inorganic Materials	1.00
Cellulosics	0.50
Rubber	7.00
Plastics	35.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	1.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.53E-04
Am-243	2.13E-06
Cm-244	1.36E-04
Cs-137	1.15E+00
Np-237	3.03E-06
Pu-238	5.00E-02
Pu-239	3.90E-05
Pu-240	7.97E-05
Pu-241	8.52E-03
Pu-242	6.20E-07
Pu-244	3.56E-14
Sr-90	1.15E+00
Th-232	3.03E-15
U-234	1.07E-04
U-235	1.40E-06
U-236	1.60E-05
U-238	6.46E-09

Waste Stream Description

Piping, pumps, tanks, and other metal items, and debris.

Management Comments

Waste volumes revised to reflect latest estimates. This waste contains no classified material. Radionuclide data generated date is 10/2002. There are no pyrochemical salts, PCB's or other materials of particular concern. Bettis is not a long term storage facility. TRU will be shipped off-site as directed by DOE-HDQ.

Waste Stream ID: **ET-C1-B55**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	ET-W034	Stream Name	PU Facility D&D CC1-B55			Inventory Date	9/30/2002
Local ID	ET	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3290
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Drum / 55-gallon	0.8	0.0	0.8
As-Generated Total	0.8	0.0	0.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
Final Form Total	0.8	0.0	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	94.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	141.00
Plastics	47.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	660.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.75E-02
Np-237	2.27E-07
Pu-238	1.26E-02
Pu-239	7.40E-02
Pu-240	3.69E-02
Pu-241	3.32E-01
Th-229	2.48E-15
Th-230	3.28E-08
Th-232	4.58E-18
U-233	6.20E-12
U-234	2.80E-04
U-235	9.48E-10
U-236	1.43E-08

Waste Stream Description

Generated after DOE fuel decladding operations and the clean-up of facilities. Wastes include soft trash (paper, plastic, rubber), vermiculite, solidified oil. Radiological contamination includes TRU (Pu-239/241/238/242, Am-241). The waste was packaged to the 1987 Idaho WIPP criteria in 4 55-gal drums. Waste stream is no longer generated.

Management Comments

This W.S. was packaged to Idaho WIPP 1987 criteria. Options for shipping the waste to a suitable site are being considered by DOE.

Waste Stream ID: **ET-C1-D139**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Pu facility D&D (C1-D139)			Inventory Date	9/30/2002
Local ID	ET	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	95.00
Rubber	31.00
Plastics	31.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.21E-02
Np-237	1.35E-07
Pu-238	7.07E-03
Pu-239	4.20E-02
Pu-240	2.10E-02
Pu-241	1.78E-01
Pu-242	9.50E-06
Th-229	1.72E-15
Th-230	1.91E-11
Th-232	3.01E-18
U-233	3.99E-12
U-234	2.97E-07
U-235	5.80E-10
U-236	8.71E-09
U-238	2.01E-14

Waste Stream Description

Heterogenous solid debris from disassembly of a glovebox.

Management Comments

Originally packaged to Idaho WIPP 1987 criteria.

Waste Stream ID: **ET-C2-SEFOR**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Hot Laboratory D&D Waste (C2-SEFOR)			Inventory Date	9/30/2002
Local ID	ET	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	1.2	0.0	1.2
As-Generated Total	1.2	0.0	1.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.2	0.0	1.2
Final Form Total	1.2	0.0	1.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	139.00
Aluminum-Base Metal/Alloys	99.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	124.00
Rubber	10.00
Plastics	124.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.42E-01
Cs-137	1.30E-02
Np-237	6.20E-07
Pu-239	1.10E-01
Pu-240	3.69E-02
Pu-241	4.59E-01
Sr-90	9.32E-03
Th-229	8.04E-15
Th-232	5.31E-18
U-233	1.85E-11
U-235	1.52E-09
U-236	1.53E-08

Waste Stream Description

Heterogeneous solid debris from cleanup/ disassembly of a glovebox.

Management Comments

Originally packaged to Idaho WIPP 1987 Criteria.

Waste Stream ID: ET-R1-DLR

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Hot Laboratory Drain Line Residue (R1-DLR)			Inventory Date	9/30/2002
Local ID	ET	Handling	RH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Drum / 55 gallon	1.5	0.0	1.5	
As-Generated Total		1.5	0.0	1.5

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
RH Canister	2.7	0.0	2.7	
RH Canister	1.5	0.0	1.5	
Final Form Total		4.1	0.0	4.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	103.60
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	212.70
Soils	0.00
Packaging Material, Steel	525.00
Packaging Material, Plastic	26.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.28E-02
Cs-137	2.37E+00
Np-237	5.80E-08
Pu-238	3.59E-03
Pu-239	1.47E-01
Pu-240	2.73E-02
Pu-241	8.50E-02
Sr-90	2.30E+00
Th-229	2.46E-16
Th-230	3.50E-12
Th-232	1.28E-18
U-233	9.90E-13
U-234	9.63E-08
U-235	2.18E-04
U-236	6.47E-09
U-238	5.45E-04

Waste Stream Description

Steel and fuel element fines from fuel de-clad grinding and cutting operations, plus sand, dirt, grinding materials, and concrete/dust particulate.

Management Comments

N/A

Waste Stream ID: **ET-R2-D107**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	ET-W002	Stream Name	Hot Lab & PU Facility D&D (R2-D107)			Inventory Date	9/30/2002
Local ID	ET	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Drum / 55-gallon	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	29.00
Aluminum-Base Metal/Alloys	19.20
Other Metal/Alloys	67.80
Other Inorganic Materials	0.00
Cellulosics	19.20
Rubber	0.00
Plastics	9.80
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	48.60
Soils	0.00
Packaging Material, Steel	525.00
Packaging Material, Plastic	26.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.20E-01
Cs-137	5.75E-02
Np-237	2.71E-06
Pu-239	5.19E-01
Pu-240	1.82E-01
Pu-241	2.10E+00
Sr-90	4.02E-02
Th-229	3.51E-14
Th-232	2.61E-17
U-233	8.08E-11
U-235	7.16E-09
U-236	7.55E-08

Waste Stream Description

Generated after DOE fuel decladding operations and the clean-up of facilities. Waste consists of a single 85-lb lead brick with surface transuranic contamination with other lead shielding and other waste (metals, filter, vermiculite and trash). Radiological contamination includes fission (Cs-137, Sr-90) and TRU (Pu-238/242/239/241, Am-241). The waste was packaged to the 1987 Idaho WIPP criteria in a single 55-gal drum. Waste stream is no longer generated.

Management Comments

This W.S. was packaged to Idaho WIPP 1987 criteria. ETEC has no longer the capability (hot cell or glove box) to package TRU contaminated materials.

Waste Stream ID: IN-AE-AGHC-01

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	RH-TRU Wastes			Inventory Date	9/30/2002
Local ID	ID-AEO-104, -107	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 30 gallon	70.8	0.0	70.8
As-Generated Total	70.8	0.0	70.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	184.2	0.0	184.2
Final Form Total	184.2	0.0	184.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	85.69
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	3.07
Other Inorganic Materials	5.00
Cellulosics	16.30
Rubber	3.80
Plastics	10.30
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	498.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.59E-03
Cs-137	1.06E+00
Np-237	1.92E-09
Pu-239	1.03E-01
Pu-240	4.15E-02
Pu-241	1.20E-01
Th-229	3.32E-18
Th-232	1.49E-18
U-233	1.98E-14
U-235	7.07E-06
U-236	8.61E-09

Waste Stream Description

This waste stream, generated at Argonne National Laboratory-East, contains alpha gamma hot cell waste. Noncombustible and combustible waste are segregated. Combustible wastes include paper, plastic and PVC containers, rubber O-rings and gloves, rags, and Q-tips. Noncombustible wastes include lab equipment, tools, fixtures, glassware, pipe, tubing, fitting, fasteners, firebrick, ferrous and nonferrous metal scraps and parts, and small electric motors. Sodium in the waste is reacted with ethyl alcohol, mixed with pelletized clay, and dried. Nitrates and oxidizing agents are neutralized or reduced, mixed with pelletized clay, and dried to ferrous or ferric salts.

The average organic content is 80 kg/m3. The combustible content of some containers exceeds 25 volume percent, including packaging. Fines are within WIPP-WAC limits. No sludges or free liquids should be present. No explosive or pyrophoric materials should be in this waste. Surface contamination and nuclear criticality meet WIPP-WAC limits. Thermal power does not exceed 10 watts per package. Surface dose rates average 5.3 R/hr and are limited to 30 R/hr. The waste is packaged in 30 gallon drums.

The waste material parameter data for cellulosic, plastic, and rubber (CPR) provided in the original submittal was 16 kg/m3. The difference between this and the CPR data in the CRA-2004 is due to a re-calculation of the final form waste volume to account for payload containers.

Management Comments

This WS incorporates old WTWBIR WS Ids: IN-W259.921, IN-W349.667, IN-W349.924

Waste Stream ID: **IN-AW-161**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Analytical Chemistry Lab Glassware			Inventory Date	9/30/2002
Local ID	ID-INL-161	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 30 gallon	0.9	0.0	0.9
As-Generated Total	0.9	0.0	0.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister used to overpack 30 gallon drums	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1584.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	515.00
Cellulosics	240.00
Rubber	0.00
Plastics	191.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	109.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	7.15E-01
Pu-239	2.77E+00
Pu-240	5.91E-02
Th-232	2.12E-18
U-235	1.64E-06
U-236	1.23E-08

Waste Stream Description

This waste stream was generated at Argonne National Laboratory-West at the INEL. These wastes consist of glassware, paper, poly, and miscellaneous hardware generated during analytical chemistry laboratory operations.

Management Comments

This is a new waste stream and was not included in the previous Transuranic Waste Baseline Inventory Report submittal.

Waste Stream ID: **IN-BN-510**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	SUPERCOMPACTED DEBRIS WASTE			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5490
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Bin	1802.5	0.0	1802.5
Box / Misc.	32644.7	0.0	32644.7
Drum / 55 gallon	12016.2	0.0	12016.2
As-Generated Total		46463.3	0.0
			46463.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
100 gallon drum	19874.8	0.0	19874.8
Final Form Total		19874.8	0.0
			19874.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	261.10
Aluminum-Base Metal/Alloys	20.67
Other Metal/Alloys	154.43
Other Inorganic Materials	65.22
Cellulosics	302.67
Rubber	79.91
Plastics	204.54
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	119.68
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.74E-01
Am-243	3.22E-07
Np-237	1.13E-05
Pu-238	2.54E+00
Pu-239	2.00E+00
Pu-240	1.70E-01
Pu-241	3.95E-03
Pu-242	5.66E-04
Th-229	5.41E-05
Th-230	5.86E-09
Th-232	3.30E-04
U-233	4.44E-02
U-234	9.85E-05
U-235	3.98E-06
U-236	6.55E-08
U-238	1.14E-06

Waste Stream Description

SUPERCOMPACTED DEBRIS WASTE

Management Comments

N/A

Waste Stream ID: **IN-GEM-01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Glovebox Excavator Method Project Soils and Sludge			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Soils	Waste Matrix Code	S4000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: INEEL Pit 9

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.0	97.1	97.1
As-Generated Total		0.0	97.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	97.1	97.1
Final Form Total		0.0	97.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.50
Other Inorganic Materials	59.40
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	97.88
Cement (Solidified)	116.58
Vitrified	0.00
Solidified, Organic Matrix	224.00
Soils	947.70
Packaging Material, Steel	168.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.50E-01
Pu-238	4.88E-03
Pu-239	2.18E-01
Pu-240	5.00E-02
Pu-241	2.70E-01
Pu-242	2.57E-06

Waste Stream Description

Waste consists of soils (approximately 60%) and associated sludge type wastes to be generated through environmental restoration activities at the Idaho National Engineering Laboratory's Subsurface Disposal Area (Pit 9). The sludge waste originated at the Rocky Flats Plant from various treatment processes in building 774. Sludge wastes included in the waste stream correspond to the following ID numbers: IN-W216, First Stage Sludge; IN-W228, Second Stage Sludge; IN-W309, Organic Setups Oil Solids; IN-W157, Special Setups (Cement); IN-W315, Evaporator Salts; IN-W276, Graphite. Graphite waste generated at the Rocky Flats Plant for casting plutonium metal is also included in the overall waste stream. The originally disposed sludges, graphite and surrounding soils are packaged in a single waste stream through environmental restoration retrieval and repackaging activities.

Management Comments

N/A

Waste Stream ID: **IN-GEM-02**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID Stream Name Inventory Date
 Local ID Handling Final Waste Form Waste Matrix Code Activity Concentrations Decayed to CY

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.0	23.1	23.1
As-Generated Total	0.0	23.1	23.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	23.1	23.1
Final Form Total	0.0	23.1	23.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	17.30
Aluminum-Base Metal/Alloys	1.13
Other Metal/Alloys	58.00
Other Inorganic Materials	13.56
Cellulosics	41.00
Rubber	17.43
Plastics	63.27
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	168.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.50E-01
Pu-238	4.88E-03
Pu-239	2.18E-01
Pu-240	5.00E-02
Pu-241	2.70E-01
Pu-242	2.57E-06

Waste Stream Description

Waste consists of combustible and noncombustible heterogeneous debris generated through environmental restoration activities at the INEEL Subsurface disposal area (Pit 9). The debris includes drum remnants of sludge waste packaging material that originated at the Rocky Flats Plant from various treatment processes in building 774. Original packaging material (if still present) are segregated during retrieval operations and combined with noncombustible and combustible debris streams that originated at the Rocky Flats Plant. The original noncombustible and combustible debris streams are similar to the following ID numbers: IN-W169, dry Paper and Rags; IN-W278, Low Specific Activity Metal, Glass Etc.; and IN-W296, Non special Source Metal. The materials are combined in a single waste stream through environmental restoration retrieval repackaging activities.

Management Comments

N/A

Waste Stream ID: **IN-ICP-002**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Idaho Completion Project - Inorganic Sludge (741 and 742 series)			Inventory Date	9/30/2003
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: INEEL Pit 4

Waste Material Parameters

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Not contained	5652.0	0.0	5652.0
As-Generated Total	5652.0	0.0	5652.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	8308.1	8308.1
Final Form Total	0.0	8308.1	8308.1

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	14.49
Cellulosics	0.00
Rubber	0.00
Plastics	1.99
Solidified, Inorganic Matrix	127.17
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	947.70
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Waste Stream Description

Pre-1970 buried waste retrieved for the Idaho Completion Project

Management Comments

Waste material parameters were taken from IN-228.101 - solidified inorganic second stage sludge, with the addition of soil (50% by volume). The waste will be placed into 55-gallon drum liners and filled with approximately .142 m3 (5 ft3) of waste. The liner will then be placed into plastic transfer bags that will go into the 55-gallon drum.

Waste Stream ID: **IN-ICP-003**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Idaho Completion Project - Organic Sludge			Inventory Date	11/5/2004
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: INEEL Pit 1, 2, 4, 5, 6, 9, and 10

Waste Material Parameters

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Not contained	2383.0	0.0	2383.0

As-Generated Total 2383.0 0.0 2383.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	3503.1	3503.1

Final Form Total 0.0 3503.1 3503.1

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	166.75
Solidified, Inorganic Matrix	955.49
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	1032.33
Soils	947.70
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Waste Stream Description

Pre-1970 buried waste retrieved for the Idaho Completion Project

Management Comments

Waste material parameters are based on OASIS waste stream at RFETS - RF-MT0801 with soils (50% by volume), reported in IN-GEM-01, and standard packaging materials. The waste will be placed into 55-gallon drum liners and filled with approximately .142 m3 (5 ft3) of waste. The liner will then be placed into plastic transfer bags that will go into the 55-gallon drum.

Waste Stream ID: **IN-ICP-004**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Idaho Completion Project - Graphite			Inventory Date	11/5/2004
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: INEEL Pit 1, 2, 4, 5, 6, 9, and 10

Waste Material Parameters

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Not contained	491.0	0.0	491.0
As-Generated Total		491.0	0.0
			491.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	722.2	722.2
Final Form Total		0.0	722.2
			722.2

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	59.40
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	97.88
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	224.00
Soils	947.70
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Waste Stream Description

Pre-1970 buried waste retrieved for the Idaho Completion Project

Management Comments

The waste material parameters were taken from IN-GEM-01, a graphite-containing waste stream with soils (50% by volume) and standard packaging added. The waste will be placed in 55-gallon drum liners and filled with approximately .142 m3 (5 ft3) of waste. The liner will then be placed into plastic transfer bags that will go into the 55-gallon drum.

Waste Stream ID: **IN-ICP-005**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Idaho Completion Project - Filters			Inventory Date	11/5/2004
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: INEEL Pit 1, 2, 4, 5, 6, 9, and 10

Waste Material Parameters

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Not contained	3278.0	0.0	3278.0
As-Generated Total	3278.0	0.0	3278.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	4819.2	4819.2
Final Form Total	0.0	4819.2	4819.2

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.06
Aluminum-Base Metal/Alloys	8.59
Other Metal/Alloys	0.42
Other Inorganic Materials	22.28
Cellulosics	137.66
Rubber	0.08
Plastics	7.28
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	947.70
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Waste Stream Description

Pre-1970 buried waste retrieved for the Idaho Completion Project

Management Comments

Waste material parameters from filter debris waste stream that has been emplaced - IN-W211.001 with soils added from IN-GEM-01 (50% by volume). The waste will be placed into 55-gallon drum liners and filled with approximately .142m3 (5ft3) of waste. The liner will then be placed into plastic transfer bags that will go into the 55-gallon drum.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Solidified Fuel Sludge			Inventory Date	9/30/2002
Local ID	ID-CPP-151	Handling	RH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 30 gallon	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	111.95
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	160.11
Other Inorganic Materials	30.74
Cellulosics	0.00
Rubber	0.00
Plastics	13.58
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	498.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.54E-01
Cs-137	5.75E+00
Np-237	7.88E-07
Pu-238	2.24E+00
Pu-239	2.72E-01
Pu-240	3.15E-01
Pu-241	4.92E+01
Pu-242	1.13E-03
Th-229	1.36E-15
Th-230	1.46E-09
Th-232	1.13E-17
U-233	8.13E-12
U-234	4.58E-05
U-235	9.66E-06
U-236	6.54E-08
U-238	1.19E-12

Waste Stream Description

This waste stream was generated at the Idaho Chemical Processing Plant at the INEEL, and may include both combustibles and noncombustibles. The waste includes a solidified sludge of acid-dissolved fuel, absorbed into diatomaceous earth. Other materials in the wastes include glass containers, plastics, metal scraps, lead shielding, and lab equipment.

The waste is contained in two 30-gallon drums. At least one of the drums may be lead-lined. The sludge is contained in glass bottles and sealed inside metal cans. Other materials may include glass containers, plastics, metal, scraps, lead shielding, and miscellaneous laboratory equipment. The surface dose rate is limited to 30 R/hr.

Management Comments

This waste stream was previously reported under IN-W257.

Waste Stream ID: **IN-NRF-153**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Combustible Lab Waste			Inventory Date	9/30/2002
Local ID	ID-NRF-153	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 30 gallon	3.2	0.0	3.2
As-Generated Total	3.2	0.0	3.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	8.9	0.0	8.9
Final Form Total	8.9	0.0	8.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	3.59
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	21.52
Other Inorganic Materials	1.08
Cellulosics	2.15
Rubber	1.43
Plastics	1.79
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	498.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.31E-04
Np-237	6.39E-10
Pu-238	3.40E-02
Pu-239	4.05E-04
Pu-240	4.38E-04
Pu-241	3.99E-02
Pu-242	1.45E-06
Th-229	1.10E-18
Th-230	2.20E-11
Th-232	1.57E-20
U-233	6.60E-15
U-234	6.94E-07
U-235	5.92E-06
U-236	9.08E-11
U-238	1.53E-15

Waste Stream Description

The waste materials include process equipment from the hot cells, various size containers (50 ml to 8 gal), various plastic and paper products, wooden handles, and various woven fabric materials.

Management Comments

This is a new waste stream and was not included in the previous Transuranic Waste Baseline Inventory Report submittal.

Waste Stream ID: **IN-TRA-150**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Laboratory Waste			Inventory Date	9/30/2002
Local ID	ID-TRA-150	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	2.3	0.0	2.3
As-Generated Total	2.3	0.0	2.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister used to overpack 55 gallon drums	2.7	0.0	2.7
Final Form Total	2.7	0.0	2.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	343.00
Other Inorganic Materials	22.00
Cellulosics	0.00
Rubber	0.00
Plastics	41.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	109.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.08E+01
Np-237	2.46E-05
Pu-238	1.19E+01
Th-229	8.11E-14
Th-230	7.73E-09
U-233	3.70E-10
U-234	2.43E-04

Waste Stream Description

Unknown

Management Comments

This is a new waste stream and was not included in the previous Transuranic Waste Baseline Inventory Report submittal.

Waste Stream ID: **IN-TRA-157**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Miscellaneous Sources			Inventory Date	9/30/2002
Local ID	ID-TRA-157	Handling	RH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S3100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Source Information Not Compiled

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	3.1	0.0	3.1
As-Generated Total	3.1	0.0	3.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister used to overpack 55 gallon drums	3.6	0.0	3.6
Final Form Total	3.6	0.0	3.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	236.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	338.00
Other Inorganic Materials	65.00
Cellulosics	0.00
Rubber	0.00
Plastics	29.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	109.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.21E-02
Cs-137	6.98E-02
Np-237	1.19E-07
Pu-238	4.39E-02
Pu-239	1.22E-03
Th-229	3.92E-16
Th-230	2.85E-11
U-233	1.79E-12
U-234	8.97E-07
U-235	8.42E-12

Waste Stream Description

Naval Reactor Facility combustible lab waste

Management Comments

This is a new waste stream and was not included in the previous Transuranic Waste Baseline Inventory Report submittal.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W157	Stream Name	SPECIAL SETUPS (CEMENT):Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-004T	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3150
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Materials Production/Recovery Effluents

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / Misc.	3.2	0.0	3.2
Drum	327.6	0.0	327.6
As-Generated Total	330.8	0.0	330.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	122.8	0.0	122.8
TDOP	622.7	0.0	622.7
Final Form Total	745.6	0.0	745.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	17.17
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	222.67
Vitrified	0.00
Solidified, Organic Matrix	334.00
Soils	0.00
Packaging Material, Steel	208.85
Packaging Material, Plastic	22.41
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.04E-01
Np-237	3.71E-07
Pu-238	1.30E-02
Pu-239	4.07E-01
Pu-240	9.22E-02
Pu-241	1.32E+00
Pu-242	6.66E-06
Th-229	3.80E-15
Th-230	3.00E-11
Th-232	1.14E-17
U-233	9.73E-12
U-234	5.05E-07
U-235	5.22E-09
U-236	3.55E-08
U-238	1.31E-14

Waste Stream Description

This waste, generated at Rocky Flats Plant, consists of liquids absorbed on a cement mixture. The liquid wastes are not compatible with aqueous treatment processes and are handled separately due to their plutonium complexing nature.

The majority of complexing chemical wastes are generated by various operations at Building 771, Plutonium Recovery operations. All waste are processed by aqueous waste treatment, building 774. The complexing chemicals include some alcohols, organic acids, and versenes (trademark for a series of chelating agents based on EDTA). All liquids are analyzed or assayed prior to release to Building 774 for treatment. Only below-discard contaminated wastes are released for processing. Above discard contaminated wastes are processed by plutonium recovery operations.

The cement mixture used for absorbing complexing liquid wastes is composed of approximately 190 lb of Portland cement and 50 lb of pipe insulation cement, such as magnesia cement. The cements are placed in a prepared 55-gallon drum; the drum is then placed on a drum roller and rolled to ensure mixing of the cements. All liquid wastes are made basic prior to adding them to the cement mixture. Approximately 100 liters of liquid waste is then poured on the cement mixture and allowed to solidify. Approximately 10 to 15 lb of portland cement is then added on top of the cemented liquid waste before the o-ring bag is removed from the glovebox.

Since 1972, drums have been inspected for free liquids, proper packaging, and the use of proper content code. One to two quarts of oil-dri was placed on top of the outer, sealed polyethylene drum bag after inspection. In 1982, vermiculite replaced oil-dri to fill the remaining space between the outer, sealed polyethylene drum bag and the top of the rigid liner.

Some drums may be filled with the empty polyethylene bottles used to transport the liquid waste to Building 774. A small amount of portland cement is added to each bottle before placement in a drum.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W163.1007**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W163	Stream Name	OIL-DRI RESIDUE FROM INCINERATOR:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-375T	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3113
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Source Unknown

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	4.0	0.0	4.0
As-Generated Total			4.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	1.9	0.0	1.9
TDOP	9.6	0.0	9.6
Final Form Total			11.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	205.58
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	208.08
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.85
Packaging Material, Plastic	22.41
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.56E-01
Np-237	1.77E-06
Pu-238	2.61E-01
Pu-239	8.20E+00
Pu-240	1.86E+00
Pu-241	2.64E+01
Pu-242	1.33E-04
Th-229	1.10E-14
Th-230	6.02E-10
Th-232	2.30E-16
U-233	3.49E-11
U-234	1.01E-05
U-235	1.05E-07
U-236	7.16E-07
U-238	2.61E-13

Waste Stream Description

This waste stream, generated at Rocky Flats Plant, includes Oil-Dri absorbent and waste from laundry and utility operations.

Organic content should be less than 14 lb/ft3. No sludges or free liquids should be present. The Oil-Dri should meet WIPP immobilization standards. No explosive or pyrophoric materials should be in this waste.

The material is contained in 55-gallon drums. Inside the drums, the waste may be contained in PE bottles and/or metal paint cans and double-bagged in PE and PVC bags. Some waste may also be contained in PE residue process containers (RPCS). Drums were prepared and inspected according to pre and post-1972 procedures. Starting in 1982, vermiculite instead of Oil-Dri was used in the tops of the drums.

The waste matrix composition listed is for the incinerator waste. No information is available concerning the laundry and utility operation waste.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W164.153**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W164	Stream Name	ORGANIC AND SLUDGE IMMOBILIZATION SYSTEM:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-700T	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3114
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	1.9	0.0	1.9
As-Generated Total		1.9	0.0
			1.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
TDOP	4.8	0.0	4.8
Final Form Total		4.8	0.0
			4.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	342.23
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	107.83
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.43
Packaging Material, Plastic	23.67
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.73E-02
Np-237	4.06E-08
Pu-238	5.96E-03
Pu-239	1.87E-01
Pu-240	4.23E-02
Pu-241	6.04E-01
Pu-242	3.05E-06
Th-229	2.52E-16
Th-230	1.38E-11
Th-232	5.24E-18
U-233	8.00E-13
U-234	2.31E-07
U-235	2.40E-09
U-236	1.63E-08
U-238	5.98E-15

Waste Stream Description

Organic and sludge immobilization system (OASIS) waste consists of cutting oil and organic solvents solidified with Envirostone emulsifier, gypsum concrete, and an accelerator.

Except for the solidifying agent, the waste is similar to Item Description Code (IDC) 003 waste, and has been assigned the same Waste matrix composition.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W167.149**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W167	Stream Name	SOLIDIFIED ORGANICS:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-112T	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3114
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Materials Production/Recovery Effluents

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Drum	169.1	0.0	169.1	
As-Generated Total		169.1	0.0	169.1

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
SWB	62.4	0.0	62.4	
TDOP	320.9	0.0	320.9	
Final Form Total		383.3	0.0	383.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	347.48
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	109.49
Vitrified	0.00
Solidified, Organic Matrix	151.01
Soils	0.00
Packaging Material, Steel	208.85
Packaging Material, Plastic	22.42
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.32E-02
Np-237	1.59E-07
Pu-238	1.21E-02
Pu-239	3.78E-01
Pu-240	8.59E-02
Pu-241	1.22E+00
Pu-242	6.17E-06
Th-229	1.40E-15
Th-230	2.79E-11
Th-232	1.06E-17
U-233	3.80E-12
U-234	4.70E-07
U-235	4.84E-09
U-236	3.31E-08
U-238	1.21E-14

Waste Stream Description

TRU solid organic waste consists of cemented or absorbed organic liquids from production or laboratory processes. The content code packaged as112 includes IDC 003.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W174.154**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W174	Stream Name	HIGH-LEVEL ACID:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-MDO-834T	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3113
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Materials Production/Recovery Effluents

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Drum	190.9	0.0	190.9	
As-Generated Total		190.9	0.0	190.9

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
SWB	71.8	0.0	71.8	
TDOP	359.3	0.0	359.3	
Final Form Total		431.1	0.0	431.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	251.15
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	254.21
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.86
Packaging Material, Plastic	22.39
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	6.07E+00
Pu-239	4.52E-03
Pu-240	8.94E-03
Th-230	1.40E-08
Th-232	1.11E-18
U-234	2.36E-04
U-235	5.79E-11
U-236	3.45E-09

Waste Stream Description

This waste comes from Mound Laboratory. It consists of acid liquids, mainly nitric, absorbed onto a clay called Florco. The Florco is then placed in a drum bag in a drum lined with a 90-mil poly liner. Analytical assay values are available for each drum.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W177.156**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W177	Stream Name	HIGH-LEVEL CAUSTIC:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-MDO-835T	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3113
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Drum	355.1	0.0	355.1	
As-Generated Total		355.1	0.0	355.1

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
SWB	132.3	0.0	132.3	
TDOP	670.6	0.0	670.6	
Final Form Total		802.9	0.0	802.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	250.62
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	253.67
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.85
Packaging Material, Plastic	22.41
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.44E-05
Np-237	3.36E-11
Pu-238	6.94E+00
Pu-239	2.28E-03
Pu-240	1.40E-05
Pu-241	5.01E-04
Pu-242	8.00E-09
Th-229	2.09E-19
Th-230	1.60E-08
Th-232	1.73E-21
U-233	6.64E-16
U-234	2.69E-04
U-235	2.92E-11
U-236	5.39E-12
U-238	1.57E-17

Waste Stream Description

This waste comes from Mound Laboratory. It consists of caustic waste and neutralized waste liquids, absorbed onto a clay called Florco. The Florco is then placed in a drum bag in a drum lined with a 90-mil poly liner. Analytical assay values are available for each drum.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W179.158**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W179	Stream Name	HIGH-LEVEL SLUDGE/CEMENT:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-MDO-836T	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	886.1	0.0	886.1
As-Generated Total	886.1	0.0	886.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	328.9	0.0	328.9
TDOP	1666.9	0.0	1666.9
Final Form Total	1995.8	0.0	1995.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	251.63
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	254.70
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.85
Packaging Material, Plastic	22.41
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.88E-05
Np-237	9.08E-11
Pu-238	2.78E+00
Pu-239	5.33E-05
Pu-240	2.77E-05
Pu-241	1.35E-03
Pu-242	2.42E-08
Th-229	5.64E-19
Th-230	6.42E-09
Th-232	3.43E-21
U-233	1.79E-15
U-234	1.08E-04
U-235	6.83E-13
U-236	1.07E-11
U-238	4.75E-17

Waste Stream Description

This waste is from Mound Labs. The waste consists of shower water, decontamination water, cooling water, and some acids and caustics which have been solidified in portland cement. The cement is poured into a drum lined with a 90-mil poly liner. Analytical assay values are available on a batch basis. Volume for this waste stream has increased significantly from the TWBIR Revision 2 volumes due to the additional Alpha Mixed Low-level waste (AMLLW).

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W181.162**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W181	Stream Name	LAUNDRY SLUDGE			Inventory Date	9/30/2002
Local ID	ID-RFO-978T	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3120
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / Misc.	34.9	0.0	34.9
As-Generated Total	34.9	0.0	34.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	13.2	0.0	13.2
TDOP	67.1	0.0	67.1
Final Form Total	80.3	0.0	80.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	2.96
Other Inorganic Materials	30.25
Cellulosics	30.25
Rubber	0.00
Plastics	8.18
Solidified, Inorganic Matrix	402.68
Cement (Solidified)	268.45
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.85
Packaging Material, Plastic	29.47
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.37E-02
Np-237	3.20E-08
Pu-238	4.71E-03
Pu-239	1.47E-01
Pu-240	3.34E-02
Pu-241	4.76E-01
Pu-242	2.41E-06
Th-229	1.99E-16
Th-230	1.09E-11
Th-232	4.14E-18
U-233	6.31E-13
U-234	1.83E-07
U-235	1.88E-09
U-236	1.29E-08
U-238	4.73E-15

Waste Stream Description

This waste is from Rocky Flats. The waste consists of sludge from laundry operations that have been cemented in portland. The cement is described as a poor grade. Volume for this waste stream has increased significantly from the TWBIR Revision 2 volumes due to the additional Alpha Mixed Low-level waste (AMLLW).

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W188.160**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W188	Stream Name	BLDG 776 PROCESS SLUDGE:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-976T	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3120
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / Misc.	63.4	0.0	63.4
Drum / 55 gallon	1.5	0.0	1.5
As-Generated Total	64.9	0.0	64.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	24.6	0.0	24.6
TDOP	124.5	0.0	124.5
Final Form Total	149.1	0.0	149.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1.46
Other Inorganic Materials	15.79
Cellulosics	6.62
Rubber	0.00
Plastics	4.10
Solidified, Inorganic Matrix	289.87
Cement (Solidified)	193.25
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.85
Packaging Material, Plastic	22.41
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.95E-02
Np-237	1.16E-07
Pu-238	1.71E-02
Pu-239	5.35E-01
Pu-240	1.21E-01
Pu-241	1.73E+00
Pu-242	8.75E-06
Th-229	7.19E-16
Th-230	3.94E-11
Th-232	1.50E-17
U-233	2.29E-12
U-234	6.62E-07
U-235	6.86E-09
U-236	4.66E-08
U-238	1.72E-14

Waste Stream Description

This waste is from Rocky Flats and consists of sludge from floor drains in a Pu process facility that have been cemented in portland. The cement is described as a poor grade. Also may be laundry sludges, material contents given are for an organic laundry sludge.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W216.98**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W216	Stream Name	FIRST STAGE SLUDGE:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-001T	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Pollution Control or Waste Treatment Process

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / Misc.	22.2	0.0	22.2
Drum	2567.6	0.0	2567.6
As-Generated Total	2589.7	0.0	2589.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	2099.8	0.0	2099.8
TDOP	10643.4	0.0	10643.4
Final Form Total	12743.2	0.0	12743.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	2.14
Other Inorganic Materials	2.22
Cellulosics	0.00
Rubber	0.00
Plastics	6.00
Solidified, Inorganic Matrix	295.29
Cement (Solidified)	196.86
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.85
Packaging Material, Plastic	22.41
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.13E+01
Np-237	4.81E-05
Pu-238	1.62E-02
Pu-239	5.10E-01
Pu-240	1.16E-01
Pu-241	1.65E+00
Pu-242	8.34E-06
Th-229	5.51E-13
Th-230	3.75E-11
Th-232	1.44E-17
U-233	1.35E-09
U-234	6.31E-07
U-235	6.54E-09
U-236	4.47E-08
U-238	1.64E-14

Waste Stream Description

Waste consists of a wet sludge produced from treating aqueous process wastes, such as ion exchange column effluent, distillates, and caustic scrub solutions generated by Plutonium Recovery Operations (Building 771). Portland cement is added to the waste package for absorption of free liquids. Waste drums may periodically contain surgeons' gloves, glovebox gloves, etc.

Since the fall of 1979, first-stage sludge (IDC 001) and Second stage sludge (IDC 002) have been combined into Content Code 1 - Combined sludge.

Sludge is produced by treating aqueous wastes by the carrier precipitation process. Aqueous wastes are made basic, if necessary, with sodium hydroxide. Radioactive elements such as plutonium and americium are chemically precipitated from the liquid waste. Treatment chemicals include ferric sulfate, calcium chloride, magnesium sulfate, and flocculating agents. The treatment process produces a precipitate of the hydrated oxides of iron, magnesium, aluminum, silicon, etc., which also carries the hydrated oxides of plutonium and americium. The precipitate or slurry is filtered to produce a sludge containing 50 to 70 weight percent water.

Liquid wastes were analyzed for fissile content prior to release from Building 771 and 774, and were retained at Building 771 for further treatment if contaminated with above-discard amounts of plutonium.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W218.909**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W218	Stream Name	BLDG 374 DRY SLUDGE:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-007T	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Materials Production/Recovery Effluents

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Drum	923.5	0.0	923.5	
As-Generated Total		923.5	0.0	923.5

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
SWB	344.0	0.0	344.0	
TDOP	1738.8	0.0	1738.8	
Final Form Total		2082.8	0.0	2082.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	2.14
Other Inorganic Materials	2.22
Cellulosics	0.00
Rubber	0.00
Plastics	6.00
Solidified, Inorganic Matrix	295.47
Cement (Solidified)	196.98
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.85
Packaging Material, Plastic	22.40
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.43E-01
Np-237	1.45E-06
Pu-238	2.21E-03
Pu-239	6.92E-02
Pu-240	1.57E-02
Pu-241	2.24E-01
Pu-242	1.13E-06
Th-229	1.66E-14
Th-230	5.11E-12
Th-232	1.94E-18
U-233	4.07E-11
U-234	8.59E-08
U-235	8.87E-10
U-236	6.05E-09
U-238	2.22E-15

Waste Stream Description

Building 374 solidified sludge consists of immobilized low-level mixed waste materials from decontamination-precipitation and neutralization processes in the Building 374 Liquid Waste Treatment Facility. The wastewater treatment operation includes neutralization, radioactive decontamination (precipitation), filtration, evaporation, spray drying, salt immobilization, and filtrate sludge immobilization. The sludge from the rotary drum vacuum filter has a dry appearance but is still very moist. The dried sludge was transferred from the dryer directly into a 55-gallon drum. The resulting waste consisted of dispersible fines and was assigned IDC 007.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W219.110**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W219	Stream Name	SOLIDIFIED GRINDING SLUDGE, ETC.:Uncertifiable			Inventory Date	4/30/1995
Local ID	ID-BTO-030T	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S3120
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Drum	7.6	0.0	7.6	
As-Generated Total		7.6	0.0	7.6

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
55 Gallon Drum	4.0	0.0	4.0	
Final Form Total		4.0	0.0	4.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	2500.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	465.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.14E-01
Np-237	2.67E-07
Pu-238	3.92E-02
Pu-239	1.23E+00
Pu-240	2.79E-01
Pu-241	3.97E+00
Pu-242	2.01E-05
Th-229	1.66E-15
Th-230	9.05E-11
Th-232	3.45E-17
U-233	5.26E-12
U-234	1.52E-06
U-235	1.58E-08
U-236	1.08E-07
U-238	3.94E-14

Waste Stream Description

This waste stream, generated at Bettis Atomic Power Laboratory, consists of solidified grinding sludge and associated filters, rags, etc. The sludge can contain abraded grinding wheel material, which includes diamond dust, aluminum oxide, carborundum, and rubber. The waste is in either powder or cakes and contains not more than 10% of other waste items.

There are high levels of fines. In addition the drums may contain free liquids. The estimated organic content is less than 1 lb/ft3. No particle size data are provided, but it is assumed that WIPP-WAC limits for fines would be exceeded. No free liquids should be present. No explosive, pyrophoric, or corrosive material should be in the waste.

Both 17c and 6m 55-gallon drums were used for packaging the waste. Fissile content was determined by calculating the weight difference by chemical analysis or by an assay gauge.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W219.914**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W219	Stream Name	SOLIDIFIED GRINDING SLUDGE, ETC.:RH Direct Ship			Inventory Date	N/A
Local ID	ID-BTO-030T	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3120
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	1.9	0.0	1.9
As-Generated Total		1.9	0.0
			1.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB used to overpack 55 gallon drums	1.9	0.0	1.9
Final Form Total		1.9	0.0
			1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1.11
Other Inorganic Materials	11.97
Cellulosics	5.02
Rubber	0.00
Plastics	3.11
Solidified, Inorganic Matrix	219.88
Cement (Solidified)	146.59
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	211.00
Packaging Material, Plastic	16.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.76E-02
Np-237	8.79E-08
Pu-238	1.29E-02
Pu-239	4.06E-01
Pu-240	9.21E-02
Pu-241	1.31E+00
Pu-242	6.63E-06
Th-229	5.46E-16
Th-230	2.98E-11
Th-232	1.14E-17
U-233	1.74E-12
U-234	5.01E-07
U-235	5.20E-09
U-236	3.55E-08
U-238	1.30E-14

Waste Stream Description

This waste stream, generated at Bettis Atomic Power Laboratory, consists of solidified grinding sludge and associated filters, rags, etc. The sludge can contain abraded grinding wheel material, which includes diamond dust, aluminum oxide, carborundum, and rubber. The waste is in either powder or cakes and contains not more than 10% of other waste items.

There are high levels of fines. In addition the drums may contain free liquids. The estimated organic content is less than 1 lb/ft3. No particle size data are provided, but it is assumed that WIPP-WAC limits for fines would be exceeded. No free liquids should be present. No explosive, pyrophoric, or corrosive material should be in the waste.

Both 17c and 6m 55-gallon drums were used for packaging the waste. Fissile content was determined by calculating the weight difference by chemical analysis or by an assay gauge.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W220.114**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W220	Stream Name	RESEARCH GENERATED WASTE NONCOMPACTIBLE :Direct Ship			Inventory Date	9/30/2002
Local ID	ID-OFS-111T	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / Misc.	6.3	0.0	6.3
Drum	832.4	0.0	832.4
As-Generated Total	838.8	0.0	838.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	311.9	0.0	311.9
TDOP	1580.7	0.0	1580.7
Final Form Total	1892.5	0.0	1892.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	2.14
Other Inorganic Materials	2.22
Cellulosics	0.00
Rubber	0.00
Plastics	6.00
Solidified, Inorganic Matrix	432.15
Cement (Solidified)	59.94
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.85
Packaging Material, Plastic	22.41
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.70E+00
Np-237	1.14E-05
Pu-238	8.60E-03
Pu-239	2.90E-01
Pu-240	6.37E-02
Pu-241	8.72E-01
Pu-242	4.41E-06
Th-229	2.29E-07
Th-230	1.99E-11
Th-232	7.89E-18
U-233	1.88E-04
U-234	3.34E-07
U-235	2.09E-08
U-236	2.46E-08
U-238	8.65E-15

Waste Stream Description

This waste includes waste generated at ANL-East and solid wet sludge from the Rocky Flats Plant. The ANL-E waste is derived from research activities performed in a laboratory environment. The waste includes concrete and laboratory apparatus. The waste is packaged in 55-gallon drums or in SWBs.

The solid wet sludge is cemented or dewatered sludge precipitated from aqueous waste treatment processes. Soils that are not contaminated with organic chemicals are also included.

Rocky flats waste included in 111 is IDC 007, Building 374 solidified sludge. IDC 007 consists of immobilized low-level mixed waste materials from decontamination-precipitation and neutralization processes in the Building 374 Liquid Waste Treatment Facility. The wastewater treatment operation includes neutralization, radioactive decontamination (precipitation), filtration, evaporation, spray drying, salt immobilization, and filtrate sludge immobilization. The sludge from the rotary drum vacuum filter has a dry appearance but is still very moist. The dried sludge was transferred from the dryer directly into a 55-gallon drum. The sludge was dried, or had portland cement and diatomite added to absorb liquids.

Note: Waste matrix composition listed is for Rocky Flats Waste.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W221.927**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W221	Stream Name	SOLID LAB WASTE:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-113T	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3113
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Materials Production/Recovery Effluents

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Drum	17.1	0.0	17.1	
As-Generated Total		17.1	0.0	17.1

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
SWB	5.7	0.0	5.7	
TDOP	33.5	0.0	33.5	
Final Form Total		39.2	0.0	39.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	16.90
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	328.70
Cement (Solidified)	131.48
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.80
Packaging Material, Plastic	22.56
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.03E-02
Np-237	1.64E-07
Pu-238	2.41E-02
Pu-239	7.55E-01
Pu-240	1.71E-01
Pu-241	2.45E+00
Pu-242	1.23E-05
Th-229	1.02E-15
Th-230	5.57E-11
Th-232	2.11E-17
U-233	3.24E-12
U-234	9.36E-07
U-235	4.76E-06
U-236	6.59E-08
U-238	2.41E-14

Waste Stream Description

Solid lab waste consists of cemented or absorbed neutralized aqueous laboratory waste and includes some waste from IDCs 004 and 292.

Waste matrix composition listed is for IDC 004 waste, which accounts for most of the waste in this content code.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W222.116**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W222	Stream Name	CEMENTED SLUDGE:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-292T	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3123
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	115.2	0.0	115.2
As-Generated Total		115.2	0.0
			115.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	43.5	0.0	43.5
TDOP	215.6	0.0	215.6
Final Form Total		259.0	0.0
			259.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.09
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	6.96
Cellulosics	0.26
Rubber	0.00
Plastics	26.56
Solidified, Inorganic Matrix	110.70
Cement (Solidified)	73.80
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.86
Packaging Material, Plastic	22.38
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.65E-01
Np-237	8.65E-07
Pu-238	1.24E-01
Pu-239	3.88E+00
Pu-240	8.78E-01
Pu-241	1.25E+01
Pu-242	6.35E-05
Th-229	5.50E-15
Th-230	2.86E-10
Th-232	1.09E-16
U-233	1.73E-11
U-234	4.80E-06
U-235	4.97E-08
U-236	3.39E-07
U-238	1.25E-13

Waste Stream Description

This waste stream, generated at Rocky Flats Plant, consists of sludge from the incinerator off-gas system, recovery building filter plenums, pumps, etc. Portland cement is added to absorb free liquids. The sludge may contain a limited number of surgical gloves. Content Code 292 replaced Code 290 in 1974.

Before 1977, sludge was sealed in PVC bags, double-contained in plastic and placed in 1-gallon metal paint cans. Portland cement was added to the bottom and top of the can. After 1977, sludge was placed in 1-gallon PE bottles with layers of portland cement. Each can (or bottle) was assayed and placed in groups of about 25 into prepared 55-gallon drums. Drum preparation was in accordance with pre and post 1972 procedures. Starting in 1982, vermiculite replaced Oil-Dri as the material between the top of the waste material and the drum liner lid.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W228.101**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W228	Stream Name	SECOND STAGE SLUDGE:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-002T	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Pollution Control or Waste Treatment Process

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Drum	1639.0	0.0	1639.0	
As-Generated Total		1639.0	0.0	1639.0

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
SWB	1328.7	0.0	1328.7	
TDOP	6734.7	0.0	6734.7	
Final Form Total		8063.4	0.0	8063.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	14.49
Cellulosics	0.10
Rubber	0.00
Plastics	1.99
Solidified, Inorganic Matrix	127.17
Cement (Solidified)	84.78
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.85
Packaging Material, Plastic	22.41
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.64E-01
Np-237	6.93E-07
Pu-238	1.29E-03
Pu-239	4.06E-02
Pu-240	9.18E-03
Pu-241	1.31E-01
Pu-242	6.62E-07
Th-229	7.90E-15
Th-230	2.98E-12
Th-232	1.14E-18
U-233	1.95E-11
U-234	5.01E-08
U-235	5.20E-10
U-236	3.54E-09
U-238	1.30E-15

Waste Stream Description

Waste consists of a wet sludge produced from treatment of all other plant radioactive and/or chemical contaminated wastes and further treatment of the first-stage effluent. Portland cement was added to the waste package for absorption of free liquids.

Second-stage sludge drums packaged prior to 1973 may contain other waste such as electric motors, bottles of chemical (usually liquid) wastes, mercury and lithium batteries, and small amounts of contaminated mercury in pint bottles. Radioactive sources were also periodically included in second-stage drums through 1979.

Since the fall of 1979, Second stage sludge (IDC 002) have been combined into Content Code 1 - Combined sludge. Content code 2 is no longer used.

Sludge is produced by treating aqueous wastes by the carrier precipitation process. Aqueous wastes are made basic, if necessary, with sodium hydroxide. Radioactive elements such as plutonium and americium are chemically precipitated from the liquid waste. Treatment chemicals include ferric sulfate, calcium chloride, magnesium sulfate, and flocculating agents. The treatment process produces a precipitate of the hydrated oxides of iron, magnesium, aluminum, silicon, etc., which also carries the hydrated oxides of plutonium and americium. The precipitate or slurry is filtered to produce a sludge containing 50 to 70 weight percent water.

Liquid wastes were analyzed for fissile content prior to release from Building 771 and 774, and were retained at Building 771 for further treatment if contaminated with above-discard amounts of plutonium.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W240.931**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W240	Stream Name	GLASS WASTE:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-118T	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S3117
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / Misc.	164.8	0.0	164.8
Drum	10.6	0.0	10.6
As-Generated Total	175.4	0.0	175.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	66.2	0.0	66.2
TDOP	330.5	0.0	330.5
Final Form Total	396.7	0.0	396.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	1.05
Cellulosics	191.07
Rubber	0.00
Plastics	0.70
Solidified, Inorganic Matrix	20.70
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.86
Packaging Material, Plastic	22.39
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.48E-01
Np-237	8.70E-07
Pu-238	3.36E-02
Pu-239	1.06E+00
Pu-240	2.39E-01
Pu-241	3.39E+00
Pu-242	1.72E-05
Th-229	8.78E-15
Th-230	7.75E-11
Th-232	2.96E-17
U-233	2.26E-11
U-234	1.30E-06
U-235	1.80E-07
U-236	9.20E-08
U-238	3.37E-14

Waste Stream Description

TRU glass waste consists of discarded labware, windows, containers or raschig rings from various processes. The IDCs packaged and included in 118 are 440, 441, and 442. Waste matrix composition listed is for IDC 440. For IDCs 441 and 442, the "Other Glass" matrix would be mostly raschig rings.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W243.808**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W243	Stream Name	GLASS:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-440T	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S3117
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Analytical Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / Misc.	41.2	0.0	41.2
Drum	302.0	0.0	302.0
As-Generated Total	343.2	0.0	343.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	126.6	0.0	126.6
TDOP	646.7	0.0	646.7
Final Form Total	773.3	0.0	773.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.73
Other Inorganic Materials	132.63
Cellulosics	0.00
Rubber	0.48
Plastics	14.37
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.85
Packaging Material, Plastic	16.06
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.54E-01
Np-237	4.86E-07
Pu-238	3.01E-02
Pu-239	9.49E-01
Pu-240	2.15E-01
Pu-241	3.06E+00
Pu-242	1.55E-05
Th-229	3.34E-10
Th-230	6.96E-11
Th-232	2.66E-17
U-233	2.74E-07
U-234	1.17E-06
U-235	3.10E-08
U-236	8.28E-08
U-238	3.04E-14

Waste Stream Description

This waste stream, generated at the Rocky Flats Plant, consists of glass sample vials, bottles, lead-taped sample vials, ion exchange columns, dissolver pots, laboratory glassware such as pyrex flasks and beakers, glovebox windows (glass, plexiglass, leaded glass), and crushed and ground glass. The waste includes limited amounts of other noncombustibles such as metals, and limited amounts of combustible wastes. No sludges should be present although some glass vials may contain limited amounts of free liquids. No explosive, pyrophoric, or corrosive materials should be in the waste.

Drums may contain respirable crushed glass fines or free liquids .

The glass may be packaged with some variation depending on if it is whole, broken to pieces, or crushed or ground. Whole or broken glass may be packaged in 1-gallon PE bottles, in 13-inch high by 15.5-inch diameter Fibre-Paks (either loose or inside plastic bags inside the Fibre-Pak), or double -packed in plastic bags, with the outside of the outer bag taped for protection against sharp edges. Glassware such as sample vials may be taped together before packaging. Nonline generated glassware, light bulbs, and fluorescent tubes are usually crushed or ground and placed directly into a prepared 55-gallon drum. Drums were packed according to the usual pre-1972 and post-1972 procedures. Specific information on the box preparation was not available.

Each drum was assayed. Since 1972, the drums were also processed according to inspection and sealing procedures; and, since 1982, vermiculite instead of Oil-Dri was placed on top of the outer sealed PE drum bag. A small number of the drums are lead-lined. Also, Oil-Dri was added to the glass waste if moisture was present.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen

TRU WASTE BASELINE INVENTORY WASTE PROFILE

covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W245.301**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W245	Stream Name	UNLEACHED RASHIG RINGS:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-441T	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S3117
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Materials Production/Recovery Effluents

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	333.6	0.0	333.6
As-Generated Total		333.6	0.0
333.6			

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	124.7	0.0	124.7
TDOP	627.5	0.0	627.5
Final Form Total		752.2	0.0
752.2			

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	225.37
Cellulosics	14.49
Rubber	0.00
Plastics	5.06
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.86
Packaging Material, Plastic	22.40
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.82E-01
Np-237	4.35E-07
Pu-238	6.09E-02
Pu-239	1.90E+00
Pu-240	4.31E-01
Pu-241	6.15E+00
Pu-242	3.11E-05
Th-229	2.82E-15
Th-230	1.41E-10
Th-232	5.34E-17
U-233	8.78E-12
U-234	2.37E-06
U-235	2.44E-08
U-236	1.66E-07
U-238	6.10E-14

Waste Stream Description

This waste stream, generated at the Rocky Flats Plant, consists of boronated glass rings used to minimize neutron multiplication in liquid storage tanks. Unleached Rashig Rings were used from 1971-79 as a separate stream and then combined with content code 442, Leached Rashig Rings. The rings are about 1.75 inch high and 1.5 inch in diameter, with a 0.25-inch wall thickness. The rings are heat and chemical resistant borosilicate glass with 11.8 - 13.8 weight % B₂O₃, with an isotopic content of 10B/11B of not less than 0.24. Some of the rings, which had above-discard amounts of plutonium, were leached with nitric acid to recover the plutonium and then rinsed with water and dried. Some of the rings may be contaminated with small amounts of oil.

No sludges or free liquids should be present. No explosive or pyrophoric materials should be in the waste. Trace amounts of nitric acid or organic contaminants may be present.

The rings are triple contained in PE or PVC and placed in a 10-inch high, 15.5-inch diameter Fibre-Pak. Two Fibre-Paks are placed inside a prepared 55-gallon drum according to the standard pre-1972 and post-1972 drum packing procedures. A few of the drums contain broken rashig rings in taped-closed, 4-liter PE bottles with double bags inside the bottles.

Each drum was assayed. Since 1972, the drums were also processed according to inspection and sealing procedures; and, since 1982, vermiculite instead of Oil-Dri was placed on top of the outer sealed PE drum bag. A small number of the drums are lead-lined. Also, Oil-Dri was added to the glass waste if moisture was present.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W247	Stream Name	LEACHED RASHIG RINGS:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-442T	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S3117
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / Misc.	76.1	0.0	76.1
Drum / 55 gallon	261.9	0.0	261.9
As-Generated Total	338.0	0.0	338.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	124.7	0.0	124.7
TDOP	637.1	0.0	637.1
Final Form Total	761.8	0.0	761.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	125.68
Cellulosics	15.05
Rubber	0.00
Plastics	6.57
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.85
Packaging Material, Plastic	22.41
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.74E-02
Np-237	2.09E-07
Pu-238	2.92E-02
Pu-239	9.18E-01
Pu-240	2.09E-01
Pu-241	2.97E+00
Pu-242	1.50E-05
Th-229	1.35E-15
Th-230	6.75E-11
Th-232	2.59E-17
U-233	4.20E-12
U-234	1.14E-06
U-235	1.95E-07
U-236	8.05E-08
U-238	2.94E-14

Waste Stream Description

This waste stream, generated at the Rocky Flats Plant, consists of boronated glass rings used to minimize neutron multiplication in liquid storage tanks. Content Code 441, Unleached Rashig Rings, were used from 1971-79 as a separate stream, and then combined with Content Code 442, Leached Rashig Rings. The rings are about 1.75 inch high and 1.5 inch in diameter, with a 0.25-inch wall thickness. The rings are heat and chemical resistant borosilicate glass with 11.8 - 13.8 weight % B₂O₃, with an isotopic content of 10B/11B of not less than 0.24. Some of the rings, which had above-discard amounts of plutonium, were leached with nitric acid to recover the plutonium and then rinsed with water, and dried. Some of the rings may be contaminated with small amounts of oil.

No sludges or free liquids should be present. No explosive or pyrophoric materials should be in the waste. Trace amounts of nitric acid or organic contaminants may be present.

The rings are triple contained in PE or PVC and placed in a 10-inch high, 15.5-inch diameter Fibre-Pak. Two Fibre-Paks are placed inside a prepared 55-gallon drum according to the standard pre-1972 and post-1972 drum packing procedures. A few of the drums contain broken rashig rings in taped-closed, 4-liter PE bottles with double bags inside the bottles.

Each drum was assayed. Since 1972, the drums were also processed according to inspection and sealing procedures; and, since 1982, vermiculite instead of Oil-Dri was placed on top of the outer sealed PE drum bag. A small number of the drums are lead-lined. Also, Oil-Dri was added to the glass waste if moisture was present.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W249.527**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W249	Stream Name	GLASS, FLASKS, SAMPLE VIALS, ETC.:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-MDO-810T	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S3117
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Analytical Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	2.7	0.0	2.7
As-Generated Total			2.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	1.9	0.0	1.9
TDOP	4.8	0.0	4.8
Final Form Total			6.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1.03
Other Inorganic Materials	187.29
Cellulosics	0.00
Rubber	0.68
Plastics	20.30
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	209.16
Packaging Material, Plastic	21.50
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	2.34E+02
Pu-239	1.86E+00
Th-230	5.40E-07
U-234	9.08E-03
U-235	2.38E-08

Waste Stream Description

This waste stream, generated at Mound Laboratory, consists mostly of whole and broken glassware and glass sample vials. The majority of the glass is pyrex. Limited amounts of other noncombustibles, material similar to that in Content Codes 803, 805, 811, and 826 may be present. Even though some of the glassware is broken, fines should not exceed WIPP-WAC limits for repairable or dispersed fines. No inorganic sludges, no explosive, pyrophoric, or corrosive materials should be in the waste.

Most of the glassware is broken into pieces about 1 inch in diameter to reduce total volume. The material is packaged into 1 or 2-quart metal cans with lids. Each can is assayed for plutonium content and then placed with up to four other cans into a sleeve bag, which is sealed with tape. Up to five sleeve bags are placed inside a drum. Each drum is lined with a 90-mil drum liner, which is lined with a PE drum bag. Plywood spacers are placed between the rigid liner lid and the drum lid.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W263.520**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W263	Stream Name	CONTAMINATED SOIL			Inventory Date	9/30/2002
Local ID	ID-MDO-842T	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S4100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / 4 ft X 4 ft X 8 ft	123.6	0.0	123.6
As-Generated Total		123.6	0.0
			123.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	45.4	0.0	45.4
TDOP	234.7	0.0	234.7
Final Form Total		280.1	0.0
			280.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.09
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	5.67
Cellulosics	16.82
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	542.81
Packaging Material, Steel	208.85
Packaging Material, Plastic	29.52
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.70E-05
Np-237	1.57E-10
Pu-238	5.83E-01
Pu-239	3.01E-02
Pu-240	4.77E-05
Pu-241	2.34E-03
Pu-242	4.18E-08
Th-229	9.73E-19
Th-230	1.35E-09
Th-232	5.91E-21
U-233	3.10E-15
U-234	2.26E-05
U-235	3.86E-10
U-236	1.84E-11
U-238	8.20E-17

Waste Stream Description

This waste, generated at Mound Laboratories, consists of soil, including small rocks and pebbles, generated from cleanup of a leak. All soil waste was dry when packaged. A few waste boxes also include picks, shovels, metal cans, rubber gloves, booties, respirators, plastic, and possibly an air hammer and chisel. Soils waste was packaged in small, plastic lined plywood boxes (42 x 20 x 39 inch) other waste was then placed on top of the soil before the box was sealed. Four of the small boxes were then packaged in a standard larger waste box (4 x 4 x 7 feet) lined with fiberglass-reinforced polyester. Assay was performed using radiochemical analysis on core samples taken from the contaminated area.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W267.1005**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W267	Stream Name	GRIT:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-372TN	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S3112
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Drum	3.7	0.0	3.7	
As-Generated Total		3.7	0.0	3.7

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
SWB	1.9	0.0	1.9	
TDOP	9.6	0.0	9.6	
Final Form Total		11.5	0.0	11.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1.64
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	39.88
Cellulosics	4.44
Rubber	0.00
Plastics	6.03
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.85
Packaging Material, Plastic	22.22
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.37E+00
Np-237	3.21E-06
Pu-238	4.72E-01
Pu-239	1.48E+01
Pu-240	3.36E+00
Pu-241	4.79E+01
Pu-242	2.42E-04
Th-229	1.99E-14
Th-230	1.09E-09
Th-232	4.16E-16
U-233	6.34E-11
U-234	1.83E-05
U-235	1.90E-07
U-236	1.29E-06
U-238	4.75E-13

Waste Stream Description

This waste stream, generated at the Rocky Flats Plant, consists of grit such as aluminum oxide and iron fines and pellets used in grit-blasting operations and spent silica gel desiccant.

The only organic material is the packaging, which averages about 5 lb/ft3, excluding the drum liner. No sludges or free liquids should be present. No explosive or pyrophoric materials should be in this waste.

The material is contained in 55-gallon drums. Inside the drums, the grit may be contained in PVC or PE bags in Vollrath stainless steel cans, or in 1-gallon PE bottles inside PVC and PE bags. Silica gel is placed directly into the prepared drums. Drums were prepared and inspected according to pre- and post-1972 procedures.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W309.609**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W309	Stream Name	ORGANIC SETUPS, OIL SOLIDS:Uncert			Inventory Date	9/30/2002
Local ID	ID-RFO-003T	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S3114
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / Misc.	38.0	0.0	38.0
Drum	1533.2	0.0	1533.2
As-Generated Total	1571.2	0.0	1571.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	1273.9	0.0	1273.9
TDOP	6456.9	0.0	6456.9
Final Form Total	7730.8	0.0	7730.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	110.92
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.85
Packaging Material, Plastic	2.64
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.92E-02
Np-237	2.72E-07
Pu-238	1.17E-02
Pu-239	3.68E-01
Pu-240	8.33E-02
Pu-241	1.19E+00
Pu-242	5.99E-06
Th-229	2.70E-15
Th-230	2.71E-11
Th-232	1.03E-17
U-233	6.99E-12
U-234	4.56E-07
U-235	4.72E-09
U-236	3.21E-08
U-238	1.18E-14

Waste Stream Description

Organic setups are produced from treatment of liquid organic wastes generated by various plutonium and nonplutonium operations. The organic wastes are mixed with calcium silicate to form a grease of paste-like material. Small amounts of oil-dri absorbent are usually mixed with the waste.

Organic wastes such as degreasing agents (primarily trichloroethane), lathe coolant (machining oil and carbon tetrachloride), and hydraulic oils are generated primarily by plutonium fabrication operations. Other organic wastes include carbon tetrachloride; trichloroethylene; hydraulic, gearbox, and spindle oils; and trace concentrations of miscellaneous organic laboratory wastes. (organophosphates, nitrobenzene, etc.) In addition, unknown volumes of oil containing polychlorinated biphenyls (PCB) were processed with other organic wastes until 1979. Degreasing solvents generated by Building 444 operations are contaminated with beryllium. The PCB-contaminated wastes will be treated to meet WIPP-WAC.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W315.601**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W315	Stream Name	EVAPORATOR SALTS			Inventory Date	9/30/2002
Local ID	ID-RFO-005T	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3143
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / Misc.	3.2	0.0	3.2
Drum	11.0	0.0	11.0
As-Generated Total	14.2	0.0	14.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	5.7	0.0	5.7
TDOP	28.7	0.0	28.7
Final Form Total	34.4	0.0	34.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	4.69
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	2.72
Other Inorganic Materials	7.70
Cellulosics	69.92
Rubber	0.00
Plastics	0.53
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.85
Packaging Material, Plastic	22.22
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.66E+01
Np-237	1.13E-04
Pu-238	1.10E-02
Pu-239	3.45E-01
Pu-240	7.82E-02
Pu-241	1.11E+00
Pu-242	5.61E-06
Th-229	1.30E-12
Th-230	2.54E-11
Th-232	9.68E-18
U-233	3.19E-09
U-234	4.28E-07
U-235	4.42E-09
U-236	3.02E-08
U-238	1.10E-14

Waste Stream Description

Waste is generated at Rocky Flats Plant from aqueous waste treatment in building 774. Waste consists of a salt residue generated from concentrating and drying liquid waste from the solar evaporation ponds. The approximate chemical makeup of the salt is 60% sodium nitrate, 30% potassium nitrate, and 10% miscellaneous. Limited amounts of other wastes such as surgeons' gloves, paper, rags, and metal may be found in the waste drums. Portland cement was added to damp or wet salt when necessary.

The majority of salt drums in storage at the INEL should be contaminated with <10 nCi/g TRU. Salt waste is no longer shipped to the INEL.

Since 1972, drums have been inspected for free liquids, proper packaging, and use of the proper content code. After inspection, approximately 1 to 2 quarts of Oil-Dri was placed on top of the outer sealed polyethylene drum bag.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W319.584**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W319	Stream Name	LEACHED RESIN:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-431T	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3211
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	1.2	0.0	1.2
As-Generated Total	1.2	0.0	1.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
TDOP	4.8	0.0	4.8
Final Form Total	4.8	0.0	4.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	8.15
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	10.48
Soils	0.00
Packaging Material, Steel	208.43
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.05E-01
Np-237	1.18E-06
Pu-238	1.73E-01
Pu-239	5.46E+00
Pu-240	1.24E+00
Pu-241	1.76E+01
Pu-242	8.90E-05
Th-229	7.33E-15
Th-230	4.00E-10
Th-232	1.53E-16
U-233	2.33E-11
U-234	6.73E-06
U-235	7.00E-08
U-236	4.78E-07
U-238	1.75E-13

Waste Stream Description

This waste, generated at the Rocky Flats Plant, consists of anionic and cationic exchange resins used in the purification and recovery of plutonium and americium, respectively. It is believed that the resins were Content Code 430 resins that were processed by leaching to recover plutonium. Content code was used during 1972 only.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W321.1023**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W321	Stream Name	UNLEACHED ION COLUMN RESIN:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-430T	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3211
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Materials Production/Recovery Effluents

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	6.0	0.0	6.0
As-Generated Total			6.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	1.9	0.0	1.9
TDOP	9.6	0.0	9.6
Final Form Total			11.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	14.54
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	18.70
Soils	0.00
Packaging Material, Steel	208.85
Packaging Material, Plastic	2.64
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.83E+00
Np-237	4.27E-06
Pu-238	6.28E-01
Pu-239	1.97E+01
Pu-240	4.46E+00
Pu-241	6.36E+01
Pu-242	3.21E-04
Th-229	2.65E-14
Th-230	1.45E-09
Th-232	5.53E-16
U-233	8.43E-11
U-234	2.44E-05
U-235	2.53E-07
U-236	1.72E-06
U-238	6.30E-13

Waste Stream Description

This waste, generated at the Rocky Flats Plant, consists of anionic and cationic exchange resins used in the purification and recovery of plutonium and americium, respectively. The anionic resins were DOWEX 1-X4 and the cationic resins were DOWEX 50W-X8, both being polystyrene-divinylbenzene copolymers.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W322.851**

Appendix J

DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W322	Stream Name	SAMPLE FUEL:Direct Ship			Inventory Date	N/A
Local ID	ID-TRA-154TN	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5121
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB used to overpack 55 gallon drums	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	139.10
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	211.00
Packaging Material, Plastic	16.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-239	4.83E+00
Pu-240	9.99E-01
Th-232	1.24E-16
U-235	1.31E-04
U-236	3.85E-07

Waste Stream Description

This waste stream was generated at the INEL. These wastes include actinide neutron sources, a radium needle, small vials of fuel, and metal containers of experimental fuel capsules.

The organic content is less than 14 lb/ft3. Combustibles, including packaging, may exceed 25 volume percent. The levels of dispersible fines should be within WIPP-WAC limits. No sludges or free liquids should be present. No explosive or pyrophoric materials should be in this waste.

These wastes are packaged three different ways, depending on when the packaging was done. Pu-Be sources packaged in 1975 were placed in a carbon steel pipe, which was cemented and encapsulated into the center of a 55-gallon drum. In 1978, Pu-Be sources were packaged in four 55-gallon drums. Wastes packed in 1980 were wrapped plastic, placed in paraffin lined 15-gallon drums, and then placed in 55-gallon drums.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W322.952**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W322	Stream Name	SAMPLE FUEL:Cert-repack			Inventory Date	4/30/1995
Local ID	ID-TRA-154TN	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5121
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	1.5	0.0	1.5
As-Generated Total		1.5	0.0
			1.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.7	0.0	1.7
Final Form Total		1.7	0.0
			1.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	421.30
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-239	1.46E+01
Pu-240	3.03E+00
Th-232	3.75E-16
U-235	3.96E-04
U-236	1.17E-06

Waste Stream Description

This waste stream was generated at the INEL. These wastes include actinide neutron sources, a radium needle, small vials of fuel, and metal containers of experimental fuel capsules.

The organic content is less than 14 lb/ft3. Combustibles, including packaging, may exceed 25 volume percent. The levels of dispersible fines should be within WIPP-WAC limits. No sludges or free liquids should be present. No explosive or pyrophoric materials should be in this waste.

These wastes are packaged three different ways, depending on when the packaging was done. Pu-Be sources packaged in 1975 were placed in a carbon steel pipe, which was cemented and encapsulated into the center of a 55-gallon drum. In 1978, Pu-Be sources were packaged in four 55-gallon drums. Wastes packed in 1980 were wrapped plastic, placed in paraffin lined 15-gallon drums, and then placed in 55-gallon drums.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W323.562**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W323	Stream Name	COMBUSTIBLE LAB WASTE:Direct Ship			Inventory Date	N/A
Local ID	ID-INL-153TN	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB used to overpack 55 gallon drums	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	12.15
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.86
Cellulosics	70.39
Rubber	0.79
Plastics	7.03
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	211.00
Packaging Material, Plastic	16.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.36E-02
Np-237	5.53E-08
Pu-238	6.48E-01
Pu-239	1.32E-01
Pu-241	8.24E-01
Th-229	3.43E-16
Th-230	1.50E-09
U-233	1.09E-12
U-234	2.52E-05
U-235	5.07E-05

Waste Stream Description

This waste stream was generated at the Argonne National Laboratory-West at the INEL. Most of the waste is organic and combustible materials including paper, wood, PVC and plastic containers and items, rubber gaskets and gloves, leather, rags, towels, Q-tips, tubing, filter media, abrasive media, and metal pieces. Small residuals of moderators and fuel are trapped on the filters. One of the 28 total drums of Content Code 153 waste is stored at the Transuranic Storage Area (TSA) for contact-handled waste. The other 27 drums are stored at the intermediate level transuranic storage facility (ILTSF) for remote handled waste.

The organic content may exceed 14 lb/ft3. Combustibles, including packaging, may exceed 25 volume percent. The levels of dispersible fines should be within WIPP-WAC limits. No sludges or free liquids should be present. No explosive or pyrophoric materials should be in this waste.

Individual waste items may be loose or plastic bagged. Combustibles and noncombustibles are segregated to separate waste cans. Each can is weighed and assayed. The inner waste cans are loaded into an outer waste drum, along with a lead shield plug. Assays are done for each can and for the drums.

The waste stream is non-mixed, because the lead is shielding only and not considered part of waste stream.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W323.951**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W323	Stream Name	COMBUSTIBLE LAB WASTE:Uncertifiable			Inventory Date	N/A
Local ID	ID-INL-153TN	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Insert	1.5	0.0	1.5
As-Generated Total	1.5	0.0	1.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	2500.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	465.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.54E-01
Np-237	5.94E-07
Pu-238	6.98E-02
Pu-239	1.43E+00
Pu-241	8.85E+00
Th-229	3.68E-15
Th-230	1.61E-10
U-233	1.17E-11
U-234	2.71E-06
U-235	5.48E-04

Waste Stream Description

This waste stream was generated at the Argonne National Laboratory-West at the INEL. Most of the waste is organic and combustible materials including paper, wood, PVC and plastic containers and items, rubber gaskets and gloves, leather, rags, towels, Q-tips, tubing, filter media, abrasive media, and metal pieces. Small residuals of moderators and fuel are trapped on the filters. One of the 28 total drums of Content Code 153 waste is stored at the Transuranic Storage Area (TSA) for contact-handled waste. The other 27 drums are stored at the intermediate level transuranic storage facility (ILTSF) for remote handled waste.

The organic content may exceed 14 lb/ft3. Combustibles, including packaging, may exceed 25 volume percent. The levels of dispersible fines should be within WIPP-WAC limits. No sludges or free liquids should be present. No explosive or pyrophoric materials should be in this waste.

Individual waste items may be loose or plastic bagged. Combustibles and noncombustibles are segregated to separate waste cans. Each can is weighed and assayed. The inner waste cans are loaded into an outer waste drum, along with a lead shield plug. Assays are done for each can and for the drums.

The waste stream is non-mixed, because the lead is shielding only and not considered part of waste stream.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W332.661**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W332	Stream Name	SOLIDIFIED SOLUTIONS:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-BCO-204T	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3113
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Drum	1.5	0.0	1.5	
As-Generated Total		1.5	0.0	1.5

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
TDOP	4.8	0.0	4.8	
Final Form Total		4.8	0.0	4.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	196.75
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	199.14
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.43
Packaging Material, Plastic	23.67
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	3.35E+00
Pu-239	2.70E-02
Th-230	7.73E-09
U-234	1.30E-04
U-235	3.46E-10

Waste Stream Description

This waste comes from Battelle Columbus Labs. It is a turco soap decontamination solution (used to decontaminate glove boxes from a Pu lab) which is solidified in plaster-of-paris.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W337.673**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W337	Stream Name	AMERICIUM SOURCES:Cert-repack			Inventory Date	4/30/1995
Local ID	ID-TAN-200T	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5121
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Source Information Not Compiled

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	421.30
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-239	1.46E+01
Pu-240	3.03E+00
Th-232	3.75E-16
U-235	3.96E-04
U-236	1.17E-06

Waste Stream Description

This waste was generated at the Idaho National Engineering Laboratory. It consists of an americium neutron source. No other wastes were included in the drum.

The waste was placed in a carbon steel pipe which was centered in the 55-gallon drum. Cement was added to fill the annular space between the pipe and drum and encapsulate the pipe containing the source.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W337.957**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W337	Stream Name	AMERICIUM SOURCES:Direct Ship				Inventory Date	N/A	
Local ID	ID-TAN-200T	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5121	Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Source Information Not Compiled

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB used to overpack 55 gallon drums	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	139.10
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	211.00
Packaging Material, Plastic	16.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-239	4.83E+00
Pu-240	9.99E-01
Th-232	1.24E-16
U-235	1.31E-04
U-236	3.85E-07

Waste Stream Description

This waste was generated at the Idaho National Engineering Laboratory. It consists of an americium neutron source. No other wastes were included in the drum.

The waste was placed in a carbon steel pipe which was centered in the 55-gallon drum. Cement was added to fill the annular space between the pipe and drum and encapsulate the pipe containing the source.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W342.652**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W342	Stream Name	MISCELLANEOUS SOURCES:Direct Ship			Inventory Date	N/A
Local ID	ID-INL-157T	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S3100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Source Information Not Compiled

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	0.2	0.0	0.2
As-Generated Total			0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB used to overpack 55 gallon drums	1.9	0.0	1.9
Final Form Total			1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	111.26
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	211.00
Packaging Material, Plastic	16.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.41E+00
Np-237	1.03E-05
Pu-239	2.13E-02
Pu-240	5.53E-18
Pu-244	9.93E-15
Th-229	1.18E-13
U-233	2.89E-10
U-235	2.73E-10
U-236	6.00E-25

Waste Stream Description

There is no descriptive or constituent information available for this waste, which was generated at ANL-W. Based on engineering judgment, the waste was assigned to "Inorganic Homogeneous Solids." The waste is assumed to be metallic but of a size that is too small to qualify as debris.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W342.953**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W342	Stream Name	MISCELLANEOUS SOURCES:Cert-repack			Inventory Date	4/30/1995
Local ID	ID-INL-157T	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S3100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Source Information Not Compiled

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	0.2	0.0	0.2
As-Generated Total			0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total			0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	337.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.31E+00
Np-237	3.11E-05
Pu-239	6.46E-02
Pu-240	1.68E-17
Pu-244	3.01E-14
Th-229	3.57E-13
U-233	8.78E-10
U-235	8.28E-10
U-236	1.82E-24

Waste Stream Description

There is no descriptive or constituent information available for this waste, which was generated at ANL-W. Based on engineering judgment, the waste was assigned to "Inorganic Homogeneous Solids." The waste is assumed to be metallic but of a size that is too small to qualify as debris.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W347.818**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W347	Stream Name	ABSORBED LIQUIDS:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-AEO-102T	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3113
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Bin	45.5	0.0	45.5
Drum	22.3	0.0	22.3
As-Generated Total		67.8	0.0
			67.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	24.6	0.0	24.6
TDOP	129.3	0.0	129.3
Final Form Total		153.9	0.0
			153.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	63.97
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	137.01
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.84
Packaging Material, Plastic	22.45
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.55E-02
Np-237	6.59E-08
Pu-239	5.37E-01
Pu-240	9.86E-01
Th-229	7.56E-16
Th-230	5.99E-15
Th-232	8.19E-08
U-233	1.86E-12
U-234	1.02E-10
U-235	2.70E-07
U-236	3.80E-07
U-238	2.80E-06

Waste Stream Description

This waste comes from Argonne National Laboratory-East. It consists of liquids adjusted to pH 10 using NaOH which are then absorbed in vermiculite.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W348.1012**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W348	Stream Name	SAND, SLAG, AND CRUCIBLE HEELS:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-393TN	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3117
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Materials Production/Recovery Effluents

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	10.0	0.0	10.0
As-Generated Total		10.0	10.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	3.8	0.0	3.8
TDOP	19.2	0.0	19.2
Final Form Total		22.9	22.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	187.33
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.85
Packaging Material, Plastic	22.41
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.49E-03
Np-237	2.33E-08
Pu-238	5.78E-01
Pu-239	1.82E+01
Pu-240	4.12E+00
Pu-242	2.97E-04
Th-229	2.68E-16
Th-230	1.33E-09
Th-232	5.11E-16
U-233	6.58E-13
U-234	2.24E-05
U-235	2.33E-07
U-236	1.59E-06
U-238	5.82E-13

Waste Stream Description

This waste consists of insoluble residue or "heel" generated from processing magnesium oxide sand and pulverized slag and magnesium oxide crucibles to remove above-discard amounts of plutonium. Respirable fines are thought to exceed the WIPP-WAC limits.

The waste stream handling and packaging is as follows: the dried heels were placed into 1/2 and 1-gallon PE bottles. Each bottle was double -bagged out the glovebox in PVC and PE bags. Each bottle was assayed and then placed in prepared 55-gallon drums, about 15-30 bottles per drum. Prior to 1972, the drums were lined with one or two PE bags, which were sealed with tape. Some of these drums may have cardboard liners inside the inner drum bag. After 1972, 90-mil sealed rigid liners were used in addition to one or two PE bags.

Since 1972, drums were inspected (and corrected where needed for free liquids, proper packaging, and proper content code. One to two quarts of Oil-dri was placed on the outer sealed PE drum bag. Starting in february 1982, 3-12 lb of vermiculite was used to fill the space between the outer drum bag and the rigid liner.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W353.917**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W353	Stream Name	SOLIDIFIED SOLUTIONS:Cert-repack			Inventory Date	4/30/1995
Local ID	ID-BTO-050TN	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3113
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Source Information Not Compiled

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	461.00
Cellulosics	0.00
Rubber	0.00
Plastics	4.24
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Np-237	3.33E-04
Pu-239	1.20E-01
Th-229	1.14E-11
U-233	1.87E-08
U-235	1.54E-09

Waste Stream Description

This waste stream is from Bettis Atomic Power Laboratory. It consists of a single drum of TRU. No more information is available, but the waste is thought to be solidified inorganic solutions.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W357.1022**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W357	Stream Name	FLUID BED ASH:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-425TN	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S3111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	1.7	0.0	1.7
As-Generated Total			1.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
TDOP	4.8	0.0	4.8
Final Form Total			4.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1.04
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	3.39
Cellulosics	5.03
Rubber	0.00
Plastics	0.78
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.43
Packaging Material, Plastic	23.45
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	5.42E-03
Pu-239	1.71E-01
Pu-240	3.86E-02
Pu-242	2.78E-06
Th-230	1.25E-11
Th-232	4.79E-18
U-234	2.11E-07
U-235	2.19E-09
U-236	1.49E-08
U-238	5.45E-15

Waste Stream Description

This waste, generated at the Rocky Flats Plant, consists of ash generated from the experimental pilot and demonstration fluid bed incinerator plants. Combustibles used for experiments were contaminated with low levels of Pu. Ash is packaged in standard RFP drums. Drums were assayed and fissile quantities calculated.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W358.854**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W358	Stream Name	PU NEUTRON SOURCES:RH Direct Ship			Inventory Date	N/A
Local ID	ID-INL-152TN	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	0.2	0.0	0.2
As-Generated Total			0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB used to overpack 55 gallon drums	1.9	0.0	1.9
Final Form Total			1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	31.76
Aluminum-Base Metal/Alloys	0.26
Other Metal/Alloys	0.03
Other Inorganic Materials	0.79
Cellulosics	26.71
Rubber	2.41
Plastics	21.43
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	211.00
Packaging Material, Plastic	16.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	2.07E+02
Pu-239	9.97E-01
Pu-240	1.92E+00
Th-230	1.34E-07
Th-232	6.89E-17
U-234	4.23E-03
U-235	6.88E-09
U-236	3.98E-07

Waste Stream Description

This waste stream was generated at Argonne National Laboratory-West at the INEL. These wastes consist of noncombustible materials including Pu-Be neutron sources (small fuel samples, small sections of moderator, a pu standard, and pu foil), tools, hot cell operating equipment, various containers, and ferrous and nonferrous metals. Some combustible materials may include paper, plastic and PVC containers, rags, Q-tips, string mop heads, and an electrical plug strip and cord.

The organic content is less than 14 lb/ft3. Combustibles, including packaging, may exceed 25 volume percent. The levels of dispersible fines should be within WIPP-WAC limits. No sludges or free liquids should be present. No explosive or pyrophoric materials should be in this waste.

These wastes are packaged three different ways, depending on when the packaging was done. Pu-Be sources packaged in 1975 were placed in a carbon steel pipe, which was cemented and encapsulated into the center of a 55-gallon drum. In 1978, Pu-Be sources were packaged in four 55-gallon drums. Wastes packed in 1980 were wrapped plastic, placed in paraffin lined 15 gallon drums, and then placed in 55-gallon drums. Some individual items may be unbagged.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W358.855**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W358	Stream Name	PU NEUTRON SOURCES:CH-Cert-repack			Inventory Date	4/30/1995
Local ID	ID-INL-152TN	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Bin	3.5	0.0	3.5
As-Generated Total		3.5	3.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	3.3	0.0	3.3
Final Form Total		3.3	3.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	96.20
Aluminum-Base Metal/Alloys	0.80
Other Metal/Alloys	0.10
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.30
Plastics	64.90
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	6.29E+02
Pu-239	3.02E+00
Pu-240	5.80E+00
Th-230	4.08E-07
Th-232	2.08E-16
U-234	1.28E-02
U-235	2.08E-08
U-236	1.20E-06

Waste Stream Description

This waste stream was generated at Argonne National Laboratory-West at the INEL. These wastes consist of noncombustible materials including Pu-Be neutron sources (small fuel samples, small sections of moderator, a pu standard, and pu foil), tools, hot cell operating equipment, various containers, and ferrous and nonferrous metals. Some combustible materials may include paper, plastic and PVC containers, rags, Q-tips, string mop heads, and an electrical plug strip and cord.

The organic content is less than 14 lb/ft3. Combustibles, including packaging, may exceed 25 volume percent. The levels of dispersible fines should be within WIPP-WAC limits. No sludges or free liquids should be present. No explosive or pyrophoric materials should be in this waste.

These wastes are packaged three different ways, depending on when the packaging was done. Pu-Be sources packaged in 1975 were placed in a carbon steel pipe, which was cemented and encapsulated into the center of a 55-gallon drum. In 1978, Pu-Be sources were packaged in four 55-gallon drums. Wastes packed in 1980 were wrapped plastic, placed in paraffin lined 15 gallon drums, and then placed in 55-gallon drums. Some individual items may be unbagged.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W358.948**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W358	Stream Name	PU NEUTRON SOURCES:CH-Uncertifiable			Inventory Date	4/30/1995
Local ID	ID-INL-152TN	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	0.2	0.0	0.2
As-Generated Total			0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total			0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	2500.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	2.10E+03
Pu-239	1.01E+01
Pu-240	1.93E+01
Th-230	1.36E-06
Th-232	6.94E-16
U-234	4.28E-02
U-235	6.95E-08
U-236	4.01E-06

Waste Stream Description

This waste stream was generated at Argonne National Laboratory-West at the INEL. These wastes consist of noncombustible materials including Pu-Be neutron sources (small fuel samples, small sections of moderator, a pu standard, and pu foil), tools, hot cell operating equipment, various containers, and ferrous and nonferrous metals. Some combustible materials may include paper, plastic and PVC containers, rags, Q-tips, string mop heads, and an electrical plug strip and cord.

The organic content is less than 14 lb/ft3. Combustibles, including packaging, may exceed 25 volume percent. The levels of dispersible fines should be within WIPP-WAC limits. No sludges or free liquids should be present. No explosive or pyrophoric materials should be in this waste.

These wastes are packaged three different ways, depending on when the packaging was done. Pu-Be sources packaged in 1975 were placed in a carbon steel pipe, which was cemented and encapsulated into the center of a 55-gallon drum. In 1978, Pu-Be sources were packaged in four 55-gallon drums. Wastes packed in 1980 were wrapped plastic, placed in paraffin lined 15 gallon drums, and then placed in 55-gallon drums. Some individual items may be unbagged.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W358.949**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W358	Stream Name	PU NEUTRON SOURCES:RH-Cert-repack			Inventory Date	9/30/2002
Local ID	ID-INL-152TN	Handling	RH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	1.3	0.0	1.3
RH Insert	0.2	0.0	0.2
As-Generated Total	1.5	0.0	1.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	3.6	0.0	3.6
RH Canister used to overpack 55 gallon drums	2.5	0.0	2.5
Final Form Total	6.1	0.0	6.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	55.60
Aluminum-Base Metal/Alloys	0.46
Other Metal/Alloys	0.06
Other Inorganic Materials	1.39
Cellulosics	46.76
Rubber	4.22
Plastics	37.51
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.82
Packaging Material, Plastic	27.65
Packaging Material, Lead	464.41
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	4.41E+02
Pu-239	2.12E+00
Pu-240	4.07E+00
Th-230	2.86E-07
Th-232	1.46E-16
U-234	9.01E-03
U-235	1.46E-08
U-236	8.44E-07

Waste Stream Description

This waste stream was generated at Argonne National Laboratory-West at the INEL. These wastes consist of noncombustible materials including Pu-Be neutron sources (small fuel samples, small sections of moderator, a pu standard, and pu foil), tools, hot cell operating equipment, various containers, and ferrous and nonferrous metals. Some combustible materials may include paper, plastic and PVC containers, rags, Q-tips, string mop heads, and an electrical plug strip and cord.

The organic content is less than 14 lb/ft3. Combustibles, including packaging, may exceed 25 volume percent. The levels of dispersible fines should be within WIPP-WAC limits. No sludges or free liquids should be present. No explosive or pyrophoric materials should be in this waste.

These wastes are packaged three different ways, depending on when the packaging was done. Pu-Be sources packaged in 1975 were placed in a carbon steel pipe, which was cemented and encapsulated into the center of a 55-gallon drum. In 1978, Pu-Be sources were packaged in four 55-gallon drums. Wastes packed in 1980 were wrapped plastic, placed in paraffin lined 15 gallon drums, and then placed in 55-gallon drums. Some individual items may be unbagged.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Original data showed 3 RH canisters. Int. volume and # stored were changed to more accurately reflect the waste volume of 2.4 m3 as follows:

Waste Stream ID: **IN-W358.949**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

2.4 m³ / .208 m³/ drum = 11.538 drums, rounded to 12 drums. Tb 3/27/03

Waste Stream ID: **IN-W361.1021**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W361	Stream Name	SOOT:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-422TN	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S3111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Materials Production/Recovery Effluents

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Drum	5.2	0.0	5.2	
As-Generated Total		5.2	0.0	5.2

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
SWB	1.9	0.0	1.9	
TDOP	9.6	0.0	9.6	
Final Form Total		11.5	0.0	11.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1.21
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	3.94
Cellulosics	5.84
Rubber	0.00
Plastics	0.91
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.85
Packaging Material, Plastic	22.22
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.92E-03
Np-237	1.24E-08
Pu-238	2.19E-01
Pu-239	6.89E+00
Pu-240	1.56E+00
Pu-242	1.12E-04
Th-229	1.43E-16
Th-230	5.06E-10
Th-232	1.93E-16
U-233	3.50E-13
U-234	8.52E-06
U-235	8.83E-08
U-236	6.01E-07
U-238	2.20E-13

Waste Stream Description

This waste, generated at the Rocky Flats Plant, consists of flyash generated from periodic cleaning of the Pu recovery incinerator off-gas system. Ash is packaged in 1- and 2-quart PE bottles and then in standard RFP fashion in drums. Drums will hold up to 50 bottles depending on Pu content. Bottles are individually assayed and fissile quantities calculated.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W362.1020**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W362	Stream Name	ASH HEELS:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-421TN	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S3111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Drum	21.4	0.0	21.4	
As-Generated Total		21.4	0.0	21.4

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
SWB	7.6	0.0	7.6	
TDOP	38.3	0.0	38.3	
Final Form Total		45.9	0.0	45.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1.25
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	4.05
Cellulosics	6.01
Rubber	0.00
Plastics	0.94
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.85
Packaging Material, Plastic	22.22
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	7.20E-01
Pu-239	2.25E+01
Pu-240	5.12E+00
Pu-242	3.68E-04
Th-230	1.66E-09
Th-232	6.34E-16
U-234	2.80E-05
U-235	2.88E-07
U-236	1.98E-06
U-238	7.22E-13

Waste Stream Description

This waste, generated at the Rocky Flats Plant, consists of ash heels generated from the recovery of Pu from incinerator ash. Ash is packaged in 0.5-and 1-gallon PE bottles and then in standard RFP fashion in drums. Drums will hold up to 25 bottles depending on Pu content. Bottles are individually assayed and fissile quantities calculated.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W363.1019**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W363	Stream Name	VIRGIN INCINERATOR ASH:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-420TN	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S3111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	2.3	0.0	2.3
As-Generated Total		2.3	0.0
			2.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
TDOP	4.8	0.0	4.8
Final Form Total		4.8	0.0
			4.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1.39
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	4.54
Cellulosics	6.73
Rubber	0.00
Plastics	1.05
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.43
Packaging Material, Plastic	23.45
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	3.24E-01
Pu-239	1.02E+01
Pu-240	2.31E+00
Pu-242	1.66E-04
Th-230	7.48E-10
Th-232	2.86E-16
U-234	1.26E-05
U-235	1.31E-07
U-236	8.89E-07
U-238	3.26E-13

Waste Stream Description

This waste, generated at the Rocky Flats Plant, consists of ash generated in the Pu recovery incinerator. Ash is packaged in 0.5- and 1-gallon PE bottles and then in standard RFP fashion in drums. Drums will hold up to 25 bottles depending on Pu content. Bottles are individually assayed and fissile quantities calculated.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W364.1011**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W364	Stream Name	SAND, SLAG AND CRUCIBLES:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-392TN	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S3117
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	1.5	0.0	1.5
As-Generated Total		1.5	0.0
			1.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
TDOP	4.8	0.0	4.8
Final Form Total		4.8	0.0
			4.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	146.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.43
Packaging Material, Plastic	23.67
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	5.35E-01
Pu-239	1.68E+01
Pu-240	3.80E+00
Pu-242	2.73E-04
Th-230	1.24E-09
Th-232	4.71E-16
U-234	2.08E-05
U-235	2.15E-07
U-236	1.47E-06
U-238	5.35E-13

Waste Stream Description

Specific information is not available for this content code. The waste stream is thought to be similar to content code 391, crucibles and sand. The operation which generated the waste is unknown. The waste packaging and handling procedures are unknown, although the waste form is thought to be similar to content code 391.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W365.1010**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W365	Stream Name	CRUCIBLES AND SAND:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-391TN	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S3117
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Materials Production/Recovery Effluents

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	4.8	0.0	4.8
As-Generated Total			4.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	1.9	0.0	1.9
TDOP	9.6	0.0	9.6
Final Form Total			11.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	175.57
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.85
Packaging Material, Plastic	22.41
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.72E+01
Np-237	1.16E-04
Pu-238	1.77E-01
Pu-239	5.54E+00
Pu-240	1.26E+00
Pu-242	9.04E-05
Th-229	1.33E-12
Th-230	4.09E-10
Th-232	1.56E-16
U-233	3.27E-09
U-234	6.87E-06
U-235	7.10E-08
U-236	4.85E-07
U-238	1.77E-13

Waste Stream Description

This waste consists of broken magnesium oxide crucibles and limited amounts of magnesium oxide sand, used in a molten salt cleanup project when reducing plutonium tetrafluoride to plutonium metal. Above-discard levels of plutonium were recovered from these crucibles by nitric acid leaching.

The waste stream handling and packaging is as follows: the crucibles were placed into 1-gallon PE bottles. Each bottle was double-bagged out the glovebox in PVC and PE bags. Each bottle was assayed and the placed in prepared 55 gallon drums, about 12-16 bottles per drum. Some of the drums were lead-lined. Prior to 1972, the drums were lined with one or two PE bags, which were sealed with tape. Some of the drums may have cardboard liners inside of the inner liner. After 1972, 90-mil sealed rigid liners were used in addition to one or two PE bags.

Since 1972, drums were inspected (and corrected where needed) for free liquids, proper packaging, and proper content code. One to two quarts of Oil-dri was placed on the outer sealed PE drum bag. Starting in February 1982, 3-12 lb of vermiculite was used to fill the space between the outer drum bag and the rigid liner.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W366.841**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W366	Stream Name	LECO CRUCIBLES:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-370TN	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S3117
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Analytical Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	7.5	0.0	7.5
As-Generated Total			7.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	1.9	0.0	1.9
TDOP	14.4	0.0	14.4
Final Form Total			16.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	194.07
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.73
Packaging Material, Plastic	22.78
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.86E-02
Np-237	2.92E-07
Pu-238	1.07E-01
Pu-239	3.33E+00
Pu-240	7.54E-01
Pu-242	5.44E-05
Th-229	3.35E-15
Th-230	2.46E-10
Th-232	9.34E-17
U-233	8.23E-12
U-234	4.14E-06
U-235	4.27E-08
U-236	2.91E-07
U-238	1.07E-13

Waste Stream Description

This waste stream includes blank LECO crucibles and caps used for sample analysis. The crucibles are 1 inch high by 1 inch diameter, made of fired silica based ceramic. The crucibles were used to calibrate the LECO analyzer, and contain fused amounts of accelerating metals (iron, tin, copper, titanium, stainless steel, etc.) used for blank calibration. The crucibles should be unbroken except for those generated prior to 1975, which were broken before packaging. Even when broken, there should be minimal respirable or dispersible fines which would not exceed the WIPP-WAC.

The waste stream handling and packaging is as follows: blank crucibles and caps were placed into 1-gallon metal paint cans, about 150-200 per can. The can lid was placed and sealed with tape. Each paint can was double-bagged out the glovebox in PVC or PE-PVC bags and placed in prepared 55-gallon drums, about 20-25 cans per drum. Prior to 1972, 90-mil sealed rigid liners were used in addition to the two PE bags.

Since 1972, drums were inspected (and corrected where needed) for free liquids, proper packaging, and proper content code. One to two quarts of Oil-dri was placed on the outer sealed PE drum bag. Starting in February 1982, 3-12 lb of vermiculite was used to fill the space between the outer drum bag and the rigid liner.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W372.832**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W372	Stream Name	MET SAMPLES FISSILE:Direct Ship			Inventory Date	N/A
Local ID	ID-BTO-081TN	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S3100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Source Information Not Compiled

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB used to overpack 55 gallon drums	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	111.26
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	211.00
Packaging Material, Plastic	16.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.41E+00
Np-237	1.03E-05
Pu-239	2.13E-02
Pu-240	5.53E-18
Pu-244	9.93E-15
Th-229	1.18E-13
U-233	2.89E-10
U-235	2.73E-10
U-236	6.00E-25

Waste Stream Description

There is no descriptive or constituent information available for this waste, which was generated at Bettis Atomic Power Laboratory.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Waste Stream ID: **IN-W372.918**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W372	Stream Name	MET SAMPLES FISSILE:RH-Cert-repack			Inventory Date	9/30/2002
Local ID	ID-BTO-081TN	Handling	RH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S3100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Source Information Not Compiled

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum	3.0	0.0	3.0
As-Generated Total		3.0	0.0
			3.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	7.1	0.0	7.1
RH Canister used to overpack 55 gallon drums	4.8	0.0	4.8
Final Form Total		11.9	0.0
			11.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	270.87
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.80
Packaging Material, Plastic	27.61
Packaging Material, Lead	464.40
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.50E-02
Cs-137	4.69E-02
Np-237	7.99E-08
Pu-238	2.95E-02
Pu-239	8.20E-04
Th-229	2.63E-16
Th-230	1.92E-11
U-233	1.20E-12
U-234	6.03E-07
U-235	5.66E-12

Waste Stream Description

There is no descriptive or constituent information available for this waste, which was generated at Bettis Atomic Power Laboratory.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads and examination of waste by real time radiography will begin in the next 1 - 2 years.

Original data showed 6 RH Canisters. Int. volume and # stored changed to more accurately reflect the waste volume of 4.7 m3 as follows:
 4.7 m3 / .208 m3 / drum = 22.596 drums, rounded to 23 drums.
 Tb 3/27/03.

Waste Stream ID: **IN-W375.1096**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	IN-W375	Stream Name	SLUDGE:Direct Ship			Inventory Date	9/30/2002
Local ID	ID-RFO-995TN	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3122
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / Misc.	25.4	0.0	25.4
Drum / 55 gallon	62.8	0.0	62.8
As-Generated Total	88.2	0.0	88.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	32.1	0.0	32.1
TDOP	167.6	0.0	167.6
Final Form Total	199.8	0.0	199.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	96.11
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	86.53
Cement (Solidified)	57.66
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	208.84
Packaging Material, Plastic	22.25
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	3.19E-03
Pu-239	9.99E-02
Pu-240	2.27E-02
Pu-242	1.63E-06
Th-230	7.38E-12
Th-232	2.81E-18
U-234	1.24E-07
U-235	1.28E-09
U-236	8.74E-09
U-238	3.20E-15

Waste Stream Description

This waste stream, generated at the Rocky Flats Plant, is sewage sludge from cleaning stabilization ponds. This waste also contains a limited number of drums containing sludge generated by plutonium recovery operations. The sludge may be moist or dry, and may consist of fines, chunks or pieces of dried cake. Shipment of sewer sludge to the INEL stopped in 1976.

There are high levels of fines. In addition the drums may contain free liquids. The sewage sludge should contain less than 10 nCi/g TRU elements. The portion of the waste that is suspected to be TRU is addressed by this waste stream. Organic content in the sludge is not known. No free liquids should be present. No explosive, pyrophoric, or corrosive materials should be in the waste.

Sewer sludge was placed directly into prepared 55-gallon drums until 1974. Drums were prepared according to pre and post-1972 procedures. Portland cement was added to the bottom and top of the inner bag. If the sludge was moist, portland cement was also added in layers with the sludge. Since 1974, packaging was changed to 4 x 4 x 7 ft fiberglass-reinforced polyester (FRP) coated plywood boxes due to the pressure buildup in the drums. Each box was lined with a PE bag and a cardboard liner. About 90 lb of portland cement was added to the bottom and top of each box. Fissile content of the sewage was determined by radiochemical analysis of sludge samples.

Management Comments

Total inventory figures as to number of containers and volume of waste, is considered to be fairly accurate. All waste is presently stored on indoor or earthen covered pads. Retrieval from the earthen covered pads will begin in the next 1 - 2 years.

Waste Stream ID: **KA-T001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	KA-T001	Stream Name	Transuranic Debris			Inventory Date	9/30/2002
Local ID	KA-T001	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
RH Canister / 5-gallon	3.1	4.0	7.1
As-Generated Total	3.1	4.0	7.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Canister	0.0	122.8	122.8
Final Form Total	0.0	122.8	122.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	68.70
Aluminum-Base Metal/Alloys	0.60
Other Metal/Alloys	0.10
Other Inorganic Materials	1.70
Cellulosics	56.00
Rubber	5.10
Plastics	45.40
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.00
Packaging Material, Plastic	26.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.25E-04
Am-243	3.90E-07
Cm-244	1.12E-05
Cs-137	5.70E-01
Np-237	6.29E-06
Pu-238	2.09E-02
Pu-239	5.59E-05
Pu-240	1.40E-05
Pu-241	1.98E-03
Pu-242	5.34E-08
Pu-244	1.27E-14
Sr-90	5.42E-01
Th-229	7.09E-12
Th-230	1.03E-08
Th-232	3.05E-13
U-233	2.88E-09
U-234	3.56E-05
U-235	5.32E-07
U-236	5.05E-06
U-238	2.34E-09

Waste Stream Description

Organic and inorganic particulate and debris.

Management Comments

N/A

Waste Stream ID: **KA-W016**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	KA-W016	Stream Name	Transuranic Debris			Inventory Date	9/30/2002
Local ID	KA-W016	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister / 5-gallon	0.0	0.7	0.7
As-Generated Total	0.0	0.7	0.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	12.5	12.5
Final Form Total	0.0	12.5	12.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	68.90
Aluminum-Base Metal/Alloys	0.60
Other Metal/Alloys	0.10
Other Inorganic Materials	1.70
Cellulosics	56.70
Rubber	5.10
Plastics	45.50
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.00
Packaging Material, Plastic	26.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.26E-04
Am-243	3.91E-07
Cm-244	1.12E-05
Cs-137	5.71E-01
Np-237	6.31E-06
Pu-238	2.10E-02
Pu-239	5.60E-05
Pu-240	1.40E-05
Pu-241	1.99E-03
Pu-242	5.35E-08
Pu-244	1.27E-14
Sr-90	5.44E-01
Th-229	7.11E-12
Th-230	1.03E-08
Th-232	3.06E-13
U-233	2.88E-09
U-234	3.57E-05
U-235	5.34E-07
U-236	5.06E-06
U-238	2.34E-09

Waste Stream Description

This transuranic mixed waste has not yet been generated. Waste will be segregated to the extent possible (considering ALARA) into inorganic, organic and heterogeneous waste streams and packaged separately. Details of waste characteristics will be developed upon generation. This waste stream will not be moratorium waste.

Management Comments

N/A

Waste Stream ID: **KN-B234TRU**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Building 234 TRU Waste			Inventory Date	9/30/2002
Local ID	B234TRU	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / B-12	1.3	0.0	1.3
Box / B-25	17.9	0.0	17.9
CNS Small HIC	3.1	0.0	3.1
Drum / 55 gallon	30.4	170.1	200.5
NUKEM NUHIC-55 HIC	2.3	0.0	2.3
As-Generated Total		54.9	170.1
			225.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	54.9	170.1	225.1
Final Form Total		54.9	170.1
			225.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	35.70
Aluminum-Base Metal/Alloys	2.60
Other Metal/Alloys	0.00
Other Inorganic Materials	33.60
Cellulosics	5.10
Rubber	0.30
Plastics	31.50
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	68.60
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.48E-01
Pu-238	5.91E-02
Pu-239	7.04E-01
Pu-240	2.37E-01
Pu-241	1.24E+00
Pu-242	1.83E-06
Th-232	1.30E-07
U-233	6.72E-05
U-234	4.72E-06
U-235	2.25E-07
U-238	1.79E-05

Waste Stream Description

This waste is non-hazardous debris and soil from Building 234. All process equipment and glove boxes were removed in the early 1990s and are not part of this waste stream. The debris consists of concrete block, metal, PPE, plywood, plexiglass, plastic, HEPA filters, piping, duct work, glass, cheese cloth, paper, rubber and small tools.

Management Comments

FF assumption to use 55-gallon drums affirmed by John L. Cummings @ KAPL. WMP calculated from As-Gen information reported using a % total volume weighted average.

Waste Stream ID: **LA-IT-00-01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Combustible and non-combustible debris waste from ITRI Project			Inventory Date	9/30/2002
Local ID	IT-00-01	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	9.8	0.0	9.8
As-Generated Total	9.8	0.0	9.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	9.8	0.0	9.8
Final Form Total	9.8	0.0	9.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	257.98
Aluminum-Base Metal/Alloys	0.22
Other Metal/Alloys	143.85
Other Inorganic Materials	6.80
Cellulosics	35.88
Rubber	0.62
Plastics	2.97
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.40E-01
Cm-244	1.67E-01
Np-237	2.14E-06
Pu-238	4.25E-01
Pu-239	5.99E-02
Pu-240	8.34E-04
Pu-241	1.01E-08
Th-229	2.58E-09
Th-230	4.57E-09
Th-232	1.88E-19
U-233	1.02E-06
U-234	3.63E-05
U-235	1.60E-09
U-236	3.91E-10
U-238	8.54E-08

Waste Stream Description

Combustible and non-combustible debris generated between 1975 and 1984 by Inhalation Toxicology Research Institute (ITRI) run by Lovelace on the Kirtland Air Force Base. Laboratory waste that may contain rags, tools, biological waste. Pu-239 waste, may be mixed, with unknown RCRA codes

Management Comments

Former WS IDs: LAM009, LAT004, LAT005 and LAT009

Waste Stream ID: **LA-OS-00-01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Metal debris from Off-Site Source Recovery (OSR) project (non-mixed)				Inventory Date	9/30/2002	
Local ID	OS-00-01	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5100	Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC	37.7	580.6	618.3
As-Generated Total			618.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
POC	2.1	32.0	34.1
Final Form Total			34.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	190.24
Aluminum-Base Metal/Alloys	0.18
Other Metal/Alloys	6.07
Other Inorganic Materials	0.66
Cellulosics	0.73
Rubber	0.31
Plastics	5.86
Solidified, Inorganic Matrix	0.52
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.18
Soils	0.37
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.51E+01
Np-237	2.44E-05
Pu-238	2.73E+03
Pu-239	1.77E+01
Th-229	1.66E-15
Th-230	3.50E-08
U-233	5.31E-11
U-234	7.77E-03
U-235	1.75E-08

Waste Stream Description

Off-Site Source Recovery (OSR) sealed sources are radionuclide (actinide) solids (e.g., Am, Pu, AmBe, or PuBe) that are encapsulated in metal jackets. The actinides are either metal or metal oxides.

Management Comments

Contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-PX-00-01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Combustible debris waste generated by PANTEX			Inventory Date	9/30/2002
Local ID	PX-00-01	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Unknown Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	257.70
Aluminum-Base Metal/Alloys	0.40
Other Metal/Alloys	18.80
Other Inorganic Materials	6.80
Cellulosics	64.00
Rubber	1.10
Plastics	5.30
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.59E-02
Np-237	4.79E-08
Pu-238	1.28E-02
Pu-239	1.45E-01
Pu-240	3.41E-02
Pu-241	2.61E-01
Th-229	1.12E-16
Th-230	6.09E-12
Th-232	8.99E-19
U-233	6.04E-13
U-234	2.24E-07
U-235	8.58E-10
U-236	6.07E-09

Waste Stream Description

Not provided

Management Comments

Former WS ID: LAT004

Waste Stream ID: **LA-SL-00-01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID

N/A

 Stream Name

Non-combustible debris waste generated by Sandia National Laboratories (mixed)
--

 Inventory Date

9/30/2002

 Local ID

SL-00-01

 Handling

CH

 Final Waste Form

Heterogeneous Debris

 Waste Matrix Code

S5400

 Activity Concentrations Decayed to CY

2002

Final Waste Form Descriptors

Category:

Defense TRU Waste

 Source:

N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	257.70
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	302.90
Other Inorganic Materials	6.80
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Np-237	1.24E-02
Pu-238	4.07E-01
Pu-239	3.67E-01
Th-229	1.70E-09
Th-230	4.03E-09
U-233	1.40E-06
U-234	3.33E-05
U-235	9.41E-09

Waste Stream Description

Non-combustible debris waste generated by Sandia National Laboratories. May contain lead.

Management Comments

Former WS ID: LAT005

Waste Stream ID: LA-TA-03-12

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Combustible debris waste from chemistry operations in wings 3, 5, and 7 of the CMR facility (mixed)			Inventory Date	9/30/2002
Local ID	TA-03-12	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5300
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
55 Gallon Drum	220.5	0.0	220.5	
Drum / 85-gallon	0.6	0.0	0.6	
Unknown Small	0.0	0.0	0.0	
As-Generated Total		221.1	0.0	221.1

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
55 Gallon Drum	220.7	0.0	220.7	
85 Gallon Drum	0.6	0.0	0.6	
Final Form Total		221.3	0.0	221.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1.20
Aluminum-Base Metal/Alloys	0.30
Other Metal/Alloys	0.30
Other Inorganic Materials	6.50
Cellulosics	18.80
Rubber	8.80
Plastics	33.70
Solidified, Inorganic Matrix	0.20
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.40
Soils	0.20
Packaging Material, Steel	130.89
Packaging Material, Plastic	36.97
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.64E-04
Am-243	3.79E-08
Cs-137	3.74E-11
Np-237	5.04E-08
Pu-238	1.77E-02
Pu-239	1.97E-03
Pu-240	6.89E-04
Pu-241	4.37E-03
Pu-242	1.72E-07
Pu-244	9.44E-15
Th-229	8.34E-15
Th-230	2.45E-10
Th-232	6.28E-19
U-233	6.08E-12
U-234	1.73E-06
U-235	1.46E-09
U-236	7.31E-10
U-238	2.78E-11

Waste Stream Description

Combustible waste generated from facility and equipment operations and maintenance. This waste includes paper, rags, plastic, rubber, wood-based HEPA filters, and plastic-based and cellulose-based waste generated at the facility. Plastic-based waste includes, but may not be limited to, tape, polyethylene and vinyl; gloves; plastic vials; polystyrene; Tygon tubing; polyvinyl chloride plastic; Teflon products; Plexiglas; and dry box gloves (unleaded neoprene base). Cellulose-based waste includes, but may not be limited to, rags, wood, paper, cardboard, laboratory coats and coveralls, booties and cotton gloves, and similar materials. The waste stream may also contain a smaller fraction of non-combustible solids (e.g., scrap metal, crucibles, metal lids, zippers, discarded tools) and a small fraction of homogenous solids, salts, leached solids, ash, hydroxide cakes, crucibles, impure oxides.

Management Comments

Former WS IDs: LAM001, LAM004, LAT004, LAT005, LAT009, also contains containers not previously associated with an identified BIR WS.

Waste Stream ID: **LA-TA-03-13**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Combustible debris waste from chemistry operations in wings 3, 5, and 7 of the CMR facility (non-mixed)			Inventory Date	9/30/2002
Local ID	TA-03-13	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5300
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Drum / 55 gallon	46.4	0.0	46.4	
As-Generated Total		46.4	0.0	46.4

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
55 Gallon Drum	46.4	0.0	46.4	
Final Form Total		46.4	0.0	46.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	257.70
Aluminum-Base Metal/Alloys	0.33
Other Metal/Alloys	69.58
Other Inorganic Materials	6.80
Cellulosics	52.56
Rubber	0.90
Plastics	4.35
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.31E-03
Am-243	2.35E-06
Np-237	2.38E-07
Pu-238	2.66E-01
Pu-239	1.47E-02
Pu-240	3.45E-03
Pu-241	2.76E-02
Pu-242	5.61E-06
Pu-244	5.16E-12
Th-229	8.85E-15
Th-230	7.56E-10
Th-232	1.37E-18
U-233	1.37E-11
U-234	1.15E-05
U-235	1.08E-08
U-236	2.69E-09
U-238	1.69E-09

Waste Stream Description

Combustible waste generated from facility and equipment operations and maintenance. This waste includes paper, rags, plastic, rubber, wood-based HEPA filters, and plastic-based and cellulose-based waste generated at the facility. Plastic-based waste includes, but may not be limited to, tape, polyethylene and vinyl; gloves; plastic vials; polystyrene; Tygon tubing; polyvinyl chloride plastic; Teflon products; Plexiglas; and dry box gloves (unleaded neoprene base). Cellulose-based waste includes, but may not be limited to, rags, wood, paper, cardboard, laboratory coats and coveralls, booties and cotton gloves, and similar materials. The waste stream may also contain a smaller fraction of non-combustible solids (e.g., scrap metal, crucibles, metal lids, zippers, discarded tools) and a small fraction of homogenous solids, salts, leached solids, ash, hydroxide cakes, crucibles, impure oxides. Major: R, C, PW, Minor: IM, OM, AM, OI, OR, IN. No soil (S) present in this waste stream.

Management Comments

Former WS IDs: LAM004, LAM005, LAM009, LAT004, LAT009, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-03-19**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID: Stream Name: Inventory Date:
 Local ID: Handling: Final Waste Form: Waste Matrix Code: Activity Concentrations Decayed to CY:

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	141.0	0.0	141.0
Drum / 30-gallon / Pit	4.2	0.0	4.2
Drum / 85-gallon	2.6	0.0	2.6
Standard Waste Box	28.4	0.0	28.4
Unknown Small	0.1	0.0	0.1
As-Generated Total	176.2	0.0	176.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	141.2	0.0	141.2
55 Gallon Drum/Overpack 30 Gallon	7.7	0.0	7.7
85 Gallon Drum	2.6	0.0	2.6
Standard Waste Box	28.4	0.0	28.4
Final Form Total	179.9	0.0	179.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	20.10
Aluminum-Base Metal/Alloys	2.70
Other Metal/Alloys	2.20
Other Inorganic Materials	100.50
Cellulosics	2.20
Rubber	1.10
Plastics	4.50
Solidified, Inorganic Matrix	0.20
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	1.10
Soils	0.20
Packaging Material, Steel	137.32
Packaging Material, Plastic	31.21
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.88E-03
Am-243	2.25E-06
Np-237	2.07E-07
Pu-238	1.03E-01
Pu-239	7.40E-03
Pu-240	2.14E-03
Pu-241	1.10E-02
Pu-242	1.26E-06
Pu-244	7.36E-13
Th-229	3.48E-14
Th-230	1.41E-09
Th-232	1.98E-18
U-233	2.53E-11
U-234	9.94E-06
U-235	1.08E-08
U-236	2.29E-09
U-238	1.57E-08

Waste Stream Description

Non-combustible and combustible waste generated from facility and equipment operations and maintenance. This waste includes, but may not be limited to, small tools, small equipment, cans, motors, pumps, process equipment, gloveboxes, ventilation ductwork, HEPA filters, pipes, glass, graphite, slag and crucibles, salt, discarded lab ware, windows, and bottles. The waste stream may also contain a smaller fraction of combustible solids (e.g., paper, rags, plastic, rubber, leaded gloves) and a small fraction of homogeneous solids (e.g., leached solids, ash, hydroxide cakes, impure oxides).

Management Comments

Former WS IDs: LAM001, LAM004, LAM005, LAM009, LAT004, LAT005, and LAT009; also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-03-20**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Combustible debris waste from chemistry and metallurgical operations in wings 2 and 4 of the CMR facility (mixed)			Inventory Date	9/30/2002
Local ID	TA-03-20	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5300
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	29.7	0.0	29.7
Drum / 85-gallon	0.3	0.0	0.3
As-Generated Total	30.1	0.0	30.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	29.7	0.0	29.7
Drum / 85-gallon	0.3	0.0	0.3
Final Form Total	30.1	0.0	30.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	3.31
Aluminum-Base Metal/Alloys	0.64
Other Metal/Alloys	0.57
Other Inorganic Materials	1.77
Cellulosics	19.70
Rubber	9.41
Plastics	32.47
Solidified, Inorganic Matrix	0.46
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	2.06
Soils	0.37
Packaging Material, Steel	130.58
Packaging Material, Plastic	36.89
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.78E-03
Np-237	2.93E-06
Pu-238	2.92E-01
Pu-239	1.95E-02
Pu-240	6.90E-03
Pu-241	5.38E-02
Pu-242	1.52E-06
Th-229	3.67E-13
Th-230	2.66E-09
Th-232	3.16E-18
U-233	3.15E-10
U-234	2.29E-05
U-235	4.81E-10
U-236	5.12E-09
U-238	5.73E-15

Waste Stream Description

Combustible waste generated from facility and equipment operations and maintenance. This waste includes paper, rags, plastic, rubber, wood-based HEPA filters, and plastic-based and cellulose-based waste generated at the facility. Plastic-based waste includes, but may not be limited to, tape, polyethylene and vinyl; gloves; plastic vials; polystyrene; Tygon tubing; polyvinyl chloride plastic; Teflon products; Plexiglas; and dry box gloves (unleaded neoprene base). Cellulose-based waste includes, but may not be limited to, rags, wood, paper, cardboard, laboratory coats and coveralls, booties and cotton gloves, and similar materials. The waste stream may also contain a smaller fraction of non-combustible solids (e.g., scrap metal, crucibles, metal lids, zippers, discarded tools) and a small fraction of homogenous solids, salts, leached solids, ash, hydroxide cakes, crucibles, impure oxides.

Management Comments

Former WS IDs: LAM004, LAT004, LAT005, LAT009

Waste Stream ID: **LA-TA-03-24**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Non-combustible and combustible debris waste from operations in wings 2 and 4 of the CMR facility (mixed)			Inventory Date	9/30/2002
Local ID	TA-03-24	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	19.3	0.0	19.3
Drum / 30-gallon / Pit	1.0	0.0	1.0
Drum / 85-gallon	1.0	0.0	1.0
Standard Waste Box	7.6	0.0	7.6
Unknown Small	0.0	0.0	0.0
As-Generated Total	28.9	0.0	28.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	19.6	0.0	19.6
55 Gallon Drum/Overpack 30 Gallon	1.9	0.0	1.9
85 Gallon Drum	1.0	0.0	1.0
Standard Waste Box	7.6	0.0	7.6
Final Form Total	29.9	0.0	29.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	40.10
Aluminum-Base Metal/Alloys	4.00
Other Metal/Alloys	3.20
Other Inorganic Materials	13.40
Cellulosics	5.50
Rubber	2.80
Plastics	8.90
Solidified, Inorganic Matrix	0.20
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.20
Soils	0.20
Packaging Material, Steel	140.30
Packaging Material, Plastic	27.64
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.24E-02
Am-243	1.72E-08
Np-237	1.83E-06
Pu-238	1.14E+00
Pu-239	3.65E-02
Pu-240	1.11E-02
Pu-241	5.62E-02
Pu-242	1.91E-06
Th-229	3.44E-13
Th-230	1.65E-08
Th-232	7.80E-18
U-233	2.39E-10
U-234	1.14E-04
U-235	9.65E-08
U-236	1.02E-08
U-238	8.32E-08

Waste Stream Description

Non-combustible waste generated from facility and equipment operations and maintenance. This waste includes, but may not be limited to, small tools, small equipment, cans, motors, pumps, process equipment, gloveboxes, ventilation ductwork, HEPA filters, pipes, glass, graphite, slag and crucibles, salt, discarded lab ware, windows, and bottles. The waste stream may also contain a smaller fraction of combustible solids (e.g., paper, rags, plastic, rubber, leaded gloves) and a small fraction of homogeneous solids (e.g., leached solids, ash, hydroxide cakes, impure oxides).

Management Comments

Former WS IDs: LAM001, LAM005, LAT004, LAT005, LAT007, LAT009; also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-03-26**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Non-combustible and combustible hot cell debris waste from wing 9 of the CMR facility (mixed)			Inventory Date	9/30/2002
Local ID	TA-03-26	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
55 Gallon Drum	7.5	0.0	7.5	
Standard Waste Box	15.1	0.0	15.1	
Unknown Small	1.5	0.0	1.5	
As-Generated Total		24.1	0.0	24.1

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
55 Gallon Drum	9.2	0.0	9.2	
Standard Waste Box	15.1	0.0	15.1	
Final Form Total		24.3	0.0	24.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	20.70
Aluminum-Base Metal/Alloys	4.20
Other Metal/Alloys	3.50
Other Inorganic Materials	6.40
Cellulosics	7.20
Rubber	3.60
Plastics	11.10
Solidified, Inorganic Matrix	0.20
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.20
Soils	0.20
Packaging Material, Steel	145.33
Packaging Material, Plastic	14.70
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.95E-04
Np-237	4.46E-09
Pu-238	5.79E-02
Pu-239	1.09E-01
Pu-240	1.78E-03
Pu-241	6.07E-03
Pu-242	1.05E-07
Th-229	1.79E-16
Th-230	1.08E-08
Th-232	2.32E-16
U-233	2.27E-13
U-234	4.16E-05
U-235	9.41E-06
U-236	1.53E-07
U-238	1.04E-08

Waste Stream Description

Contact-handled hot cell waste, including both combustible and noncombustible waste forms, generated from facility and equipment operations and maintenance.

Management Comments

Former WS IDs: LAT004, LAT007, LAT009; also contains containers not previously associated with an identified BIR WS.

Waste Stream ID: LA-TA-03-27

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Combined combustible and noncombustible debris waste (RH-TRU) from wing 9 of the CMR facility (mixed)			Inventory Date	9/30/2002
Local ID	TA-03-27	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Remote Handled	72.5	0.0	72.5
Remote Handled/1-gallon	0.2	0.0	0.2
Remote Handled/2-gallon	0.0	0.0	0.0
As-Generated Total	72.8	0.0	72.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	124.6	0.0	124.6
Final Form Total	124.6	0.0	124.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	260.60
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	249.93
Other Inorganic Materials	5.48
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.00E-04
Cs-137	1.26E-01
Np-237	1.26E-09
Pu-238	1.07E-04
Pu-239	2.03E-02
Pu-240	2.20E-04
Pu-241	1.79E-03
Pu-242	1.32E-07
Th-229	4.92E-17
Th-230	4.39E-11
Th-232	1.23E-18
U-233	6.33E-14
U-234	1.63E-07
U-235	8.05E-07
U-236	9.03E-10
U-238	3.53E-09

Waste Stream Description

Combustible and non-combustible remote handled waste (RH-TRU). This waste stream contains both combustible and non-combustible waste that is classified as "remotely handled". Combustible waste is generated from facility and equipment operations and maintenance. Combustible waste includes paper, rags, plastic, rubber, and plastic-based and cellulose-based waste generated at the facility. Plastic based waste includes, but may not be limited to, tape, polyethylene, and vinyl; gloves; plastic vials; polystyrene; Tygon tubing; polyvinyl chloride plastic; Teflon products; plexiglass; and dry box gloves (unleaded Neoprene base). Cellulose-based waste includes, but may not be limited to rags, wood, paper, cardboard, laboratory coats and coveralls, booties and cotton gloves, and similar materials. Noncombustible scrap waste is also generated from facility and equipment operations and maintenance. Noncombustible waste includes items such as small tools, cans, small equipment items, and broken glass. This waste consists of glass waste including, but not limited to, discarded labware, windows, and bottles; metal waste including motors, pumps, tools, and process equipment; leaded rubber, and metal waste including lead-lined glovebox gloves discarded along with metal waste, such as motors and tools.

Management Comments

Former WS IDs: LAMR01, LAMR05, LATR04, LATR05, and LATR07.

Waste Stream ID: **LA-TA-03-28**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Cement paste from CMR building (mixed)			Inventory Date	9/30/2002
Local ID	TA-03-28	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	5.2	0.0	5.2
Drum / 85-gallon	0.6	0.0	0.6
As-Generated Total	5.8	0.0	5.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	5.2	0.0	5.2
Drum / 85-gallon	0.6	0.0	0.6
Final Form Total	5.8	0.0	5.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.18
Aluminum-Base Metal/Alloys	0.18
Other Metal/Alloys	0.18
Other Inorganic Materials	0.18
Cellulosics	0.18
Rubber	0.18
Plastics	0.18
Solidified, Inorganic Matrix	165.82
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	828.39
Soils	110.61
Packaging Material, Steel	126.70
Packaging Material, Plastic	35.90
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	8.36E-02
Pu-239	4.23E-02
Th-230	1.05E-09
U-234	7.73E-06
U-235	1.21E-09

Waste Stream Description

Solidified aqueous waste and cemented sludge generated from facility and equipment operations and maintenance. The sludge is a residue from numerous treatment and filtration operations involving aqueous liquid radioactive waste. This treatment produces a thin sludge (approximately 25 percent solids) that is alkaline and is compatible with Portland cement. Final cemented waste monoliths are produced by mixing the waste in 55-gallon steel drums containing empirically determined quantities of sludge, Portland cement, vermiculite, and sodium silicate.

Management Comments

Former WS IDs: LAM002 and LAM009.

Waste Stream ID: **LA-TA-03-30**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Absorbed Organics on vermiculite (mixed)			Inventory Date	9/30/2002
Local ID	TA-03-30	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3200
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
30 Gallon Drum	0.1	0.0	0.1
55 Gallon Drum	0.6	0.0	0.6
As-Generated Total	0.7	0.0	0.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
55 Gallon Drum/Overpack 30 Gallon	0.2	0.0	0.2
Final Form Total	0.8	0.0	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	195.07
Aluminum-Base Metal/Alloys	0.29
Other Metal/Alloys	14.44
Other Inorganic Materials	15.71
Cellulosics	48.37
Rubber	0.83
Plastics	4.01
Solidified, Inorganic Matrix	110.70
Cement (Solidified)	124.06
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	150.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.56E-01
Np-237	4.78E-06
Pu-238	4.18E-01
Pu-239	6.04E+00
Pu-240	1.75E+00
Pu-241	9.25E+00
Pu-242	2.64E-04
Th-229	1.50E-13
Th-230	4.86E-09
Th-232	1.01E-15
U-233	2.15E-10
U-234	3.72E-05
U-235	1.67E-07
U-236	1.46E-06
U-238	1.12E-12

Waste Stream Description

Organic liquids (solvents and oils) generated from facility and equipment operations and maintenance and absorbed on vermiculite.

Management Comments

Former WS IDs: LAT004, LAM006, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-03-31**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Cemented inorganics, leached process solids (mixed)			Inventory Date	9/30/2002
Local ID	TA-03-31	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	43.30
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	453.40
Cement (Solidified)	508.10
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	8.36E-02
Pu-239	4.23E-02
Th-230	1.05E-09
U-234	7.73E-06
U-235	1.21E-09

Waste Stream Description

Solidified inorganic process solids generated from facility and equipment operations and maintenance. This waste consists of process leached solids, ash, filter cakes, salts, metal oxides, fines, and evaporator bottoms stabilized in Portland or gypsum cement.

Management Comments

Former WS IDs: LAM006

Waste Stream ID: **LA-TA-03-40**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Metals debris generated from decontamination and decommissioning activities in Wings 2, 3, 4, and 7 of CMR Building			Inventory Date	9/30/2002
Local ID	TA-03-40	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Crate	27.7	0.0	27.7
Crate / Pit	113.3	0.0	113.3
FRP Box	16.0	0.0	16.0
As-Generated Total	157.0	0.0	157.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
5'x5'x8' Box	266.0	0.0	266.0
Final Form Total	266.0	0.0	266.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	272.38
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	30.28
Other Inorganic Materials	6.79
Cellulosics	63.95
Rubber	1.10
Plastics	5.20
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	1.03E-04
Pu-239	2.06E-04
Th-230	1.39E-12
U-234	9.93E-09
U-235	3.36E-09

Waste Stream Description

This waste consists mostly of metals or metal equipment, either whole or sectioned, and small volumes of combustibles generated during decommissioning, sectioning, and packaging. The waste forms primarily include gloveboxes, tools, cans, motors, pumps, decommissioned process equipment, and ductwork

Management Comments

Former WS IDs: LAM001, LAM009, LAT009

Waste Stream ID: **LA-TA-03-42**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	HEPA filter debris waste from wings 2, 3, 4, 5, and 7 of CMR Building (mixed)			Inventory Date	9/30/2002
Local ID	TA-03-42	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Crate	57.6	0.0	57.6
Crate / Pit	85.0	0.0	85.0
FRP Box	34.0	0.0	34.0
As-Generated Total		176.6	0.0
			176.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
5'x5'x8' Box	300.0	0.0	300.0
Final Form Total		300.0	0.0
			300.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	258.31
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	291.75
Other Inorganic Materials	6.80
Cellulosics	2.62
Rubber	0.04
Plastics	0.22
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.64E-08
Np-237	3.43E-13
Pu-238	2.30E-06
Pu-239	1.14E-05
Pu-240	1.51E-07
Pu-241	5.38E-07
Pu-242	8.70E-12
Th-229	1.24E-20
Th-230	3.09E-14
Th-232	9.94E-23
U-233	1.66E-17
U-234	2.20E-10
U-235	3.37E-13
U-236	1.34E-13
U-238	3.94E-20

Waste Stream Description

HEPA filter waste generated from facility and equipment operations and maintenance. A small fraction of combustible waste, such as plastics (mainly packaging), may also be present in this waste stream.

Management Comments

Former WS IDs: LAT005, LAT009

Waste Stream ID: **LA-TA-21-06**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Combustible debris waste (mixed)			Inventory Date	9/30/2002
Local ID	TA-21-06	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5300
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	180.8	0.0	180.8
Drum / 30-gallon / Pit	24.3	0.0	24.3
Drum / 80-gallon	0.9	0.0	0.9
As-Generated Total	206.0	0.0	206.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	180.8	0.0	180.8
55 Gallon Drum/Overpack 30 Gallon	44.7	0.0	44.7
80 Gallon Drum	0.9	0.0	0.9
Final Form Total	226.4	0.0	226.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	257.70
Aluminum-Base Metal/Alloys	0.40
Other Metal/Alloys	18.80
Other Inorganic Materials	6.80
Cellulosics	64.00
Rubber	1.10
Plastics	5.30
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	145.86
Packaging Material, Plastic	36.96
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.23E-04
Np-237	4.22E-09
Pu-238	3.35E-01
Pu-239	4.23E-03
Pu-240	1.30E-03
Pu-241	7.33E-03
Pu-242	2.41E-07
Th-229	1.42E-16
Th-230	4.19E-09
Th-232	8.00E-19
U-233	1.97E-13
U-234	3.10E-05
U-235	1.99E-08
U-236	1.12E-09
U-238	1.06E-15

Waste Stream Description

Combustible waste generated from facility and equipment operations and maintenance. This waste includes paper, rags, plastic, rubber, wood-based HEPA filters, and plastic-based and cellulose-based waste generated at the facility. Plastic-based waste includes, but may not be limited to, tape, polyethylene and vinyl; gloves; plastic vials; polystyrene; Tygon tubing; polyvinyl chloride plastic; Teflon products; Plexiglas; and dry box gloves (unleaded neoprene base). Cellulose-based waste includes, but may not be limited to, rags, wood, paper, cardboard, laboratory coats and coveralls, booties and cotton gloves, and similar materials. The waste stream may also contain a smaller fraction of non-combustible solids (e.g., scrap metal, crucibles, metal lids, zippers, discarded tools) and a small fraction of homogenous solids, salts, leached solids, ash, hydroxide cakes, crucibles, impure oxides.

Management Comments

Former WS IDs: LAM004, LAT004

Waste Stream ID: **LA-TA-21-12**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Non-combustible and combustible debris waste (mixed)			Inventory Date	9/30/2002
Local ID	TA-21-12	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum & Pit	179.5	0.0	179.5
Drum / 15-gallon	1.3	0.0	1.3
Drum / 30-gallon	0.2	0.0	0.2
Drum / 30-gallon / Pit	35.5	0.0	35.5
Drum / 85-gallon	1.9	0.0	1.9
Standard Waste Box	15.1	0.0	15.1
As-Generated Total	233.6	0.0	233.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	179.5	0.0	179.5
55 Gallon Drum/Overpack 15 Gallon Drum	1.7	0.0	1.7
55 Gallon Drum/Overpack 30 Gallon	65.7	0.0	65.7
85 Gallon Drum	1.9	0.0	1.9
Standard Waste Box	15.1	0.0	15.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1.40
Aluminum-Base Metal/Alloys	0.20
Other Metal/Alloys	0.20
Other Inorganic Materials	0.20
Cellulosics	21.20
Rubber	8.50
Plastics	35.80
Solidified, Inorganic Matrix	0.20
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.20
Soils	0.20
Packaging Material, Steel	151.78
Packaging Material, Plastic	34.88
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.31E-03
Np-237	1.41E-08
Pu-238	1.73E+00
Pu-239	1.26E-02
Pu-240	3.77E-03
Pu-241	2.16E-02
Pu-242	7.48E-07
Th-229	3.10E-06
Th-230	2.17E-08
Th-232	2.33E-18
U-233	1.14E-03
U-234	1.60E-04
U-235	5.79E-08
U-236	3.24E-09
U-238	8.12E-08

Waste Stream Description

Non-combustible and combustible waste generated from final form cleanup operations and maintenance. This waste includes, but may not be limited to, small tools, small equipment, cans, motors, pumps, process equipment, gloveboxes, ventilation ductwork, HEPA filters, pipes, glass, graphite, slag and crucibles, salt, discarded lab ware, windows, and bottles. The waste stream may also contain a smaller fraction of combustible solids (e.g., paper, rags, plastic, rubber, leaded gloves) and a small fraction of homogeneous solids (e.g., leached solids, ash, hydroxide cakes, impure oxides).

Management Comments

Former WS IDs: LAM001, LAT004, LAT005, LAT006, LAT009, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: LA-TA-21-13

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Cemented wastewater treatment sludge (mixed)			Inventory Date	9/30/2002
Local ID	TA-21-13	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	16.2	0.0	16.2
As-Generated Total	16.2	0.0	16.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	16.2	0.0	16.2
Final Form Total	16.2	0.0	16.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	603.00
Cement (Solidified)	693.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.64E-02
Np-237	7.86E-07
Pu-239	1.81E-02
Th-229	5.20E-14
U-233	5.34E-11
U-235	5.54E-10

Waste Stream Description

Solidified aqueous waste generated from facility and equipment operations and maintenance. Solidified aqueous waste is a dewatered sludge generated by the vacuum filtration of solids from treated aqueous waste slurry. The filter media (diatomaceous earth) with the entrapped filtrate is then placed in drums with dry concreted absorbent.

Management Comments

Former WS IDs: LAM002

Waste Stream ID: LA-TA-21-14

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Plutonium contaminated soil (non-mixed)			Inventory Date	9/30/2002
Local ID	TA-21-14	Handling	CH	Final Waste Form	Soils	Waste Matrix Code	S4100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	7.9	0.0	7.9
As-Generated Total	7.9	0.0	7.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	7.9	0.0	7.9
Final Form Total	7.9	0.0	7.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	55.61
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	6.18
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	955.21
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.57E-05
Np-237	3.15E-11
Pu-238	1.10E+00
Pu-239	5.68E-01
Pu-240	6.64E-06
Pu-241	2.92E-04
Th-229	9.66E-20
Th-230	7.16E-10
Th-232	2.38E-22
U-233	4.52E-16
U-234	2.25E-05
U-235	3.92E-09
U-236	1.38E-12

Waste Stream Description

Soils contaminated with transuranic material.

Management Comments

Former WS IDs: LAT008

Data version 4.09 Waste stream derived from LA-TA-03-28. BAC 4/2/03

Waste Stream ID: LA-TA-21-15

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Solidified organics (mixed)			Inventory Date	9/30/2002
Local ID	TA-21-15	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3200
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	3.3	0.0	3.3
Drum / 30-gallon / Pit	0.1	0.0	0.1
As-Generated Total	3.4	0.0	3.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	3.3	0.0	3.3
55 Gallon Drum/Overpack 30 Gallon	0.2	0.0	0.2
Final Form Total	3.5	0.0	3.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	250.98
Aluminum-Base Metal/Alloys	0.39
Other Metal/Alloys	18.31
Other Inorganic Materials	7.75
Cellulosics	62.33
Rubber	1.07
Plastics	5.16
Solidified, Inorganic Matrix	11.65
Cement (Solidified)	13.41
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	135.47
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.48E-02
Np-237	1.40E-07
Pu-238	6.79E-03
Pu-239	3.92E-01
Pu-240	6.74E-02
Pu-241	2.65E-01
Pu-242	3.89E-06
Th-229	4.44E-15
Th-230	7.88E-11
Th-232	3.88E-17
U-233	6.32E-12
U-234	6.04E-07
U-235	1.08E-08
U-236	5.60E-08
U-238	1.64E-14

Waste Stream Description

Organic liquids generated from facility and equipment operations and maintenance and absorbed on vermiculite.

Management Comments

Former WS IDs: LAT004, LAT006

Waste Stream ID: **LA-TA-21-16**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Cemented inorganics (mixed)			Inventory Date	9/30/2002
Local ID	TA-21-16	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 30 gallon	22.9	0.0	22.9
Drum / 55 gallon	29.1	0.0	29.1
Drum / 85 gallon	0.3	0.0	0.3
As-Generated Total	52.4	0.0	52.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	29.1	0.0	29.1
55 Gallon Drum/Overpack 30 Gallon	42.2	0.0	42.2
85 Gallon Drum	0.3	0.0	0.3
Final Form Total	71.7	0.0	71.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	43.30
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	453.40
Cement (Solidified)	508.10
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	175.60
Packaging Material, Plastic	36.96
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.46E-02
Np-237	8.92E-08
Pu-238	5.16E-03
Pu-239	1.48E-01
Pu-240	3.54E-02
Pu-241	1.38E-01
Pu-242	3.03E-06
Th-229	3.27E-15
Th-230	6.95E-11
Th-232	2.34E-17
U-233	4.34E-12
U-234	4.96E-07
U-235	8.76E-07
U-236	3.15E-08
U-238	1.37E-14

Waste Stream Description

Solidified inorganic process solids generated from facility and equipment operations and maintenance. This waste consists of process leached solids, ash, filter cakes, salts, metal oxides, fines, or evaporator bottoms stabilized in Portland or gypsum cement.

Management Comments

Former WS IDs: LAM006, LAM009

Waste Stream ID: **LA-TA-21-40**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Metal debris (mixed)			Inventory Date	9/30/2002
Local ID	TA-21-40	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
crate	732.9	0.0	732.9
FRP Box	288.0	0.0	288.0
As-Generated Total	1020.9	0.0	1020.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	1022.5	0.0	1022.5
Final Form Total	1022.5	0.0	1022.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	272.60
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	30.30
Other Inorganic Materials	6.80
Cellulosics	64.00
Rubber	1.10
Plastics	5.20
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.20E-07
Np-237	5.31E-13
Pu-238	1.62E-03
Pu-239	3.26E-04
Pu-240	3.62E-07
Pu-241	1.81E-06
Pu-242	2.09E-11
Th-229	1.09E-20
Th-230	1.23E-11
Th-232	1.41E-22
U-233	1.93E-17
U-234	1.16E-07
U-235	7.39E-12
U-236	2.47E-13
U-238	7.25E-20

Waste Stream Description

Mixed metal scrap, discarded gloveboxes, and incidental combustible waste generated from facility and equipment decontamination and decommissioning at TA21. This waste consists mostly of metals or metal equipment, either whole or sectioned, gloveboxes, glovebox equipment, glass, and small volumes of combustibles generated during decommissioning. This waste may also include items such as small tools, cans, motors, and pumps. Gloveboxes may include gloves, wiring, plastic, glass windows, plastic wrapping, and lead shielding.

Management Comments

Former WS IDs: LAM001, LAM009

Waste Stream ID: **LA-TA-21-41**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Plutonium-contaminated soil (non-mixed)			Inventory Date	9/30/2002
Local ID	TA-21-41	Handling	CH	Final Waste Form	Soils	Waste Matrix Code	S4100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
crate	22.5	0.0	22.5
crate/pit	3.2	0.0	3.2
FRP Box	1.6	0.0	1.6
As-Generated Total	27.3	0.0	27.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
5'x5'x8' Box	39.6	0.0	39.6
Standard Waste Box	1.9	0.0	1.9
Final Form Total	41.5	0.0	41.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	272.60
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	30.30
Other Inorganic Materials	6.80
Cellulosics	64.00
Rubber	1.10
Plastics	5.30
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	0.05
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-239	1.71E-02
U-235	3.88E-10

Waste Stream Description

Soils contaminated with transuranic material resulting from TA21 decontamination and decommissioning.

Management Comments

Former WS IDs: LAT008, LAT009

Waste Stream ID: **LA-TA-21-42**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Metal debris (nonmixed)			Inventory Date	9/30/2002
Local ID	TA-21-42	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
crate	95.2	0.0	95.2
crate/pit	483.1	0.0	483.1
FRP Box	9.7	0.0	9.7
Other/Pit	9.9	0.0	9.9
As-Generated Total	597.9	0.0	597.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
5'x5'x8' Box	583.0	0.0	583.0
Standard Waste Box	107.7	0.0	107.7
Final Form Total	690.7	0.0	690.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	264.04
Aluminum-Base Metal/Alloys	0.23
Other Metal/Alloys	23.76
Other Inorganic Materials	6.80
Cellulosics	63.98
Rubber	1.10
Plastics	5.26
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	0.19
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.46E-05
Np-237	5.37E-10
Pu-238	7.76E-04
Pu-239	2.38E-04
Pu-240	1.62E-05
Pu-241	8.70E-05
Pu-242	9.38E-10
Th-229	7.57E-17
Th-230	1.12E-11
Th-232	1.15E-20
U-233	5.70E-14
U-234	7.73E-08
U-235	1.08E-10
U-236	1.50E-11
U-238	4.39E-18

Waste Stream Description

Metal scrap, discarded gloveboxes, and incidental combustible waste generated from facility and equipment decontamination and decommissioning at TA21. This waste consists mostly of metals or metal equipment, either whole or sectioned gloveboxes, glovebox equipment, glass, and small volumes of combustibles generated during decommissioning. This waste may also include items such as small tools, cans, motors, and pumps. Gloveboxes may include gloves, wiring, plastic, glass windows, and plastic wrapping.

Management Comments

Former WS IDs: LAM001, LAT001, LAT004, LAT009

Waste Stream ID: **LA-TA-21-43**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Corrugated Metal Pipes and Area T Shafts (mixed)			Inventory Date	9/30/2002
Local ID	TA-21-43	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Other/ Area T	2043.3	0.0	2043.3
Other/Pit	442.4	0.0	442.4
Other/Pit 4 Area T	40.2	0.0	40.2
As-Generated Total	2525.9	0.0	2525.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
5'x5'x8' Box	447.1	0.0	447.1
Standard Waste Box	2086.6	0.0	2086.6
Final Form Total	2533.7	0.0	2533.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	603.00
Cement (Solidified)	693.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	0.99
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.00E-02
Np-237	1.22E-07
Pu-238	7.04E-03
Pu-239	2.02E-01
Pu-240	4.83E-02
Pu-241	1.89E-01
Pu-242	4.14E-06
Th-229	4.47E-15
Th-230	9.48E-11
Th-232	3.19E-17
U-233	5.92E-12
U-234	6.76E-07
U-235	1.20E-06
U-236	4.31E-08
U-238	1.87E-14

Waste Stream Description

Pipes and shafts filled with cement and wastewater treatment sludge from operations at TA-21.

Management Comments

Former WS IDs: LAM002, LAM003

Waste Stream ID: **LA-TA-21-44**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Plutonium contaminated soil (non-mixed)			Inventory Date	9/30/2002
Local ID	TA-21-44	Handling	CH	Final Waste Form	Soils	Waste Matrix Code	S4100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Crate	79.0	0.0	79.0
Crate/Pit	15.9	0.0	15.9
FRP Box	1.6	0.0	1.6
As-Generated Total		96.5	0.0
			96.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
5'x5'x8' Box	135.8	0.0	135.8
Standard Waste Box	1.9	0.0	1.9
Final Form Total		137.7	0.0
			137.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	121.18
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	13.47
Other Inorganic Materials	0.00
Cellulosics	28.45
Rubber	0.49
Plastics	2.36
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	666.56
Packaging Material, Steel	154.00
Packaging Material, Plastic	0.02
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.49E-04
Np-237	7.82E-10
Pu-238	2.71E-02
Pu-239	8.38E-01
Pu-240	2.24E-03
Pu-241	4.88E-02
Th-229	1.35E-18
Th-230	1.76E-11
Th-232	8.03E-20
U-233	8.07E-15
U-234	5.53E-07
U-235	5.78E-09
U-236	4.65E-10

Waste Stream Description

Soils contaminated with transuranic material resulting from TA21 decontamination and decommissioning, packaged in containers listed as crates.

Management Comments

Former WS IDs: LAT008, LAT009

Waste Stream ID: **LA-TA-48-01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Combustible and noncombustible debris (non-mixed)			Inventory Date	9/30/2002
Local ID	TA-48-01	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
CB	0.0	0.0	0.0
Drum / 55 gallon	0.4	0.0	0.4
As-Generated Total	0.5	0.0	0.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	253.95
Aluminum-Base Metal/Alloys	0.22
Other Metal/Alloys	143.89
Other Inorganic Materials	7.33
Cellulosics	34.83
Rubber	0.60
Plastics	2.88
Solidified, Inorganic Matrix	6.51
Cement (Solidified)	7.49
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.36E-01
Cm-244	4.19E+01
Np-237	2.57E-05
Pu-238	2.24E-02
Pu-239	1.90E-01
Pu-240	6.80E-01
Pu-241	8.91E-01
Pu-242	2.70E-05
Th-229	7.62E-06
Th-230	1.89E-10
Th-232	4.63E-16
U-233	3.39E-03
U-234	1.70E-06
U-235	4.50E-09
U-236	6.17E-07
U-238	2.36E-04

Waste Stream Description

Combustible and noncombustible debris

Management Comments

Former WS IDs: LAT004, LAT005, LAT006

Waste Stream ID: **LA-TA-49-01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Metal scrap and incidental combustible debris (mixed)			Inventory Date	9/30/2002
Local ID	TA-49-01	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Crate	57.0	0.0	57.0	
As-Generated Total		57.0	0.0	57.0

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
5'x5'x8' Box	96.2	0.0	96.2	
Final Form Total		96.2	0.0	96.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	272.38
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	30.28
Other Inorganic Materials	6.79
Cellulosics	63.95
Rubber	1.10
Plastics	5.20
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.09E-01
Cm-244	3.37E+01
Np-237	2.06E-05
Pu-238	1.80E-02
Pu-239	1.52E-01
Pu-240	5.46E-01
Pu-241	7.15E-01
Pu-242	2.17E-05
Th-229	6.11E-06
Th-230	1.51E-10
Th-232	3.72E-16
U-233	2.72E-03
U-234	1.36E-06
U-235	3.60E-09
U-236	4.96E-07
U-238	1.90E-04

Waste Stream Description

Metal scrap and incidental combustibles generated in 1971 in TA-49 by group CNC11.

Management Comments

Former WS IDs: LAM001, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-50-10**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Vacuum filter cake (non-mixed)			Inventory Date	9/30/2002
Local ID	TA-50-10	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	1.0	0.0	1.0
As-Generated Total	1.0	0.0	1.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.0	0.0	1.0
Final Form Total	1.0	0.0	1.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	272.60
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	30.30
Other Inorganic Materials	6.80
Cellulosics	64.00
Rubber	1.10
Plastics	5.30
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.14E-02
Np-237	5.11E-08
Pu-238	1.22E-02
Pu-239	4.41E-02
Th-229	8.53E-17
Th-230	4.01E-12
U-233	5.46E-13
U-234	1.77E-07
U-235	2.18E-10

Waste Stream Description

This waste is a dewatered sludge generated by the vacuum filtration of solids from treated aqueous waste slurry. The filter medium (diatomaceous earth) with the entrapped filtrate is then placed in drums with dry concrete absorbent.

Management Comments

Former WS IDs: LAT003

For Data version 4.09 WMPs copied from LA-TA-50-17. BAC 4/2/03

Waste Stream ID: **LA-TA-50-11**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Combustible debris waste from area WM 66 (mixed)			Inventory Date	9/30/2002
Local ID	TA-50-11	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5300
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	2.9	0.0	2.9
Unknown	2.4	0.0	2.4
As-Generated Total	5.3	0.0	5.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.9	0.0	2.9
5'x5'x8' Box	5.7	0.0	5.7
Final Form Total	8.6	0.0	8.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	3.10
Aluminum-Base Metal/Alloys	0.80
Other Metal/Alloys	0.50
Other Inorganic Materials	3.60
Cellulosics	6.60
Rubber	3.00
Plastics	11.20
Solidified, Inorganic Matrix	0.10
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.10
Soils	0.10
Packaging Material, Steel	146.19
Packaging Material, Plastic	12.57
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.44E-03
Np-237	2.75E-08
Pu-238	1.95E-03
Pu-239	5.44E-02
Pu-240	1.22E-02
Pu-241	6.42E-02
Pu-242	7.03E-07
Th-229	6.72E-16
Th-230	1.44E-10
Th-232	4.32E-18
U-233	1.10E-12
U-234	1.46E-06
U-235	1.18E-09
U-236	7.95E-09
U-238	2.13E-02

Waste Stream Description

Combustible waste generated from facility and equipment operations and maintenance. This waste includes paper, rags, plastic, rubber, wood-based HEPA filters, and plastic-based and cellulose-based waste generated at the facility. Plastic-based waste includes, but may not be limited to, tape, polyethylene and vinyl; gloves; plastic vials; polystyrene; Tygon tubing; polyvinyl chloride plastic; Teflon products; Plexiglas; and dry box gloves (unleaded neoprene base). Cellulose-based waste includes, but may not be limited to, rags, wood, paper, cardboard, laboratory coats and coveralls, booties and cotton gloves, and similar materials. The waste stream may also contain a smaller fraction of non-combustible solids (e.g., scrap metal, crucibles, metal lids, zippers, discarded tools) and a small fraction of homogenous solids, salts, leached solids, ash, hydroxide cakes, crucibles, impure oxides.

Management Comments

Former WS IDs: LAM001, LAT001, LAT004, LAT005, LAT009

Waste Stream ID: LA-TA-50-15

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Non-combustible and combustible debris waste from operations in the WCRRF and SRF (building 50-69) (mixed)			Inventory Date	9/30/2002
Local ID	TA-50-15	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
55 Gallon Drum	2.5	0.0	2.5	
Other	127.9	0.0	127.9	
Standard Waste Box	15.1	0.0	15.1	
As-Generated Total		145.5	0.0	145.5

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
55 Gallon Drum	2.5	0.0	2.5	
5'x5'x8' Box	141.5	0.0	141.5	
Standard Waste Box	15.1	0.0	15.1	
Final Form Total		159.1	0.0	159.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	260.30
Aluminum-Base Metal/Alloys	0.14
Other Metal/Alloys	104.83
Other Inorganic Materials	7.15
Cellulosics	44.84
Rubber	0.77
Plastics	3.69
Solidified, Inorganic Matrix	4.27
Cement (Solidified)	4.92
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	153.64
Packaging Material, Plastic	0.69
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.72E-04
Cs-137	4.73E-05
Np-237	3.99E-09
Pu-238	1.20E-02
Pu-239	2.14E-03
Pu-240	4.81E-04
Pu-241	2.94E-03
Pu-242	3.52E-08
Th-229	1.02E-16
Th-230	7.24E-11
Th-232	2.37E-19
U-233	1.67E-13
U-234	7.63E-07
U-235	7.28E-08
U-236	3.82E-10
U-238	6.62E-12

Waste Stream Description

Non-combustible and combustible waste generated from facility and equipment operations and maintenance. This waste includes, but may not be limited to, small tools, small equipment, cans, motors, pumps, process equipment, gloveboxes, ventilation ductwork, HEPA filters, pipes, glass, graphite, slag and crucibles, salt, discarded lab ware, windows, and bottles. The waste stream may also contain a smaller fraction of combustible solids (e.g., paper, rags, plastic, rubber, leaded gloves) and a small fraction of homogeneous solids (e.g., leached solids, ash, hydroxide cakes, impure oxides).

Management Comments

Former WS IDs: LAM001, LAM009, LAT001, LAT004, LAT006, LAT009

Waste Stream ID: **LA-TA-50-17**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Cemented wastewater treatment sludge (mixed)			Inventory Date	9/30/2002
Local ID	TA-50-17	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	70.3	68.6	138.9
Drum / 85 gallon	1.3	0.0	1.3
As-Generated Total	71.6	68.6	140.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	70.3	68.6	138.9
Drum / 85-gallon	1.3	0.0	1.3
Final Form Total	71.6	68.6	140.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.18
Aluminum-Base Metal/Alloys	0.18
Other Metal/Alloys	0.18
Other Inorganic Materials	0.18
Cellulosics	0.18
Rubber	0.18
Plastics	0.20
Solidified, Inorganic Matrix	723.21
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	85.91
Soils	11.61
Packaging Material, Steel	130.64
Packaging Material, Plastic	36.91
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.32E-02
Am-243	3.93E-13
Cs-137	2.65E-05
Np-237	4.96E-07
Pu-238	7.23E-03
Pu-239	8.43E-02
Pu-240	1.99E-06
Pu-241	1.97E-04
Pu-242	5.01E-10
Th-229	4.07E-09
Th-230	2.97E-10
Th-232	4.72E-22
U-233	2.42E-06
U-234	2.03E-06
U-235	7.65E-07
U-236	1.06E-12
U-238	1.36E-18

Waste Stream Description

Cemented wastewater treatment sludge from room 60 pretreatment of TA-55 liquid waste. Solidified aqueous waste and cemented sludge. The sludge is a residue from treatment and filtration operations involving aqueous liquid radioactive waste from TA-55, Building PF4. This treatment produces a thin sludge (approximately 25 percent solids) that is alkaline and is compatible with Portland cement. Final cemented waste monoliths are produced by mixing the waste in 55-gallon steel drums containing empirically determined quantities of sludge, Portland cement, vermiculite, and sodium silicate.

Management Comments

Former WS IDs: LAM002, LAM009, LAT002, LAT009

Waste Stream ID: **LA-TA-50-18**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Cemented caustic liquid waste (mixed)			Inventory Date	9/30/2002
Local ID	TA-50-18	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
55 Gallon Drum	92.4	0.0	92.4	
83 Gallon Drum	2.5	0.0	2.5	
Drum / 85-gallon	3.5	0.0	3.5	
As-Generated Total		98.4	0.0	98.4

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
55 Gallon Drum	92.4	0.0	92.4	
83 Gallon Drum	2.5	0.0	2.5	
Drum / 85-gallon	3.5	0.0	3.5	
Final Form Total		98.4	0.0	98.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.18
Aluminum-Base Metal/Alloys	0.18
Other Metal/Alloys	0.18
Other Inorganic Materials	0.18
Cellulosics	0.18
Rubber	0.18
Plastics	0.22
Solidified, Inorganic Matrix	137.94
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	655.13
Soils	87.76
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.09E-02
Np-237	1.08E-07
Pu-238	2.10E-03
Pu-239	3.02E-02
Pu-240	5.45E-08
Pu-241	1.28E-05
Pu-242	1.64E-11
Th-229	5.87E-09
Th-230	2.82E-11
Th-232	3.60E-23
U-233	2.09E-06
U-234	2.01E-07
U-235	8.94E-10
U-236	4.85E-14
U-238	7.42E-20

Waste Stream Description

Solidified (through cementation) caustic aqueous waste from TA-55. The sludge is a residue from numerous treatment and filtration operations involving aqueous liquid radioactive waste.

Management Comments

Former WS IDs: LAM002, LAM009

Waste Stream ID: **LA-TA-50-19**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Vacuum filter cake (mixed)			Inventory Date	9/30/2002
Local ID	TA-50-19	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3120
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	1158.6	0.0	1158.6
Drum / 83 gallon	0.9	0.0	0.9
Drum / 85 gallon	20.3	0.0	20.3
As-Generated Total	1179.8	0.0	1179.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1158.6	0.0	1158.6
Drum / 83-gallon	0.9	0.0	0.9
Drum / 85-gallon	20.3	0.0	20.3
Final Form Total	1179.8	0.0	1179.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.23
Aluminum-Base Metal/Alloys	0.19
Other Metal/Alloys	0.18
Other Inorganic Materials	0.21
Cellulosics	0.48
Rubber	0.34
Plastics	1.05
Solidified, Inorganic Matrix	173.85
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	339.60
Soils	48.86
Packaging Material, Steel	130.30
Packaging Material, Plastic	36.82
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.89E-04
Cs-137	3.09E-13
Np-237	3.30E-09
Pu-238	7.78E-05
Pu-239	3.35E-04
Pu-240	3.89E-06
Pu-241	1.32E-05
Pu-242	2.24E-10
Th-229	2.60E-16
Th-230	7.37E-12
Th-232	2.74E-21
U-233	2.46E-13
U-234	3.02E-08
U-235	2.71E-09
U-236	3.58E-12
U-238	1.29E-11

Waste Stream Description

This waste is a dewatered sludge generated by the vacuum filtration of solids from treated aqueous waste slurry. The filter medium (diatomaceous earth) with the entrapped filtrate is then placed in drums with dry concrete absorbent

Management Comments

Former WS IDs: LAM003, LAM006, LAM009, LAT003, LAT009, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-50-20**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Plutonium contaminated soil (non-mixed)			Inventory Date	9/30/2002
Local ID	TA-50-20	Handling	CH	Final Waste Form	Soils	Waste Matrix Code	S4100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	1200.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.50E-02
Np-237	1.19E-07
Pu-239	1.56E-02
Th-229	4.69E-15
U-233	6.24E-12
U-235	3.70E-10

Waste Stream Description

Soils contaminated with transuranic material as a result of facility and equipment operations and maintenance.

Management Comments

Former WS IDs: LAT008

Waste Stream ID: **LA-TA-50-40**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Metal debris waste from TA-50 decontamination and decommissioning activities (mixed)			Inventory Date	9/30/2002
Local ID	TA-50-40	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Crate	0.6	0.0	0.6
Crate/Pit	15.3	0.0	15.3
As-Generated Total		15.9	0.0
			15.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
5'x5'x8' Box	22.6	0.0	22.6
Standard Waste Box	1.9	0.0	1.9
Final Form Total		24.5	0.0
			24.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	263.87
Aluminum-Base Metal/Alloys	0.23
Other Metal/Alloys	23.62
Other Inorganic Materials	6.80
Cellulosics	63.98
Rubber	1.10
Plastics	5.26
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	0.09
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.45E-04
Np-237	6.76E-10
Pu-238	5.06E-05
Pu-239	4.34E-04
Pu-240	2.02E-04
Pu-241	2.04E-03
Pu-242	6.71E-08
Th-229	1.52E-17
Th-230	4.23E-13
Th-232	8.55E-20
U-233	2.57E-14
U-234	3.80E-09
U-235	1.03E-11
U-236	1.44E-10
U-238	2.43E-16

Waste Stream Description

The waste mostly consists of metals or metal equipment, such as motors, pumps, tools, and process equipment, either whole or sectioned, and lesser amounts of combustible components. The waste also includes mixed metal scrap and incidental combustible waste generated from size reduction of equipment from various TAs throughout LANL. In addition, it contains small volumes of combustibles generated during decommissioning, sectioning, and packaging.

Management Comments

Former WS IDs: LAM001, LAM009, LAT004

Waste Stream ID: **LA-TA-50-41**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Metal debris waste from TA-50 decontamination and decommissioning activities (non-mixed)			Inventory Date	9/30/2002
Local ID	TA-50-41	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
FRP Box	34.3	0.0	34.3	
As-Generated Total		34.3	0.0	34.3

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
Standard Waste Box	35.9	0.0	35.9	
Final Form Total		35.9	0.0	35.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	272.60
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	30.30
Other Inorganic Materials	6.80
Cellulosics	64.00
Rubber	1.10
Plastics	5.30
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.12E-05
Np-237	1.67E-10
Pu-238	3.47E-05
Pu-239	1.31E-03
Pu-240	3.07E-04
Pu-241	2.48E-03
Pu-242	1.77E-08
Th-229	1.03E-18
Th-230	8.02E-14
Th-232	3.81E-20
U-233	3.29E-15
U-234	1.35E-09
U-235	1.68E-11
U-236	1.19E-10
U-238	3.47E-17

Waste Stream Description

This waste mostly consists of metals or metal equipment, such as motors, pumps, tools, and process equipment, either whole or sectioned, and lesser amounts of combustible components. The waste also includes metal scrap and incidental combustible waste generated from size reduction of equipment from various TAs throughout LANL. In addition, it contains small volumes of combustibles generated during decommissioning, sectioning, and packaging.

Management Comments

Former WS IDs: LAT009

Waste Stream ID: LA-TA-55-19

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Combustible debris waste (mixed)			Inventory Date	9/30/2002
Local ID	TA-55-19	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5300
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	875.9	1098.2	1974.1
55 Gallon Drum/Pit	45.6	0.0	45.6
Drum / 85-gallon	3.9	0.0	3.9
Standard Waste Box	1.9	0.0	1.9
As-Generated Total	927.2	1098.2	2025.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	875.9	1098.2	1974.1
55 Gallon Drum/Pit	45.6	0.0	45.6
Drum / 85-gallon	3.9	0.0	3.9
Standard Waste Box	1.9	0.0	1.9
Final Form Total	927.2	1098.2	2025.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	7.72
Aluminum-Base Metal/Alloys	0.38
Other Metal/Alloys	1.12
Other Inorganic Materials	2.01
Cellulosics	30.45
Rubber	6.20
Plastics	42.63
Solidified, Inorganic Matrix	0.77
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.65
Soils	0.60
Packaging Material, Steel	130.95
Packaging Material, Plastic	36.95
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.16E-03
Am-243	1.88E-12
Np-237	1.68E-08
Pu-238	5.10E-04
Pu-239	8.13E-03
Pu-240	2.31E-03
Pu-241	1.55E-02
Pu-242	7.02E-06
Pu-244	8.30E-12
Th-229	1.74E-10
Th-230	1.07E-10
Th-232	3.37E-18
U-233	7.72E-08
U-234	5.14E-07
U-235	1.97E-08
U-236	3.66E-09
U-238	8.47E-09

Waste Stream Description

Combustible waste generated from facility and equipment operations and maintenance. This waste includes paper, rags, plastic, rubber, wood-based HEPA filters, and plastic-based and cellulose-based waste generated at the facility. Plastic-based waste includes, but may not be limited to, tape, polyethylene and vinyl; gloves; plastic vials; polystyrene; Tygon tubing; polyvinyl chloride plastic; Teflon products; Plexiglas; and dry box gloves (unleaded neoprene base). Cellulose-based waste includes, but may not be limited to, rags, wood, paper, cardboard, laboratory coats and coveralls, booties and cotton gloves, and similar materials. The waste stream may also contain a smaller fraction of non-combustible solids (e.g., scrap metal, crucibles, metal lids, zippers, discarded tools) and a small fraction of homogenous solids, salts, leached solids, ash, hydroxide cakes, crucibles, impure oxides.

Management Comments

Former WS IDs: LAM001, LAM004, LAM005, LAM009, LAT001, LAT004, LAT005, LAT009, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-55-20**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Combustible debris waste (non-mixed)			Inventory Date	9/30/2002
Local ID	TA-55-20	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5300
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	7.5	295.2	302.6
As-Generated Total	7.5	295.2	302.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	7.5	295.2	302.6
Final Form Total	7.5	295.2	302.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	6.37
Aluminum-Base Metal/Alloys	0.18
Other Metal/Alloys	0.38
Other Inorganic Materials	2.75
Cellulosics	18.97
Rubber	0.89
Plastics	78.42
Solidified, Inorganic Matrix	0.18
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.18
Soils	0.87
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.54E-01
Np-237	2.77E-05
Pu-238	2.98E-02
Pu-239	1.01E+00
Pu-240	2.45E-01
Pu-241	2.01E+00
Pu-242	1.82E-05
Th-229	1.09E-12
Th-230	1.89E-08
Th-232	5.96E-16
U-233	1.66E-09
U-234	1.51E-04
U-235	5.73E-06
U-236	9.13E-07
U-238	6.46E-07

Waste Stream Description

Combustible waste generated from facility and equipment operations and maintenance. This waste includes paper, rags, plastic, rubber, wood-based HEPA filters, and plastic-based and cellulose-based waste generated at the facility. Plastic-based waste includes, but may not be limited to, tape, polyethylene and vinyl; gloves; plastic vials; polystyrene; Tygon tubing; polyvinyl chloride plastic; Teflon products; Plexiglas; and dry box gloves (unleaded neoprene base). Cellulose-based waste includes, but may not be limited to, rags, wood, paper, cardboard, laboratory coats and coveralls, booties and cotton gloves, and similar materials. The waste stream may also contain a smaller fraction of non-combustible solids (e.g., scrap metal, crucibles, metal lids, zippers, discarded tools) and a small fraction of homogenous solids, salts, leached solids, ash, hydroxide cakes, crucibles, impure oxides.

Management Comments

Former WS IDs: LAM004, LAT004, LAT005

Waste Stream ID: **LA-TA-55-21**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Metal debris waste (mixed)			Inventory Date	9/30/2002
Local ID	TA-55-21	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5110
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	57.4	0.0	57.4
Standard Waste Box	41.6	0.0	41.6
As-Generated Total	99.0	0.0	99.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	57.4	0.0	57.4
Standard Waste Box	41.6	0.0	41.6
Final Form Total	99.0	0.0	99.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	200.50
Aluminum-Base Metal/Alloys	0.18
Other Metal/Alloys	7.18
Other Inorganic Materials	0.85
Cellulosics	1.00
Rubber	0.32
Plastics	5.87
Solidified, Inorganic Matrix	0.86
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.18
Soils	0.56
Packaging Material, Steel	140.66
Packaging Material, Plastic	21.96
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.03E-03
Am-243	4.74E-07
Cm-244	2.29E-05
Np-237	3.86E-08
Pu-238	2.19E-03
Pu-239	4.57E-02
Pu-240	1.10E-02
Pu-241	1.05E-01
Pu-242	2.14E-05
Pu-244	1.84E-11
Th-229	5.06E-16
Th-230	4.28E-12
Th-232	1.16E-18
U-233	1.17E-12
U-234	7.81E-08
U-235	5.53E-08
U-236	3.92E-09
U-238	7.30E-10

Waste Stream Description

Noncombustible waste including small tools, small equipment, cans, motors, pumps, process equipment, gloveboxes, ventilation ductwork, and pipes. May also contain some glass, ceramic, porcelain, etc. as well as some small fraction of combustible waste (e.g., paper, rubber, plastics).

Management Comments

Former WS IDs: LAM005, LAT004, LAT005, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-55-22**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Metal debris waste (non-mixed)			Inventory Date	9/30/2002
Local ID	TA-55-22	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5110
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Drum / 55 gallon	10.4	0.0	10.4	
Other	0.7	0.0	0.7	
Standard Waste Box	1.9	0.0	1.9	
As-Generated Total		13.0	0.0	13.0

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
55 Gallon Drum	10.4	0.0	10.4	
Standard Waste Box	3.8	0.0	3.8	
Final Form Total		14.2	0.0	14.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	165.00
Aluminum-Base Metal/Alloys	0.20
Other Metal/Alloys	4.50
Other Inorganic Materials	0.40
Cellulosics	0.40
Rubber	0.80
Plastics	3.00
Solidified, Inorganic Matrix	0.10
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.70
Soils	0.10
Packaging Material, Steel	137.13
Packaging Material, Plastic	27.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.64E-01
Np-237	1.64E-05
Pu-238	8.61E-02
Pu-239	1.12E+00
Pu-240	2.64E-01
Pu-241	2.27E+00
Pu-242	2.02E-05
Pu-244	5.46E-12
Th-229	4.68E-13
Th-230	1.69E-10
Th-232	2.78E-17
U-233	8.37E-10
U-234	3.08E-06
U-235	1.33E-08
U-236	9.38E-08
U-238	3.66E-14

Waste Stream Description

Noncombustible waste including small tools, small equipment, cans, motors, pumps, process equipment, gloveboxes, ventilation ductwork, and pipes. May also contain some glass, ceramic, porcelain, etc. as well as some small fraction of combustible waste (e.g., paper, rubber, plastics).

Management Comments

Former WS IDs: LAM005, LAT005

Waste Stream ID: **LA-TA-55-23**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Glass debris waste from PF-4 (mixed)			Inventory Date	9/30/2002
Local ID	TA-55-23	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5120
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	12.5	0.0	12.5
As-Generated Total	12.5	0.0	12.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	12.5	0.0	12.5
Final Form Total	12.5	0.0	12.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	4.52
Aluminum-Base Metal/Alloys	0.71
Other Metal/Alloys	0.62
Other Inorganic Materials	93.79
Cellulosics	1.29
Rubber	0.44
Plastics	7.66
Solidified, Inorganic Matrix	1.55
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	1.52
Soils	2.44
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.72E-01
Np-237	5.21E-07
Pu-238	8.14E-02
Pu-239	8.76E-01
Pu-240	2.17E-01
Pu-241	2.54E+00
Pu-242	1.36E-03
Pu-244	1.54E-09
Th-229	3.83E-15
Th-230	1.33E-10
Th-232	1.92E-17
U-233	1.16E-11
U-234	2.66E-06
U-235	7.14E-06
U-236	7.07E-08
U-238	7.78E-07

Waste Stream Description

Glass waste generated from facility and equipment operations and maintenance. This waste includes, but is not limited to, broken glass discarded labware, windows, and bottles. A small fraction of combustible waste, such as plastics (mainly packaging), may also be present in this waste stream.

Management Comments

Former WS IDs: LAM005, LAT005, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-55-24**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Glass debris waste from PF-4 (non-mixed)			Inventory Date	9/30/2002
Local ID	TA-55-24	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5120
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	1.2	0.0	1.2
As-Generated Total	1.2	0.0	1.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.2	0.0	1.2
Final Form Total	1.2	0.0	1.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.21
Aluminum-Base Metal/Alloys	0.18
Other Metal/Alloys	0.18
Other Inorganic Materials	106.29
Cellulosics	0.18
Rubber	0.18
Plastics	3.34
Solidified, Inorganic Matrix	0.18
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.18
Soils	0.18
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.59E-01
Np-237	9.68E-07
Pu-238	1.28E-01
Pu-239	4.59E+00
Pu-240	1.07E+00
Pu-241	1.21E+01
Pu-242	6.17E-05
Th-229	2.18E-15
Th-230	6.08E-11
Th-232	2.83E-17
U-233	1.19E-11
U-234	2.24E-06
U-235	2.71E-08
U-236	1.91E-07
U-238	5.59E-14

Waste Stream Description

Glass waste generated from facility and equipment operations and maintenance. This waste includes, but is not limited to, broken glass discarded labware, windows, and bottles. A small fraction of combustible waste, such as plastics (mainly packaging), may also be present in this waste stream.

Management Comments

Former WS IDs: LAT005, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: LA-TA-55-25

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	HEPA filter debris (mixed)			Inventory Date	9/30/2002
Local ID	TA-55-25	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	3.7	0.0	3.7
Standard Waste Box	18.9	0.0	18.9
As-Generated Total	22.6	0.0	22.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	3.7	0.0	3.7
Standard Waste Box	18.9	0.0	18.9
Final Form Total	22.6	0.0	22.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	14.79
Aluminum-Base Metal/Alloys	0.18
Other Metal/Alloys	0.18
Other Inorganic Materials	0.18
Cellulosics	4.09
Rubber	0.18
Plastics	3.57
Solidified, Inorganic Matrix	0.18
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.18
Soils	0.18
Packaging Material, Steel	150.20
Packaging Material, Plastic	7.12
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.58E-01
Np-237	2.73E-07
Pu-238	4.12E-02
Pu-239	1.25E+00
Pu-240	2.95E-01
Pu-241	3.41E+00
Pu-242	1.34E-04
Th-229	6.15E-16
Th-230	1.95E-11
Th-232	7.77E-18
U-233	3.36E-12
U-234	7.19E-07
U-235	1.43E-06
U-236	5.24E-08
U-238	1.41E-08

Waste Stream Description

HEPA filters generated from facility and equipment operations and Maintenance.

Management Comments

Former WS IDs: LAT005, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-55-28**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Leaded glove debris (mixed)			Inventory Date	9/30/2002
Local ID	TA-55-28	Handling	CH	Final Waste Form	Lead/Cadmium Metal	Waste Matrix Code	S5311
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	3.7	0.0	3.7
As-Generated Total	3.7	0.0	3.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	3.7	0.0	3.7
Final Form Total	3.7	0.0	3.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	257.70
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	302.90
Other Inorganic Materials	6.80
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.36E-01
Np-237	6.71E-07
Pu-238	1.38E-01
Pu-239	2.33E+00
Pu-240	5.54E-01
Pu-241	6.71E+00
Pu-242	2.82E-03
Pu-244	1.84E-09
Th-229	2.04E-15
Th-230	8.95E-11
Th-232	1.99E-17
U-233	9.59E-12
U-234	2.82E-06
U-235	1.65E-06
U-236	1.15E-07
U-238	2.56E-09

Waste Stream Description

Leaded gloves generated from facility and equipment operations and maintenance.

Management Comments

Former WS IDs: LAM005, LAT005, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-55-30**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Non-combustible and combustible debris waste (mixed)			Inventory Date	9/30/2002
Local ID	TA-55-30	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1029.2	988.4	2017.6
Drum / 85-gallon	27.0	0.0	27.0
FRP Box	14.6	0.0	14.6
Other	38.9	0.0	38.9
Standard Waste Box	30.2	0.0	30.2
As-Generated Total	1140.0	988.4	2128.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1088.0	988.4	2076.5
85 Gallon Drum	27.0	0.0	27.0
Standard Waste Box	113.4	0.0	113.4
Final Form Total	1228.5	988.4	2216.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	259.90
Aluminum-Base Metal/Alloys	0.15
Other Metal/Alloys	113.81
Other Inorganic Materials	7.09
Cellulosics	42.79
Rubber	0.74
Plastics	3.52
Solidified, Inorganic Matrix	3.54
Cement (Solidified)	4.07
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.70
Packaging Material, Plastic	35.05
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.24E-02
Am-243	2.77E-07
Cm-244	6.51E-09
Np-237	8.54E-08
Pu-238	1.87E-03
Pu-239	4.31E-02
Pu-240	1.05E-02
Pu-241	5.54E-02
Pu-242	9.91E-06
Pu-244	1.18E-11
Th-229	2.56E-10
Th-230	3.58E-11
Th-232	4.86E-18
U-233	1.14E-07
U-234	2.34E-07
U-235	4.52E-09
U-236	7.83E-09
U-238	3.65E-08

Waste Stream Description

Non-combustible and combustible waste generated from facility and equipment operations and maintenance. This waste includes, but may not be limited to, small tools, small equipment, cans, motors, pumps, process equipment, gloveboxes, ventilation ductwork, metal-based HEPA filters, pipes, glass, graphite, slag and crucibles, salt, discarded lab ware, windows, and bottles. The waste stream may also contain a smaller fraction of combustible solids (e.g., paper, rags, plastic, rubber, leaded gloves) and a small fraction of homogeneous solids (e.g., leached solids, ash, hydroxide cakes, impure oxides).

Management Comments

Former WS IDs: LAM001, LAM004, LAM005, LAM006, LAM009, LAT001, LAT004, LAT005, LAT006, LAT009, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-55-32**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Homogeneous inorganic solids (mixed)			Inventory Date	9/30/2002
Local ID	TA-55-32	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	4.8	0.0	4.8
As-Generated Total	4.8	0.0	4.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	4.8	0.0	4.8
Final Form Total	4.8	0.0	4.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	249.47
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	293.22
Other Inorganic Materials	7.97
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	14.28
Cement (Solidified)	16.43
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.37E-01
Np-237	3.84E-06
Pu-238	7.23E+00
Pu-239	2.37E+00
Pu-240	7.35E-01
Pu-241	4.78E+00
Pu-242	1.10E-03
Pu-244	1.36E-09
Th-229	1.17E-13
Th-230	9.96E-08
Th-232	1.32E-15
U-233	1.73E-10
U-234	7.32E-04
U-235	7.61E-06
U-236	1.41E-06
U-238	6.23E-08

Waste Stream Description

Solidified inorganic process solids generated from facility and equipment operations and maintenance. This waste consists of large chunks of filter cakes and salts.

Management Comments

Former WS IDs: LAM005, LAM006, LAT005, LAT006, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-55-33**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Absorbed organics from all wings of PF4 (mixed)			Inventory Date	9/30/2002
Local ID	TA-55-33	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3200
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Drum / 55 gallon	6.7	0.0	6.7	
As-Generated Total		6.7	0.0	6.7

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
55 Gallon Drum	6.7	0.0	6.7	
Final Form Total		6.7	0.0	6.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	254.29
Aluminum-Base Metal/Alloys	0.21
Other Metal/Alloys	141.79
Other Inorganic Materials	7.32
Cellulosics	35.37
Rubber	0.61
Plastics	2.93
Solidified, Inorganic Matrix	6.39
Cement (Solidified)	7.35
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.96E-02
Np-237	4.28E-07
Pu-238	1.34E-02
Pu-239	2.24E-01
Pu-240	7.18E-02
Pu-241	4.84E-01
Pu-242	1.12E-05
Th-229	1.33E-14
Th-230	1.02E-10
Th-232	2.79E-17
U-233	1.95E-11
U-234	9.59E-07
U-235	1.10E-06
U-236	4.90E-08
U-238	9.14E-08

Waste Stream Description

Solidified Organics (absorbed organics on vermiculite) from all wings of PF4. Organic liquids (solvents and oils) generated from facility and equipment operations and maintenance and absorbed on vermiculite. Hazardous materials such as methylene chloride and carbon tetrachloride may be present but PCB's are NOT expected.

Management Comments

Former WS IDs: LAT004, LAT005, LAT006, LAT009, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-55-34**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Uncemented inorganics (mixed)			Inventory Date	9/30/2002
Local ID	TA-55-34	Handling	CH	Final Waste Form	Salt	Waste Matrix Code	S3100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	49.7	103.0	152.7
Drum / 83 gallon	1.3	0.0	1.3
As-Generated Total	51.0	103.0	154.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	49.7	103.0	152.7
Drum / 85-gallon	1.3	0.0	1.3
Final Form Total	51.0	103.0	154.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	2320.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	130.67
Packaging Material, Plastic	36.92
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.67E-01
Np-237	8.85E-07
Pu-238	3.08E-02
Pu-239	8.62E-01
Pu-240	2.20E-01
Pu-241	1.45E+00
Pu-242	8.67E-05
Pu-244	9.04E-11
Th-229	1.41E-08
Th-230	2.09E-09
Th-232	7.93E-17
U-233	7.50E-06
U-234	1.26E-05
U-235	5.07E-07
U-236	1.46E-07
U-238	2.18E-05

Waste Stream Description

Uncemented inorganics from all wings of PF4 including nitrate salts generated from TA-55 nitrate operations

Management Comments

Former WS IDs: LAM005, LAT005, LAT009

Waste Stream ID: **LA-TA-55-38**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Cemented inorganics (mixed)			Inventory Date	9/30/2002
Local ID	TA-55-38	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Drum / 55 gallon	401.2	171.6	572.8	
Drum / 85 gallon	83.4	0.0	83.4	
Other	0.3	0.0	0.3	
As-Generated Total		484.9	171.6	656.6

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
55 Gallon Drum	401.2	171.6	572.8	
85 Gallon Drum	83.4	0.0	83.4	
Standard Waste Box	1.9	0.0	1.9	
Final Form Total		486.5	171.6	658.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	212.31
Aluminum-Base Metal/Alloys	0.15
Other Metal/Alloys	135.78
Other Inorganic Materials	13.26
Cellulosics	25.61
Rubber	0.44
Plastics	2.12
Solidified, Inorganic Matrix	80.15
Cement (Solidified)	89.96
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	126.12
Packaging Material, Plastic	35.63
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.69E-01
Am-243	3.91E-06
Np-237	1.26E-06
Pu-238	3.21E-03
Pu-239	6.02E-02
Pu-240	1.63E-02
Pu-241	1.06E-01
Pu-242	2.04E-05
Pu-244	2.11E-11
Th-229	1.22E-09
Th-230	4.38E-10
Th-232	1.60E-09
U-233	5.68E-07
U-234	2.23E-06
U-235	9.09E-08
U-236	1.38E-08
U-238	3.02E-06

Waste Stream Description

Solidified inorganic process solids generated from facility and equipment operations and maintenance. This waste includes process leached solids, ash, filter cakes, salts, metal oxides, fines, evaporator bottoms, and sample residues (received from the CMR building) stabilized in Portland or gypsum cement.

Management Comments

Former WS IDs: LAM005, LAM006, LAM009, LAT004, LAT005, LAT006, LAT009, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-55-39**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Pyrochemical salts (mixed)			Inventory Date	9/30/2002
Local ID	TA-55-39	Handling	CH	Final Waste Form	Salt	Waste Matrix Code	S3100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.9	0.0	2.9
As-Generated Total	2.9	0.0	2.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.9	0.0	2.9
Final Form Total	2.9	0.0	2.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	257.70
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	302.90
Other Inorganic Materials	6.80
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.42E+00
Np-237	9.50E-06
Pu-238	6.89E-01
Pu-239	2.61E+01
Pu-240	5.91E+00
Pu-241	5.46E+01
Pu-242	3.49E-04
Th-229	5.81E-14
Th-230	9.27E-10
Th-232	4.33E-16
U-233	1.93E-10
U-234	2.04E-05
U-235	2.58E-07
U-236	1.75E-06
U-238	5.27E-13

Waste Stream Description

Pyrochemical salt waste consisting of used chloride salts from pyrochemical processes such as electrorefining, molten salt extraction, salt stripping, fluoride reduction, and direct oxide reduction. A small fraction of combustible waste, such as plastics (mainly packaging), may also be present in this waste stream.

Management Comments

Former WS IDs: LAM005, LAT005

Waste Stream ID: **LA-TA-55-41**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Cemented organics (mixed)			Inventory Date	9/30/2002
Local ID	TA-55-41	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3200
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	8.3	13.7	22.0
Drum / 85-gallon	4.2	0.0	4.2
As-Generated Total	12.5	13.7	26.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	8.3	13.7	22.0
Drum / 85-gallon	6.4	0.0	6.4
Final Form Total	14.8	13.7	28.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	43.30
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	453.40
Cement (Solidified)	508.10
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.26E+00
Np-237	3.49E-05
Pu-238	9.53E-02
Pu-239	2.16E+00
Pu-240	5.20E-01
Pu-241	4.58E+00
Pu-242	1.73E-03
Pu-244	2.21E-09
Th-229	3.99E-13
Th-230	2.20E-10
Th-232	6.43E-17
U-233	9.81E-10
U-234	3.70E-06
U-235	2.77E-08
U-236	2.00E-07
U-238	3.40E-12

Waste Stream Description

Solidified organic process solids and up to six liters of emulsified solvents and oils generated from facility and equipment operations and maintenance. This waste consists of process leached solids, filter cakes, or evaporator bottoms stabilized in Portland or gypsum cement.

Management Comments

Former WS IDs: LAM006, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-55-43**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Combustible/noncombustible debris containing Pu-238 (non-mixed)			Inventory Date	9/30/2002
Local ID	TA-55-43	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	64.9	0.0	64.9
As-Generated Total	64.9	0.0	64.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	64.9	0.0	64.9
Final Form Total	64.9	0.0	64.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	92.64
Aluminum-Base Metal/Alloys	0.51
Other Metal/Alloys	0.21
Other Inorganic Materials	0.34
Cellulosics	20.17
Rubber	0.62
Plastics	25.30
Solidified, Inorganic Matrix	0.67
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.18
Soils	0.18
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.20E-03
Np-237	2.85E-09
Pu-238	4.21E+00
Pu-239	2.19E-03
Pu-240	7.71E-04
Pu-241	2.71E-02
Pu-242	5.15E-07
Th-229	1.36E-17
Th-230	4.57E-09
Th-232	4.58E-20
U-233	5.07E-14
U-234	1.12E-04
U-235	1.95E-11
U-236	2.06E-10
U-238	6.99E-16

Waste Stream Description

Combustible/noncombustible debris including paper, rags, plastic, rubber, and plastic-based and cellulose-based waste generated during 238Pu activities. Plastic-based waste includes, but may not be limited to: tape, polyethylene and vinyl; gloves; plastic vials, polystyrene; tygon tubing; polyvinyl chloride plastic; Teflon products; plexiglass; and dry box gloves (unleaded neoprene base). Cellulosebased waste includes, but may not be limited to: rags, wood, paper, and cardboard; laboratory coats and overalls; booties and cotton gloves, and similar materials. The waste may also contain HEPA filters, noncombustible glass and metallic debris. Some of this waste was packaged in small metal cans before being placed in 55 Gallon drums.

Management Comments

Former WS IDs: LAM005, LAT004, LAT005, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: LA-TA-55-44

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Combustible/noncombustible debris containing Pu-238 (mixed)			Inventory Date	9/30/2002
Local ID	TA-55-44	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 30 gallon	19.9	0.0	19.9
Drum / 55 gallon	187.4	0.0	187.4
Drum / 80 gallon	1.2	0.0	1.2
Drum / 85 gallon	3.5	0.0	3.5
Standard Waste Box	1.9	0.0	1.9
As-Generated Total		213.9	0.0
			213.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	187.4	0.0	187.4
55 Gallon Drum/Overpack 30 Gallon	36.6	0.0	36.6
80-Gallon Drum	1.2	0.0	1.2
85 Gallon Drum	3.5	0.0	3.5
Standard Waste Box	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	12.10
Aluminum-Base Metal/Alloys	1.30
Other Metal/Alloys	1.10
Other Inorganic Materials	8.30
Cellulosics	9.60
Rubber	4.40
Plastics	17.70
Solidified, Inorganic Matrix	2.70
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	1.70
Soils	2.10
Packaging Material, Steel	142.45
Packaging Material, Plastic	36.50
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.43E-03
Np-237	2.99E-08
Pu-238	2.79E+00
Pu-239	1.14E-02
Pu-240	3.18E-03
Pu-241	2.26E-02
Pu-242	9.94E-07
Pu-244	2.10E-13
Th-229	1.05E-15
Th-230	2.33E-08
Th-232	1.61E-18
U-233	1.46E-12
U-234	2.09E-04
U-235	3.21E-09
U-236	2.49E-09
U-238	6.83E-08

Waste Stream Description	Final Form Total	230.7	0.0	230.7
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Combustible/noncombustible debris: heat source fabrication, 238Pu from SRS. Combustible/noncombustible debris including paper, rags, plastic, rubber, and plastic-based and cellulose-based waste generated during 238Pu activities. Plastic-based waste includes, but may not be limited to: tape, polyethylene and vinyl; gloves; plastic vials, polystyrene; tygon tubing; polyvinyl chloride plastic; Teflon products; plexiglass; and dry box gloves (unleaded neoprene base). Cellulosebased waste includes, but may not be limited to: rags, wood, paper, and cardboard; laboratory coats and overalls; booties and cotton gloves, and similar materials. The waste may also contain noncombustible glass and metallic debris. Some of this waste was packaged in small metal cans before being placed in 55 Gallon drums. This waste stream may contain lead items, or items from process status code R8, PPD, TDC (which may be mixed waste items).

Management Comments

Former WS IDs: LAM001, LAM004, LAM005, LAM006, LAM009, LAT001, LAT004, LAT005, LAT006, LAT009, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-55-48**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Oil and vermiculite waste containing 238Pu (mixed)			Inventory Date	9/30/2003
Local ID	TA-55-48	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3200
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.8	13.7	14.6
Standard Waste Box	1.9	0.0	1.9
As-Generated Total	2.7	13.7	16.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	13.7	14.6
Standard Waste Box	1.9	0.0	1.9
Final Form Total	2.7	13.7	16.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.18
Aluminum-Base Metal/Alloys	0.18
Other Metal/Alloys	0.18
Other Inorganic Materials	0.18
Cellulosics	0.18
Rubber	0.18
Plastics	0.18
Solidified, Inorganic Matrix	165.82
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	828.39
Soils	110.61
Packaging Material, Steel	133.64
Packaging Material, Plastic	32.89
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.24E+02
Np-237	1.26E-03
Pu-238	8.20E+01
Pu-239	5.45E+02
Pu-240	2.04E+02
Pu-241	1.75E+03
Pu-242	4.02E-02
Th-229	3.27E-11
Th-230	5.16E-07
Th-232	6.61E-14
U-233	5.25E-08
U-234	5.31E-03
U-235	1.13E-05
U-236	1.27E-04
U-238	1.27E-10

Waste Stream Description

Oil/vermiculite waste resulting from heat source fabrication using SRS-supplied Pu238.

Management Comments

Former WS IDs: LAT004, LAT009, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-55-49**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Cemented inorganics containing 238Pu (mixed)			Inventory Date	9/30/2002
Local ID	TA-55-49	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	15.6	0.0	15.6
Drum / 30-gallon / Pit	1.5	0.0	1.5
As-Generated Total	17.1	0.0	17.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	15.6	0.0	15.6
55 Gallon Drum/Overpack 30 Gallon	2.7	0.0	2.7
Final Form Total	18.3	0.0	18.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	205.73
Aluminum-Base Metal/Alloys	0.18
Other Metal/Alloys	116.57
Other Inorganic Materials	14.16
Cellulosics	28.21
Rubber	0.48
Plastics	2.34
Solidified, Inorganic Matrix	91.36
Cement (Solidified)	102.54
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	142.23
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.14E-01
Np-237	6.21E-06
Pu-238	1.83E+02
Pu-239	1.69E+00
Pu-240	4.77E-01
Pu-241	3.47E+00
Pu-242	1.05E-04
Th-229	2.09E-13
Th-230	1.40E-06
Th-232	2.01E-16
U-233	2.98E-10
U-234	1.31E-02
U-235	3.48E-06
U-236	3.39E-07
U-238	2.28E-05

Waste Stream Description

Solidified inorganic process solids from plutonium processing operations to fabricate heat sources using 238Pu supplied by Savannah River Site. This waste includes process leached solids, salts, and metal oxides.

Management Comments

Former WS IDs: LAM006, LAM009, LAT004, LAT005, LAT006, LAT009, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-55-53**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Pyrochemical salts from PF-4 (mixed)			Inventory Date	9/30/2002
Local ID	TA-55-53	Handling	CH	Final Waste Form	Salt	Waste Matrix Code	S3100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	60.9	68.6	129.6
Drum / 85-gallon	10.6	0.0	10.6
As-Generated Total	71.6	68.6	140.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	60.9	68.6	129.6
Drum / 85-gallon	10.6	0.0	10.6
Final Form Total	71.6	68.6	140.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.40
Aluminum-Base Metal/Alloys	0.18
Other Metal/Alloys	0.21
Other Inorganic Materials	3.72
Cellulosics	0.18
Rubber	0.18
Plastics	0.35
Solidified, Inorganic Matrix	127.04
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	162.88
Soils	20.17
Packaging Material, Steel	128.04
Packaging Material, Plastic	36.24
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.56E-01
Np-237	2.20E-06
Pu-238	3.19E-02
Pu-239	1.22E+00
Pu-240	2.87E-01
Pu-241	1.61E+00
Pu-242	4.89E-05
Pu-244	4.19E-11
Th-229	6.13E-14
Th-230	2.10E-10
Th-232	9.29E-17
U-233	9.58E-11
U-234	2.12E-06
U-235	2.71E-08
U-236	1.79E-07
U-238	1.48E-11

Waste Stream Description

Pyrochemical salt waste (homogeneous) consisting of used chloride salts from pyrochemical processes such as electrorefining, molten salt extraction, salt stripping, fluoride reduction, and direct oxide reduction. A small fraction of combustible waste, such as plastics (mainly packaging), may also be present in this waste stream.

Management Comments

Former WS IDs: LAM005, LAM006, LAM009, LAT005, LAT009

Waste Stream ID: **LA-TA-55-56**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Noncombustible and combustible debris waste (non-mixed)			Inventory Date	9/30/2002
Local ID	TA-55-56	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	33.7	432.4	466.1
Other	1.5	0.0	1.5
As-Generated Total	35.2	432.4	467.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	33.7	432.4	466.1
Standard Waste Box	1.9	0.0	1.9
Final Form Total	35.6	432.4	468.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	240.80
Aluminum-Base Metal/Alloys	0.20
Other Metal/Alloys	0.90
Other Inorganic Materials	9.30
Cellulosics	1.10
Rubber	0.20
Plastics	6.80
Solidified, Inorganic Matrix	0.20
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.20
Soils	0.20
Packaging Material, Steel	131.09
Packaging Material, Plastic	36.86
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.47E-02
Np-237	8.38E-07
Pu-238	2.72E-01
Pu-239	4.04E-01
Pu-240	1.02E-01
Pu-241	8.50E-01
Pu-242	9.11E-06
Th-229	2.85E-14
Th-230	8.59E-10
Th-232	1.77E-17
U-233	4.38E-11
U-234	1.24E-05
U-235	1.24E-08
U-236	4.66E-08
U-238	1.86E-08

Waste Stream Description

Noncombustible and combustible waste generated from facility and equipment operations and maintenance. This waste includes, but may not be limited to, small tools, small equipment, cans, motors, pumps, process equipment, gloveboxes, ventilation ductwork, metal-based HEPA filters, pipes, glass, graphite, slag and crucibles, salt, discarded lab ware, windows, and bottles. The waste stream may also contain a smaller fraction of combustible solids (e.g., paper, rags, plastic, rubber, leaded gloves) and a small fraction of homogeneous solids (e.g. leached solids, ash, hydroxide cakes, impure oxides).

Management Comments

Former WS IDs: LAM004, LAM005, LAM009, LAT004, LAT005, LAT009, also contains containers not previously associated with an identified BIR WS

Waste Stream ID: **LA-TA-55-60**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Metal debris waste from all wings of PF4 (non-mixed)			Inventory Date	9/30/2002
Local ID	TA-55-60	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Crate	62.4	0.0	62.4
FRP Box	1.1	0.0	1.1
Other	95.4	0.0	95.4
As-Generated Total		158.9	0.0
			158.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
5'x5'x8' Box	209.4	0.0	209.4
Standard Waste Box	1.9	0.0	1.9
Final Form Total		211.3	0.0
			211.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	258.16
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	294.54
Other Inorganic Materials	6.80
Cellulosics	1.96
Rubber	0.03
Plastics	0.16
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	0.01
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.75E-04
Np-237	1.11E-07
Pu-238	3.07E-04
Pu-239	3.41E-04
Pu-240	1.22E-04
Pu-241	2.24E-03
Pu-242	1.22E-05
Pu-244	1.16E-11
Th-229	1.19E-14
Th-230	2.34E-12
Th-232	4.72E-20
U-233	1.10E-11
U-234	2.20E-08
U-235	7.73E-12
U-236	8.31E-11
U-238	1.05E-11

Waste Stream Description

Noncombustible scrap items generated from facility and equipment decontamination and decommissioning. This waste includes small tools, cans, small equipment items, motors, pumps, and process equipment. A small fraction of combustible waste, such as plastics (mainly packaging) may also be present in this waste stream.

Management Comments

Former WS IDs: LAM005, LAM009, LAT005, LAT009

Waste Stream ID: **LA-TA-55-61**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Metal debris waste from all wings of PF-4 (mixed)			Inventory Date	9/30/2002
Local ID	TA-55-61	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Crate	120.1	0.0	120.1	
FRP Box	15.0	0.0	15.0	
Other	49.9	0.0	49.9	
As-Generated Total		185.1	0.0	185.1

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
5'x5'x8' Box	175.5	0.0	175.5	
Standard Waste Box	51.0	0.0	51.0	
Final Form Total		226.5	0.0	226.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	257.70
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	302.90
Other Inorganic Materials	6.80
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	0.27
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.33E-04
Np-237	5.80E-10
Pu-238	1.32E-03
Pu-239	6.14E-04
Pu-240	2.10E-04
Pu-241	2.04E-03
Pu-242	4.29E-07
Pu-244	3.64E-13
Th-229	1.13E-17
Th-230	8.31E-12
Th-232	6.77E-20
U-233	2.05E-14
U-234	8.56E-08
U-235	1.27E-11
U-236	1.31E-10
U-238	1.36E-15

Waste Stream Description

Metal waste generated from facility and equipment decontamination and decommissioning activities.. This waste includes small tools, cans, small equipment items, motors, pumps, and process equipment. This waste also includes gloveboxes and associated ducting, equipment, and construction debris associated with the removal of gloveboxes. A small fraction of combustible waste, such as plastics (mainly packaging), may also be present in this waste stream.

Management Comments

Former WS IDs: LAM005, LAM009

Waste Stream ID: LA-TA-55-62

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Combustible/noncombustible debris waste from all wings of PF-4 (mixed)			Inventory Date	9/30/2002
Local ID	TA-55-62	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Crate	41.6	0.0	41.6	
As-Generated Total		41.6	0.0	41.6

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
5'x5'x8' Box	73.6	0.0	73.6	
Final Form Total		73.6	0.0	73.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	272.60
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	30.30
Other Inorganic Materials	6.80
Cellulosics	64.00
Rubber	1.10
Plastics	5.30
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.04E-04
Np-237	4.38E-10
Pu-238	3.86E-05
Pu-239	3.17E-04
Pu-240	1.53E-04
Pu-241	1.69E-03
Pu-242	5.03E-08
Th-229	8.20E-18
Th-230	2.68E-13
Th-232	5.42E-20
U-233	1.51E-14
U-234	2.63E-09
U-235	6.87E-12
U-236	9.97E-11
U-238	1.67E-16

Waste Stream Description

Combustible waste generated from facility and equipment decontamination and decommissioning activities. Combustible waste includes paper, rags, plastic, rubber, and plastic-based and cellulose-based waste. Noncombustible waste includes items such as small tools, cans, small equipment items, and broken glass.

Management Comments

Former WS IDs: LAT009

Waste Stream ID: LA-TA-55-63

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	HEPA filter debris from all wings of PF-4 (mixed)			Inventory Date	9/30/2002
Local ID	TA-55-63	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Crate	3.2	0.0	3.2	
As-Generated Total		3.2	0.0	3.2

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
5'x5'x8' Box	5.7	0.0	5.7	
Final Form Total		5.7	0.0	5.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	272.60
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	30.30
Other Inorganic Materials	6.80
Cellulosics	64.00
Rubber	1.10
Plastics	5.30
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.20E-04
Np-237	2.41E-09
Pu-238	3.40E-04
Pu-239	1.32E-02
Pu-240	3.08E-03
Pu-241	2.15E-02
Pu-242	1.77E-07
Th-229	2.31E-17
Th-230	1.21E-12
Th-232	5.77E-19
U-233	5.93E-14
U-234	1.65E-08
U-235	2.08E-10
U-236	1.46E-09
U-238	4.27E-16

Waste Stream Description

HEPA filters generated from facility and equipment operations and maintenance

Management Comments

Former WS IDs: LAT009

Waste Stream ID: **LL-M001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	LL-W028	Stream Name	R&D Glovebox Waste (Form 1)			Inventory Date	9/30/2002
Local ID	Form 1 Mixed	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	23.9	4.8	28.7
As-Generated Total	23.9	4.8	28.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	23.9	4.8	28.7
Final Form Total	23.9	4.8	28.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	5.00
Aluminum-Base Metal/Alloys	5.00
Other Metal/Alloys	2.00
Other Inorganic Materials	1.00
Cellulosics	100.00
Rubber	5.00
Plastics	100.00
Solidified, Inorganic Matrix	5.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	5.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.59E+00
Cm-244	3.03E+00
Pu-238	2.46E+00
Pu-239	2.06E+00
Pu-240	9.26E-01
Pu-241	2.83E+01

Waste Stream Description

The waste consists mostly of untreated dry solids such as tissues, paper, assorted plastics, glassware, ceramics, and metals. Portland cement or Aquaset is used to solidify small amounts of water-based liquids; Envirostone or Petroset is used to solidify small amounts of solvents and oil-based liquids. The composition varies considerably, but it is predominantly organics (> 90% by weight). The waste does contain small amounts of RCRA listed hazardous materials. Typical hazardous materials are leaded gloves or materials contaminated with solvents.

Management Comments

Some waste may need to be repackaged in order to meet transportation (TRAMPAC) requirements for gas generation. I have not included in this waste stream any waste containing hazardous constituents that the state of California would regulate (more stringently than RCRA) if the waste were not also radioactive. California now has authority to regulate only RCRA mixed waste.

Waste Stream ID: LL-T001

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID LL-W029 Stream Name Solidified Waste (Form 2) Inventory Date 9/30/2002
 Local ID Form 2 Non-mixed Handling CH Final Waste Form Solidified Inorganics Waste Matrix Code S3120 Activity Concentrations Decayed to CY 2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55-gallon	13.7	175.1	188.9
As-Generated Total	13.7	175.1	188.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	13.7	175.1	188.9
Final Form Total	13.7	175.1	188.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	30.00
Aluminum-Base Metal/Alloys	5.00
Other Metal/Alloys	1.00
Other Inorganic Materials	1.00
Cellulosics	10.00
Rubber	1.00
Plastics	20.00
Solidified, Inorganic Matrix	100.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	100.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.09E-01
Pu-239	1.40E+00
Pu-240	6.32E-01
Pu-241	1.95E+01

Waste Stream Description

50 to 90% of this waste matrix consists of liquids solidified in 1 to 5 gallon plastic containers using Portland cement or Aquaset for the water based liquids and Envirostone or Petroset for the oil-based liquids. The remainder consists of glovebox waste similar to form 1 waste. The waste does not contain any RCRA-listed hazardous materials.

Management Comments

Some waste may need to be repackaged in order to meet transportation (TRAMPAC) requirements for gas generation. This waste stream may contain waste containing hazardous constituents that the state of California would regulate (more stringently than RCRA) if the waste were not also radioactive. California now has authority to regulate only RCRA mixed waste.

Waste Stream ID: **LL-T002**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID **LL-W030** Stream Name **R&D Glovebox Waste (Form 1)** Inventory Date **9/30/2002**
 Local ID **Form 1 Non-mixed** Handling **CH** Final Waste Form **Heterogeneous Debris** Waste Matrix Code **S5440** Activity Concentrations Decayed to CY **2002**

Final Waste Form Descriptors

Category: **Defense TRU Waste** Source: **R&D/R&D Laboratory Waste**

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / Misc.	7.7	0.0	7.7
Box / Misc. 2	4.6	0.0	4.6
Drum / 55 gallon	74.0	944.3	1018.4
As-Generated Total	86.3	944.3	1030.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	74.0	944.3	1018.4
5x5x8 Box	5.7	0.0	5.7
Standard Waste Box	9.4	0.0	9.4
Final Form Total	89.2	944.3	1033.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	6.82
Aluminum-Base Metal/Alloys	5.00
Other Metal/Alloys	2.00
Other Inorganic Materials	1.00
Cellulosics	99.70
Rubber	5.00
Plastics	99.70
Solidified, Inorganic Matrix	5.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	5.00
Soils	0.00
Packaging Material, Steel	163.07
Packaging Material, Plastic	21.71
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.79E+00
Pu-238	3.20E-01
Pu-239	2.49E+00
Pu-240	1.03E+00
Pu-241	3.16E+01

Waste Stream Description

The waste consists mostly of untreated dry solids such as tissues, paper, assorted plastics, glassware, ceramics, and metals. Portland cement or Aquaset is used to solidify small amounts of water-based liquids; Envirostone or Petroset is used to solidify small amounts of solvents and oil-based liquids. The composition varies considerably, but it is predominantly organics (> 90% by weight). The waste does not contain any RCRA listed hazardous materials.

Management Comments

Some waste may need to be repackaged in order to meet transportation (TRAMPAC) requirements for gas generation. This waste stream may contain waste containing hazardous constituents that the state of California would regulate (more stringently than RCRA) if the waste were not also radioactive. California now has authority to regulate only RCRA mixed waste.

Waste Stream ID: **LL-T003**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	LL-W031	Stream Name	Combined metal scrap & incidental combust (Form 3)			Inventory Date	9/30/2002
Local ID	Form 3 Non-mixed	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste **Source:** R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	4.6	58.2	62.8
Standard Waste Box /	13.3	437.0	450.3
As-Generated Total	17.9	495.2	513.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	4.6	58.2	62.8
Standard Waste Box	13.3	437.0	450.3
Final Form Total	17.9	495.2	513.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	20.00
Aluminum-Base Metal/Alloys	3.00
Other Metal/Alloys	1.00
Other Inorganic Materials	1.00
Cellulosics	1.00
Rubber	1.00
Plastics	1.00
Solidified, Inorganic Matrix	2.50
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	2.50
Soils	0.00
Packaging Material, Steel	151.18
Packaging Material, Plastic	5.58
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.35E-01
Pu-238	7.02E-02
Pu-239	9.92E-02
Pu-240	8.02E-02
Pu-241	2.45E+00

Waste Stream Description

The waste consists mostly of metal scrap such as decommissioned gloveboxes, hoods and other large equipment as well as laboratory trash. Typically it will contain metal components, glassware, ceramics, plastics, paper, and wood. It will be mostly inorganic materials, but can vary widely. This waste does not contain RCRA listed hazardous materials.

Management Comments

Some waste may need to be repackaged in order to meet transportation (TRAMPAC) requirements for gas generation. This waste stream may contain waste containing hazardous constituents that the state of California would regulate (more stringently than RCRA) if the waste were not also radioactive. California now has authority to regulate only RCRA mixed waste.

Waste Stream ID: **LL-T004**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	LL-W032	Stream Name	Pyrochemical salt waste (Form 4)			Inventory Date	9/30/2002
Local ID	Form 4 Non-mixed	Handling	CH	Final Waste Form	Salt	Waste Matrix Code	S3140
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55-gallon	1.2	14.8	16.0
As-Generated Total		1.2	14.8
			16.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.2	14.8	16.0
Final Form Total		1.2	14.8
			16.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	20.00
Aluminum-Base Metal/Alloys	5.00
Other Metal/Alloys	2.00
Other Inorganic Materials	290.00
Cellulosics	2.00
Rubber	1.00
Plastics	20.00
Solidified, Inorganic Matrix	1.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	1.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.81E+00
Pu-238	4.74E-01
Pu-239	2.06E+00
Pu-240	1.66E+00
Pu-241	5.10E+01

Waste Stream Description

The waste consists primarily of used chloride and fluoride salts from pyrochemical processes such as electrorefining, molten salt extraction, and direct oxide reduction. There may also be up to 20% heterogeneous organic glovebox bagout waste packaged with the salt waste. This waste does not contain any RCRA listed hazardous materials.

Management Comments

Some waste may need to be repackaged in order to meet transportation (TRAMPAC) requirements for gas generation. This waste stream may contain waste containing hazardous constituents that the state of California would regulate (more stringently than RCRA) if the waste were not also radioactive. California now has authority to regulate only RCRA mixed waste.

Waste Stream ID: **LL-T005**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	LL-W033	Stream Name	HEPA filters (Form 5)			Inventory Date	9/30/2002
Local ID	Form 5 Non-mixed	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / Rogers Chem. #1	14.4	0.0	14.4
Box / Rogers Chem. #2	8.6	0.0	8.6
Box / Rogers Chem. #3	8.7	0.0	8.7
Capital Indus. Box #1	4.4	0.0	4.4
Capital Indus. Box #2 /	86.9	0.0	86.9
Capital Indus. Box #3	5.7	0.0	5.7
Capital Indus. Box #4	6.4	0.0	6.4
Drum / 55 gallon	1.7	19.6	21.2
Standard Waste Box /	5.7	437.0	442.7
As-Generated Total	142.5	456.6	599.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.7	19.6	21.2
5X5X8 Box	113.2	0.0	113.2
Standard Waste Box	54.8	434.7	489.5
Final Form Total	169.7	454.3	623.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	97.02
Aluminum-Base Metal/Alloys	19.90
Other Metal/Alloys	9.60
Other Inorganic Materials	19.90
Cellulosics	63.10
Rubber	9.60
Plastics	19.90
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	153.90
Packaging Material, Plastic	0.04
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.90E-01
Cm-244	3.98E+00
Pu-238	1.60E-01
Pu-239	2.20E-01
Pu-240	1.80E-01
Pu-241	5.42E+00

Waste Stream Description

The waste matrix is mostly wood framed HEPA filters although some small metal cased HEPA filters are also included. Some of the filters contain asbestos.

Management Comments

Some waste may need to be repackaged in order to meet transportation (TRAMPAC) requirements for gas generation. This waste stream may contain waste containing hazardous constituents that the state of California would regulate (more stringently than RCRA) if the waste were not also radioactive. California now has authority to regulate only RCRA mixed waste. Also, HEPA filters, if found to fail fine particles requirements, would require immobilization of fine particles.

Date of inventory and number of containers projected are the same as Standard Waste Box storage estimates. However, I also project an extra 8 SWBs from repackaging the non-standard box. 8 Standard Waste Boxes will be required to repack the existing waste from the non-standard boxes and should be repackaged in the year 2000.

Waste Stream ID: LL-W018

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID: LL-W018 Stream Name: Combined metal scrap & incidental combust.(Form 3) Inventory Date: 9/30/2002
 Local ID: Form 3 Mixed Handling: CH Final Waste Form: Heterogeneous Debris Waste Matrix Code: S5420 Activity Concentrations Decayed to CY: 2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
Standard Waste Box /	1.9	0.0	1.9
As-Generated Total	2.1	0.0	2.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Standard Waste Box	1.9	0.0	1.9
Final Form Total	2.1	0.0	2.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	150.00
Aluminum-Base Metal/Alloys	20.00
Other Metal/Alloys	10.00
Other Inorganic Materials	5.00
Cellulosics	5.00
Rubber	2.00
Plastics	20.00
Solidified, Inorganic Matrix	2.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	2.00
Soils	0.00
Packaging Material, Steel	151.73
Packaging Material, Plastic	4.73
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.04E-02
Pu-239	8.78E-03
Pu-240	2.03E-02
Pu-241	5.94E-01

Waste Stream Description

The waste is potentially radioactive inorganic scrap metal generated from on-site laboratory research and maintenance, including laboratory clean up. Includes lead bricks and metal shavings. These materials may contain transuranic activity (80.6 lbs. in 55-gal. drum) Waste is used and discarded metal parts generated from on-site research and development activities.

Management Comments

Some waste may need to be repackaged in order to meet transportation (TRAMPAC) requirements for gas generation. I have not included in this waste stream any waste containing hazardous constituents that the state of California would regulate (more stringently than RCRA) if the waste were not also radioactive. California now has authority to regulate only RCRA mixed waste.

Waste Stream ID: LL-W019

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	LL-W019	Stream Name	Solidified Waste (Form 2)			Inventory Date	9/30/2002
Local ID	Form 2 Mixed	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3220
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55-gallon	8.1	4.8	12.9
As-Generated Total	8.1	4.8	12.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	8.1	4.8	12.9
Final Form Total	8.1	4.8	12.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	30.00
Aluminum-Base Metal/Alloys	5.00
Other Metal/Alloys	1.00
Other Inorganic Materials	1.00
Cellulosics	10.00
Rubber	1.00
Plastics	20.00
Solidified, Inorganic Matrix	100.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	100.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.24E+00
Pu-239	7.89E-01
Pu-240	6.63E-01
Pu-241	2.01E+01

Waste Stream Description

The waste is radioactive halogenated solvents generated from on-site cleaning of tanks and equipment and operating of research laboratories and machining shops. Waste consists of TCE and TCA and may contain transuranic activity (0.6 lbs. in a 55-gallon drum). Waste is generated from the on-site cleaning of tanks and equipment used in changing R & D activities.

Management Comments

Some waste may need to be repackaged in order to meet transportation (TRAMPAC) requirements for gas generation. I have not included in this waste stream any waste containing hazardous constituents that the state of California would regulate (more stringently than RCRA) if the waste were not also radioactive. California now has authority to regulate only RCRA mixed waste.

Waste Stream ID: LL-W034

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID Stream Name Inventory Date
 Local ID Handling Final Waste Form Waste Matrix Code Activity Concentrations Decayed to CY

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / Rogers Chem. #4	5.6	0.0	5.6
Box / Rogers Chem. #5	8.0	0.0	8.0
Capital Indus. Box #2	4.6	0.0	4.6
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total	18.4	0.0	18.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
5X5X8 Box	11.3	0.0	11.3
Standard Waste Box	9.4	0.0	9.4
Final Form Total	21.0	0.0	21.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	191.52
Aluminum-Base Metal/Alloys	18.10
Other Metal/Alloys	8.80
Other Inorganic Materials	18.10
Cellulosics	57.60
Rubber	8.80
Plastics	18.10
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	153.97
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.50E-01
Cm-244	3.62E+00
Pu-238	1.50E-01
Pu-239	2.00E-01
Pu-240	1.60E-01
Pu-241	4.94E+00

Waste Stream Description

The waste matrix is mostly wood framed HEPA filters although some small metal cased HEPA filters are also included. Some of the filters contain asbestos. Filters may also be contaminated with lead, cadmium, trichloroethylene, freon, and/or carbon tetrachloride.

Management Comments

Some waste may need to be repackaged in order to meet transportation (TRAMPAC) requirements for gas generation. This waste stream may contain waste containing hazardous constituents that the state of California would regulate (more stringently than RCRA) if the waste were not also radioactive. California now has authority to regulate only RCRA mixed waste. Also, HEPA filters, if found to fail fine particles requirements, would require immobilization of fine particles.

Waste Stream ID: **MC-W001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	MC-W001	Stream Name	USAMC TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.5	0.0	2.5
As-Generated Total	2.5	0.0	2.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.5	0.0	2.5
Final Form Total	2.5	0.0	2.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	190.24
Aluminum-Base Metal/Alloys	0.18
Other Metal/Alloys	6.07
Other Inorganic Materials	0.66
Cellulosics	0.73
Rubber	0.31
Plastics	5.86
Solidified, Inorganic Matrix	0.52
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.18
Soils	0.37
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.25E-02
Np-237	1.62E-07
Pu-239	2.43E-02
Pu-241	7.54E-02
Th-229	6.94E-16
U-233	2.78E-12
U-235	1.92E-10

Waste Stream Description

Army sources

Management Comments

N/A

Waste Stream ID: **MU-W002**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	MU-W002	Stream Name	Heterogeneous Debris			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Drum / 55-gallon	1.5	0.0	1.5	
As-Generated Total		1.5	0.0	1.5

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
55 Gallon Drum	1.5	0.0	1.5	
Final Form Total		1.5	0.0	1.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	11.25
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	25.00
Cellulosics	2.50
Rubber	25.00
Plastics	37.50
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.49E+00
Np-237	3.25E-04
Pu-239	3.62E-02
Th-229	1.03E-12
Th-230	3.29E-17
U-233	5.50E-09
U-234	1.83E-12
U-235	1.43E-10
U-238	1.65E-07

Waste Stream Description

MTRU Heterogeneous Debris. The radioactive wastes generated on the project will come first from normal operations and second from the D&D of the facility at the end of the project. Radioactive wastes from normal operation will consist of the following:

- o HEPA filters from the glove box
- o HEPA filters from offgas and room filtration systems
- o paper wipes from periodic cleaning of the glove boxes
- o used sample bottles
- o damaged glove box gloves
- o used crucibles, tubes, and wires

Management Comments

MURR, costar tower 5th level in containment.

Waste Stream ID: **NT-JAS-01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Combined metal scrap and incidental combustibles			Inventory Date	9/30/2002
Local ID	Jasper	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	TBD
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	0.0	453.6	453.6
As-Generated Total	0.0	453.6	453.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	0.0	453.6	453.6
Final Form Total	0.0	453.6	453.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	20.00
Aluminum-Base Metal/Alloys	3.00
Other Metal/Alloys	1.00
Other Inorganic Materials	1.00
Cellulosics	1.00
Rubber	1.00
Plastics	1.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.35E-01
Pu-238	7.02E-02
Pu-239	9.92E-02
Pu-240	8.02E-02
Pu-241	2.45E+00

Waste Stream Description

Waste stream consists of spent Primary Target Chambers from Jasper gas gun experiments. PTCs are metal chambers used to contain debris from the impact of a sabot on a disk of plutonium metal.

Management Comments

N/A

Waste Stream ID: **NT-W001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	NT-W001	Stream Name	Heterogeneous Debris, Uncategorized			Inventory Date	4/30/1995
Local ID	None	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5490
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	343.0	5.2	348.2
Drum / 85 gallon	0.3	0.3	0.6
Nonstandard Box	271.4	0.0	271.4
As-Generated Total	614.8	5.5	620.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	343.0	5.2	348.2
Standard Waste Box	270.3	3.8	274.0
Final Form Total	613.3	9.0	622.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	72.20
Aluminum-Base Metal/Alloys	12.30
Other Metal/Alloys	5.80
Other Inorganic Materials	4.80
Cellulosics	52.50
Rubber	3.80
Plastics	50.10
Solidified, Inorganic Matrix	11.80
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	11.80
Soils	0.00
Packaging Material, Steel	146.78
Packaging Material, Plastic	16.53
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.89E-01
Am-243	1.99E-03
Cm-244	3.68E-03
Cs-137	4.51E-05
Np-237	1.04E-05
Pu-238	2.12E-01
Pu-239	4.53E+00
Pu-240	3.04E-02
Pu-241	2.60E-01
Pu-242	1.42E-04
Pu-244	1.63E-09
Sr-90	1.53E-07
Th-229	4.40E-06
Th-230	1.93E-09
Th-232	5.70E-18
U-233	2.94E-03
U-234	1.84E-05
U-235	2.42E-07
U-236	1.44E-08
U-238	2.51E-07

Waste Stream Description

This waste stream consists of glovebox parts, laboratory trash, contaminated equipment and solidified sludges. Real time radiography has been performed on the waste to verify that there are no free liquids present, with the exception of liquid in aerosol cans, which, when treated will be eliminated from this waste stream. Most of the waste is contact-handled TRU waste; 3 drums are remote-handled.* The waste stream was generated at the Lawrence Livermore National Laboratory, Livermore, CA (LLNL) and shipped to the NTS from 1974 until 1990. The waste was declared as potentially mixed TRU waste by the generator in April, 1991.

*Due to recent storage reconfigurations and surveys, only three of the 4 previously reported packages are considered remote-handled.

Management Comments

The Nevada Test Site (NTS) is located about 105 km (65 mi) northwest of Las Vegas, and occupies 3,497 km² (1,350 mi²) of federally owned land in southeastern Nevada's Nye County. The Area 5 Radioactive Waste Management Site (RWMS) is located in Frenchman Flat within the southeast corner of the NTS, approximately 15 miles north of Mercury, Nevada and 80 miles northwest of Las Vegas, Nevada. The developed portion of the Area 5 RWMS occupies 37 hectares (ha) (92 acres) in the southeast corner of the 296 ha (732 acres) designated area of NTS Area 5. Building 5-24, a 21,470 square-foot fabric-covered structure, is located within the 92-acre RWMS on the TRU Waste Storage Pad, an asphalt pad comprising an area of 0.829 ha (2.05 acres) constructed to meet RCRA

TRU WASTE BASELINE INVENTORY WASTE PROFILE

standards.

Included in current storage numbers is the assumption that two boxes containing 12 drums will be transferred into 12 0.208m³ drums (55 gallon drums). Projections include 25 55 gallon drums from decon activities.

No TRU standard waste boxes (SWBs) are currently in storage at NTS. However, current storage numbers are representative of the assumption that 143 SWBs will be required to repack all 58 nonstandard boxes. Projections include 2 SWBs from decon activities.

Waste Stream ID: **NT-W021**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	NT-W021	Stream Name	V3XA Spheres			Inventory Date	12/31/1994
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Sphere/3-ft. dia X 4-ft. dia Stainless Steel	0.9	0.0	0.9
As-Generated Total	0.9	0.0	0.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	5.7	0.0	5.7
Final Form Total	5.7	0.0	5.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	272.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.64E-01
Np-237	1.66E-06
Pu-238	1.69E-01
Pu-239	5.68E+00
Pu-240	1.30E+00
Pu-241	1.48E+01
Pu-242	1.15E-04
Th-229	1.59E-14
Th-230	6.02E-10
Th-232	2.44E-16
U-233	4.08E-11
U-234	8.20E-06
U-235	8.97E-08
U-236	6.18E-07
U-238	2.78E-13

Waste Stream Description

The two steel vessels are 1-inch thick by 3-foot diameter, weighing about 2700 lbs. each. The vessels contain heterogeneous mixtures of the following materials: Plutonium, D-38, Beryllium metal, Completely burned high explosive, Stainless steel, Brass, Polystyrene foam, Aluminum, Coke (degassed coal), Water absorbed by the coke, Steel, Glass, Epoxy resin, Thermalite (aerated cement block), Plaster, Hortag (fly-ash and clay), Wood, and Krypton-85 tracer gas for leak detection. The UK has had similar vessels in storage for over ten years, but none containing plutonium have ever been opened. Vessels containing D-38 only have been opened, with small amounts of water vapor and some loose debris found inside. The bulk of the materials were found to be trapped within the thick coke layer lining the inner surface of the vessel. No more wastes of this type are planned to be generated.

Management Comments

Internal volume of SWB is assumed to be 1.89 cubic meters; total waste stream volume (external) estimated at 5.678 cu. m., divided by 1.89 = 3 SWBs. Plastic bagging would be used to contain any contamination. This also assumes, although highly unlikely, that the vessels are size-reduced to fit inside SWBs, as opposed to being shipped within TDOPs. Considering FGE within each vessel, two TDOPs could probably be used for shipping this waste stream to WIPP.

Waste Stream ID: **OR-W201**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	CH-TRU Heterogeneous Solids - non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Source Unknown

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.0	57.4	57.4
As-Generated Total			57.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	57.4	57.4
Final Form Total			57.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	96.20
Aluminum-Base Metal/Alloys	0.80
Other Metal/Alloys	10.65
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.40
Plastics	64.90
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	1.50
Soils	0.00
Packaging Material, Steel	330.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.53E+01
Am-243	1.42E-04
Cm-244	1.33E+00
Cs-137	1.39E-04
Np-237	7.84E-04
Pu-238	2.38E+01
Pu-239	1.78E+01
Pu-240	1.77E+01
Pu-241	7.26E+02
Pu-242	1.46E-03
Pu-244	3.12E-11
Sr-90	4.88E-08
Th-229	7.17E-04
Th-230	5.49E-05
Th-232	4.72E-07
U-233	4.50E-01
U-234	3.60E-01
U-235	4.30E-05
U-236	9.09E-06
U-238	3.77E-04

Waste Stream Description

Treated CH-TRU debris from the FWENC facility. Alpha contaminated waste not meeting the definition of TRU will be segregated out from currently stored inventory during the treatment process and will be disposed of at NTS.

Management Comments

This waste stream includes OR-W086, OR-W053, OR-W041, OR-W093, OR-W102

Waste Stream ID: **OR-W202**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	CH-TRU Heterogeneous Solids - mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.0	278.1	278.1
As-Generated Total	0.0	278.1	278.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	278.1	278.1
Final Form Total	0.0	278.1	278.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	96.20
Aluminum-Base Metal/Alloys	0.80
Other Metal/Alloys	10.65
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.40
Plastics	64.90
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	1.50
Soils	319.00
Packaging Material, Steel	330.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.62E+00
Am-243	3.35E-02
Cm-244	5.69E+00
Cs-137	1.32E+01
Np-237	2.72E-03
Pu-238	1.42E+01
Pu-239	9.45E-01
Pu-240	9.17E-01
Pu-241	4.81E+00
Pu-242	1.02E-03
Pu-244	1.30E-11
Sr-90	7.81E+00
Th-229	6.60E-04
Th-230	1.42E-07
Th-232	4.72E-06
U-233	4.14E-01
U-234	7.70E-04
U-235	2.84E-05
U-236	1.04E-06
U-238	1.64E-04

Waste Stream Description

TREATED CH-TRU DEBRIS FROM THE FWENC FACILITY. INCLUDES WASTE CONTAINERS FROM NFS. MIXED WASTE TREATED TO LDR OR MACROENCAPSULATED.

Management Comments

This waste stream includes OR-W044, OR-W088, OR-W045, OR-W091, OR-W047, OR-W48

Waste Stream ID: **OR-W203**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.0	95.1	95.1
As-Generated Total		0.0	95.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	95.1	95.1
Final Form Total		0.0	95.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	96.20
Aluminum-Base Metal/Alloys	0.80
Other Metal/Alloys	10.65
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.40
Plastics	64.90
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	1.50
Soils	0.00
Packaging Material, Steel	330.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.03E-02
Am-243	6.43E-04
Cm-244	5.79E-01
Cs-137	2.27E-02
Np-237	5.38E-08
Pu-238	5.96E-03
Pu-239	1.24E-04
Pu-240	7.30E-03
Pu-241	3.57E-02
Pu-242	8.48E-05
Pu-244	2.73E-12
Sr-90	1.66E-01
Th-229	1.02E-15
Th-230	2.41E-11
Th-232	1.35E-18
U-233	1.94E-12
U-234	3.08E-07
U-235	2.08E-12
U-236	3.35E-09
U-238	2.17E-13

Waste Stream Description

Hot Cell Debris Waste

Management Comments

N/A

Waste Stream ID: **OR-W204**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	PCB contaminated CH-TRU debris			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.0	18.3	18.3
As-Generated Total	0.0	18.3	18.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	18.3	18.3
Final Form Total	0.0	18.3	18.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	96.20
Aluminum-Base Metal/Alloys	0.80
Other Metal/Alloys	10.65
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.40
Plastics	64.90
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	1.50
Soils	0.00
Packaging Material, Steel	330.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.33E-02
Cm-244	1.25E-05
Cs-137	3.89E-02
Np-237	7.44E-08
Pu-238	3.49E-02
Pu-239	1.10E-02
Pu-240	7.47E-03
Pu-242	1.99E-08
Sr-90	3.74E-04
Th-229	2.93E-05
Th-230	1.41E-10
Th-232	1.74E-18
U-233	1.84E-02
U-234	1.81E-06
U-235	3.01E-06
U-236	3.95E-09
U-238	1.55E-05

Waste Stream Description

PCB contamination 240ppm.

Management Comments

N/A

Waste Stream ID: **OR-W211**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	RH TRU Heterogeneous Debris (Treated)			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	76.5	76.5
As-Generated Total		0.0	76.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	76.5	76.5
Final Form Total		0.0	76.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	96.20
Aluminum-Base Metal/Alloys	0.80
Other Metal/Alloys	10.65
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.40
Plastics	64.90
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	1.50
Soils	0.00
Packaging Material, Steel	900.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.93E-02
Am-243	1.22E-03
Cm-244	1.10E+00
Cs-137	4.27E-02
Np-237	1.01E-07
Pu-238	1.16E-03
Pu-239	2.34E-04
Pu-240	1.38E-02
Pu-241	6.75E-02
Pu-242	5.30E-05
Pu-244	5.14E-12
Sr-90	3.14E-01
Th-229	1.92E-15
Th-230	4.68E-12
Th-232	2.55E-18
U-233	3.65E-12
U-234	5.99E-08
U-235	3.91E-12
U-236	6.31E-09
U-238	1.35E-13

Waste Stream Description

This waste stream consists of RH TRU waste which is classified as contaminated equipment, decontaminated debris or dry solids. The physical form is solid. The radionuclide information has been updated with information from a 1997 analysis campaign.

Management Comments

This waste stream includes OR-W094, OR-W054, OR-W101, OR-W106

Waste Stream ID: **OR-W212**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	193.1	193.1
As-Generated Total	0.0	193.1	193.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	193.1	193.1
Final Form Total	0.0	193.1	193.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	96.20
Aluminum-Base Metal/Alloys	0.80
Other Metal/Alloys	10.65
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.40
Plastics	64.90
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	1.50
Soils	0.00
Packaging Material, Steel	900.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.93E-02
Am-243	1.22E-03
Cm-244	1.10E+00
Cs-137	4.27E-02
Np-237	1.01E-07
Pu-238	1.16E-03
Pu-239	2.34E-04
Pu-240	1.38E-02
Pu-241	6.75E-02
Pu-242	5.30E-05
Pu-244	5.14E-12
Sr-90	3.14E-01
Th-229	1.92E-15
Th-230	4.68E-12
Th-232	2.55E-18
U-233	3.65E-12
U-234	5.99E-08
U-235	3.91E-12
U-236	6.31E-09
U-238	1.35E-13

Waste Stream Description

Radionuclides from updated model. Mixed waste treated to LDR.

Management Comments

N/A

Waste Stream ID: **OR-W213**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	ER RH TRU Heterogeneous Soils			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Soils	Waste Matrix Code	S4200
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	196.7	196.7
As-Generated Total	0.0	196.7	196.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	196.7	196.7
Final Form Total	0.0	196.7	196.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	1300.00
Packaging Material, Steel	900.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.33E-08
Am-243	3.42E-11
Cm-244	1.58E-09
Cs-137	1.61E-06
Np-237	8.47E-11
Pu-238	2.34E-08
Pu-239	5.58E-08
Pu-240	5.58E-08
Pu-241	3.62E-08
Pu-242	3.03E-11
Sr-90	1.17E-08
Th-229	8.50E-10
Th-230	1.58E-10
Th-232	3.33E-10
U-233	2.32E-09
U-234	1.99E-09
U-235	1.20E-11
U-238	3.98E-11

Waste Stream Description

This waste is made up of soils.

Management Comments

N/A

Waste Stream ID: **OR-W214**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	PCB Contaminated RH-TRU Debris			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	1.8	1.8
As-Generated Total	0.0	1.8	1.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	1.8	1.8
Final Form Total	0.0	1.8	1.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	96.20
Aluminum-Base Metal/Alloys	0.80
Other Metal/Alloys	10.65
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.40
Plastics	64.90
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	1.50
Soils	0.00
Packaging Material, Steel	900.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.24E-01
Cm-244	6.15E-03
Cs-137	9.72E-01
Np-237	2.34E-05
Pu-238	1.83E-02
Pu-239	2.01E-01
Pu-240	1.56E-05
Sr-90	1.36E-01
Th-229	3.73E-06
Th-230	8.64E-11
Th-232	1.28E-21
U-233	2.34E-03
U-234	1.11E-06
U-235	3.37E-09
U-236	4.35E-12
U-238	3.46E-03

Waste Stream Description

PCB contamination 240 ppm

Management Comments

N/A

Waste Stream ID: **OR-W215**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	RH-TRU Solidified Sludge			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Pollution Control or Waste Treatment Process

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	192.2	192.2
As-Generated Total	0.0	192.2	192.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	192.2	192.2
Final Form Total	0.0	192.2	192.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	1710.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	900.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.65E+00
Cm-244	4.63E+00
Cs-137	8.30E+01
Np-237	9.16E-06
Pu-238	1.28E+00
Pu-239	7.05E-01
Pu-240	1.59E-01
Pu-241	6.88E-01
Pu-242	2.96E-04
Pu-244	3.34E-05
Sr-90	2.92E+02
Th-229	1.12E-03
Th-230	1.13E-05
Th-232	5.30E-03
U-233	7.00E-01
U-234	7.41E-02
U-235	1.44E-03
U-236	2.55E-04
U-238	6.64E-02

Waste Stream Description

Waste is treated stream from a mixture from the Melton Valley Storage Tanks (MVST), MVST, Capacity Increase Project Tanks, and Bethel Valley Evaporator Storage Tanks. Waste from the Old Hydrofracture (OHF) and Gunitite and Associated Tanks (GAAT) was previously mixed into the MVST. Additional input of 37Kg of U233 from ER waste stream.

Management Comments

WASTE STREAM INCLUDES, OR-W046, OR-W098

Waste Stream ID: **PA-A015**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	PA-A015	Stream Name	Transuranic - Solid			Inventory Date	9/30/2002
Local ID	PA-A015	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S3129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum/55-gallon in overpack	2.1	0.0	2.1
As-Generated Total	2.1	0.0	2.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	5.7	5.7	11.3
Final Form Total	5.7	5.7	11.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	23.30
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	212.00
Packaging Material, Plastic	17.50
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Np-237	3.65E-03
Pu-239	2.42E-02
Th-229	1.25E-10
Th-230	4.90E-03
U-233	2.05E-07
U-235	3.10E-10

Waste Stream Description

Transuranic Waste Class C, and Transuranic Waste Basic, class C filter/White Powder

Management Comments

N/A

Waste Stream ID: **RF-MT0001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W010	Stream Name	Aqueous Sludge/TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Pollution Control or Waste Treatment Process

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	7.5	0.0	7.5
Drum / 85 gallon	0.6	0.0	0.6
As-Generated Total	8.1	0.0	8.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	7.5	0.0	7.5
85 Gallon Drum	0.6	0.0	0.6
Final Form Total	8.1	0.0	8.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	8.59
Solidified, Inorganic Matrix	414.81
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	134.76
Packaging Material, Plastic	24.11
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.40E+02
Np-237	9.37E-04
Pu-238	1.03E+00
Pu-239	2.41E+01
Pu-240	5.51E+00
Pu-241	7.92E+01
Pu-242	6.97E-04
Th-229	9.13E-12
Th-230	2.01E-09
Th-232	5.82E-16
U-233	2.43E-08
U-234	3.67E-05
U-235	2.85E-07
U-236	1.96E-06
U-238	1.26E-12

Waste Stream Description

This waste stream is a solid cemented sludge. It could have small amounts of free liquids in the bottom of the container.

Management Comments

Waste is packaged in 55 gallon DOT 7A Type A Drums. The drums are lined with one rigid polyethylene liner and two bag liners.

Waste Stream ID: **RF-MT0002**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W010	Stream Name	Aqueous Sludge/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Waste Treatment

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	217.70
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	196.00
Cement (Solidified)	130.60
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	64.80
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.40E+02
Np-237	9.37E-04
Pu-238	1.03E+00
Pu-239	2.41E+01
Pu-240	5.51E+00
Pu-241	7.92E+01
Pu-242	6.97E-04
Th-229	9.13E-12
Th-230	2.01E-09
Th-232	5.82E-16
U-233	2.43E-08
U-234	3.67E-05
U-235	2.85E-07
U-236	1.96E-06
U-238	1.26E-12

Waste Stream Description

Aqueous waste treatment sludge.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT0003**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W013	Stream Name	Solidified Organics/TRM			Inventory Date	9/30/2002
Local ID	IDC 801	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3290
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Drum / 55 gallon	1.7	0.0	1.7
As-Generated Total	1.7	0.0	1.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	1.7	0.0	1.7
Final Form Total	1.7	0.0	1.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	29.36
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	12.89
Rubber	0.00
Plastics	2.91
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.57
Packaging Material, Plastic	32.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.80E-01
Np-237	3.96E-07
Pu-238	8.84E-02
Pu-239	2.07E+00
Pu-240	4.74E-01
Pu-241	6.81E+00
Pu-242	6.00E-05
Th-229	2.16E-15
Th-230	1.73E-10
Th-232	5.00E-17
U-233	7.32E-12
U-234	3.16E-06
U-235	7.29E-07
U-236	1.69E-07
U-238	1.09E-13

Waste Stream Description

This waste stream consists of a cemented solid, with some free liquids. It can also have some small chunks in it.

Management Comments

The waste is stored in 55-gallon carbon steel drums with a rigid polyethylene liner and one or two bag liners.

Waste Stream ID: **RF-MT0007**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W010	Stream Name	Bypass Sludge Bldg 374/TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Pollution Control or Waste Treatment Process

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.8	0.0	0.8
As-Generated Total			0.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
Final Form Total			0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	217.70
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	196.00
Cement (Solidified)	130.60
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	64.80
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.03E+00
Np-237	7.91E-06
Pu-239	5.16E-01
Pu-240	1.18E-01
Pu-241	1.58E+00
Th-229	7.68E-14
Th-232	1.24E-17
U-233	2.05E-10
U-235	6.11E-09
U-236	4.20E-08

Waste Stream Description

This waste stream is a solid cemented sludge. It could have small amounts of free liquids in the bottom of the container.

Management Comments

Waste is packaged in 55 gallon DOT 7A Type A Drums. The drums are lined with one rigid polyethylene liner and two bag liners.

Waste Stream ID: **RF-MT0089**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0089	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3229
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8802 Can	0.0	0.0	0.0
8804 Can	0.0	0.0	0.0
As-Generated Total	0.0	0.0	0.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	12.89
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	701.69
Soils	0.00
Packaging Material, Steel	138.43
Packaging Material, Plastic	17.18
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.02E-03
Np-237	1.50E-08
Pu-238	3.53E-03
Pu-239	8.27E-02
Pu-240	1.89E-02
Pu-241	2.72E-01
Pu-242	2.39E-06
Th-229	7.90E-17
Th-230	6.92E-12
Th-232	2.00E-18
U-233	2.73E-13
U-234	1.26E-07
U-235	9.79E-10
U-236	6.74E-09
U-238	4.34E-15

Waste Stream Description

N/A

Management Comments

Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.

Waste Stream ID: **RF-MT0090**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0090	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC / 55 gallon	2.5	0.0	2.5
As-Generated Total	2.5	0.0	2.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	2.5	0.0	2.5
Final Form Total	2.5	0.0	2.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	4.30
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	5.73
Other Inorganic Materials	8.59
Cellulosics	167.07
Rubber	0.00
Plastics	1.15
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.34E+00
Np-237	1.89E-05
Pu-238	8.34E-01
Pu-239	3.54E+01
Pu-240	8.03E+00
Pu-241	4.53E+01
Pu-242	4.91E-04
Th-229	1.73E-13
Th-230	1.63E-09
Th-232	8.48E-16
U-233	4.72E-10
U-234	2.98E-05
U-235	4.19E-07
U-236	2.86E-06
U-238	8.88E-13

Waste Stream Description

"Plutonium tetrafluoride that meets the chemical standards for plutonium fluoride reduction. The material is a pink to brown colored powdered solid, found as a uniform powder or in clumps."

Management Comments

Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.

Waste Stream ID: **RF-MT0091**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0091	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
8801 Can	0.0	0.0	0.0
8802 Can	0.0	0.0	0.0
POC / 55 gallon	148.1	0.0	148.1
Slip Lid Can	0.0	0.0	0.0
As-Generated Total	148.1	0.0	148.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
55 Gallon POCs	148.4	0.0	148.4
Final Form Total	148.8	0.0	148.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	4.61
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	5.73
Other Inorganic Materials	8.43
Cellulosics	167.07
Rubber	0.00
Plastics	1.15
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	524.11
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.04E+00
Np-237	1.69E-05
Pu-238	1.42E+00
Pu-239	3.98E+01
Pu-240	9.09E+00
Pu-241	6.27E+01
Pu-242	5.65E-04
Th-229	1.49E-13
Th-230	5.00E-09
Th-232	9.59E-16
U-233	4.13E-10
U-234	7.13E-05
U-235	1.13E-06
U-236	3.23E-06
U-238	5.87E-09

Waste Stream Description

"Plutonium tetrafluoride that has become contaminated and does not meet the chemical standards for plutonium fluoride reduction. The material is a beige or pink to brown colored powdered solid, found as a uniform powder or in clumps."

Management Comments

Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.

Waste Stream ID: **RF-MT0092**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0092	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC / 55 gallon	21.4	0.0	21.4
As-Generated Total	21.4	0.0	21.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	21.5	0.0	21.5
Final Form Total	21.5	0.0	21.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	4.30
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	5.73
Other Inorganic Materials	8.91
Cellulosics	167.07
Rubber	0.00
Plastics	1.15
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.06E+00
Np-237	1.71E-05
Pu-238	1.24E+00
Pu-239	3.95E+01
Pu-240	9.18E+00
Pu-241	6.03E+01
Pu-242	5.87E-04
Th-229	1.52E-13
Th-230	2.42E-09
Th-232	9.68E-16
U-233	4.18E-10
U-234	4.42E-05
U-235	4.67E-07
U-236	3.27E-06
U-238	1.06E-12

Waste Stream Description

"Solids recovered from filtration of solution containing non-specification fluoride dissolved in heated nitric acid. The material is a beige or pink to brown colored powdered solid, found as a uniform powder or in clumps."

Management Comments

Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.

Waste Stream ID: **RF-MT0093**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W096	Stream Name	Process Residues/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Recovery Operations

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC / 55 gallon	23.3	0.0	23.3
As-Generated Total	23.3	0.0	23.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	23.3	0.0	23.3
Final Form Total	23.3	0.0	23.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	4.30
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	5.73
Other Inorganic Materials	8.95
Cellulosics	167.07
Rubber	0.00
Plastics	1.15
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.40E+00
Np-237	5.39E-05
Pu-238	1.17E+00
Pu-239	3.92E+01
Pu-240	9.27E+00
Pu-241	4.71E+01
Pu-242	6.16E-04
Th-229	1.12E-12
Th-230	2.30E-09
Th-232	9.78E-16
U-233	2.18E-09
U-234	4.19E-05
U-235	4.64E-07
U-236	3.30E-06
U-238	1.12E-12

Waste Stream Description

"Sodium fluoride pellets contaminated with plutonium hexafluoride. This material is beige or pink to brown colored pellets with similarly colored powdered solids. It may be found as uniform pellets, in degraded clumps, or in a powder"

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT0097**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0097	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC / 55 gallon	1.5	0.0	1.5
As-Generated Total	1.5	0.0	1.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	1.5	0.0	1.5
Final Form Total	1.5	0.0	1.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	11.46
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	5.73
Other Inorganic Materials	6.68
Cellulosics	167.07
Rubber	0.00
Plastics	1.15
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.99E+00
Np-237	1.77E-05
Pu-238	8.26E-01
Pu-239	3.28E+01
Pu-240	6.73E+00
Pu-241	4.12E+01
Pu-242	3.37E-04
Th-229	1.63E-13
Th-230	1.62E-09
Th-232	7.11E-16
U-233	4.42E-10
U-234	2.95E-05
U-235	3.88E-07
U-236	2.40E-06
U-238	6.11E-13

Waste Stream Description

There is conflicting information as to the actual contents of this fluoride material. One source indicates it is impure fluoride (IDC 091) while another source indicates it is impure fluoride heel (IDC 092). This IDC may include a mixture of several fluoride IDCs.

Management Comments

Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.

Waste Stream ID: **RF-MT0099**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0099	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3229
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8802 Can	0.0	0.0	0.0
As-Generated Total	0.0	0.0	0.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	12.89
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	701.69
Soils	0.00
Packaging Material, Steel	138.43
Packaging Material, Plastic	17.18
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.02E-03
Np-237	1.50E-08
Pu-238	3.53E-03
Pu-239	8.27E-02
Pu-240	1.89E-02
Pu-241	2.72E-01
Pu-242	2.39E-06
Th-229	7.90E-17
Th-230	6.92E-12
Th-232	2.00E-18
U-233	2.73E-13
U-234	1.26E-07
U-235	9.79E-10
U-236	6.74E-09
U-238	4.34E-15

Waste Stream Description

N/A

Management Comments

Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.

Waste Stream ID: **RF-MT0290**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0290	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
POC / 55 gallon	18.9	0.0	18.9	
As-Generated Total		18.9	0.0	18.9

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
55 Gallon POCs	19.0	0.0	19.0	
Final Form Total		19.0	0.0	19.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	7.16
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	8.59
Solidified, Inorganic Matrix	10.50
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.73E-01
Np-237	1.23E-06
Pu-238	2.88E-01
Pu-239	6.75E+00
Pu-240	1.54E+00
Pu-241	2.22E+01
Pu-242	1.96E-04
Th-229	6.45E-15
Th-230	5.64E-10
Th-232	1.63E-16
U-233	2.23E-11
U-234	1.03E-05
U-235	7.99E-08
U-236	5.50E-07
U-238	3.54E-13

Waste Stream Description

N/A

Management Comments

Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.

Waste Stream ID: **RF-MT-0292**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W068	Stream Name	Particulate Sludge/TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8804 Can	0.0	0.0	0.0
Drum / 55 gallon	21.8	0.0	21.8
Drum / 85 gallon	0.6	0.0	0.6
Drum / 85 gallon	0.6	0.0	0.6
POC / 55 gallon	1.0	0.0	1.0
Slip Lid Can	0.0	0.0	0.0
As-Generated Total	24.2	0.0	24.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	22.9	0.0	22.9
55 Gallon POCs	1.0	0.0	1.0
Final Form Total	24.0	0.0	24.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	11.89
Cellulosics	0.00
Rubber	0.00
Plastics	15.85
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	368.46
Soils	0.00
Packaging Material, Steel	155.38
Packaging Material, Plastic	32.09
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.73E-01
Np-237	1.23E-06
Pu-238	2.88E-01
Pu-239	6.75E+00
Pu-240	1.54E+00
Pu-241	2.22E+01
Pu-242	1.96E-04
Th-229	6.45E-15
Th-230	5.64E-10
Th-232	1.63E-16
U-233	2.23E-11
U-234	1.03E-05
U-235	7.99E-08
U-236	5.50E-07
U-238	3.54E-13

Waste Stream Description

This waste consists of sludge type material. It is a semi-fluid material. Some of it has had cement added to it to try to solidify it.

Management Comments

The waste is packaged in 55-gallon drums with multiple bag liners. These are typically smaller containers within the drums.

Waste Stream ID: **RF-MT-0299**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W068	Stream Name	Particulate Sludge/TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8804 Can	0.0	0.0	0.0
Drum / 55 gallon	16.0	0.0	16.0
POC / 55 gallon	14.8	0.0	14.8
As-Generated Total	30.8	0.0	30.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	16.3	0.0	16.3
55 Gallon POCs	14.8	0.0	14.8
Final Form Total	31.1	0.0	31.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	7.16
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	8.59
Solidified, Inorganic Matrix	10.50
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.43
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.06E+02
Np-237	3.97E-04
Pu-238	5.71E+00
Pu-239	1.34E+02
Pu-240	3.06E+01
Pu-241	4.40E+02
Pu-242	3.87E-03
Th-229	3.77E-12
Th-230	1.12E-08
Th-232	3.23E-15
U-233	1.01E-08
U-234	2.04E-04
U-235	1.58E-06
U-236	1.09E-05
U-238	1.22E-04

Waste Stream Description

This waste consists of sludge type material. It is a semi-fluid material. Some of it has had cement added to it to try to solidify it.

Management Comments

The waste is packaged in 55-gallon drums with multiple bag liners. These are typically smaller containers within the drums

Waste Stream ID: **RF-MT0302**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W012	Stream Name	Combustibles/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5313
				Activity Concentrations Decayed to CY		2002	

Final Waste Form Descriptors

Category: Defense TRU Waste Source: General Building Waste and Decommissioning

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	5.28
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	12.89
Rubber	0.00
Plastics	193.70
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.44
Packaging Material, Plastic	25.78
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.46E-02
Np-237	6.33E-07
Pu-238	1.69E-02
Pu-239	4.30E-01
Pu-240	9.85E-02
Pu-241	1.28E+00
Pu-242	1.12E-05
Th-229	1.21E-14
Th-230	4.38E-09
Th-232	1.04E-17
U-233	2.42E-11
U-234	4.09E-05
U-235	1.30E-06
U-236	3.51E-08
U-238	1.15E-08

Waste Stream Description

"This waste stream consists of Benelex and Plexiglas used for radiation shielding around gloveboxes, tanks, glovebox windows, and equipment enclosures."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT0320**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W037	Stream Name	Heavy Metal (non-SS)/TRM			Inventory Date	9/30/2002
Local ID	IDC 320	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5112
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8802 Can	0.0	0.0	0.0
Drum / 55 gallon	4.8	0.0	4.8
POC / 55 gallon	0.4	0.0	0.4
As-Generated Total	5.2	0.0	5.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	6.7	0.0	6.7
55 Gallon POCs	0.4	0.0	0.4
Final Form Total	7.1	0.0	7.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	41.91
Aluminum-Base Metal/Alloys	4.77
Other Metal/Alloys	126.66
Other Inorganic Materials	38.31
Cellulosics	29.91
Rubber	0.00
Plastics	19.94
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	161.22
Packaging Material, Plastic	27.70
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.14E+00
Np-237	3.61E-05
Pu-238	1.03E+00
Pu-239	2.45E+01
Pu-240	5.63E+00
Pu-241	7.55E+01
Pu-242	6.90E-04
Th-229	5.57E-13
Th-230	2.20E-09
Th-232	5.94E-16
U-233	1.20E-09
U-234	3.84E-05
U-235	3.47E-07
U-236	2.00E-06
U-238	5.02E-10

Waste Stream Description

IDC 320 - Scrap metals which are heavier than iron and steel. Metal above Cu on the periodic table. Mainly used tantalum crucibles.

Management Comments

N/A

Waste Stream ID: **RF-MT0321**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W028	Stream Name	Lead/TRM			Inventory Date	9/30/2002
Local ID	IDC 321	Handling	CH	Final Waste Form	Lead/Cadmium Metal	Waste Matrix Code	S5112
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Drum / 55 gallon	19.1	2.1	21.2
Drum / 85 gallon	4.2	0.0	4.2
Standard Waste Box	1.9	5.7	7.6
As-Generated Total	25.2	7.8	33.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	19.2	2.1	21.3
85 Gallon Drum	4.2	0.0	4.2
Standard Waste Box	1.9	5.7	7.6
Final Form Total	25.3	7.8	33.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	47.53
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	400.76
Other Inorganic Materials	73.60
Cellulosics	10.92
Rubber	5.72
Plastics	16.62
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	135.78
Packaging Material, Plastic	20.85
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.03E-01
Np-237	1.29E-05
Pu-238	5.21E-02
Pu-239	1.35E+00
Pu-240	3.05E-01
Pu-241	3.61E+00
Pu-242	4.13E-05
Th-229	3.17E-13
Th-230	6.37E-09
Th-232	3.22E-17
U-233	5.89E-10
U-234	5.99E-05
U-235	1.89E-06
U-236	1.09E-07
U-238	1.65E-08

Waste Stream Description

This waste form consists of metallic lead in the form of sheets, bricks, or tape.

Physical form: solid

Currently, no analytical data for lead waste is available. Process knowledge is the basis for characterization of this waste form. Lead waste (IDC 321) from non-specific sources is believed to have only lead (D008) as a hazardous constituent. In numerous tests of elemental lead, EP toxicity values exceed those listed in Table 1, 40 CFR 261.24. It is assumed that IDC 321 would also exceed EP toxicity limits for lead.

Management Comments

This waste is packaged in 55-gallon drums lined with a fiberboard liner and two polyethylene bag liners.

Waste Stream ID: **RF-MT-0328**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W066	Stream Name	Filters & media/TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	1.0	1.0	2.1
As-Generated Total			2.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.0	1.0	2.1
Final Form Total			2.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	4.77
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.57
Packaging Material, Plastic	32.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.10E-01
Np-237	6.09E-06
Pu-238	8.03E-02
Pu-239	1.88E+00
Pu-240	4.30E-01
Pu-241	6.18E+00
Pu-242	5.44E-05
Th-229	1.35E-13
Th-230	1.14E-08
Th-232	4.54E-17
U-233	2.59E-10
U-234	1.07E-04
U-235	3.38E-06
U-236	1.53E-07
U-238	2.98E-08

Waste Stream Description

328 - Flu-Flo filters from the recovery incineration, building 771. Mixed Waste.

Management Comments

Filter waste is packaged in 55-gallon drums and metal standard waste boxes.

Waste Stream ID: **RF-MT0330**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W012	Stream Name	Combustibles, dry/TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	2.9	0.8	3.7
Slip Lid Can	0.0	0.0	0.0
As-Generated Total	2.9	0.8	3.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	3.1	0.8	4.0
Final Form Total	3.1	0.8	4.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	8.97
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	37.23
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.52
Packaging Material, Plastic	22.72
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.36E+00
Np-237	2.38E-05
Pu-238	5.83E-01
Pu-239	2.53E+01
Pu-240	6.22E+00
Pu-241	3.85E+01
Pu-242	4.28E-04
Th-229	3.87E-13
Th-230	1.14E-09
Th-232	6.56E-16
U-233	8.22E-10
U-234	2.08E-05
U-235	2.99E-07
U-236	2.21E-06
U-238	7.74E-13

Waste Stream Description

This waste consists of rags, paper, cloth, coveralls, plastic, rubber, and wood. The waste consists mainly of cloth and paper products from cleanup of gloveboxes and spills. The bulk of these wastes are packaged in 55-gallon drums with one rigid polyethylene liner and several bag liners. In addition, the waste may be packaged in DOT 7A Type A metal boxes which are lined with a fiberboard liner and a PVC liner or standard TRUPACT-II container. The containers are then assayed and transferred to interim status storage areas. These wastes have been shipped to the INEL for storage in the past. RF-330, 356, 337, 821, 822, 853, 831, 832, 833. Predominantly combustible debris.

Management Comments

This waste is stored in 55 gallon carbon steel drums with one rigid polyethylene liner and several bag liners and standard metal boxes.

Waste Stream ID: **RF-MT-0331**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W066	Stream Name	Filters & media/TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 10 gallon	0.0	0.0	0.0
Drum / 55 gallon	24.3	0.0	24.3
As-Generated Total	24.4	0.0	24.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	24.6	0.0	24.6
Final Form Total	24.6	0.0	24.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	115.41
Aluminum-Base Metal/Alloys	119.34
Other Metal/Alloys	0.00
Other Inorganic Materials	36.78
Cellulosics	12.89
Rubber	0.00
Plastics	91.22
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	3.66
Soils	0.00
Packaging Material, Steel	138.54
Packaging Material, Plastic	31.45
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.23E+00
Np-237	2.87E-05
Pu-238	7.21E-01
Pu-239	2.20E+01
Pu-240	4.93E+00
Pu-241	4.44E+01
Pu-242	5.17E-04
Th-229	4.68E-13
Th-230	9.24E-08
Th-232	5.20E-16
U-233	9.92E-10
U-234	8.68E-04
U-235	2.74E-05
U-236	1.75E-06
U-238	5.59E-07

Waste Stream Description

331 - Ful-Flo filters used to filter solids from aqueous solutions. Additional required processing undetermined. Because of the potential of liquids in this IDC, it requires a compatibility code when packaging.

Management Comments

Filter waste is packaged in 55-gallon drums and metal standard waste boxes.

Waste Stream ID: **RF-MT0332**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0332	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3229
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8804 Can	0.1	0.0	0.1
As-Generated Total	0.1	0.0	0.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.5	0.0	1.5
Final Form Total	1.5	0.0	1.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	12.89
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	701.69
Soils	0.00
Packaging Material, Steel	138.43
Packaging Material, Plastic	17.18
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.02E-03
Np-237	1.50E-08
Pu-238	3.53E-03
Pu-239	8.27E-02
Pu-240	1.89E-02
Pu-241	2.72E-01
Pu-242	2.39E-06
Th-229	7.90E-17
Th-230	6.92E-12
Th-232	2.00E-18
U-233	2.73E-13
U-234	1.26E-07
U-235	9.79E-10
U-236	6.74E-09
U-238	4.34E-15

Waste Stream Description

N/A

Management Comments

Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.

Waste Stream ID: **RF-MT-0335**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W066	Stream Name	Filters & media/TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.8	0.0	0.8
As-Generated Total		0.8	0.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
Final Form Total		0.8	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	11.29
Aluminum-Base Metal/Alloys	7.90
Other Metal/Alloys	0.00
Other Inorganic Materials	5.09
Cellulosics	12.83
Rubber	7.03
Plastics	17.72
Solidified, Inorganic Matrix	2.33
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.48
Packaging Material, Steel	138.48
Packaging Material, Plastic	28.31
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.63E+00
Np-237	1.87E-05
Pu-238	2.84E-01
Pu-239	7.47E+00
Pu-240	1.72E+00
Pu-241	1.94E+01
Pu-242	1.82E-04
Th-229	4.33E-13
Th-230	7.07E-08
Th-232	1.81E-16
U-233	8.18E-10
U-234	6.60E-04
U-235	2.03E-05
U-236	6.10E-07
U-238	1.86E-06

Waste Stream Description

335 - High efficiency particulate air filters used on glovebox air intakes and exhausts.

Management Comments

Filter waste is packaged in 55-gallon drums and metal standard waste boxes.

Waste Stream ID: **RF-MT0336**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W012	Stream Name	Combustibles/TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	13.7	0.0	13.7
Drum / 85 gallon	0.3	0.0	0.3
Slip Lid Can	0.0	0.0	0.0
As-Generated Total	14.1	0.0	14.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	14.0	0.0	14.0
85 Gallon Drum	0.3	0.0	0.3
Final Form Total	14.3	0.0	14.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1.59
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	17.72
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	137.50
Packaging Material, Plastic	29.61
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.22E+00
Np-237	2.62E-05
Pu-238	1.10E+00
Pu-239	3.09E+01
Pu-240	7.04E+00
Pu-241	6.65E+01
Pu-242	8.20E-04
Th-229	2.58E-13
Th-230	1.59E-08
Th-232	7.43E-16
U-233	6.77E-10
U-234	1.67E-04
U-235	4.47E-06
U-236	2.51E-06
U-238	3.63E-08

Waste Stream Description

This waste consists of rags, paper, cloth, coveralls, plastic, rubber, and wood. The waste consists mainly of cloth and paper products from cleanup of gloveboxes and spills. The bulk of these wastes are packaged in 55-gallon drums with one rigid polyethylene liner and several bag liners. In addition, the waste may be packaged in DOT 7A Type A metal boxes which are lined with a fiberboard liner and a PVC liner or standard TRUPACT-II container. The containers are then assayed and transferred to interim status storage areas. These wastes have been shipped to the INEL for storage in the past. RF-330, 356, 337, 821, 822, 853, 831, 832, 833. Predominantly combustible debris.

Management Comments

This waste is stored in 55 gallon carbon steel drums with one rigid polyethylene liner and several bag liners and standard metal boxes.

Waste Stream ID: **RF-MT0337**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W012	Stream Name	Combustibles/TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	13.9	0.0	13.9
As-Generated Total		13.9	0.0
13.9			

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	14.0	0.0	14.0
Final Form Total		14.0	0.0
14.0			

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1.85
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	10.50
Cellulosics	0.00
Rubber	0.00
Plastics	120.69
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.56
Packaging Material, Plastic	32.30
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.34E+00
Np-237	1.61E-05
Pu-238	6.18E-01
Pu-239	1.93E+01
Pu-240	4.34E+00
Pu-241	3.32E+01
Pu-242	4.13E-04
Th-229	1.61E-13
Th-230	3.10E-08
Th-232	4.58E-16
U-233	4.20E-10
U-234	2.98E-04
U-235	9.11E-06
U-236	1.55E-06
U-238	7.86E-08

Waste Stream Description

This waste consists of rags, paper, cloth, coveralls, plastic, rubber, and wood. The waste consists mainly of cloth and paper products from cleanup of gloveboxes and spills. The bulk of these wastes are packaged in 55-gallon drums with one rigid polyethylene liner and several bag liners. In addition, the waste may be packaged in DOT 7A Type A metal boxes which are lined with a fiberboard liner and a PVC liner or standard TRUPACT-II container. The containers are then assayed and transferred to interim status storage areas. These wastes have been shipped to the INEL for storage in the past. RF-330, 356, 337, 821, 822, 853, 831, 832, 833. Predominantly combustible debris.

Management Comments

This waste is stored in 55 gallon carbon steel drums with one rigid polyethylene liner and several bag liners and standard metal boxes.

Waste Stream ID: **RF-MT0339**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W029	Stream Name	Leaded Dry Box Gloves/TRM			Inventory Date	9/30/2002
Local ID	IDC 339	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5311
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	101.9	64.5	166.4
Standard Waste Box	1.9	9.5	11.4
As-Generated Total	103.8	74.0	177.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	102.1	64.6	166.8
Standard Waste Box	1.9	9.4	11.3
Final Form Total	104.0	74.1	178.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	5.36
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	229.49
Other Inorganic Materials	103.54
Cellulosics	12.09
Rubber	133.48
Plastics	20.85
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	139.38
Packaging Material, Plastic	28.73
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.83E-01
Np-237	1.54E-05
Pu-238	9.05E-02
Pu-239	2.28E+00
Pu-240	5.14E-01
Pu-241	6.47E+00
Pu-242	5.53E-05
Th-229	4.10E-13
Th-230	7.23E-09
Th-232	5.42E-17
U-233	7.45E-10
U-234	6.86E-05
U-235	1.02E-06
U-236	1.83E-07
U-238	2.50E-07

Waste Stream Description

This waste stream is a solid matrix consisting of gloves with lead lining. There could be some free liquids in waste containers.

Management Comments

The gloves are packaged in 55-gallon drums lined with a rigid polyethylene liner and one bag liner.

Waste Stream ID: **RF-MT-0342**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W066	Stream Name	Filters & media/TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.4	0.0	0.4
As-Generated Total		0.4	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total		0.4	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	7.47
Aluminum-Base Metal/Alloys	12.86
Other Metal/Alloys	4.30
Other Inorganic Materials	7.58
Cellulosics	12.62
Rubber	9.61
Plastics	24.64
Solidified, Inorganic Matrix	1.67
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	8.59
Soils	0.00
Packaging Material, Steel	138.46
Packaging Material, Plastic	26.15
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.94E+00
Np-237	2.68E-05
Pu-238	4.73E-01
Pu-239	1.31E+01
Pu-240	2.94E+00
Pu-241	2.94E+01
Pu-242	2.75E-04
Th-229	6.52E-13
Th-230	1.61E-08
Th-232	3.11E-16
U-233	1.21E-09
U-234	1.57E-04
U-235	4.68E-06
U-236	1.05E-06
U-238	2.77E-06

Waste Stream Description

342 - Drybox filters from all acid lines.

Management Comments

Filter waste is packaged in 55-gallon drums and metal standard waste boxes.

Waste Stream ID: **RF-MT0371**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0371	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
8802 Can	0.0	0.0	0.0
8804 Can	0.0	0.0	0.0
Drum / 55 gallon	1.2	0.0	1.2
POC / 55 gallon	18.5	0.0	18.5
As-Generated Total	19.8	0.0	19.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	1.9	0.0	1.9
55 Gallon POCs	18.6	0.0	18.6
Final Form Total	20.4	0.0	20.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.96
Aluminum-Base Metal/Alloys	1.91
Other Metal/Alloys	0.00
Other Inorganic Materials	236.28
Cellulosics	0.00
Rubber	0.00
Plastics	50.76
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	489.70
Packaging Material, Plastic	23.56
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.45E+01
Np-237	1.56E-04
Pu-238	2.23E+00
Pu-239	5.22E+01
Pu-240	1.19E+01
Pu-241	1.72E+02
Pu-242	1.51E-03
Th-229	3.55E-12
Th-230	1.12E-08
Th-232	1.26E-15
U-233	6.73E-09
U-234	1.43E-04
U-235	2.66E-06
U-236	4.25E-06
U-238	1.81E-08

Waste Stream Description

N/A

Management Comments

Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.

Waste Stream ID: **RF-MT-0372**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W068	Stream Name	Particulate Sludge/TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	1.5	0.0	1.5
As-Generated Total		1.5	0.0
			1.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.5	0.0	1.5
Final Form Total		1.5	0.0
			1.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	4.77
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	115.80
Cellulosics	12.89
Rubber	0.00
Plastics	17.50
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.48
Packaging Material, Plastic	29.60
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.35E-01
Np-237	3.65E-06
Pu-238	2.20E-01
Pu-239	5.11E+00
Pu-240	1.17E+00
Pu-241	1.49E+01
Pu-242	1.33E-04
Th-229	6.02E-14
Th-230	1.82E-08
Th-232	1.23E-16
U-233	1.26E-10
U-234	1.72E-04
U-235	5.35E-06
U-236	4.16E-07
U-238	4.68E-08

Waste Stream Description

This waste consists of iron shot, walnut shells, glass beads, and ceramic beads generated by grit blasting operations.

Management Comments

The waste is packaged in 55-gallon drums with multiple bag liners. These are typically smaller containers within the drum

Waste Stream ID: **RF-MT0373**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0373	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8802 Can	0.0	0.0	0.0
POC / 55 gallon	3.7	0.0	3.7
As-Generated Total	3.7	0.0	3.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	4.0	0.0	4.0
Final Form Total	4.0	0.0	4.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	19.44
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	23.87
Other Inorganic Materials	92.37
Cellulosics	12.89
Rubber	0.00
Plastics	15.87
Solidified, Inorganic Matrix	80.40
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.34E+00
Np-237	1.89E-05
Pu-238	8.34E-01
Pu-239	3.54E+01
Pu-240	8.03E+00
Pu-241	4.53E+01
Pu-242	4.91E-04
Th-229	1.73E-13
Th-230	1.63E-09
Th-232	8.48E-16
U-233	4.72E-10
U-234	2.98E-05
U-235	4.19E-07
U-236	2.86E-06
U-238	8.88E-13

Waste Stream Description

Scarfed firebrick (IDC 377 and 378) was subjected to a nitric acid dissolution process. Firebrick heel (IDC 373) is the material that did not dissolve and was filtered and dried.

Management Comments

Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.

Waste Stream ID: **RF-MT0374**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W008	Stream Name	Soil & Cleanup Debris/TRM			Inventory Date	9/30/2002
Local ID	IDC 374	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	18.66
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	447.28
Cellulosics	12.89
Rubber	5.44
Plastics	18.14
Solidified, Inorganic Matrix	840.22
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	608.13
Soils	239.96
Packaging Material, Steel	138.52
Packaging Material, Plastic	31.17
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.21E-01
Np-237	1.08E-05
Pu-238	1.89E-01
Pu-239	4.42E+00
Pu-240	1.01E+00
Pu-241	1.45E+01
Pu-242	1.28E-04
Th-229	2.56E-13
Th-230	9.42E-10
Th-232	1.07E-16
U-233	4.80E-10
U-234	1.21E-05
U-235	9.98E-07
U-236	3.60E-07
U-238	5.64E-06

Waste Stream Description

This waste consists of blacktop/concrete/dirt/sand.

Management Comments

55 gallon carbon steel DOT 7A Type A Drum.

Waste Stream ID: **RF-MT0376**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0376	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	2.52
Aluminum-Base Metal/Alloys	16.25
Other Metal/Alloys	172.56
Other Inorganic Materials	73.46
Cellulosics	12.68
Rubber	8.99
Plastics	13.79
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	10.26
Soils	0.00
Packaging Material, Steel	138.44
Packaging Material, Plastic	27.71
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.28E+00
Np-237	1.59E-05
Pu-238	4.57E-01
Pu-239	1.32E+01
Pu-240	3.07E+00
Pu-241	3.21E+01
Pu-242	2.98E-04
Th-229	3.10E-13
Th-230	8.72E-09
Th-232	3.24E-16
U-233	6.16E-10
U-234	8.89E-05
U-235	2.49E-06
U-236	1.09E-06
U-238	4.49E-06

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **RF-MT0377**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W036	Stream Name	Firebrick, coarse/TRM			Inventory Date	9/30/2002
Local ID	C 377,378,373,37	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S5123
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Drum / 55 gallon	6.0	0.0	6.0
POC / 55 gallon	68.2	0.0	68.2
As-Generated Total	74.3	0.0	74.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	6.0	0.0	6.0
55 Gallon POCs	68.4	0.0	68.4
Final Form Total	74.4	0.0	74.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	25.22
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	110.43
Cellulosics	12.89
Rubber	0.00
Plastics	19.64
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	493.81
Packaging Material, Plastic	24.36
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.67E+00
Np-237	5.38E-05
Pu-238	7.38E-01
Pu-239	1.73E+01
Pu-240	3.96E+00
Pu-241	5.67E+01
Pu-242	5.00E-04
Th-229	1.33E-12
Th-230	1.62E-08
Th-232	4.17E-16
U-233	2.46E-09
U-234	1.63E-04
U-235	4.56E-06
U-236	1.41E-06
U-238	3.83E-08

Waste Stream Description

This waste form is firebrick that has been crushed and pulverized.

Management Comments

The waste is packaged in 55- gallon drums lined with a rigid polyethylene liner. Projected future generation begins in CY2005.

Waste Stream ID: **RF-MT0378**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W036	Stream Name	Firebrick, pulverized or fines/TRM			Inventory Date	9/30/2002
Local ID	C 377,378,373,37	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Drum / 55 gallon	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1.43
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	18.62
Cellulosics	0.00
Rubber	0.00
Plastics	7.64
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.57
Packaging Material, Plastic	8.59
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.30E+00
Np-237	3.86E-05
Pu-238	1.21E+00
Pu-239	2.84E+01
Pu-240	6.50E+00
Pu-241	9.34E+01
Pu-242	8.23E-04
Th-229	8.59E-13
Th-230	2.38E-09
Th-232	6.86E-16
U-233	1.64E-09
U-234	4.33E-05
U-235	3.36E-07
U-236	2.31E-06
U-238	1.49E-12

Waste Stream Description

This waste form is firebrick that has been crushed and pulverized.

Management Comments

The waste is packaged in 55- gallon drums lined with a rigid polyethylene liner.

Waste Stream ID: **RF-MT0419**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0419	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
POC / 55 gallon	4.8	0.0	4.8	
As-Generated Total		4.8	0.0	4.8

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
55 Gallon POCs	4.8	0.0	4.8	
Final Form Total		4.8	0.0	4.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	2.67
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	8.69
Cellulosics	12.89
Rubber	0.00
Plastics	2.01
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.18E+00
Np-237	1.24E-05
Pu-238	1.48E-01
Pu-239	3.46E+00
Pu-240	7.92E-01
Pu-241	1.14E+01
Pu-242	1.00E-04
Th-229	2.79E-13
Th-230	2.89E-10
Th-232	8.36E-17
U-233	5.32E-10
U-234	5.28E-06
U-235	4.09E-08
U-236	2.82E-07
U-238	1.82E-13

Waste Stream Description

N/A

Management Comments

Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.

Waste Stream ID: **RF-MT0420**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W040	Stream Name	Incinerator ash/TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Pollution Control or Waste Treatment Process

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.8	0.0	0.8
As-Generated Total			0.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
Final Form Total			0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	2.67
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	8.69
Cellulosics	12.89
Rubber	0.00
Plastics	2.01
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.57
Packaging Material, Plastic	32.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.18E+00
Np-237	1.24E-05
Pu-238	1.48E-01
Pu-239	3.46E+00
Pu-240	7.92E-01
Pu-241	1.14E+01
Pu-242	1.00E-04
Th-229	2.79E-13
Th-230	2.89E-10
Th-232	8.36E-17
U-233	5.32E-10
U-234	5.28E-06
U-235	4.09E-08
U-236	2.82E-07
U-238	1.82E-13

Waste Stream Description

This waste stream is a fire particulate ash. It could also be chunky material from moisture.

Management Comments

FBI ash was packaged in 55-gallon drums lined with a rigid polyethylene liner and one bag liner.

Waste Stream ID: **RF-MT0423**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0423	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC / 55 gallon	1.0	0.0	1.0
As-Generated Total	1.0	0.0	1.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	1.0	0.0	1.0
Final Form Total	1.0	0.0	1.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	21.48
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	17.18
Other Inorganic Materials	35.32
Cellulosics	167.07
Rubber	0.00
Plastics	3.44
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.46E+00
Np-237	3.55E-05
Pu-238	9.61E-01
Pu-239	4.00E+01
Pu-240	8.86E+00
Pu-241	3.61E+01
Pu-242	5.15E-04
Th-229	3.37E-13
Th-230	1.88E-09
Th-232	9.35E-16
U-233	9.07E-10
U-234	3.43E-05
U-235	4.73E-07
U-236	3.15E-06
U-238	9.33E-13

Waste Stream Description

"Soot heel is the material remaining after acid dissolution, filtering, and drying of soot (IDC 422)."

Management Comments

Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.

Waste Stream ID: **RF-MT0425**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W040	Stream Name	Incinerator ash/TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Pollution Control or Waste Treatment Process

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total		0.2	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total		0.2	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	2.67
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	8.69
Cellulosics	12.89
Rubber	0.00
Plastics	2.01
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.57
Packaging Material, Plastic	32.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.18E+00
Np-237	1.24E-05
Pu-238	1.48E-01
Pu-239	3.46E+00
Pu-240	7.92E-01
Pu-241	1.14E+01
Pu-242	1.00E-04
Th-229	2.79E-13
Th-230	2.89E-10
Th-232	8.36E-17
U-233	5.32E-10
U-234	5.28E-06
U-235	4.09E-08
U-236	2.82E-07
U-238	1.82E-13

Waste Stream Description

This waste stream is a fire particulate ash. It could also be chunky material from moisture.

Management Comments

FBI ash was packaged in 55-gallon drums lined with a rigid polyethylene liner and one bag liner.

Waste Stream ID: **RF-MT-0438**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W057	Stream Name	Insulation/TRM			Inventory Date	9/30/2002
Local ID	IDC 438	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.6	0.0	0.6
As-Generated Total		0.6	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total		0.6	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	29.75
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	40.01
Cellulosics	12.89
Rubber	2.01
Plastics	15.52
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.55
Packaging Material, Plastic	31.51
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.47E+00
Np-237	1.59E-05
Pu-238	6.45E-01
Pu-239	2.04E+01
Pu-240	4.64E+00
Pu-241	3.75E+01
Pu-242	3.89E-04
Th-229	2.23E-13
Th-230	3.53E-09
Th-232	4.89E-16
U-233	5.00E-10
U-234	4.41E-05
U-235	9.21E-07
U-236	1.65E-06
U-238	6.01E-09

Waste Stream Description

This waste stream is contaminated insulation.

Management Comments

55 gallon drums DOT 7A TYPE A; metal boxes.

Waste Stream ID: **RF-MT0440**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W052	Stream Name	Glass/TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	2.3	0.0	2.3
As-Generated Total	2.3	0.0	2.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.3	0.0	2.3
Final Form Total	2.3	0.0	2.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	19.39
Aluminum-Base Metal/Alloys	1.38
Other Metal/Alloys	0.72
Other Inorganic Materials	184.09
Cellulosics	12.76
Rubber	0.00
Plastics	33.08
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.45
Packaging Material, Plastic	29.31
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.27E-01
Np-237	6.84E-06
Pu-238	6.30E-02
Pu-239	2.02E+00
Pu-240	4.72E-01
Pu-241	4.22E+00
Pu-242	4.36E-05
Th-229	1.77E-13
Th-230	7.89E-09
Th-232	4.98E-17
U-233	3.25E-10
U-234	7.43E-05
U-235	2.38E-06
U-236	1.68E-07
U-238	7.12E-07

Waste Stream Description

This waste stream is made up of glass from analytical labs, recovery processes, ceramics, and glovebox windows.

Management Comments

DOT 7A TYPE A metal boxes and DOT 7A TYPE A drums.

Waste Stream ID: **RF-MT0442**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W052	Stream Name	Glass/TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.8	0.0	0.8
As-Generated Total	0.8	0.0	0.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
Final Form Total	0.8	0.0	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	4.54
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	306.14
Cellulosics	12.84
Rubber	0.00
Plastics	21.90
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.44
Packaging Material, Plastic	28.26
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.45E-01
Np-237	2.14E-06
Pu-238	7.52E-02
Pu-239	1.91E+00
Pu-240	4.35E-01
Pu-241	4.31E+00
Pu-242	3.95E-05
Th-229	3.90E-14
Th-230	1.24E-08
Th-232	4.59E-17
U-233	7.93E-11
U-234	1.16E-04
U-235	3.55E-06
U-236	1.55E-07
U-238	3.87E-07

Waste Stream Description

This waste stream is made up of Raschig Rings which are borosilicate glass rings used to maintain subcritical conditions in fissile storage tanks.

Management Comments

DOT 7A TYPE A metal boxes and DOT 7A TYPE A drums.

Waste Stream ID: **RF-MT0443**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W052	Stream Name	Glass/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	19.3	0.0	19.3
As-Generated Total	19.3	0.0	19.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	19.4	0.0	19.4
Final Form Total	19.4	0.0	19.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	337.60
Cellulosics	12.89
Rubber	0.00
Plastics	19.65
Solidified, Inorganic Matrix	0.96
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.44
Packaging Material, Plastic	24.56
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.29E-01
Np-237	4.37E-07
Pu-238	5.33E-02
Pu-239	1.28E+00
Pu-240	2.92E-01
Pu-241	3.87E+00
Pu-242	3.44E-05
Th-229	5.44E-15
Th-230	9.85E-10
Th-232	3.08E-17
U-233	1.25E-11
U-234	1.01E-05
U-235	3.49E-07
U-236	1.04E-07
U-238	7.68E-06

Waste Stream Description

"Rachig rings leached with dilute nitric acid or water, and rinsed with carbon tetrachloride or 1,1,1-trichloroethane prior to removal from process tanks."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT0444**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W032	Stream Name	Ground Leaded Glass/TRM			Inventory Date	9/30/2002
Local ID	IDC 444, 855	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8802 Can	0.0	0.0	0.0
8804 Can	0.0	0.0	0.0
Drum / 55 gallon	15.8	1.0	16.8
POC / 55 gallon	7.7	0.0	7.7
Standard Waste Box	19.0	0.0	19.0
As-Generated Total	42.5	1.0	43.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	16.3	1.0	17.3
55 Gallon POCs	7.7	0.0	7.7
Standard Waste Box	18.9	0.0	18.9
Final Form Total	42.9	1.0	43.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	22.38
Aluminum-Base Metal/Alloys	1.10
Other Metal/Alloys	85.37
Other Inorganic Materials	300.89
Cellulosics	9.20
Rubber	16.05
Plastics	16.43
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	212.47
Packaging Material, Plastic	16.61
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.82E-01
Np-237	5.10E-06
Pu-238	1.12E-01
Pu-239	2.63E+00
Pu-240	6.02E-01
Pu-241	8.61E+00
Pu-242	7.60E-05
Th-229	1.10E-13
Th-230	2.73E-10
Th-232	6.36E-17
U-233	2.12E-10
U-234	4.50E-06
U-235	4.72E-08
U-236	2.14E-07
U-238	1.42E-10

Waste Stream Description

Matrix consists of crushed glass light bulbs and leaded glass that is crushed on removal.

Management Comments

The glass waste is packaged in 55- gallon drums that are lined with one fiberboard liner and two polyethylene bags or metal boxes. Drums are placed in TRUPACT II containers.

Waste Stream ID: **RF-MT0480**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W011	Stream Name	LIGHT METAL/TRM			Inventory Date	9/30/2002
Local ID	IDC 480	Handling	CH	Final Waste Form	Lead/Cadmium Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Box / Metal	6.3	0.0	6.3
Drum / 55 gallon	27.2	10.4	37.6
Standard Waste Box	66.5	0.0	66.5
As-Generated Total	100.1	10.4	110.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	27.3	10.4	37.7
Standard Waste Box	69.9	0.0	69.9
Final Form Total	97.2	10.4	107.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	243.09
Aluminum-Base Metal/Alloys	42.78
Other Metal/Alloys	41.63
Other Inorganic Materials	8.09
Cellulosics	7.30
Rubber	2.94
Plastics	12.21
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.03
Soils	0.00
Packaging Material, Steel	147.71
Packaging Material, Plastic	13.02
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.39E-01
Cs-137	4.71E-05
Np-237	3.49E-06
Pu-238	1.19E-01
Pu-239	2.80E+00
Pu-240	6.42E-01
Pu-241	8.40E+00
Pu-242	7.50E-05
Th-229	5.84E-14
Th-230	2.46E-09
Th-232	6.77E-17
U-233	1.22E-10
U-234	2.49E-05
U-235	7.03E-07
U-236	2.28E-07
U-238	3.31E-07

Waste Stream Description

This waste stream is metal tools, etc. generated during glovebox operations.

Management Comments

Waste is packaged in 55 gallon DOT 7A Type A Drums. The drums are lined with one rigid polyethylene liner and several bag liners.

Waste Stream ID: **RF-MT0488**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W011	Stream Name	Metal/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5112
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: General Building Waste and Decommissioning

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.8	0.0	0.8
Standard Waste Box	114.0	195.7	309.7
As-Generated Total	114.8	195.7	310.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
Standard Waste Box	113.4	194.7	308.1
Final Form Total	114.2	194.7	308.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	234.15
Aluminum-Base Metal/Alloys	0.42
Other Metal/Alloys	83.76
Other Inorganic Materials	0.00
Cellulosics	4.33
Rubber	23.36
Plastics	4.62
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	152.73
Packaging Material, Plastic	11.11
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.31E-01
Np-237	3.27E-06
Pu-238	4.04E-02
Pu-239	9.45E-01
Pu-240	2.16E-01
Pu-241	3.11E+00
Pu-242	2.74E-05
Th-229	7.97E-14
Th-230	6.44E-09
Th-232	2.28E-17
U-233	1.48E-10
U-234	6.03E-05
U-235	1.91E-06
U-236	7.70E-08
U-238	1.68E-08

Waste Stream Description

"This waste consists of lead tape and/or lead shielding from within the glovebox system, or glovebox parts with bonded lead"

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT0490**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W066	Stream Name	Filters and Media/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
1/2 Wood Box	1.6	0.0	1.6
As-Generated Total	1.6	0.0	1.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	8.36
Aluminum-Base Metal/Alloys	18.42
Other Metal/Alloys	11.24
Other Inorganic Materials	11.37
Cellulosics	4.31
Rubber	12.91
Plastics	6.45
Solidified, Inorganic Matrix	3.84
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	44.06
Packaging Material, Steel	152.73
Packaging Material, Plastic	2.49
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.61E-01
Np-237	2.33E-06
Pu-238	6.52E-02
Pu-239	1.55E+00
Pu-240	3.55E-01
Pu-241	4.76E+00
Pu-242	4.24E-05
Th-229	5.12E-14
Th-230	7.69E-10
Th-232	3.74E-17
U-233	9.81E-11
U-234	8.27E-06
U-235	4.15E-07
U-236	1.26E-07
U-238	3.50E-05

Waste Stream Description

"HEPA filters (24 x 24), not acid contaminated, are large HEPA filters used in the filter plenums of plutonium processing buildings to filter room and glovebox air. The materials of construction consist of a filter medium contained within a wood frame. Older medium consisted of glass fiber with a small percentage of asbestos and a corrugated aluminum foil. Newer medium is constructed of glass and aromatic polyamide fibers (Nomex) and aluminum alloy metal. Wood filter frames are constructed of 1/2-inch fire retardant exterior grade plywood, or particle board."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT-0491**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W066	Stream Name	Filters & media/TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	9.55
Aluminum-Base Metal/Alloys	13.46
Other Metal/Alloys	3.34
Other Inorganic Materials	16.57
Cellulosics	12.89
Rubber	0.96
Plastics	20.80
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.46
Packaging Material, Plastic	24.64
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.75E-02
Np-237	7.77E-07
Pu-238	8.99E-03
Pu-239	2.12E-01
Pu-240	4.85E-02
Pu-241	6.74E-01
Pu-242	5.98E-06
Th-229	1.72E-14
Th-230	3.65E-10
Th-232	5.12E-18
U-233	3.29E-11
U-234	3.54E-06
U-235	2.76E-07
U-236	1.73E-08
U-238	9.18E-10

Waste Stream Description

491 - Room air exhaust filters only. This waste must be collected in 55-gallon or 35-gallon drums for assay.

Management Comments

Filter waste is packaged in 55-gallon drums and metal standard waste boxes.

Waste Stream ID: **RF-MT0523A**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W013	Stream Name	Solidified Organics/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3219
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8801 Can	0.0	0.0	0.0
8802 Can	0.0	0.0	0.0
Can / 1-Liter	0.0	0.0	0.0
Drum / 55 gallon	4.4	0.0	4.4
POC / 55 gallon	3.1	0.0	3.1
As-Generated Total	7.5	0.0	7.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	7.7	0.0	7.7
55 Gallon POCs	3.1	0.0	3.1
Final Form Total	10.8	0.0	10.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	36.82
Aluminum-Base Metal/Alloys	6.86
Other Metal/Alloys	12.60
Other Inorganic Materials	21.10
Cellulosics	0.00
Rubber	1.53
Plastics	30.65
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	18.40
Soils	0.00
Packaging Material, Steel	250.10
Packaging Material, Plastic	29.98
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.52E+00
Np-237	3.05E-05
Pu-238	4.13E-01
Pu-239	9.69E+00
Pu-240	2.22E+00
Pu-241	3.17E+01
Pu-242	2.80E-04
Th-229	6.43E-13
Th-230	3.36E-09
Th-232	2.34E-16
U-233	1.25E-09
U-234	3.84E-05
U-235	3.26E-05
U-236	7.89E-07
U-238	3.78E-05

Waste Stream Description

This output is predominantly consolidated excess solid sample material and solid remnants of processed sample materials. This output contains greater than 50% by volume organic particulates.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT0523B**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W013	Stream Name	Solidified Organics/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8801 Can	0.0	0.0	0.0
8802 Can	0.0	0.0	0.0
Can / 1-Liter	0.0	0.0	0.0
Drum / 55 gallon	4.4	0.0	4.4
POC / 55 gallon	3.1	0.0	3.1
As-Generated Total	7.5	0.0	7.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	7.7	0.0	7.7
55 Gallon POCs	3.1	0.0	3.1
Final Form Total	10.8	0.0	10.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	36.82
Aluminum-Base Metal/Alloys	6.86
Other Metal/Alloys	12.60
Other Inorganic Materials	21.10
Cellulosics	0.00
Rubber	1.53
Plastics	30.65
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	18.40
Soils	0.00
Packaging Material, Steel	250.10
Packaging Material, Plastic	29.98
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.52E+00
Np-237	3.05E-05
Pu-238	4.13E-01
Pu-239	9.69E+00
Pu-240	2.22E+00
Pu-241	3.17E+01
Pu-242	2.80E-04
Th-229	6.43E-13
Th-230	3.36E-09
Th-232	2.34E-16
U-233	1.25E-09
U-234	3.84E-05
U-235	3.26E-05
U-236	7.89E-07
U-238	3.78E-05

Waste Stream Description

This output is predominantly consolidated excess solid sample material and solid remnants of processed sample materials but may also contain some sample vials and foil pans generated in the analytical processes. This output contains at least 50% by volume homogeneous solids.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT0523C**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W013	Stream Name	Solidified Organics/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8801 Can	0.0	0.0	0.0
8802 Can	0.0	0.0	0.0
Can / 1-Liter	0.0	0.0	0.0
Drum / 55 gallon	4.4	0.0	4.4
POC / 55 gallon	3.1	0.0	3.1
As-Generated Total	7.5	0.0	7.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	7.7	0.0	7.7
55 Gallon POCs	3.1	0.0	3.1
Final Form Total	10.8	0.0	10.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	36.82
Aluminum-Base Metal/Alloys	6.86
Other Metal/Alloys	12.60
Other Inorganic Materials	21.10
Cellulosics	0.00
Rubber	1.53
Plastics	30.65
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	18.40
Soils	0.00
Packaging Material, Steel	250.10
Packaging Material, Plastic	29.98
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.52E+00
Np-237	3.05E-05
Pu-238	4.13E-01
Pu-239	9.69E+00
Pu-240	2.22E+00
Pu-241	3.17E+01
Pu-242	2.80E-04
Th-229	6.43E-13
Th-230	3.36E-09
Th-232	2.34E-16
U-233	1.25E-09
U-234	3.84E-05
U-235	3.26E-05
U-236	7.89E-07
U-238	3.78E-05

Waste Stream Description

"This waste stream consists of greater than 50% by volume inorganic debris from decontamination and decommissioning activities. May contain excess solid sample material, and solid remnants of processed sample materials generated in the analytical processes. "

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT0523D**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W013	Stream Name	Solidified Organics/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8801 Can	0.0	0.0	0.0
8802 Can	0.0	0.0	0.0
Can / 1-Liter	0.0	0.0	0.0
Drum / 55 gallon	4.4	0.0	4.4
POC / 55 gallon	3.1	0.0	3.1
As-Generated Total	7.5	0.0	7.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	7.7	0.0	7.7
55 Gallon POCs	3.1	0.0	3.1
Final Form Total	10.8	0.0	10.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	36.82
Aluminum-Base Metal/Alloys	6.86
Other Metal/Alloys	12.60
Other Inorganic Materials	21.10
Cellulosics	0.00
Rubber	1.53
Plastics	30.65
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	18.40
Soils	0.00
Packaging Material, Steel	250.10
Packaging Material, Plastic	29.98
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.52E+00
Np-237	3.05E-05
Pu-238	4.13E-01
Pu-239	9.69E+00
Pu-240	2.22E+00
Pu-241	3.17E+01
Pu-242	2.80E-04
Th-229	6.43E-13
Th-230	3.36E-09
Th-232	2.34E-16
U-233	1.25E-09
U-234	3.84E-05
U-235	3.26E-05
U-236	7.89E-07
U-238	3.78E-05

Waste Stream Description

"This waste stream consists of greater than 50% by volume organic debris from decontamination and decommissioning activities. May contain excess solid sample material, and solid remnants of processed sample materials generated in the analytical processes. "

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT0523E**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W013	Stream Name	Solidified Organics/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5490
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8801 Can	0.0	0.0	0.0
8802 Can	0.0	0.0	0.0
Can / 1-Liter	0.0	0.0	0.0
Drum / 55 gallon	4.4	0.0	4.4
POC / 55 gallon	3.1	0.0	3.1
As-Generated Total	7.5	0.0	7.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	7.7	0.0	7.7
55 Gallon POCs	3.1	0.0	3.1
Final Form Total	10.8	0.0	10.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	36.82
Aluminum-Base Metal/Alloys	6.86
Other Metal/Alloys	12.60
Other Inorganic Materials	21.10
Cellulosics	0.00
Rubber	1.53
Plastics	30.65
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	18.40
Soils	0.00
Packaging Material, Steel	250.10
Packaging Material, Plastic	29.98
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.52E+00
Np-237	3.05E-05
Pu-238	4.13E-01
Pu-239	9.69E+00
Pu-240	2.22E+00
Pu-241	3.17E+01
Pu-242	2.80E-04
Th-229	6.43E-13
Th-230	3.36E-09
Th-232	2.34E-16
U-233	1.25E-09
U-234	3.84E-05
U-235	3.26E-05
U-236	7.89E-07
U-238	3.78E-05

Waste Stream Description

"This waste stream consists of debris from decontamination and decommissioning activities and may contain excess solid sample material, and solid remnants of processed sample materials generated in the analytical processes. This output contains at least 50% by volume debris waste."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT0531**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W013	Stream Name	Solidified Organics/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3229
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Decontamination and Decommissioning

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	12.89
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	701.69
Soils	0.00
Packaging Material, Steel	138.43
Packaging Material, Plastic	17.18
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.02E-03
Np-237	1.50E-08
Pu-238	3.53E-03
Pu-239	8.27E-02
Pu-240	1.89E-02
Pu-241	2.72E-01
Pu-242	2.39E-06
Th-229	7.90E-17
Th-230	6.92E-12
Th-232	2.00E-18
U-233	2.73E-13
U-234	1.26E-07
U-235	9.79E-10
U-236	6.74E-09
U-238	4.34E-15

Waste Stream Description

Miscellaneous organic sludge consists of solid materials removed from process piping and equipment during deactivation and decontamination and decommissioning activities in plutonium buildings.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT0532E**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W068	Stream Name	Particulate Sludge/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8801 Can	0.0	0.0	0.0
8802 Can	0.0	0.0	0.0
8804 Can	0.0	0.0	0.0
Can / 1-Liter	0.0	0.0	0.0
Drum / 55 gallon	5.8	0.0	5.8
POC / 55 gallon	6.0	0.0	6.0
Slip Lid Can	0.0	0.0	0.0
As-Generated Total	11.9	0.0	11.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	9.6	0.0	9.6
55 Gallon POCs	6.0	0.0	6.0
Final Form Total	15.6	0.0	15.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	19.44
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	23.87
Other Inorganic Materials	92.37
Cellulosics	12.89
Rubber	0.00
Plastics	15.87
Solidified, Inorganic Matrix	80.40
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	288.04
Packaging Material, Plastic	27.26
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.56E+00
Np-237	2.18E-04
Pu-238	6.12E-01
Pu-239	1.47E+01
Pu-240	3.35E+00
Pu-241	4.68E+01
Pu-242	4.88E-04
Th-229	5.74E-12
Th-230	8.83E-09
Th-232	3.53E-16
U-233	1.05E-08
U-234	9.27E-05
U-235	2.78E-06
U-236	1.19E-06
U-238	4.60E-05

Waste Stream Description

"This output is greater than 50% by volume inorganic particulates, predominantly consolidated excess solid sample material and solid remnants of processed sample materials and includes absorbed inorganic liquids and small quantities of other inorganic process sludges."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT0532F**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W068	Stream Name	Particulate Sludge/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8801 Can	0.0	0.0	0.0
8802 Can	0.0	0.0	0.0
8804 Can	0.0	0.0	0.0
Can / 1-Liter	0.0	0.0	0.0
Drum / 55 gallon	5.8	0.0	5.8
POC / 55 gallon	6.0	0.0	6.0
Slip Lid Can	0.0	0.0	0.0
As-Generated Total	11.9	0.0	11.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	9.6	0.0	9.6
55 Gallon POCs	6.0	0.0	6.0
Final Form Total	15.6	0.0	15.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	19.44
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	23.87
Other Inorganic Materials	92.37
Cellulosics	12.89
Rubber	0.00
Plastics	15.87
Solidified, Inorganic Matrix	80.40
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	288.04
Packaging Material, Plastic	27.26
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.56E+00
Np-237	2.18E-04
Pu-238	6.12E-01
Pu-239	1.47E+01
Pu-240	3.35E+00
Pu-241	4.68E+01
Pu-242	4.88E-04
Th-229	5.74E-12
Th-230	8.83E-09
Th-232	3.53E-16
U-233	1.05E-08
U-234	9.27E-05
U-235	2.78E-06
U-236	1.19E-06
U-238	4.60E-05

Waste Stream Description

"Miscellaneous inorganic solids consists of inorganic debris materials such as mercury switches, thermometers, paint related materials such as dried paint, paint chips, floor sweepings with paint chips, and paint contaminated wipes, brushes, cartons, and pails, foreign materials, e.g., bolts, nuts, screws, glass, graphite, etc. separated from various foundry and scrape out IDCs, and excess sample containers. "

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT0541**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0541	Stream Name	miscellaneous liquids/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	L1190
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8804 Can	0.1	0.0	0.1
Can / 1-Gallon	0.0	0.0	0.0
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	4.4	0.0	4.4
Final Form Total	4.4	0.0	4.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	59.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.24E+00
Np-237	4.76E-06
Pu-238	3.16E-02
Pu-239	7.43E-01
Pu-240	1.69E-01
Pu-241	2.43E+00
Pu-242	2.14E-05
Th-229	4.59E-14
Th-230	6.19E-11
Th-232	1.79E-17
U-233	1.23E-10
U-234	1.13E-06
U-235	8.79E-09
U-236	6.03E-08
U-238	3.88E-14

Waste Stream Description

These wastes are aqueous acidic liquid residues.

Management Comments

N/A

Waste Stream ID: **RF-MT0545**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W090	Stream Name	Excess Chemicals/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S3160
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Decontamination and Decommissioning

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total		0.2	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total		0.2	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.96
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	23.87
Cellulosics	0.00
Rubber	0.00
Plastics	17.18
Solidified, Inorganic Matrix	413.85
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.43
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.37E-02
Np-237	1.37E-07
Pu-238	3.21E-02
Pu-239	7.51E-01
Pu-240	1.72E-01
Pu-241	2.47E+00
Pu-242	2.18E-05
Th-229	7.18E-16
Th-230	6.28E-11
Th-232	1.81E-17
U-233	2.48E-12
U-234	1.15E-06
U-235	8.89E-09
U-236	6.12E-08
U-238	3.94E-14

Waste Stream Description

Solid excess chemicals contaminated with plutonium to TRU concentrations. Chemicals are expired or off-specification in some manner and are therefore not useable.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT0800**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W010	Stream Name	Solidified Sludge - Bldg 774 / TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Pollution Control or Waste Treatment Process

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	60.7	0.0	60.7
Drum / 85 gallon	1.6	0.0	1.6
As-Generated Total	62.3	0.0	62.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	60.9	0.0	60.9
85 Gallon Drum	1.6	0.0	1.6
Final Form Total	62.5	0.0	62.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	458.25
Cellulosics	0.00
Rubber	0.00
Plastics	16.52
Solidified, Inorganic Matrix	815.35
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	137.26
Packaging Material, Plastic	30.07
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.88E+01
Np-237	7.35E-05
Pu-238	5.30E-02
Pu-239	1.24E+00
Pu-240	2.84E-01
Pu-241	4.08E+00
Pu-242	3.59E-05
Th-229	7.17E-13
Th-230	9.39E-10
Th-232	2.99E-17
U-233	1.91E-09
U-234	9.64E-06
U-235	1.12E-06
U-236	1.01E-07
U-238	1.35E-07

Waste Stream Description

This waste stream is a solid cemented sludge. It could have small amounts of free liquids in the bottom of the container.

Management Comments

Waste is packaged in 55 gallon DOT 7A Type A Drums. The drums are lined with one rigid polyethylene liner and two bag liners.

Waste Stream ID: **RF-MT0801**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W013	Stream Name	Solidified Organics - Bldg 774/TRM			Inventory Date	9/30/2002
Local ID	IDC 801	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3190
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Drum / 55 gallon	85.9	1.0	86.9
Drum / 85 gallon	14.2	0.0	14.2
As-Generated Total	100.1	1.0	101.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	86.1	1.0	87.1
85 Gallon Drum	14.2	0.0	14.2
Final Form Total	100.3	1.0	101.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	166.75
Solidified, Inorganic Matrix	955.49
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	1032.33
Soils	0.00
Packaging Material, Steel	132.02
Packaging Material, Plastic	30.57
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.24E+00
Np-237	4.76E-06
Pu-238	3.16E-02
Pu-239	7.43E-01
Pu-240	1.69E-01
Pu-241	2.43E+00
Pu-242	2.14E-05
Th-229	4.59E-14
Th-230	6.19E-11
Th-232	1.79E-17
U-233	1.23E-10
U-234	1.13E-06
U-235	8.79E-09
U-236	6.03E-08
U-238	3.88E-14

Waste Stream Description

This waste stream consists of a cemented solid, with some free liquids. It can also have some small chunks in it.

Management Comments

The waste is stored in 55-gallon carbon steel drums with a rigid polyethylene liner and one or two bag liners.

Waste Stream ID: **RF-MT0803**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W010	Stream Name	Solidified Sludge - Bldg 374 / TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Pollution Control or Waste Treatment Process

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	2.3	0.0	2.3
As-Generated Total	2.3	0.0	2.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.3	0.0	2.3
Final Form Total	2.3	0.0	2.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	801.46
Cellulosics	0.00
Rubber	0.00
Plastics	17.18
Solidified, Inorganic Matrix	828.31
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.52
Packaging Material, Plastic	36.17
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.24E+00
Np-237	4.76E-06
Pu-238	3.16E-02
Pu-239	7.43E-01
Pu-240	1.69E-01
Pu-241	2.43E+00
Pu-242	2.14E-05
Th-229	4.59E-14
Th-230	6.19E-11
Th-232	1.79E-17
U-233	1.23E-10
U-234	1.13E-06
U-235	8.79E-09
U-236	6.03E-08
U-238	3.88E-14

Waste Stream Description

This waste stream is a solid cemented sludge. It could have small amounts of free liquids in the bottom of the container.

Management Comments

Waste is packaged in 55 gallon DOT 7A Type A Drums. The drums are lined with one rigid polyethylene liner and two bag liners.

Waste Stream ID: **RF-MT0806**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W097	Stream Name	Solidified Process Solids/TRM			Inventory Date	9/30/2002
Local ID	IDC 806	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Pollution Control or Waste Treatment Process

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Can / 1-Liter	0.0	0.0	0.0
As-Generated Total	0.0	0.0	0.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	235.33
Cellulosics	0.00
Rubber	0.00
Plastics	33.41
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.57
Packaging Material, Plastic	41.05
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.34E+00
Np-237	1.89E-05
Pu-238	8.34E-01
Pu-239	3.54E+01
Pu-240	8.03E+00
Pu-241	4.53E+01
Pu-242	4.91E-04
Th-229	1.73E-13
Th-230	1.63E-09
Th-232	8.48E-16
U-233	4.72E-10
U-234	2.98E-05
U-235	4.19E-07
U-236	2.86E-06
U-238	8.88E-13

Waste Stream Description

This waste stream represents the solidified final form of all particulate and sludge type materials. Particulates and sludge type materials are immobilized with Portland cement. The cemented wastes are cast into 1-gallon molds and allowed to cure prior to packaging. This is the final waste form for Firebrick, Pulverized or Fines/TRM (RF-W036), Incinerator Ash/TRM (RF-W040), Particulate Sludge/TRM (RF-W068), and Sand, Slag, and Crucible/TRM (RF-W059). IDC 806 - All inorganic particulate and inorganic sludge waste must be immobilized by processing into a solid and identified as IDC 806.

Management Comments

N/A

Waste Stream ID: **RF-MT0807**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W010	Stream Name	Solidified Sludge - Bldg 374 / TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Pollution Control or Waste Treatment Process

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	81.7	0.0	81.7
Drum / 85 gallon	2.3	0.0	2.3
As-Generated Total	84.0	0.0	84.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	81.9	0.0	81.9
85 Gallon Drum	2.3	0.0	2.3
Final Form Total	84.2	0.0	84.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	801.46
Cellulosics	0.00
Rubber	0.00
Plastics	17.18
Solidified, Inorganic Matrix	828.31
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	137.28
Packaging Material, Plastic	35.92
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.73E-01
Np-237	6.25E-07
Pu-238	1.59E-02
Pu-239	3.73E-01
Pu-240	8.54E-02
Pu-241	1.23E+00
Pu-242	1.08E-05
Th-229	5.80E-15
Th-230	3.12E-11
Th-232	9.01E-18
U-233	1.57E-11
U-234	5.69E-07
U-235	2.42E-07
U-236	3.04E-08
U-238	1.96E-14

Waste Stream Description

This waste stream is a solid cemented sludge. It could have small amounts of free liquids in the bottom of the container.

Management Comments

Waste is packaged in 55 gallon DOT 7A Type A Drums. The drums are lined with one rigid polyethylene liner and two bag liners.

Waste Stream ID: **RF-MT0816**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W013	Stream Name	Solidified Organics/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3290
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Decontamination and Decommissioning

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	426.74
Soils	0.00
Packaging Material, Steel	138.57
Packaging Material, Plastic	32.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.44E+00
Np-237	1.19E-05
Pu-238	4.54E-01
Pu-239	1.06E+01
Pu-240	2.43E+00
Pu-241	3.49E+01
Pu-242	3.08E-04
Th-229	1.08E-13
Th-230	8.88E-10
Th-232	2.56E-16
U-233	2.95E-10
U-234	1.62E-05
U-235	3.35E-04
U-236	8.65E-07
U-238	5.57E-13

Waste Stream Description

Polymerized organics - small containers consists of small quantities of organic liquids solidified with polymer such as Nochar Petrobond.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT-0823**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W068	Stream Name	Particulate Sludge/TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total			0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total			0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	36.82
Aluminum-Base Metal/Alloys	6.86
Other Metal/Alloys	12.60
Other Inorganic Materials	21.10
Cellulosics	0.00
Rubber	1.53
Plastics	30.65
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	18.40
Soils	0.00
Packaging Material, Steel	138.56
Packaging Material, Plastic	32.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.52E+00
Np-237	3.05E-05
Pu-238	4.13E-01
Pu-239	9.69E+00
Pu-240	2.22E+00
Pu-241	3.17E+01
Pu-242	2.80E-04
Th-229	6.43E-13
Th-230	3.36E-09
Th-232	2.34E-16
U-233	1.25E-09
U-234	3.84E-05
U-235	3.26E-05
U-236	7.89E-07
U-238	3.78E-05

Waste Stream Description

This waste consists of sludge type material. It is a semi-fluid material. Some of it has had cement added to it to try to solidify it.

Management Comments

The waste is packaged in 55-gallon drums with multiple bag liners. These are typically smaller containers within the drums.

Waste Stream ID: **RF-MT0827**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W013	Stream Name	Solidified Organics/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3290
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Decontamination and Decommissioning

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	8.3	1.0	9.4
As-Generated Total			9.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	8.3	1.0	9.4
Final Form Total			9.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	426.74
Soils	0.00
Packaging Material, Steel	138.57
Packaging Material, Plastic	32.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.44E+00
Np-237	1.19E-05
Pu-238	4.54E-01
Pu-239	1.06E+01
Pu-240	2.43E+00
Pu-241	3.49E+01
Pu-242	3.08E-04
Th-229	1.08E-13
Th-230	8.88E-10
Th-232	2.56E-16
U-233	2.95E-10
U-234	1.62E-05
U-235	3.35E-04
U-236	8.65E-07
U-238	5.57E-13

Waste Stream Description

Polymerized organics - drum consists of 55-gallon drum quantities of organic liquids solidified with polymer such as Nochar Petrobond.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT0831**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W012	Stream Name	Combustibles/TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / Metal	3.2	0.0	3.2
Drum / 55 gallon	46.6	0.0	46.6
Standard Waste Box	11.4	0.0	11.4
As-Generated Total		61.2	0.0
			61.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	46.7	0.0	46.7
Standard Waste Box	13.2	0.0	13.2
Final Form Total		59.9	0.0
			59.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	3.12
Aluminum-Base Metal/Alloys	1.86
Other Metal/Alloys	7.69
Other Inorganic Materials	5.47
Cellulosics	10.99
Rubber	8.58
Plastics	24.88
Solidified, Inorganic Matrix	11.90
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	3.57
Soils	0.00
Packaging Material, Steel	141.61
Packaging Material, Plastic	24.51
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.00E+00
Np-237	8.94E-06
Pu-238	2.18E-01
Pu-239	5.06E+00
Pu-240	1.16E+00
Pu-241	1.62E+01
Pu-242	1.43E-04
Th-229	1.95E-13
Th-230	2.25E-08
Th-232	1.22E-16
U-233	3.74E-10
U-234	2.12E-04
U-235	6.64E-06
U-236	4.12E-07
U-238	1.50E-06

Waste Stream Description

This waste consists of rags, paper, cloth, coveralls, plastic, rubber, and wood. The waste consists mainly of cloth and paper products from cleanup of gloveboxes and spills. The bulk of these wastes are packaged in 55-gallon drums with one rigid polyethylene liner and several bag liners. In addition, the waste may be packaged in DOT 7A Type A metal boxes which are lined with a fiberboard liner and a PVC liner or standard TRUPACT-II container. The containers are then assayed and transferred to interim status storage areas. These wastes have been shipped to the INEL for storage in the past. RF-330, 356, 337, 821, 822, 853, 831, 832, 833. Predominantly combustible debris.

Management Comments

This waste is stored in 55 gallon carbon steel drums with one rigid polyethylene liner and several bag liners and standard metal boxes.

Waste Stream ID: **RF-MT0832**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W012	Stream Name	Combustibles/TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Drum / 55 gallon	95.9	17.9	113.8
Drum / 85 gallon	0.6	0.0	0.6
As-Generated Total	96.5	17.9	114.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	96.1	17.9	114.0
85 Gallon Drum	0.6	0.0	0.6
Standard Waste Box	0.0	28.4	28.4
Final Form Total	96.7	46.3	143.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	2.40
Aluminum-Base Metal/Alloys	2.14
Other Metal/Alloys	4.75
Other Inorganic Materials	78.92
Cellulosics	12.85
Rubber	71.68
Plastics	23.43
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	253.04
Soils	0.00
Packaging Material, Steel	141.08
Packaging Material, Plastic	25.13
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.26E+00
Np-237	1.98E-05
Pu-238	2.45E-01
Pu-239	6.06E+00
Pu-240	1.38E+00
Pu-241	1.78E+01
Pu-242	1.69E-04
Th-229	4.18E-13
Th-230	1.90E-08
Th-232	1.46E-16
U-233	8.13E-10
U-234	1.81E-04
U-235	5.66E-06
U-236	4.92E-07
U-238	5.48E-06

Waste Stream Description

This waste consists of rags, paper, cloth, coveralls, plastic, rubber, and wood. The waste consists mainly of cloth and paper products from cleanup of gloveboxes and spills. The bulk of these wastes are packaged in 55-gallon drums with one rigid polyethylene liner and several bag liners. In addition, the waste may be packaged in DOT 7A Type A metal boxes which are lined with a fiberboard liner and a PVC liner or standard TRUPACT-II container. The containers are then assayed and transferred to interim status storage areas. These wastes have been shipped to the INEL for storage in the past. RF-330, 356, 337, 821, 822, 853, 831, 832, 833. Predominantly combustible debris.

Management Comments

This waste is stored in 55 gallon carbon steel drums with one rigid polyethylene liner and several bag liners and standard metal boxes.

Waste Stream ID: **RF-MT0833**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W012	Stream Name	Combustibles/TRM			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
1/2 Wood Box	1.6	0.0	1.6	
Drum / 55 gallon	45.3	33.9	79.2	
Standard Waste Box	1.9	0.0	1.9	
As-Generated Total		48.8	33.9	82.7

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
55 Gallon Drum	45.4	34.0	79.4	
Standard Waste Box	3.8	0.0	3.8	
Final Form Total		49.2	34.0	83.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	2.75
Aluminum-Base Metal/Alloys	2.28
Other Metal/Alloys	6.90
Other Inorganic Materials	7.20
Cellulosics	12.50
Rubber	5.01
Plastics	111.52
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	3.65
Soils	0.00
Packaging Material, Steel	139.14
Packaging Material, Plastic	28.97
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.11E+00
Np-237	9.93E-06
Pu-238	1.17E-01
Pu-239	2.82E+00
Pu-240	6.46E-01
Pu-241	8.62E+00
Pu-242	8.41E-05
Th-229	2.11E-13
Th-230	8.43E-09
Th-232	6.81E-17
U-233	4.09E-10
U-234	8.02E-05
U-235	2.52E-06
U-236	2.30E-07
U-238	3.47E-06

Waste Stream Description

This waste consists of rags, paper, cloth, coveralls, plastic, rubber, and wood. The waste consists mainly of cloth and paper products from cleanup of gloveboxes and spills. The bulk of these wastes are packaged in 55-gallon drums with one rigid polyethylene liner and several bag liners. In addition, the waste may be packaged in DOT 7A Type A metal boxes which are lined with a fiberboard liner and a PVC liner or standard TRUPACT-II container. The containers are then assayed and transferred to interim status storage areas. These wastes have been shipped to the INEL for storage in the past. RF-330, 356, 337, 821, 822, 853, 831, 832, 833. Predominantly combustible debris.

Management Comments

This waste is stored in 55 gallon carbon steel drums with one rigid polyethylene liner and several bag liners and standard metal boxes.

Waste Stream ID: **RF-MT0855**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W032	Stream Name	Ground glass/TRM			Inventory Date	9/30/2002
Local ID	IDC 444, 855	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8802 Can	0.0	0.0	0.0
Drum / 55 gallon	1.5	0.0	1.5
As-Generated Total	1.5	0.0	1.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.7	0.0	1.7
Final Form Total	1.7	0.0	1.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	10.50
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	59.19
Cellulosics	0.00
Rubber	0.00
Plastics	12.89
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.43
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.52E-03
Np-237	1.61E-08
Pu-238	3.79E-03
Pu-239	8.86E-02
Pu-240	2.03E-02
Pu-241	2.91E-01
Pu-242	2.57E-06
Th-229	8.47E-17
Th-230	7.41E-12
Th-232	2.14E-18
U-233	2.92E-13
U-234	1.35E-07
U-235	1.05E-09
U-236	7.22E-09
U-238	4.65E-15

Waste Stream Description

Matrix consists of crushed glass light bulbs.

Management Comments

The glass waste is packaged in 55- gallon drums that are lined with one fiberboard liner and two polyethylene bags or metal boxes. Drums are placed in TRUPACT II containers.

Waste Stream ID: **RF-MT0857**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W097	Stream Name	Solidified Process Solids/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Waste Treatment

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total			0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total			0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	57.28
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	34.37
Cellulosics	0.00
Rubber	0.00
Plastics	17.18
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.43
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.34E+00
Np-237	1.89E-05
Pu-238	8.34E-01
Pu-239	3.54E+01
Pu-240	8.03E+00
Pu-241	4.53E+01
Pu-242	4.91E-04
Th-229	1.73E-13
Th-230	1.63E-09
Th-232	8.48E-16
U-233	4.72E-10
U-234	2.98E-05
U-235	4.19E-07
U-236	2.86E-06
U-238	8.88E-13

Waste Stream Description

Dried sludge from the vitrification of radioactive waste.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT0H61**

Appendix J

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W076	Stream Name	Process Residues/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
POC / 55 gallon	7.5	0.0	7.5
As-Generated Total	7.7	0.0	7.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
55 Gallon POCs	7.5	0.0	7.5
Final Form Total	7.7	0.0	7.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	19.44
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	23.87
Other Inorganic Materials	92.37
Cellulosics	12.89
Rubber	0.00
Plastics	15.87
Solidified, Inorganic Matrix	80.40
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	514.79
Packaging Material, Plastic	24.02
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.34E+00
Np-237	1.89E-05
Pu-238	8.34E-01
Pu-239	3.54E+01
Pu-240	8.03E+00
Pu-241	4.53E+01
Pu-242	4.91E-04
Th-229	1.73E-13
Th-230	1.63E-09
Th-232	8.48E-16
U-233	4.72E-10
U-234	2.98E-05
U-235	4.19E-07
U-236	2.86E-06
U-238	8.88E-13

Waste Stream Description

This waste consists of plutonium oxide removed from ductwork. The material includes both dry particulates and moist sludges with graphite and varying concentrations of plutonium.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT2116**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W096	Stream Name	Compressed Combustibles/TRM			Inventory Date	9/30/2002
Local ID	2116	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Pollution Control or Waste Treatment Process

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	2.1	0.0	2.1
As-Generated Total	2.1	0.0	2.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.1	0.0	2.1
Final Form Total	2.1	0.0	2.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	2.97
Aluminum-Base Metal/Alloys	0.78
Other Metal/Alloys	2.84
Other Inorganic Materials	7.27
Cellulosics	12.83
Rubber	43.41
Plastics	136.75
Solidified, Inorganic Matrix	2.77
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	13.80
Soils	0.00
Packaging Material, Steel	138.49
Packaging Material, Plastic	28.24
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.26E+00
Np-237	1.98E-05
Pu-238	2.45E-01
Pu-239	6.06E+00
Pu-240	1.38E+00
Pu-241	1.78E+01
Pu-242	1.69E-04
Th-229	4.18E-13
Th-230	1.90E-08
Th-232	1.46E-16
U-233	8.13E-10
U-234	1.81E-04
U-235	5.66E-06
U-236	4.92E-07
U-238	5.48E-06

Waste Stream Description

Cloth, paper, cellulosic, and plastic debris material generated from plutonium operations/activities with assigned EPA Hazardous Waste Numbers F001 and F002. Combustible waste consisting of any combination of dry combustibles (IDC 831), wet combustibles (IDC 832) and plastic wastes (IDC833) packed in a 35-gallon drum that was slightly compressed prior to being packed into a 55-gallon drum. This waste was previously referred to as "supercompacted" but in reality is compressed waste.

Management Comments

Required prior EPA approval. Drums of compressed debris were determined to be equivalent to the uncompressed portion of the debris streams that are currently approved by EPA for disposal from the Rocky Flats Environmental Technology Site (RFETS), as referenced in the March 9, 2005 letter from Bonnie C. Gitlin to Dr. Ines Triay.

Waste Stream ID: **RF-MT3010**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W011	Stream Name	Metal/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Decontamination and Decommissioning

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	1.0	12.1	13.1
Standard Waste Box	9.5	9.5	19.0
As-Generated Total	10.5	21.6	32.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.0	12.1	13.1
Standard Waste Box	9.4	9.4	18.9
Final Form Total	10.5	21.5	32.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	243.11
Aluminum-Base Metal/Alloys	12.54
Other Metal/Alloys	12.58
Other Inorganic Materials	15.80
Cellulosics	7.82
Rubber	5.94
Plastics	18.62
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	146.85
Packaging Material, Plastic	16.52
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.26E-01
Np-237	7.07E-06
Pu-238	9.49E-02
Pu-239	2.25E+00
Pu-240	5.15E-01
Pu-241	7.13E+00
Pu-242	6.27E-05
Th-229	1.78E-13
Th-230	9.45E-10
Th-232	5.43E-17
U-233	3.29E-10
U-234	1.04E-05
U-235	2.53E-07
U-236	1.83E-07
U-238	9.27E-09

Waste Stream Description

"This IDC is assigned to composite debris, rubble, or material composed of such things as gloveboxes, process equipment and other inorganic materials, such as concrete, glass, firebrick, ceramics, asbestos, etc. The materials contain up to 10 weight percent hydrogenous (organic) material such as cellulosics, Plexiglas, rubber, small quantities of nonhazardous liquid (e.g., Texaco 650 oil) absorbed or solidified using Oil Dri or Nochar polymer, or other organic materials associated with the waste items."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT3011**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W011	Stream Name	Metal/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5490
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	2.7	0.8	3.5
POC / 55 gallon	0.2	0.0	0.2
Standard Waste Box	212.8	136.8	349.6
As-Generated Total		215.7	137.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.7	0.8	3.5
55 Gallon POCs	0.2	0.0	0.2
Standard Waste Box	211.7	136.1	347.8
Final Form Total		214.6	136.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	201.22
Aluminum-Base Metal/Alloys	7.12
Other Metal/Alloys	69.29
Other Inorganic Materials	36.28
Cellulosics	4.40
Rubber	4.22
Plastics	29.66
Solidified, Inorganic Matrix	4.73
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	16.23
Soils	0.00
Packaging Material, Steel	152.68
Packaging Material, Plastic	5.18
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.82E-01
Np-237	8.11E-06
Pu-238	6.55E-02
Pu-239	1.53E+00
Pu-240	3.51E-01
Pu-241	5.04E+00
Pu-242	4.44E-05
Th-229	2.11E-13
Th-230	1.80E-09
Th-232	3.70E-17
U-233	3.85E-10
U-234	1.78E-05
U-235	5.21E-07
U-236	1.25E-07
U-238	3.87E-07

Waste Stream Description

"This IDC is assigned to composite debris, rubble, or material composed of such things as gloveboxes, process equipment and other inorganic materials, such as concrete, glass, firebrick, ceramics, asbestos, etc. This material typically contains greater than 10 weight percent hydrogenous (organic) material such as cellulosics, plastic, Plexiglas, rubber, small quantities of nonhazardous liquid (e.g., Texaco 650 oil) absorbed or solidified using Oil Dri or Nochar polymer, or other organic materials associated with the waste items; however, there is no upper limit for the amount of hydrogenous material. "

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT420P**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W040	Stream Name	Incinerator Ash/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Can / 6-Liter	0.0	0.0	0.0
Drum / 30 gallon	0.2	0.0	0.2
POC / 55 gallon	160.2	0.0	160.2
As-Generated Total	160.4	0.0	160.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
30 Gallon Drum	0.2	0.0	0.2
55 Gallon POCs	160.7	0.0	160.7
Final Form Total	160.9	0.0	160.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	11.32
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	8.49
Other Inorganic Materials	11.20
Cellulosics	167.07
Rubber	0.00
Plastics	1.69
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	524.67
Packaging Material, Plastic	23.88
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.46E+00
Np-237	2.88E-05
Pu-238	1.04E+00
Pu-239	3.94E+01
Pu-240	9.02E+00
Pu-241	5.16E+01
Pu-242	6.87E-04
Th-229	3.04E-13
Th-230	8.74E-09
Th-232	9.52E-16
U-233	7.74E-10
U-234	9.92E-05
U-235	2.47E-06
U-236	3.21E-06
U-238	1.77E-08

Waste Stream Description

"Blended incinerator ash consists in all or part of the following IDCs: pulverized incinerator ash (IDC 420), ash heel (IDC 421), soot (IDC 422), , and ash selected for MMEC (IDC 428). These IDCs are blended together to adjust plutonium content and container fill height. When low plutonium content feedstock for blending is unavailable, a surrogate material may be used."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT532A**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W068	Stream Name	Particulate Sludge/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Waste Repackaging

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	0.0	18.3	18.3
As-Generated Total	0.0	18.3	18.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	0.0	18.3	18.3
Final Form Total	0.0	18.3	18.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	19.44
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	23.87
Other Inorganic Materials	92.37
Cellulosics	12.89
Rubber	0.00
Plastics	15.87
Solidified, Inorganic Matrix	80.40
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.56E+00
Np-237	2.18E-04
Pu-238	6.12E-01
Pu-239	1.47E+01
Pu-240	3.35E+00
Pu-241	4.68E+01
Pu-242	4.88E-04
Th-229	5.74E-12
Th-230	8.83E-09
Th-232	3.53E-16
U-233	1.05E-08
U-234	9.27E-05
U-235	2.78E-06
U-236	1.19E-06
U-238	4.60E-05

Waste Stream Description

"Downblended oxides, less than 10 percent, contains uranium consists of plutonium and uranium oxides blended with surrogate materials to less than 10 percent plutonium/uranium concentration. Material is particulate ranging in size from finely divided powder to granular. "

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT532B**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W068	Stream Name	Particulate Sludge/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Waste Repackaging

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	0.0	82.2	82.2
As-Generated Total		0.0	82.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	0.0	82.2	82.2
Final Form Total		0.0	82.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	19.44
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	23.87
Other Inorganic Materials	92.37
Cellulosics	12.89
Rubber	0.00
Plastics	15.87
Solidified, Inorganic Matrix	80.40
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.56E+00
Np-237	2.18E-04
Pu-238	6.12E-01
Pu-239	1.47E+01
Pu-240	3.35E+00
Pu-241	4.68E+01
Pu-242	4.88E-04
Th-229	5.74E-12
Th-230	8.83E-09
Th-232	3.53E-16
U-233	1.05E-08
U-234	9.27E-05
U-235	2.78E-06
U-236	1.19E-06
U-238	4.60E-05

Waste Stream Description

"Downblended oxides, less than 10 percent, may contain moisture consists of plutonium oxides blended with surrogate materials to absorb free liquids and dilute plutonium concentration to less than 10 percent. Material is particulate ranging in size from finely divided powder to granular. "

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT532C**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W068	Stream Name	Particulate Sludge/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Waste Repackaging

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	0.0	164.7	164.7
As-Generated Total	0.0	164.7	164.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	0.0	164.7	164.7
Final Form Total	0.0	164.7	164.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	19.44
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	23.87
Other Inorganic Materials	92.37
Cellulosics	12.89
Rubber	0.00
Plastics	15.87
Solidified, Inorganic Matrix	80.40
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.56E+00
Np-237	2.18E-04
Pu-238	6.12E-01
Pu-239	1.47E+01
Pu-240	3.35E+00
Pu-241	4.68E+01
Pu-242	4.88E-04
Th-229	5.74E-12
Th-230	8.83E-09
Th-232	3.53E-16
U-233	1.05E-08
U-234	9.27E-05
U-235	2.78E-06
U-236	1.19E-06
U-238	4.60E-05

Waste Stream Description

"Downblended miscellaneous oxides, less than 10 percent consists of plutonium and uranium oxides blended with surrogate materials to dilute plutonium/uranium concentration to less than 10 percent. Material is particulate ranging in size from finely divided powder to granular. "

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-MT532D**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W068	Stream Name	Particulate Sludge/TRM			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Waste Repackaging

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 gallon POCs	0.0	1.0	1.0
As-Generated Total	0.0	1.0	1.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	0.0	1.0	1.0
Final Form Total	0.0	1.0	1.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	19.44
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	23.87
Other Inorganic Materials	92.37
Cellulosics	12.89
Rubber	0.00
Plastics	15.87
Solidified, Inorganic Matrix	80.40
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.56E+00
Np-237	2.18E-04
Pu-238	6.12E-01
Pu-239	1.47E+01
Pu-240	3.35E+00
Pu-241	4.68E+01
Pu-242	4.88E-04
Th-229	5.74E-12
Th-230	8.83E-09
Th-232	3.53E-16
U-233	1.05E-08
U-234	9.27E-05
U-235	2.78E-06
U-236	1.19E-06
U-238	4.60E-05

Waste Stream Description

N/A

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0069**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W123	Stream Name	Oxides/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Decontamination and Decommissioning

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	8.59
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	47.73
Other Inorganic Materials	0.00
Cellulosics	12.89
Rubber	0.00
Plastics	1.91
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.57
Packaging Material, Plastic	32.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.12E-01
Np-237	1.79E-05
Pu-238	7.64E-02
Pu-239	1.79E+00
Pu-240	4.09E-01
Pu-241	5.88E+00
Pu-242	5.18E-05
Th-229	4.94E-13
Th-230	3.82E-08
Th-232	4.32E-17
U-233	8.90E-10
U-234	3.56E-04
U-235	4.07E-05
U-236	1.46E-07
U-238	3.16E-03

Waste Stream Description

Depleted uranium oxide from decontamination and decommissioning of Buildings 776 and 777.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0200**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W109	Stream Name	Metal/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Multiple Sources.

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	35.32
Other Inorganic Materials	0.00
Cellulosics	12.89
Rubber	0.00
Plastics	0.96
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.57
Packaging Material, Plastic	32.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.14E+00
Np-237	3.61E-05
Pu-238	1.03E+00
Pu-239	2.45E+01
Pu-240	5.63E+00
Pu-241	7.55E+01
Pu-242	6.90E-04
Th-229	5.57E-13
Th-230	2.20E-09
Th-232	5.94E-16
U-233	1.20E-09
U-234	3.84E-05
U-235	3.47E-07
U-236	2.00E-06
U-238	5.02E-10

Waste Stream Description

"Radiological standards including enriched and depleted uranium, americium, and plutonium used for calibration of instrumentation."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0299**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-TT0299	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total			0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total			0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	7.16
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	8.59
Solidified, Inorganic Matrix	10.50
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.43
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.06E+02
Np-237	3.97E-04
Pu-238	5.71E+00
Pu-239	1.34E+02
Pu-240	3.06E+01
Pu-241	4.40E+02
Pu-242	3.87E-03
Th-229	3.77E-12
Th-230	1.12E-08
Th-232	3.23E-15
U-233	1.01E-08
U-234	2.04E-04
U-235	1.58E-06
U-236	1.09E-05
U-238	1.22E-04

Waste Stream Description

N/A

Management Comments

Waste Stream currently exists in the TWBIR as a residue, (i.e., RF-TRXXXX), but is being revised to transuranic, (i.e., RF-TTXXXX).

Waste Stream ID: **RF-TT0300**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W117	Stream Name	Coarse Graphite/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Graphite	Waste Matrix Code	S5126
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Drum / 10 gallon	0.0	0.0	0.0
Drum / 55 gallon	30.2	1.2	31.4
POC / 55 gallon	10.0	0.0	10.0
As-Generated Total	40.2	1.2	41.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	30.4	1.3	31.7
55 Gallon POCs	10.0	0.0	10.0
Final Form Total	40.4	1.3	41.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	2.75
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	292.83
Cellulosics	12.49
Rubber	0.00
Plastics	22.13
Solidified, Inorganic Matrix	18.57
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	231.27
Packaging Material, Plastic	25.68
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.98E+00
Np-237	1.94E-05
Pu-238	7.88E-01
Pu-239	1.86E+01
Pu-240	4.28E+00
Pu-241	5.18E+01
Pu-242	4.56E-04
Th-229	3.73E-13
Th-230	2.25E-08
Th-232	4.51E-16
U-233	7.44E-10
U-234	2.22E-04
U-235	6.48E-06
U-236	1.52E-06
U-238	3.67E-06

Waste Stream Description

This waste form includes graphite chunks and coarse graphite .

Management Comments

N/A

Waste Stream ID: **RF-TT0301**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W117	Stream Name	Coarse Graphite/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Graphite	Waste Matrix Code	S5126
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Drum / 55 gallon	5.8	0.0	5.8
As-Generated Total	5.8	0.0	5.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	5.8	0.0	5.8
Final Form Total	5.8	0.0	5.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	2.75
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	292.83
Cellulosics	12.49
Rubber	0.00
Plastics	22.13
Solidified, Inorganic Matrix	18.57
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.44
Packaging Material, Plastic	26.25
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.98E+00
Np-237	1.94E-05
Pu-238	7.88E-01
Pu-239	1.86E+01
Pu-240	4.28E+00
Pu-241	5.18E+01
Pu-242	4.56E-04
Th-229	3.73E-13
Th-230	2.25E-08
Th-232	4.51E-16
U-233	7.44E-10
U-234	2.22E-04
U-235	6.48E-06
U-236	1.52E-06
U-238	3.67E-06

Waste Stream Description

This waste form includes graphite chunks and coarse graphite .

Management Comments

N/A

Waste Stream ID: **RF-TT0302**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W101	Stream Name	Combustibles/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5313
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	7.7	1.0	8.7
As-Generated Total	7.7	1.0	8.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	7.7	1.0	8.8
Final Form Total	7.7	1.0	8.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	5.28
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	12.89
Rubber	0.00
Plastics	193.70
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.44
Packaging Material, Plastic	25.78
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.46E-02
Np-237	6.33E-07
Pu-238	1.69E-02
Pu-239	4.30E-01
Pu-240	9.85E-02
Pu-241	1.28E+00
Pu-242	1.12E-05
Th-229	1.21E-14
Th-230	4.38E-09
Th-232	1.04E-17
U-233	2.42E-11
U-234	4.09E-05
U-235	1.30E-06
U-236	3.51E-08
U-238	1.15E-08

Waste Stream Description

This waste consists of Benelex shielding and Plexiglass glovebox windows.

Management Comments

N/A

Waste Stream ID: **RF-TT0303**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W117	Stream Name	Coarse Graphite/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Graphite	Waste Matrix Code	S5126
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	1.2	0.0	1.2
As-Generated Total	1.2	0.0	1.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.3	0.0	1.3
Final Form Total	1.3	0.0	1.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	447.75
Cellulosics	0.00
Rubber	0.00
Plastics	12.89
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.43
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.55E+00
Np-237	5.42E-05
Pu-238	7.80E-01
Pu-239	1.83E+01
Pu-240	4.18E+00
Pu-241	6.01E+01
Pu-242	5.29E-04
Th-229	1.27E-12
Th-230	9.12E-08
Th-232	4.41E-16
U-233	2.40E-09
U-234	8.59E-04
U-235	2.70E-05
U-236	1.49E-06
U-238	2.21E-05

Waste Stream Description

This waste form includes graphite chunks and coarse graphite .

Management Comments

N/A

Waste Stream ID: **RF-TT0310**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-TT0310	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5126
				Activity Concentrations Decayed to CY		2002	

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.4	0.0	0.4
POC / 55 gallon	2.7	0.0	2.7
As-Generated Total	3.1	0.0	3.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
55 Gallon POCs	2.7	0.0	2.7
Final Form Total	3.1	0.0	3.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	7.51
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	14.85
Cellulosics	136.23
Rubber	0.00
Plastics	3.03
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	405.55
Packaging Material, Plastic	27.11
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.00E+00
Np-237	3.86E-05
Pu-238	1.47E+00
Pu-239	3.29E+01
Pu-240	7.76E+00
Pu-241	8.79E+01
Pu-242	8.34E-04
Th-229	7.24E-13
Th-230	9.28E-09
Th-232	8.19E-16
U-233	1.46E-09
U-234	1.12E-04
U-235	2.30E-06
U-236	2.76E-06
U-238	1.69E-08

Waste Stream Description

N/A

Management Comments

Waste Stream currently exists in the TWBIR as a residue, (i.e., RF-TRXXXX), but is being revised to transuranic, (i.e., RF-TTXXXX).

Waste Stream ID: **RF-TT0312**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W117	Stream Name	Coarse Graphite/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Graphite	Waste Matrix Code	S5126
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Drum / 55 gallon	3.7	0.0	3.7
POC / 55 gallon	54.1	0.0	54.1
As-Generated Total	57.8	0.0	57.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	3.8	0.0	3.8
55 Gallon POCs	54.2	0.0	54.2
Final Form Total	57.9	0.0	57.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	15.99
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	36.55
Cellulosics	164.93
Rubber	0.00
Plastics	26.75
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	436.60
Packaging Material, Plastic	25.63
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.23E+00
Np-237	3.52E-05
Pu-238	1.43E+00
Pu-239	3.88E+01
Pu-240	8.80E+00
Pu-241	9.99E+01
Pu-242	9.17E-04
Th-229	4.63E-13
Th-230	6.08E-09
Th-232	9.28E-16
U-233	1.06E-09
U-234	8.15E-05
U-235	1.44E-06
U-236	3.13E-06
U-238	2.18E-07

Waste Stream Description

This waste form includes graphite chunks and coarse graphite .

Management Comments

N/A

Waste Stream ID: **RF-TT0317**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W113	Stream Name	Glass/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Residue Vitrification Study

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	57.28
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	34.37
Cellulosics	0.00
Rubber	0.00
Plastics	17.18
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.43
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.98E-01
Np-237	2.00E-06
Pu-238	4.31E-01
Pu-239	1.01E+01
Pu-240	2.31E+00
Pu-241	3.32E+01
Pu-242	2.93E-04
Th-229	1.12E-14
Th-230	8.44E-10
Th-232	2.44E-16
U-233	3.75E-11
U-234	1.54E-05
U-235	1.20E-07
U-236	8.23E-07
U-238	5.30E-13

Waste Stream Description

Monoliths created from the vitrification of ash residues and glass frit.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0320**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W111	Stream Name	Heavy Metal (non-SS)/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8802 Can	0.0	0.0	0.0
8804 Can	0.0	0.0	0.0
Drum / 55 gallon	21.4	2.9	24.3
As-Generated Total	21.4	2.9	24.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	21.9	2.9	24.8
Final Form Total	21.9	2.9	24.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	41.91
Aluminum-Base Metal/Alloys	4.77
Other Metal/Alloys	126.66
Other Inorganic Materials	38.31
Cellulosics	29.91
Rubber	0.00
Plastics	19.94
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.47
Packaging Material, Plastic	27.94
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.14E+00
Np-237	3.61E-05
Pu-238	1.03E+00
Pu-239	2.45E+01
Pu-240	5.63E+00
Pu-241	7.55E+01
Pu-242	6.90E-04
Th-229	5.57E-13
Th-230	2.20E-09
Th-232	5.94E-16
U-233	1.20E-09
U-234	3.84E-05
U-235	3.47E-07
U-236	2.00E-06
U-238	5.02E-10

Waste Stream Description

Typically, these scrap metals consist of crucibles, funnels, rods and fixturing from several processes and production operations. Tantalum, tungsten and platinum are examples of scrap metals at the RFP.

Management Comments

N/A

Waste Stream ID: **RF-TT0330**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W101	Stream Name	Combustibles/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	13.1	1.9	15.0
As-Generated Total	13.1	1.9	15.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	13.1	1.9	15.0
Final Form Total	13.1	1.9	15.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	8.97
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	37.23
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.52
Packaging Material, Plastic	22.72
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.36E+00
Np-237	2.38E-05
Pu-238	5.83E-01
Pu-239	2.53E+01
Pu-240	6.22E+00
Pu-241	3.85E+01
Pu-242	4.28E-04
Th-229	3.87E-13
Th-230	1.14E-09
Th-232	6.56E-16
U-233	8.22E-10
U-234	2.08E-05
U-235	2.99E-07
U-236	2.21E-06
U-238	7.74E-13

Waste Stream Description

This waste consists mainly of cloth and paper products from cleanup of gloveboxes and spills.

Management Comments

N/A

Waste Stream ID: **RF-TT-0331**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-TT-0331	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 10 gallon	0.0	0.0	0.0
Drum / 55 gallon	63.2	3.7	67.0
As-Generated Total	63.3	3.7	67.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	63.6	3.8	67.3
Final Form Total	63.6	3.8	67.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	115.41
Aluminum-Base Metal/Alloys	119.34
Other Metal/Alloys	0.00
Other Inorganic Materials	36.78
Cellulosics	12.89
Rubber	0.00
Plastics	91.22
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	3.66
Soils	0.00
Packaging Material, Steel	138.54
Packaging Material, Plastic	31.45
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.23E+00
Np-237	2.87E-05
Pu-238	7.21E-01
Pu-239	2.20E+01
Pu-240	4.93E+00
Pu-241	4.44E+01
Pu-242	5.17E-04
Th-229	4.68E-13
Th-230	9.24E-08
Th-232	5.20E-16
U-233	9.92E-10
U-234	8.68E-04
U-235	2.74E-05
U-236	1.75E-06
U-238	5.59E-07

Waste Stream Description

N/A

Management Comments

Waste Stream currently exists in the TWBIR as a residue, (i.e., RF-TRXXXX), but is being revised to transuranic, (i.e., RF-TTXXXX).

Waste Stream ID: **RF-TT-0334**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-TT-0334	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8804 Can	0.0	0.0	0.0
Drum / 55 gallon	2.3	1.0	3.3
As-Generated Total	2.3	1.0	3.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.5	1.0	3.5
Final Form Total	2.5	1.0	3.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	2.36
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.57
Packaging Material, Plastic	32.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.12E+01
Np-237	8.01E-05
Pu-238	8.88E+00
Pu-239	2.08E+02
Pu-240	4.76E+01
Pu-241	6.83E+02
Pu-242	6.02E-03
Th-229	1.16E-12
Th-230	1.74E-08
Th-232	5.02E-15
U-233	2.52E-09
U-234	3.17E-04
U-235	2.46E-06
U-236	1.69E-05
U-238	1.09E-11

Waste Stream Description

N/A

Management Comments

Waste Stream currently exists in the TWBIR as a residue, (i.e., RF-TRXXXX), but is being revised to transuranic, (i.e., RF-TTXXXX).

Waste Stream ID: **RF-TT0335**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W120	Stream Name	Filters & media/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Drum / 55 gallon	50.8	27.7	78.4
Standard Waste Box	1.9	0.0	1.9
As-Generated Total	52.7	27.7	80.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	50.9	27.7	78.6
Standard Waste Box	1.9	0.0	1.9
Final Form Total	52.8	27.7	80.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	11.02
Aluminum-Base Metal/Alloys	9.08
Other Metal/Alloys	0.00
Other Inorganic Materials	5.39
Cellulosics	12.63
Rubber	8.24
Plastics	17.31
Solidified, Inorganic Matrix	2.27
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.47
Packaging Material, Steel	138.81
Packaging Material, Plastic	27.69
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.63E+00
Np-237	1.87E-05
Pu-238	2.84E-01
Pu-239	7.47E+00
Pu-240	1.72E+00
Pu-241	1.94E+01
Pu-242	1.82E-04
Th-229	4.33E-13
Th-230	7.07E-08
Th-232	1.81E-16
U-233	8.18E-10
U-234	6.60E-04
U-235	2.03E-05
U-236	6.10E-07
U-238	1.86E-06

Waste Stream Description

Glovebox HEPA filters.

Management Comments

N/A

Waste Stream ID: **RF-TT0336**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W101	Stream Name	Combustibles/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 10 gallon	0.0	0.0	0.0
Drum / 55 gallon	18.9	2.1	21.0
Slip Lid Can	0.0	0.0	0.0
As-Generated Total	19.0	2.1	21.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	19.4	2.1	21.5
Final Form Total	19.4	2.1	21.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1.59
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	17.72
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.55
Packaging Material, Plastic	29.67
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.22E+00
Np-237	2.62E-05
Pu-238	1.10E+00
Pu-239	3.09E+01
Pu-240	7.04E+00
Pu-241	6.65E+01
Pu-242	8.20E-04
Th-229	2.58E-13
Th-230	1.59E-08
Th-232	7.43E-16
U-233	6.77E-10
U-234	1.67E-04
U-235	4.47E-06
U-236	2.51E-06
U-238	3.63E-08

Waste Stream Description

This waste consists mainly of cloth and paper products from cleanup of gloveboxes and spills.

Management Comments

N/A

Waste Stream ID: **RF-TT0337**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W101	Stream Name	Combustibles/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	39.5	2.7	42.2
Standard Waste Box	3.8	0.0	3.8
As-Generated Total	43.3	2.7	46.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	39.6	2.7	42.3
Standard Waste Box	3.8	0.0	3.8
Final Form Total	43.4	2.7	46.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1.85
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	10.50
Cellulosics	0.00
Rubber	0.00
Plastics	120.69
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	139.71
Packaging Material, Plastic	29.83
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.34E+00
Np-237	1.61E-05
Pu-238	6.18E-01
Pu-239	1.93E+01
Pu-240	4.34E+00
Pu-241	3.32E+01
Pu-242	4.13E-04
Th-229	1.61E-13
Th-230	3.10E-08
Th-232	4.58E-16
U-233	4.20E-10
U-234	2.98E-04
U-235	9.11E-06
U-236	1.55E-06
U-238	7.86E-08

Waste Stream Description

This waste consists mainly of cloth and paper products from cleanup of gloveboxes and spills.

Management Comments

N/A

Waste Stream ID: **RF-TT0338**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W120	Stream Name	Filters & media/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8802 Can	0.0	0.0	0.0
Drum / 55 gallon	117.1	16.8	134.0
As-Generated Total	117.1	16.8	134.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	117.6	16.9	134.5
Final Form Total	117.6	16.9	134.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	35.72
Aluminum-Base Metal/Alloys	13.67
Other Metal/Alloys	0.48
Other Inorganic Materials	16.43
Cellulosics	12.89
Rubber	9.07
Plastics	12.27
Solidified, Inorganic Matrix	0.48
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.55
Packaging Material, Plastic	31.05
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.82E+00
Np-237	3.64E-05
Pu-238	7.17E-01
Pu-239	2.41E+01
Pu-240	5.43E+00
Pu-241	4.75E+01
Pu-242	5.09E-04
Th-229	6.50E-13
Th-230	7.20E-09
Th-232	5.73E-16
U-233	1.33E-09
U-234	7.94E-05
U-235	3.71E-06
U-236	1.94E-06
U-238	2.13E-07

Waste Stream Description

This material consists of pieces ranging in size from 20" x 20" x 4" to 2" x 2" square pieces. These pieces are composed of glass fibers with a small percentage of asbestos. An organic binder, elastomeric adhesive, or polyurethane sealant was used during construction. The pieces also contain corrugated aluminum foil. The newer media consist of glass and aromatic polyamide fibers (Nomex) and aluminum alloy metal coated with a thermoset vinyl or epoxy. Various sealants could be present. The material is not homogenous because of the different materials used and the different manufacturers of the filters. IDC 338 could also contain R-4 filters pads from the dicesium hexachloraplutonate (DCHP) process. The pads are about 12-inch diameter cloth filters.

Management Comments

N/A

Waste Stream ID: **RF-TT0340**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W104	Stream Name	Particulate Sludge/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Recovery/Waste Repackaging/Decontamination and Decommissioni

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.4	0.0	0.4
POC / 55 gallon	6.9	0.0	6.9
As-Generated Total	7.3	0.0	7.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
55 Gallon POCs	6.9	0.0	6.9
Final Form Total	7.3	0.0	7.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	7.16
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	8.59
Solidified, Inorganic Matrix	10.50
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	503.12
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.73E-01
Np-237	1.23E-06
Pu-238	2.88E-01
Pu-239	6.75E+00
Pu-240	1.54E+00
Pu-241	2.22E+01
Pu-242	1.96E-04
Th-229	6.45E-15
Th-230	5.64E-10
Th-232	1.63E-16
U-233	2.23E-11
U-234	1.03E-05
U-235	7.99E-08
U-236	5.50E-07
U-238	3.54E-13

Waste Stream Description

This waste form consists of sludge from washing leaded gloves and metal in Size Reduction Process.

Management Comments

Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX or RF-MTXXXX), but is being re-characterized as non-mixed waste.

Waste Stream ID: **RF-TT0342**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-TT0342	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	17.7	2.1	19.8
As-Generated Total	17.7	2.1	19.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	17.7	2.1	19.8
Final Form Total	17.7	2.1	19.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	7.47
Aluminum-Base Metal/Alloys	12.86
Other Metal/Alloys	4.30
Other Inorganic Materials	7.58
Cellulosics	12.62
Rubber	9.61
Plastics	24.64
Solidified, Inorganic Matrix	1.67
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	8.59
Soils	0.00
Packaging Material, Steel	138.46
Packaging Material, Plastic	26.15
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.94E+00
Np-237	2.68E-05
Pu-238	4.73E-01
Pu-239	1.31E+01
Pu-240	2.94E+00
Pu-241	2.94E+01
Pu-242	2.75E-04
Th-229	6.52E-13
Th-230	1.61E-08
Th-232	3.11E-16
U-233	1.21E-09
U-234	1.57E-04
U-235	4.68E-06
U-236	1.05E-06
U-238	2.77E-06

Waste Stream Description

N/A

Management Comments

Waste Stream currently exists in the TWBIR as a residue, (i.e., RF-TRXXXX), but is being revised to transuranic, (i.e., RF-TTXXXX).

Waste Stream ID: **RF-TT0360**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W114	Stream Name	Mg Oxide Crucibles/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Pyrochemistry Research.

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.6	0.0	0.6
As-Generated Total		0.6	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total		0.6	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	6.70
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	90.70
Other Inorganic Materials	113.57
Cellulosics	102.83
Rubber	0.00
Plastics	36.16
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	25.44
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.84E+00
Np-237	7.50E-05
Pu-238	8.52E-01
Pu-239	2.08E+01
Pu-240	4.82E+00
Pu-241	6.16E+01
Pu-242	5.71E-04
Th-229	1.78E-12
Th-230	2.76E-09
Th-232	5.09E-16
U-233	3.34E-09
U-234	4.06E-05
U-235	5.73E-07
U-236	1.72E-06
U-238	2.89E-09

Waste Stream Description

Aluminum oxide crucibles and irregularly shaped crucible pieces from pyrochemistry research. May include pyrochemical salts.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0368**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-TT0368	Stream Name	Mg Oxide Crucibles/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
8804 Can	0.0	0.0	0.0
Can / 6-Liter	0.0	0.0	0.0
Drum / 55 gallon	3.5	0.0	3.5
POC / 55 gallon	8.1	0.0	8.1
As-Generated Total	11.7	0.0	11.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	4.4	0.0	4.4
55 Gallon POCs	8.1	0.0	8.1
Final Form Total	12.5	0.0	12.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	6.70
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	90.70
Other Inorganic Materials	113.57
Cellulosics	102.83
Rubber	0.00
Plastics	36.16
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	251.04
Packaging Material, Plastic	25.44
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.84E+00
Np-237	7.50E-05
Pu-238	8.52E-01
Pu-239	2.08E+01
Pu-240	4.82E+00
Pu-241	6.16E+01
Pu-242	5.71E-04
Th-229	1.78E-12
Th-230	2.76E-09
Th-232	5.09E-16
U-233	3.34E-09
U-234	4.06E-05
U-235	5.73E-07
U-236	1.72E-06
U-238	2.89E-09

Waste Stream Description

Magnesium oxide crucibles and crucible pieces from pyrochemistry operations. Crucibles may be crushed to pass through a ¼ inch sieve. Pyrochemical salts may exist in varying amounts. This waste stream does not include LECO crucibles or crucible inserts.

Management Comments

Waste Stream currently exists in the TWBIR as a residue, (i.e., RF-TRXXXX), but is being revised to transuranic, (i.e., RF-TTXXXX).

Waste Stream ID: **RF-TT0370**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-TT0370	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	2.7	0.0	2.7
POC / 55 gallon	14.4	0.0	14.4
As-Generated Total	17.1	0.0	17.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.7	0.0	2.7
55 Gallon POCs	14.4	0.0	14.4
Final Form Total	17.1	0.0	17.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	19.78
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	51.08
Other Inorganic Materials	58.52
Cellulosics	153.05
Rubber	0.00
Plastics	7.50
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	360.42
Packaging Material, Plastic	27.39
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.19E+00
Np-237	3.00E-04
Pu-238	1.35E+00
Pu-239	3.40E+01
Pu-240	7.78E+00
Pu-241	9.60E+01
Pu-242	8.68E-04
Th-229	8.17E-12
Th-230	5.22E-08
Th-232	8.21E-16
U-233	1.48E-08
U-234	5.07E-04
U-235	1.53E-05
U-236	2.77E-06
U-238	1.32E-07

Waste Stream Description

"The crucibles are 1 inch by 1 inch to 4 inches by 3/4 inch and have a composition of an aluminum silicate-based ceramic with about one-half percent chromium. The used crucibles contain fused plutonium metal or oxide, stainless steel, and an accelerator (copper, iron, tungsten, or tin)."

Management Comments

Waste Stream currently exists in the TWBIR as a residue, (i.e., RF-TRXXXX), but is being revised to transuranic, (i.e., RF-TTXXXX).

Waste Stream ID: **RF-TT0371**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W114	Stream Name	Mg Oxide Crucibles/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.96
Aluminum-Base Metal/Alloys	1.91
Other Metal/Alloys	0.00
Other Inorganic Materials	236.28
Cellulosics	0.00
Rubber	0.00
Plastics	50.76
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.48
Packaging Material, Plastic	20.53
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.45E+01
Np-237	1.56E-04
Pu-238	2.23E+00
Pu-239	5.22E+01
Pu-240	1.19E+01
Pu-241	1.72E+02
Pu-242	1.51E-03
Th-229	3.55E-12
Th-230	1.12E-08
Th-232	1.26E-15
U-233	6.73E-09
U-234	1.43E-04
U-235	2.66E-06
U-236	4.25E-06
U-238	1.81E-08

Waste Stream Description

Firebrick consists of brick and chunks of high-density alumina ceramic material used to line the firebox of the incinerator.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0372**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W114	Stream Name	Mg Oxide Crucibles/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Materials Production

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.4	0.0	0.4
As-Generated Total			0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total			0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	4.77
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	115.80
Cellulosics	12.89
Rubber	0.00
Plastics	17.50
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.48
Packaging Material, Plastic	29.60
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.35E-01
Np-237	3.65E-06
Pu-238	2.20E-01
Pu-239	5.11E+00
Pu-240	1.17E+00
Pu-241	1.49E+01
Pu-242	1.33E-04
Th-229	6.02E-14
Th-230	1.82E-08
Th-232	1.23E-16
U-233	1.26E-10
U-234	1.72E-04
U-235	5.35E-06
U-236	4.16E-07
U-238	4.68E-08

Waste Stream Description

"Primarily iron metal or aluminum oxide shot or beads, but could include glass or ceramic beads, or walnut shells used for etching numbers in parts."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0374**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W107	Stream Name	Soil & Cleanup Debris/TRU			Inventory Date	9/30/2002
Local ID	IDC 374	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	9.2	1.0	10.2
As-Generated Total	9.2	1.0	10.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	9.2	1.0	10.2
Final Form Total	9.2	1.0	10.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	18.66
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	447.28
Cellulosics	12.89
Rubber	5.44
Plastics	18.14
Solidified, Inorganic Matrix	840.22
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	608.13
Soils	239.96
Packaging Material, Steel	138.52
Packaging Material, Plastic	31.17
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.21E-01
Np-237	1.08E-05
Pu-238	1.89E-01
Pu-239	4.42E+00
Pu-240	1.01E+00
Pu-241	1.45E+01
Pu-242	1.28E-04
Th-229	2.56E-13
Th-230	9.42E-10
Th-232	1.07E-16
U-233	4.80E-10
U-234	1.21E-05
U-235	9.98E-07
U-236	3.60E-07
U-238	5.64E-06

Waste Stream Description

This waste stream is construction rubble generated during decontamination and decommissioning activities. This waste consists of blacktop/concrete/dirt/sand. The waste is generated from construction/demolition within the plutonium process buildings. The waste is usually packed in 55-gal. drums with multiple bag liners, a fiberboard liner, and a rigid polyethylene liner. Also, the waste can be packaged in DOT 7A, Type A metal boxes which are lined with a fiberboard and PVC liner. This waste is identified by IDC 374. Inventory data include mixed residues in this IDC.

IDC 374-Construction rubble generated during decontamination and decommissioning operations.

Management Comments

N/A

Waste Stream ID: **RF-TT0375A**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W105	Stream Name	Solidified Process Solids/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3113
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Materials Production/Waste Repackaging

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.4	1.2	1.7
As-Generated Total	0.4	1.2	1.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	1.3	1.7
Final Form Total	0.4	1.3	1.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	108.12
Cellulosics	0.96
Rubber	0.00
Plastics	23.87
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.43
Packaging Material, Plastic	32.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.45E-02
Np-237	5.53E-08
Pu-238	1.16E-02
Pu-239	2.71E-01
Pu-240	6.20E-02
Pu-241	8.91E-01
Pu-242	7.85E-06
Th-229	3.18E-16
Th-230	2.27E-11
Th-232	6.54E-18
U-233	1.05E-12
U-234	4.13E-07
U-235	3.21E-09
U-236	2.21E-08
U-238	1.42E-14

Waste Stream Description

Oil-Dry used to absorb non-hazardous aqueous liquids.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0375B**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W105	Stream Name	Solidified Process Solids/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3114
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.4	1.2	1.7
As-Generated Total	0.4	1.2	1.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	1.3	1.7
Final Form Total	0.4	1.3	1.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	108.12
Cellulosics	0.96
Rubber	0.00
Plastics	23.87
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.43
Packaging Material, Plastic	32.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.45E-02
Np-237	5.53E-08
Pu-238	1.16E-02
Pu-239	2.71E-01
Pu-240	6.20E-02
Pu-241	8.91E-01
Pu-242	7.85E-06
Th-229	3.18E-16
Th-230	2.27E-11
Th-232	6.54E-18
U-233	1.05E-12
U-234	4.13E-07
U-235	3.21E-09
U-236	2.21E-08
U-238	1.42E-14

Waste Stream Description

Oil-Dry used to absorb non-hazardous organic liquids.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0376**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W121	Stream Name	Cemented filters/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	11.4	0.0	11.4
As-Generated Total	11.4	0.0	11.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	11.5	0.0	11.5
Final Form Total	11.5	0.0	11.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	2.52
Aluminum-Base Metal/Alloys	16.25
Other Metal/Alloys	172.56
Other Inorganic Materials	73.46
Cellulosics	12.68
Rubber	8.99
Plastics	13.79
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	10.26
Soils	0.00
Packaging Material, Steel	138.44
Packaging Material, Plastic	27.71
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.28E+00
Np-237	1.59E-05
Pu-238	4.57E-01
Pu-239	1.32E+01
Pu-240	3.07E+00
Pu-241	3.21E+01
Pu-242	2.98E-04
Th-229	3.10E-13
Th-230	8.72E-09
Th-232	3.24E-16
U-233	6.16E-10
U-234	8.89E-05
U-235	2.49E-06
U-236	1.09E-06
U-238	4.49E-06

Waste Stream Description

Processed filter media, IDC 376, is material which has been treated using Portland cement to absorb moisture and neutralize acid contamination. Filter waste is packaged in 55-gallon drums and metal standard waste boxes. Inventory data include residues within the same IDCs because they are regulated as waste.

Management Comments

N/A

Waste Stream ID: **RF-TT0377**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W114	Stream Name	Mg Oxide Crucibles/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Decontamination and Decommissioning

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	1.7	1.0	2.7
As-Generated Total			2.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.7	1.0	2.7
Final Form Total			2.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	25.22
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	110.43
Cellulosics	12.89
Rubber	0.00
Plastics	19.64
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.51
Packaging Material, Plastic	29.93
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.67E+00
Np-237	5.38E-05
Pu-238	7.38E-01
Pu-239	1.73E+01
Pu-240	3.96E+00
Pu-241	5.67E+01
Pu-242	5.00E-04
Th-229	1.33E-12
Th-230	1.62E-08
Th-232	4.17E-16
U-233	2.46E-09
U-234	1.63E-04
U-235	4.56E-06
U-236	1.41E-06
U-238	3.83E-08

Waste Stream Description

"Firebrick, coarse consists of chunks of the unpulverized plutonium bearing surface layer of the high-density alumina ceramic material. Material is smaller than 1 inch in diameter and larger than 1/4 inch in diameter."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0391**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W116	Stream Name	"Sand, Slag, and Crucible/TRU"			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.4	0.0	0.4
As-Generated Total			0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total			0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	28.20
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	26.93
Cellulosics	167.07
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.46E+00
Np-237	3.79E-05
Pu-238	9.62E-01
Pu-239	4.05E+01
Pu-240	9.13E+00
Pu-241	9.19E+01
Pu-242	6.57E-04
Th-229	5.20E-13
Th-230	1.88E-09
Th-232	9.63E-16
U-233	1.18E-09
U-234	3.44E-05
U-235	4.80E-07
U-236	3.25E-06
U-238	1.19E-12

Waste Stream Description

Unpulverized magnesium oxide sand and crucible generated from the separation of sand and crucible residues from slag residues following plutonium metal button breakout in Building 771.

Management Comments

Waste Stream currently exists in the TWBIR as a residue, (i.e., RF-TRXXXX), but is being revised to transuranic, (i.e., RF-TTXXXX).

Waste Stream ID: **RF-TT0392**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W116	Stream Name	"Sand, Slag, and Crucible/TRU"			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	26.82
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	25.48
Cellulosics	167.07
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.99E+00
Np-237	2.06E-05
Pu-238	1.21E+00
Pu-239	4.24E+01
Pu-240	9.65E+00
Pu-241	6.36E+01
Pu-242	6.19E-04
Th-229	1.85E-13
Th-230	2.45E-09
Th-232	1.02E-15
U-233	5.08E-10
U-234	4.40E-05
U-235	5.27E-07
U-236	3.43E-06
U-238	2.27E-10

Waste Stream Description

"Unpulverized magnesium oxide sand, calcium fluoride slag, and magnesium oxide crucible generated during plutonium metal button breakout following plutonium tetrafluoride reduction in Building 771."

Management Comments

Waste Stream currently exists in the TWBIR as a residue, (i.e., RF-TRXXXX), but is being revised to transuranic, (i.e., RF-TTXXXX).

Waste Stream ID: **RF-TT0393**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W116	Stream Name	"Sand, Slag, and Crucible/TRU"			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	11.0	0.0	11.0
As-Generated Total	11.0	0.0	11.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	11.0	0.0	11.0
Final Form Total	11.0	0.0	11.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	235.33
Cellulosics	0.00
Rubber	0.00
Plastics	33.41
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.57
Packaging Material, Plastic	41.05
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.49E+00
Np-237	1.12E-03
Pu-238	1.59E+00
Pu-239	3.72E+01
Pu-240	8.52E+00
Pu-241	1.22E+02
Pu-242	1.08E-03
Th-229	3.22E-11
Th-230	3.11E-09
Th-232	8.99E-16
U-233	5.76E-08
U-234	5.68E-05
U-235	4.41E-07
U-236	3.03E-06
U-238	1.95E-12

Waste Stream Description

"Undissolved solids from dissolution of pulverized magnesium oxide sand, calcium fluoride slag, and magnesium oxide crucible (IDCs 396 and 398) in nitric acid. "

Management Comments

Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX or RF-MTXXXX), but is being re-characterized as non-mixed waste.

Waste Stream ID: **RF-TT0398**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W116	Stream Name	"Sand, Slag, and Crucible/TRU"			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8801 Can	0.0	0.0	0.0
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	21.60
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	22.49
Cellulosics	167.07
Rubber	0.00
Plastics	0.96
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.27E+00
Np-237	1.79E-05
Pu-238	1.11E+00
Pu-239	3.96E+01
Pu-240	8.96E+00
Pu-241	6.01E+01
Pu-242	5.44E-04
Th-229	1.60E-13
Th-230	2.20E-09
Th-232	9.46E-16
U-233	4.41E-10
U-234	4.00E-05
U-235	4.76E-07
U-236	3.19E-06
U-238	6.13E-11

Waste Stream Description

"Pulverized sand, slag, and crucible generated from the crushing and grinding of magnesium oxide sand, calcium fluoride slag, and broken magnesium oxide reduction crucibles (IDC 392), in preparation for dissolution."

Management Comments

Waste Stream currently exists in the TWBIR as a residue, (i.e., RF-TRXXXX), but is being revised to transuranic, (i.e., RF-TTXXXX).

Waste Stream ID: **RF-TT0409**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-TT0409	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Salt	Waste Matrix Code	S3141
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	11.20
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	6.51
Other Inorganic Materials	18.41
Cellulosics	167.07
Rubber	0.00
Plastics	1.27
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.07E+01
Np-237	3.99E-05
Pu-238	1.04E+00
Pu-239	4.09E+01
Pu-240	9.25E+00
Pu-241	4.63E+01
Pu-242	7.25E-04
Th-229	3.78E-13
Th-230	2.36E-09
Th-232	9.76E-16
U-233	1.02E-09
U-234	4.01E-05
U-235	5.81E-07
U-236	3.29E-06
U-238	8.64E-10

Waste Stream Description

N/A

Management Comments

Waste Stream currently exists in the TWBIR as a residue, (i.e., RF-TRXXXX), but is being revised to transuranic, (i.e., RF-TTXXXX).

Waste Stream ID: **RF-TT0412**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-TT0412	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Salt	Waste Matrix Code	S3141
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	11.20
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	6.51
Other Inorganic Materials	18.41
Cellulosics	167.07
Rubber	0.00
Plastics	1.27
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.07E+01
Np-237	3.99E-05
Pu-238	1.04E+00
Pu-239	4.09E+01
Pu-240	9.25E+00
Pu-241	4.63E+01
Pu-242	7.25E-04
Th-229	3.78E-13
Th-230	2.36E-09
Th-232	9.76E-16
U-233	1.02E-09
U-234	4.01E-05
U-235	5.81E-07
U-236	3.29E-06
U-238	8.64E-10

Waste Stream Description

N/A

Management Comments

Waste Stream currently exists in the TWBIR as a residue, (i.e., RF-TRXXXX), but is being revised to transuranic, (i.e., RF-TTXXXX).

Waste Stream ID: **RF-TT0414**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-TT0414	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Salt	Waste Matrix Code	S3141
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	6.4	0.0	6.4
As-Generated Total			6.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	6.5	0.0	6.5
Final Form Total			6.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	11.20
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	6.51
Other Inorganic Materials	18.41
Cellulosics	167.07
Rubber	0.00
Plastics	1.27
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.07E+01
Np-237	3.99E-05
Pu-238	1.04E+00
Pu-239	4.09E+01
Pu-240	9.25E+00
Pu-241	4.63E+01
Pu-242	7.25E-04
Th-229	3.78E-13
Th-230	2.36E-09
Th-232	9.76E-16
U-233	1.02E-09
U-234	4.01E-05
U-235	5.81E-07
U-236	3.29E-06
U-238	8.64E-10

Waste Stream Description

N/A

Management Comments

Waste Stream currently exists in the TWBIR as a residue, (i.e., RF-TRXXXX), but is being revised to transuranic, (i.e., RF-TTXXXX).

Waste Stream ID: **RF-TT0430**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W122	Stream Name	Organic Resins/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5313
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total		0.2	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total		0.2	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	26.73
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	34.37
Soils	0.00
Packaging Material, Steel	138.43
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.78E-02
Np-237	1.02E-07
Pu-238	2.40E-02
Pu-239	5.63E-01
Pu-240	1.29E-01
Pu-241	1.85E+00
Pu-242	1.63E-05
Th-229	5.38E-16
Th-230	4.70E-11
Th-232	1.36E-17
U-233	1.86E-12
U-234	8.58E-07
U-235	6.66E-09
U-236	4.58E-08
U-238	2.95E-14

Waste Stream Description

It consists of unleached resin (IDC 430).

Management Comments

N/A

Waste Stream ID: **RF-TT0431**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W122	Stream Name	Organic Resins/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5313
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Materials Production/Recovery Effluents

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8804 Can	0.0	0.0	0.0
Drum / 55 gallon	20.0	1.0	21.0
Drum / 85 gallon	0.3	0.0	0.3
As-Generated Total	20.3	1.0	21.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	20.6	1.0	21.7
Final Form Total	20.6	1.0	21.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	2.27
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	4.77
Cellulosics	0.00
Rubber	0.00
Plastics	25.99
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	121.07
Soils	0.00
Packaging Material, Steel	138.45
Packaging Material, Plastic	25.89
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.15E-01
Np-237	3.45E-07
Pu-238	5.36E-02
Pu-239	1.26E+00
Pu-240	2.88E-01
Pu-241	4.01E+00
Pu-242	3.52E-05
Th-229	3.87E-15
Th-230	1.15E-09
Th-232	3.04E-17
U-233	9.23E-12
U-234	1.16E-05
U-235	3.29E-07
U-236	1.03E-07
U-238	2.78E-09

Waste Stream Description

It consists of leached resin (IDC 431).

Management Comments

N/A

Waste Stream ID: **RF-TT0438**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W115	Stream Name	Insulation/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
1/2 Wood Box	1.6	0.0	1.6
8802 Can	0.0	0.0	0.0
8804 Can	0.0	0.0	0.0
Box / Misc.	0.0	0.0	0.0
Drum / 55 gallon	56.0	2.9	58.9
As-Generated Total	57.6	2.9	60.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	56.5	2.9	59.4
Standard Waste Box	9.4	0.0	9.4
Final Form Total	65.9	2.9	68.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	29.75
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	40.01
Cellulosics	12.89
Rubber	2.01
Plastics	15.52
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	140.47
Packaging Material, Plastic	27.48
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.47E+00
Np-237	1.59E-05
Pu-238	6.45E-01
Pu-239	2.04E+01
Pu-240	4.64E+00
Pu-241	3.75E+01
Pu-242	3.89E-04
Th-229	2.23E-13
Th-230	3.53E-09
Th-232	4.89E-16
U-233	5.00E-10
U-234	4.41E-05
U-235	9.21E-07
U-236	1.65E-06
U-238	6.01E-09

Waste Stream Description

This waste stream is contaminated insulation.

Management Comments

N/A

Waste Stream ID: **RF-TT0440**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W113	Stream Name	Glass/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8802 Can	0.0	0.0	0.0
8804 Can	0.0	0.0	0.0
Drum / 55 gallon	27.5	2.1	29.5
POC / 55 gallon	0.6	0.0	0.6
Standard Waste Box	1.9	17.1	19.0
As-Generated Total	30.0	19.2	49.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	29.0	2.1	31.1
55 Gallon POCs	0.6	0.0	0.6
Standard Waste Box	1.9	17.0	18.9
Final Form Total	31.5	19.1	50.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	12.14
Aluminum-Base Metal/Alloys	0.87
Other Metal/Alloys	0.45
Other Inorganic Materials	180.35
Cellulosics	9.60
Rubber	0.00
Plastics	20.72
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	148.49
Packaging Material, Plastic	19.10
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.27E-01
Np-237	6.84E-06
Pu-238	6.30E-02
Pu-239	2.02E+00
Pu-240	4.72E-01
Pu-241	4.22E+00
Pu-242	4.36E-05
Th-229	1.77E-13
Th-230	7.89E-09
Th-232	4.98E-17
U-233	3.25E-10
U-234	7.43E-05
U-235	2.38E-06
U-236	1.68E-07
U-238	7.12E-07

Waste Stream Description

This waste stream is made up of glass from analytical labs, recovery processes, ceramics, and glovebox windows.

Management Comments

N/A

Waste Stream ID: **RF-TT0441**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W113	Stream Name	Glass			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Drum / 55 gallon	138.9	2.7	141.6
As-Generated Total	138.9	2.7	141.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	139.2	2.7	142.0
Final Form Total	139.2	2.7	142.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	247.74
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	370.89
Other Inorganic Materials	480.51
Cellulosics	12.89
Rubber	0.00
Plastics	15.45
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.56
Packaging Material, Plastic	36.75
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.64E-01
Np-237	4.74E-06
Pu-238	1.46E-01
Pu-239	3.46E+00
Pu-240	7.92E-01
Pu-241	1.11E+01
Pu-242	9.83E-05
Th-229	8.73E-14
Th-230	3.72E-09
Th-232	8.35E-17
U-233	1.77E-10
U-234	3.71E-05
U-235	1.09E-06
U-236	2.82E-07
U-238	2.50E-06

Waste Stream Description

This waste stream is made up of Raschig Rings which are borosilicate glass rings used to maintain subcritical conditions in fissile solution storage tanks.

Management Comments

N/A

Waste Stream ID: **RF-TT0442**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W113	Stream Name	Glass/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
8804 Can	0.0	0.0	0.0
Box / Metal	6.3	0.0	6.3
Drum / 55 gallon	37.9	2.1	39.9
POC / 55 gallon	1.7	0.0	1.7
As-Generated Total	45.9	2.1	48.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	38.8	2.1	40.9
55 Gallon POCs	1.7	0.0	1.7
Standard Waste Box	3.8	0.0	3.8
Final Form Total	44.2	2.1	46.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	4.54
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	306.14
Cellulosics	12.84
Rubber	0.00
Plastics	21.90
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	153.52
Packaging Material, Plastic	25.97
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.45E-01
Np-237	2.14E-06
Pu-238	7.52E-02
Pu-239	1.91E+00
Pu-240	4.35E-01
Pu-241	4.31E+00
Pu-242	3.95E-05
Th-229	3.90E-14
Th-230	1.24E-08
Th-232	4.59E-17
U-233	7.93E-11
U-234	1.16E-04
U-235	3.55E-06
U-236	1.55E-07
U-238	3.87E-07

Waste Stream Description

This waste stream is made up of Raschig Rings which are borosilicate glass rings used to maintain subcritical conditions in fissile solution storage tanks.

Management Comments

N/A

Waste Stream ID: **RF-TT0443**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W113	Stream Name	Glass/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.8	1.0
As-Generated Total	0.2	0.8	1.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.8	1.0
Final Form Total	0.2	0.8	1.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	337.60
Cellulosics	12.89
Rubber	0.00
Plastics	19.65
Solidified, Inorganic Matrix	0.96
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.44
Packaging Material, Plastic	24.56
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.29E-01
Np-237	4.37E-07
Pu-238	5.33E-02
Pu-239	1.28E+00
Pu-240	2.92E-01
Pu-241	3.87E+00
Pu-242	3.44E-05
Th-229	5.44E-15
Th-230	9.85E-10
Th-232	3.08E-17
U-233	1.25E-11
U-234	1.01E-05
U-235	3.49E-07
U-236	1.04E-07
U-238	7.68E-06

Waste Stream Description

"Rachig rings leached with dilute nitric acid or water, and rinsed with carbon tetrachloride or 1,1,1-trichloroethane prior to removal from process tanks. These rings have no visible solvent contamination."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0479**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W109	Stream Name	METAL/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	1.0	0.0	1.0
As-Generated Total	1.0	0.0	1.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.0	0.0	1.0
Final Form Total	1.0	0.0	1.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	85.09
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	12.89
Rubber	0.00
Plastics	6.52
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.57
Packaging Material, Plastic	28.64
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.07E+00
Np-237	4.44E-06
Pu-238	1.04E+00
Pu-239	2.44E+01
Pu-240	5.58E+00
Pu-241	8.02E+01
Pu-242	7.07E-04
Th-229	2.33E-14
Th-230	2.04E-09
Th-232	5.89E-16
U-233	8.05E-11
U-234	3.72E-05
U-235	2.89E-07
U-236	1.99E-06
U-238	1.28E-12

Waste Stream Description

Empty stainless steel transfer cans.

Management Comments

N/A

Waste Stream ID: **RF-TT0480**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W109	Stream Name	METAL/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8802 Can	0.1	0.0	0.1
Box / Metal	3.2	0.0	3.2
Box / Misc.	3.2	0.0	3.2
Drum / 55 gallon	36.2	41.6	77.8
Drum / 85 gallon	2.6	0.0	2.6
Standard Waste Box	60.8	83.6	144.4
As-Generated Total	106.0	125.2	231.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	42.5	41.7	84.2
Standard Waste Box	64.3	83.2	147.4
Final Form Total	106.8	124.8	231.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	244.02
Aluminum-Base Metal/Alloys	44.09
Other Metal/Alloys	41.90
Other Inorganic Materials	8.14
Cellulosics	7.41
Rubber	2.92
Plastics	12.37
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.03
Soils	0.00
Packaging Material, Steel	147.52
Packaging Material, Plastic	13.35
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.39E-01
Cs-137	4.71E-05
Np-237	3.49E-06
Pu-238	1.19E-01
Pu-239	2.80E+00
Pu-240	6.42E-01
Pu-241	8.40E+00
Pu-242	7.50E-05
Th-229	5.84E-14
Th-230	2.46E-09
Th-232	6.77E-17
U-233	1.22E-10
U-234	2.49E-05
U-235	7.03E-07
U-236	2.28E-07
U-238	3.31E-07

Waste Stream Description

This waste includes items such as gloveboxes and machinery, and empty containers. Items that are difficult to reduce to a size that would fit in a 55-gal. drum are placed in DOT 7A, Type A metal boxes. These drums are lined with a rigid polyethylene liner, fiberboard liner and several bag liners. The boxes are lined with a fiberboard and PVC liner.

Management Comments

N/A

Waste Stream ID: **RF-TT0481**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W109	Stream Name	METAL/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	289.03
Aluminum-Base Metal/Alloys	107.52
Other Metal/Alloys	54.96
Other Inorganic Materials	10.28
Cellulosics	12.85
Rubber	2.10
Plastics	20.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.43
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.39E-01
Cs-137	4.71E-05
Np-237	3.49E-06
Pu-238	1.19E-01
Pu-239	2.80E+00
Pu-240	6.42E-01
Pu-241	8.40E+00
Pu-242	7.50E-05
Th-229	5.84E-14
Th-230	2.46E-09
Th-232	6.77E-17
U-233	1.22E-10
U-234	2.49E-05
U-235	7.03E-07
U-236	2.28E-07
U-238	3.31E-07

Waste Stream Description

Light Metal, IDC480, was rinsed to remove plutonium contamination and assigned IDC481.

Management Comments

N/A

Waste Stream ID: **RF-TT0483**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W109	Stream Name	Metal/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Decontamination and Decommissioning

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.8	0.0	0.8
As-Generated Total	0.8	0.0	0.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
Final Form Total	0.8	0.0	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	4.77
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	430.08
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	17.18
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.43
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.19E-01
Np-237	6.84E-07
Pu-238	1.61E-01
Pu-239	3.76E+00
Pu-240	8.60E-01
Pu-241	1.24E+01
Pu-242	1.09E-04
Th-229	3.59E-15
Th-230	2.23E-06
Th-232	9.07E-17
U-233	1.24E-11
U-234	2.06E-02
U-235	1.26E-03
U-236	3.06E-07
U-238	1.54E-01

Waste Stream Description

Depleted uranium stock material removed from plutonium buildings during decontamination and decommissioning activities.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0484**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W109	Stream Name	METAL/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	9.8	0.0	9.8
As-Generated Total	9.8	0.0	9.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	9.8	0.0	9.8
Final Form Total	9.8	0.0	9.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	8.59
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	121.29
Other Inorganic Materials	38.82
Cellulosics	12.89
Rubber	0.00
Plastics	10.36
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.57
Packaging Material, Plastic	20.74
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.89E-01
Np-237	1.77E-06
Pu-238	5.67E-02
Pu-239	1.33E+00
Pu-240	3.04E-01
Pu-241	4.36E+00
Pu-242	3.84E-05
Th-229	4.02E-14
Th-230	1.34E-09
Th-232	3.21E-17
U-233	7.61E-11
U-234	1.34E-05
U-235	8.84E-07
U-236	1.08E-07
U-238	5.42E-05

Waste Stream Description

Classified non-nuclear material non-metal shapes.

Management Comments

N/A

Waste Stream ID: **RF-TT0485**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W109	Stream Name	METAL/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	5.4	0.0	5.4
As-Generated Total	5.4	0.0	5.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	5.4	0.0	5.4
Final Form Total	5.4	0.0	5.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	35.32
Other Inorganic Materials	0.00
Cellulosics	12.89
Rubber	0.00
Plastics	0.96
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.57
Packaging Material, Plastic	32.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.37E-02
Np-237	1.10E-07
Pu-238	6.32E-03
Pu-239	1.48E-01
Pu-240	3.39E-02
Pu-241	4.86E-01
Pu-242	4.28E-06
Th-229	9.51E-16
Th-230	5.55E-09
Th-232	3.57E-18
U-233	2.64E-12
U-234	5.15E-05
U-235	5.94E-06
U-236	1.21E-08
U-238	4.59E-04

Waste Stream Description

Scrap D-38 classified metal shapes.

Management Comments

N/A

Waste Stream ID: **RF-TT0486**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W109	Stream Name	METAL/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	14.4	0.0	14.4
As-Generated Total	14.4	0.0	14.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	14.4	0.0	14.4
Final Form Total	14.4	0.0	14.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	368.19
Other Inorganic Materials	0.00
Cellulosics	12.89
Rubber	0.00
Plastics	16.23
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.57
Packaging Material, Plastic	15.43
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.48E-02
Np-237	4.58E-07
Pu-238	1.41E-02
Pu-239	3.31E-01
Pu-240	7.57E-02
Pu-241	1.09E+00
Pu-242	9.58E-06
Th-229	8.34E-15
Th-230	1.73E-09
Th-232	7.99E-18
U-233	1.69E-11
U-234	1.63E-05
U-235	1.83E-06
U-236	2.69E-08
U-238	1.42E-04

Waste Stream Description

Classified tooling.

Management Comments

N/A

Waste Stream ID: **RF-TT0487**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W101	Stream Name	Combustibles/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.6	1.0	1.7
As-Generated Total	0.6	1.0	1.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	1.0	1.7
Final Form Total	0.6	1.0	1.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1.85
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	10.50
Cellulosics	0.00
Rubber	0.00
Plastics	120.69
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.56
Packaging Material, Plastic	32.30
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.26E+00
Np-237	1.98E-05
Pu-238	2.45E-01
Pu-239	6.06E+00
Pu-240	1.38E+00
Pu-241	1.78E+01
Pu-242	1.69E-04
Th-229	4.18E-13
Th-230	1.90E-08
Th-232	1.46E-16
U-233	8.13E-10
U-234	1.81E-04
U-235	5.66E-06
U-236	4.92E-07
U-238	5.48E-06

Waste Stream Description

Classified plastic shapes.

Management Comments

N/A

Waste Stream ID: **RF-TT0489**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W109	Stream Name	METAL/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	9.4	0.0	9.4
As-Generated Total	9.4	0.0	9.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	9.4	0.0	9.4
Final Form Total	9.4	0.0	9.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	211.46
Other Inorganic Materials	0.00
Cellulosics	12.89
Rubber	0.00
Plastics	10.31
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.57
Packaging Material, Plastic	17.18
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.59E-01
Np-237	1.33E-06
Pu-238	3.31E-02
Pu-239	7.74E-01
Pu-240	1.77E-01
Pu-241	2.55E+00
Pu-242	2.24E-05
Th-229	2.82E-14
Th-230	1.22E-09
Th-232	1.87E-17
U-233	5.45E-11
U-234	1.19E-05
U-235	1.25E-06
U-236	6.31E-08
U-238	9.61E-05

Waste Stream Description

Classified beryllium shapes.

Management Comments

N/A

Waste Stream ID: **RF-TT0490**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W120	Stream Name	Filters & media/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Box / Metal	3.2	0.0	3.2
Box / Wood	34.9	0.0	34.9
Drum / 55 gallon	7.3	0.0	7.3
Standard Waste Box	83.6	81.7	165.3
As-Generated Total	128.9	81.7	210.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	7.3	0.0	7.3
Standard Waste Box	122.8	81.3	204.1
Final Form Total	130.1	81.3	211.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	8.09
Aluminum-Base Metal/Alloys	18.33
Other Metal/Alloys	10.86
Other Inorganic Materials	11.80
Cellulosics	4.55
Rubber	12.94
Plastics	6.81
Solidified, Inorganic Matrix	3.85
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	42.54
Packaging Material, Steel	152.24
Packaging Material, Plastic	3.35
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.61E-01
Np-237	2.33E-06
Pu-238	6.52E-02
Pu-239	1.55E+00
Pu-240	3.55E-01
Pu-241	4.76E+00
Pu-242	4.24E-05
Th-229	5.12E-14
Th-230	7.69E-10
Th-232	3.74E-17
U-233	9.81E-11
U-234	8.27E-06
U-235	4.15E-07
U-236	1.26E-07
U-238	3.50E-05

Waste Stream Description

Plenum HEPA filters.

Management Comments

N/A

Waste Stream ID: **RF-TT0491**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W120	Stream Name	Filters & media/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Box / Misc.	6.3	0.0	6.3
Box / Wood	6.3	0.0	6.3
Drum / 55 gallon	15.8	2.9	18.7
As-Generated Total	28.5	2.9	31.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	15.8	2.9	18.8
Standard Waste Box	7.6	0.0	7.6
Final Form Total	23.4	2.9	26.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	9.55
Aluminum-Base Metal/Alloys	13.46
Other Metal/Alloys	3.34
Other Inorganic Materials	16.57
Cellulosics	12.89
Rubber	0.96
Plastics	20.80
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	142.50
Packaging Material, Plastic	18.18
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.75E-02
Np-237	7.77E-07
Pu-238	8.99E-03
Pu-239	2.12E-01
Pu-240	4.85E-02
Pu-241	6.74E-01
Pu-242	5.98E-06
Th-229	1.72E-14
Th-230	3.65E-10
Th-232	5.12E-18
U-233	3.29E-11
U-234	3.54E-06
U-235	2.76E-07
U-236	1.73E-08
U-238	9.18E-10

Waste Stream Description

Plenum prefilters.

Management Comments

N/A

Waste Stream ID: **RF-TT0492**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W120	Stream Name	Filters and Media/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Multiple

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	1.9	0.0	1.9
As-Generated Total		1.9	0.0
			1.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	1.9	0.0	1.9
Final Form Total		1.9	0.0
			1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	56.12
Other Metal/Alloys	0.00
Other Inorganic Materials	18.65
Cellulosics	4.31
Rubber	56.12
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	152.90
Packaging Material, Plastic	2.21
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.19E-01
Np-237	2.70E-06
Pu-238	7.92E-02
Pu-239	1.85E+00
Pu-240	4.24E-01
Pu-241	6.09E+00
Pu-242	5.37E-05
Th-229	5.85E-14
Th-230	1.55E-10
Th-232	4.48E-17
U-233	1.12E-10
U-234	2.83E-06
U-235	2.19E-08
U-236	1.51E-07
U-238	9.72E-14

Waste Stream Description

"HEPA filters (24 x 24), acid contaminated, are large HEPA filters used in the filter plenums of buildings that contain gloveboxes with atmospheres that could cause the filters to be contaminated with acids or bases used in chemical processing. The materials of construction consist of a filter medium contained within a wood frame. Older medium consisted of glass fiber with a small percentage of asbestos and a corrugated aluminum foil. Newer medium is constructed of glass and aromatic polyamide fibers (Nomex) and aluminum alloy metal. Wood filter frames are constructed of 3/4-inch fire retardant exterior grade plywood, or particle board."

Management Comments

Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX or RF-MTXXXX), but is being re-characterized as non-mixed waste.

Waste Stream ID: RF-TT0523A

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W107	Stream Name	Soil and Cleanup Debris/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3219
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Decontamination and Decommissioning

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	1.5	0.0	1.5
As-Generated Total		1.5	0.0
			1.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.5	0.0	1.5
Final Form Total		1.5	0.0
			1.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	36.82
Aluminum-Base Metal/Alloys	6.86
Other Metal/Alloys	12.60
Other Inorganic Materials	21.10
Cellulosics	0.00
Rubber	1.53
Plastics	30.65
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	18.40
Soils	0.00
Packaging Material, Steel	138.56
Packaging Material, Plastic	32.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.52E+00
Np-237	3.05E-05
Pu-238	4.13E-01
Pu-239	9.69E+00
Pu-240	2.22E+00
Pu-241	3.17E+01
Pu-242	2.80E-04
Th-229	6.43E-13
Th-230	3.36E-09
Th-232	2.34E-16
U-233	1.25E-09
U-234	3.84E-05
U-235	3.26E-05
U-236	7.89E-07
U-238	3.78E-05

Waste Stream Description

Miscellaneous non-hazardous organic solids including excess sample containers. This output contains greater than 50% by volume organic particulates.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0523B**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W107	Stream Name	Soil and Cleanup Debris/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Decontamination and Decommissioning

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Drum / 55 gallon	1.5	0.0	1.5	
As-Generated Total		1.5	0.0	1.5

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
55 Gallon Drum	1.5	0.0	1.5	
Final Form Total		1.5	0.0	1.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	36.82
Aluminum-Base Metal/Alloys	6.86
Other Metal/Alloys	12.60
Other Inorganic Materials	21.10
Cellulosics	0.00
Rubber	1.53
Plastics	30.65
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	18.40
Soils	0.00
Packaging Material, Steel	138.56
Packaging Material, Plastic	32.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.52E+00
Np-237	3.05E-05
Pu-238	4.13E-01
Pu-239	9.69E+00
Pu-240	2.22E+00
Pu-241	3.17E+01
Pu-242	2.80E-04
Th-229	6.43E-13
Th-230	3.36E-09
Th-232	2.34E-16
U-233	1.25E-09
U-234	3.84E-05
U-235	3.26E-05
U-236	7.89E-07
U-238	3.78E-05

Waste Stream Description

Miscellaneous non-hazardous organic solids including excess sample containers. This output contains greater than 50% by volume homogeneous solids.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0523C**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W107	Stream Name	Soil and Cleanup Debris/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Decontamination and Decommissioning

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	1.5	0.0	1.5
As-Generated Total		1.5	0.0
			1.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.5	0.0	1.5
Final Form Total		1.5	0.0
			1.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	36.82
Aluminum-Base Metal/Alloys	6.86
Other Metal/Alloys	12.60
Other Inorganic Materials	21.10
Cellulosics	0.00
Rubber	1.53
Plastics	30.65
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	18.40
Soils	0.00
Packaging Material, Steel	138.56
Packaging Material, Plastic	32.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.52E+00
Np-237	3.05E-05
Pu-238	4.13E-01
Pu-239	9.69E+00
Pu-240	2.22E+00
Pu-241	3.17E+01
Pu-242	2.80E-04
Th-229	6.43E-13
Th-230	3.36E-09
Th-232	2.34E-16
U-233	1.25E-09
U-234	3.84E-05
U-235	3.26E-05
U-236	7.89E-07
U-238	3.78E-05

Waste Stream Description

"Miscellaneous non-hazardous organic solids including granular activated carbon and charcoal from filter plenums, strippable coating with non-hazardous fixative, and excess sample containers. This output contains greater than 50% by volume inorganic debris. "

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0523D**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W107	Stream Name	Soil and Cleanup Debris/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Decontamination and Decommissioning

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	1.5	0.0	1.5
As-Generated Total		1.5	0.0
			1.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.5	0.0	1.5
Final Form Total		1.5	0.0
			1.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	36.82
Aluminum-Base Metal/Alloys	6.86
Other Metal/Alloys	12.60
Other Inorganic Materials	21.10
Cellulosics	0.00
Rubber	1.53
Plastics	30.65
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	18.40
Soils	0.00
Packaging Material, Steel	138.56
Packaging Material, Plastic	32.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.52E+00
Np-237	3.05E-05
Pu-238	4.13E-01
Pu-239	9.69E+00
Pu-240	2.22E+00
Pu-241	3.17E+01
Pu-242	2.80E-04
Th-229	6.43E-13
Th-230	3.36E-09
Th-232	2.34E-16
U-233	1.25E-09
U-234	3.84E-05
U-235	3.26E-05
U-236	7.89E-07
U-238	3.78E-05

Waste Stream Description

"Miscellaneous non-hazardous organic solids including granular activated carbon and charcoal from filter plenums, strippable coating with non-hazardous fixative, and excess sample containers. This output contains greater than 50% by volume organic debris. "

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0523E**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W107	Stream Name	Soil and Cleanup Debris/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5490
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Decontamination and Decommissioning

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	1.5	0.0	1.5
As-Generated Total		1.5	0.0
			1.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.5	0.0	1.5
Final Form Total		1.5	0.0
			1.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	36.82
Aluminum-Base Metal/Alloys	6.86
Other Metal/Alloys	12.60
Other Inorganic Materials	21.10
Cellulosics	0.00
Rubber	1.53
Plastics	30.65
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	18.40
Soils	0.00
Packaging Material, Steel	138.56
Packaging Material, Plastic	32.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.52E+00
Np-237	3.05E-05
Pu-238	4.13E-01
Pu-239	9.69E+00
Pu-240	2.22E+00
Pu-241	3.17E+01
Pu-242	2.80E-04
Th-229	6.43E-13
Th-230	3.36E-09
Th-232	2.34E-16
U-233	1.25E-09
U-234	3.84E-05
U-235	3.26E-05
U-236	7.89E-07
U-238	3.78E-05

Waste Stream Description

"Miscellaneous non-hazardous organic solids including granular activated carbon and charcoal from filter plenums, strippable coating with non-hazardous fixative, and excess sample containers. This output contains at least 50% by volume debris waste. "

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0532A**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W107	Stream Name	Soil and Cleanup Debris/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Decontamination and Decommissioning

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8801 Can	0.0	0.0	0.0
8802 Can	0.0	0.0	0.0
Drum / 55 gallon	14.1	0.8	15.0
As-Generated Total	14.2	0.8	15.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	14.8	0.8	15.6
Final Form Total	14.8	0.8	15.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	19.44
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	23.87
Other Inorganic Materials	92.37
Cellulosics	12.89
Rubber	0.00
Plastics	15.87
Solidified, Inorganic Matrix	80.40
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.51
Packaging Material, Plastic	29.39
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.56E+00
Np-237	2.18E-04
Pu-238	6.12E-01
Pu-239	1.47E+01
Pu-240	3.35E+00
Pu-241	4.68E+01
Pu-242	4.88E-04
Th-229	5.74E-12
Th-230	8.83E-09
Th-232	3.53E-16
U-233	1.05E-08
U-234	9.27E-05
U-235	2.78E-06
U-236	1.19E-06
U-238	4.60E-05

Waste Stream Description

Miscellaneous non-hazardous inorganic solids including excess sample containers. This output contains greater than 50% by volume inorganic particulates.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0532B**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W107	Stream Name	Soil and Cleanup Debris/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Decontamination and Decommissioning

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8801 Can	0.0	0.0	0.0
8802 Can	0.0	0.0	0.0
Drum / 55 gallon	14.1	0.8	15.0
As-Generated Total	14.2	0.8	15.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	14.8	0.8	15.6
Final Form Total	14.8	0.8	15.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	19.44
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	23.87
Other Inorganic Materials	92.37
Cellulosics	12.89
Rubber	0.00
Plastics	15.87
Solidified, Inorganic Matrix	80.40
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.51
Packaging Material, Plastic	29.39
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.56E+00
Np-237	2.18E-04
Pu-238	6.12E-01
Pu-239	1.47E+01
Pu-240	3.35E+00
Pu-241	4.68E+01
Pu-242	4.88E-04
Th-229	5.74E-12
Th-230	8.83E-09
Th-232	3.53E-16
U-233	1.05E-08
U-234	9.27E-05
U-235	2.78E-06
U-236	1.19E-06
U-238	4.60E-05

Waste Stream Description

"Miscellaneous non-hazardous inorganic solids including desiccants, molecular sieves, salts, sand, gravel, zeolites, kaolin, etc."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0541**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W118	Stream Name	Miscellaneous Liquids/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8804 Can	0.0	0.0	0.0
As-Generated Total	0.0	0.0	0.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	7.16
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	8.59
Solidified, Inorganic Matrix	10.50
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.43
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.73E-01
Np-237	1.23E-06
Pu-238	2.88E-01
Pu-239	6.75E+00
Pu-240	1.54E+00
Pu-241	2.22E+01
Pu-242	1.96E-04
Th-229	6.45E-15
Th-230	5.64E-10
Th-232	1.63E-16
U-233	2.23E-11
U-234	1.03E-05
U-235	7.99E-08
U-236	5.50E-07
U-238	3.54E-13

Waste Stream Description

As result of the shutdown of plutonium operations at RFP in November, 1989, several hundred plastic bottles and several tanks of process liquids remained in storage.

Management Comments

N/A

Waste Stream ID: **RF-TT0545**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W112	Stream Name	Solidified Lab Waste/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S3160
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Decontamination and Decommissioning

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.4	0.0	0.4
As-Generated Total		0.4	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total		0.4	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.96
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	23.87
Cellulosics	0.00
Rubber	0.00
Plastics	17.18
Solidified, Inorganic Matrix	413.85
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.43
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.37E-02
Np-237	1.37E-07
Pu-238	3.21E-02
Pu-239	7.51E-01
Pu-240	1.72E-01
Pu-241	2.47E+00
Pu-242	2.18E-05
Th-229	7.18E-16
Th-230	6.28E-11
Th-232	1.81E-17
U-233	2.48E-12
U-234	1.15E-06
U-235	8.89E-09
U-236	6.12E-08
U-238	3.94E-14

Waste Stream Description

Non-hazardous solid excess chemicals contaminated with plutonium to TRU concentrations. Chemicals are expired or off-specification in some manner and are therefore not useable.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0601**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-TT0601	Stream Name	N/A			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: N/A

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC / 55 gallon	2.7	0.0	2.7
As-Generated Total	2.7	0.0	2.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	2.7	0.0	2.7
Final Form Total	2.7	0.0	2.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	6.70
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	90.70
Other Inorganic Materials	113.57
Cellulosics	102.83
Rubber	0.00
Plastics	36.16
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.84E+00
Np-237	7.50E-05
Pu-238	8.52E-01
Pu-239	2.08E+01
Pu-240	4.82E+00
Pu-241	6.16E+01
Pu-242	5.71E-04
Th-229	1.78E-12
Th-230	2.76E-09
Th-232	5.09E-16
U-233	3.34E-09
U-234	4.06E-05
U-235	5.73E-07
U-236	1.72E-06
U-238	2.89E-09

Waste Stream Description

N/A

Management Comments

Waste Stream currently exists in the TWBIR as a residue, (i.e., RF-TRXXXX), but is being revised to transuranic, (i.e., RF-TTXXXX).

Waste Stream ID: **RF-TT0802**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W112	Stream Name	Solidified Lab Waste/TRU			Inventory Date	9/30/2002
Local ID	IDC 802	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Pollution Control or Waste Treatment Process

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	53.5	1.0	54.5
Drum / 85 gallon	1.3	0.0	1.3
As-Generated Total	54.7	1.0	55.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	53.6	1.0	54.6
85 Gallon Drum	1.3	0.0	1.3
Final Form Total	54.9	1.0	55.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	1235.99
Cellulosics	0.00
Rubber	0.00
Plastics	17.18
Solidified, Inorganic Matrix	1205.29
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	137.36
Packaging Material, Plastic	23.94
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.35E+01
Np-237	1.20E-04
Pu-238	3.32E+00
Pu-239	7.82E+01
Pu-240	1.78E+01
Pu-241	2.56E+02
Pu-242	2.25E-03
Th-229	1.11E-12
Th-230	6.50E-09
Th-232	1.88E-15
U-233	3.00E-09
U-234	1.19E-04
U-235	9.69E-04
U-236	6.33E-06
U-238	4.18E-06

Waste Stream Description

IDC 802 is a cemented final waste form.

Management Comments

N/A

Waste Stream ID: **RF-TT0809**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W122	Stream Name	Organic Resins/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	S3190
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	2.5	1.0	3.5
As-Generated Total			3.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.5	1.0	3.5
Final Form Total			3.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	2.27
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	4.77
Cellulosics	0.00
Rubber	0.00
Plastics	25.99
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	121.07
Soils	0.00
Packaging Material, Steel	138.45
Packaging Material, Plastic	25.89
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.35E+01
Np-237	1.20E-04
Pu-238	3.32E+00
Pu-239	7.82E+01
Pu-240	1.78E+01
Pu-241	2.56E+02
Pu-242	2.25E-03
Th-229	1.11E-12
Th-230	6.50E-09
Th-232	1.88E-15
U-233	3.00E-09
U-234	1.19E-04
U-235	9.69E-04
U-236	6.33E-06
U-238	4.18E-06

Waste Stream Description

It consists of unleached resin (IDC 430) and leached resin (IDC 431).

Management Comments

N/A

Waste Stream ID: RF-TT0821

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID RF-W101 Stream Name Combustibles/TRU Inventory Date 9/30/2002
 Local ID None Handling CH Final Waste Form Combustible Waste Matrix Code S5390 Activity Concentrations Decayed to CY 2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
1/2 Wood Box	23.9	0.0	23.9
Box / Wood	123.6	0.0	123.6
Drum / 55 gallon	50.5	2.1	52.6
Standard Waste Box	11.4	15.2	26.6
As-Generated Total	209.4	17.3	226.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	50.7	2.1	52.7
Standard Waste Box	160.6	15.1	175.8
Final Form Total	211.3	17.2	228.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1.01
Aluminum-Base Metal/Alloys	1.35
Other Metal/Alloys	0.00
Other Inorganic Materials	1.90
Cellulosics	6.10
Rubber	8.60
Plastics	5.30
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	1.91
Soils	0.00
Packaging Material, Steel	149.37
Packaging Material, Plastic	8.05
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.23E+00
Np-237	1.06E-05
Pu-238	2.29E-01
Pu-239	5.80E+00
Pu-240	1.33E+00
Pu-241	1.44E+01
Pu-242	1.36E-04
Th-229	2.25E-13
Th-230	7.39E-08
Th-232	1.40E-16
U-233	4.36E-10
U-234	6.88E-04
U-235	2.33E-05
U-236	4.74E-07
U-238	6.04E-07

Waste Stream Description

This waste consists mainly of cloth and paper products from cleanup of gloveboxes and spills.

Management Comments

N/A

Waste Stream ID: **RF-TT0822**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W101	Stream Name	Combustibles/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Box / Wood	12.7	0.0	12.7
Drum / 55 gallon	100.7	40.8	141.4
Drum / 85 gallon	0.3	0.0	0.3
Standard Waste Box	20.9	20.9	41.8
As-Generated Total	134.6	61.7	196.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	100.9	40.9	141.7
85 Gallon Drum	0.3	0.0	0.3
Standard Waste Box	28.4	20.8	49.1
Final Form Total	129.6	61.6	191.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	2.43
Aluminum-Base Metal/Alloys	1.05
Other Metal/Alloys	1.06
Other Inorganic Materials	33.40
Cellulosics	10.68
Rubber	10.05
Plastics	20.23
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.21
Soils	10.21
Packaging Material, Steel	142.06
Packaging Material, Plastic	21.73
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.41E+00
Np-237	1.45E-05
Pu-238	1.70E-01
Pu-239	4.16E+00
Pu-240	9.46E-01
Pu-241	1.22E+01
Pu-242	1.18E-04
Th-229	3.22E-13
Th-230	7.60E-08
Th-232	9.98E-17
U-233	6.16E-10
U-234	7.08E-04
U-235	2.26E-05
U-236	3.37E-07
U-238	2.27E-06

Waste Stream Description

This waste consists mainly of cloth and paper products from cleanup of gloveboxes and spills.

Management Comments

N/A

Waste Stream ID: **RF-TT0823**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W100	Stream Name	Cemented Sludge/TRU			Inventory Date	9/30/2002
Local ID	IDC 823	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Pollution Control or Waste Treatment Process

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	36.82
Aluminum-Base Metal/Alloys	6.86
Other Metal/Alloys	12.60
Other Inorganic Materials	21.10
Cellulosics	0.00
Rubber	1.53
Plastics	30.65
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	18.40
Soils	0.00
Packaging Material, Steel	138.56
Packaging Material, Plastic	32.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.52E+00
Np-237	3.05E-05
Pu-238	4.13E-01
Pu-239	9.69E+00
Pu-240	2.22E+00
Pu-241	3.17E+01
Pu-242	2.80E-04
Th-229	6.43E-13
Th-230	3.36E-09
Th-232	2.34E-16
U-233	1.25E-09
U-234	3.84E-05
U-235	3.26E-05
U-236	7.89E-07
U-238	3.78E-05

Waste Stream Description

This waste consists of cemented miscellaneous sludge (IDC 823)

Management Comments

N/A

Waste Stream ID: **RF-TT0824**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W109	Stream Name	METAL/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
1/2 Wood Box	8.0	0.0	8.0
Box / Metal	6.3	0.0	6.3
Box / Wood	6.3	0.0	6.3
Drum / 55 gallon	163.1	76.1	239.2
Standard Waste Box	323.0	273.6	596.6
As-Generated Total	506.7	349.7	856.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	163.4	76.3	239.7
Standard Waste Box	338.3	272.2	610.5
Final Form Total	501.7	348.5	850.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	278.52
Aluminum-Base Metal/Alloys	36.18
Other Metal/Alloys	14.74
Other Inorganic Materials	5.18
Cellulosics	6.74
Rubber	4.09
Plastics	11.63
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	5.89
Soils	0.00
Packaging Material, Steel	148.67
Packaging Material, Plastic	11.54
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.50E-01
Np-237	5.48E-06
Pu-238	9.80E-02
Pu-239	2.35E+00
Pu-240	5.38E-01
Pu-241	7.27E+00
Pu-242	6.50E-05
Th-229	1.23E-13
Th-230	5.65E-09
Th-232	5.68E-17
U-233	2.34E-10
U-234	5.41E-05
U-235	2.40E-06
U-236	1.92E-07
U-238	3.42E-06

Waste Stream Description

This waste includes items such as gloveboxes and machinery, and empty containers. Items that are difficult to reduce to a size that would fit in a 55-gal. drum are placed in DOT 7A, Type A metal boxes. These drums are lined with a rigid polyethylene liner, fiberboard liner and several bag liners. The boxes are lined with a fiberboard and PVC liner.

Management Comments

N/A

Waste Stream ID: **RF-TT0825**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W101	Stream Name	Combustibles/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
1/2 Wood Box	9.5	0.0	9.5
Box / Wood	63.4	0.0	63.4
Drum / 55 gallon	291.0	68.4	359.4
Standard Waste Box	36.1	41.8	77.9
As-Generated Total	400.0	110.2	510.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	291.6	68.6	360.2
Standard Waste Box	109.6	41.6	151.2
Final Form Total	401.2	110.2	511.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	2.31
Aluminum-Base Metal/Alloys	0.55
Other Metal/Alloys	2.00
Other Inorganic Materials	7.35
Cellulosics	10.31
Rubber	30.57
Plastics	122.47
Solidified, Inorganic Matrix	1.95
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	24.24
Soils	0.00
Packaging Material, Steel	142.69
Packaging Material, Plastic	20.52
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.73E-01
Np-237	1.26E-05
Pu-238	1.38E-01
Pu-239	3.46E+00
Pu-240	7.89E-01
Pu-241	9.41E+00
Pu-242	8.77E-05
Th-229	2.99E-13
Th-230	1.41E-08
Th-232	8.32E-17
U-233	5.61E-10
U-234	1.33E-04
U-235	4.19E-06
U-236	2.81E-07
U-238	2.79E-06

Waste Stream Description

This waste consists mainly of cloth and paper products from cleanup of gloveboxes and spills.

Management Comments

N/A

Waste Stream ID: **RF-TT0832**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W101	Stream Name	Combustibles/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.4	100.0	100.5
As-Generated Total	0.4	100.0	100.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	100.3	100.7
Final Form Total	0.4	100.3	100.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	2.40
Aluminum-Base Metal/Alloys	2.14
Other Metal/Alloys	4.75
Other Inorganic Materials	78.92
Cellulosics	12.85
Rubber	71.68
Plastics	23.43
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	253.04
Soils	0.00
Packaging Material, Steel	138.51
Packaging Material, Plastic	30.84
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.26E+00
Np-237	1.98E-05
Pu-238	2.45E-01
Pu-239	6.06E+00
Pu-240	1.38E+00
Pu-241	1.78E+01
Pu-242	1.69E-04
Th-229	4.18E-13
Th-230	1.90E-08
Th-232	1.46E-16
U-233	8.13E-10
U-234	1.81E-04
U-235	5.66E-06
U-236	4.92E-07
U-238	5.48E-06

Waste Stream Description

This waste consists mainly of cloth and paper products from cleanup of gloveboxes and spills.

Management Comments

N/A

Waste Stream ID: **RF-TT0854**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W109	Stream Name	Metal/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Decontamination and Decommissioning

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.6	1.0	1.7
As-Generated Total	0.6	1.0	1.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	1.0	1.7
Final Form Total	0.6	1.0	1.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	412.90
Other Inorganic Materials	0.00
Cellulosics	12.89
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.57
Packaging Material, Plastic	32.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.33E-02
Np-237	7.14E-08
Pu-238	1.68E-02
Pu-239	3.92E-01
Pu-240	8.98E-02
Pu-241	1.29E+00
Pu-242	1.14E-05
Th-229	3.75E-16
Th-230	2.87E-08
Th-232	9.47E-18
U-233	1.29E-12
U-234	2.66E-04
U-235	3.06E-05
U-236	3.20E-08
U-238	2.38E-03

Waste Stream Description

"Unclassified beryllium metal consists of scrap beryllium metal pieces, chips and turnings from repackaging and decontamination and decommissioning operations."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT0886**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W112	Stream Name	Solidified Lab Waste/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3160
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Decontamination and Decommissioning

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8804 Can	0.0	0.0	0.0
As-Generated Total	0.0	0.0	0.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	17.34
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	31.82
Cellulosics	167.07
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.37E-02
Np-237	1.37E-07
Pu-238	3.21E-02
Pu-239	7.51E-01
Pu-240	1.72E-01
Pu-241	2.47E+00
Pu-242	2.18E-05
Th-229	7.18E-16
Th-230	6.28E-11
Th-232	1.81E-17
U-233	2.48E-12
U-234	1.15E-06
U-235	8.89E-09
U-236	6.12E-08
U-238	3.94E-14

Waste Stream Description

Non-hazardous solid excess chemicals contaminated with plutonium to TRU concentrations. Chemicals are expired or off-specification in some manner and are therefore not useable.

Management Comments

New Waste Stream being added to TWBIR

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W106	Stream Name	Compressed Combustibles/TRU			Inventory Date	9/30/2002
Local ID	None	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Pollution Control or Waste Treatment Process

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Drum / 55 gallon	3.1	0.0	3.1	
As-Generated Total		3.1	0.0	3.1

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
55 Gallon Drum	3.1	0.0	3.1	
Final Form Total		3.1	0.0	3.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	269.39
Aluminum-Base Metal/Alloys	1.52
Other Metal/Alloys	5.33
Other Inorganic Materials	13.90
Cellulosics	24.37
Rubber	82.63
Plastics	260.45
Solidified, Inorganic Matrix	5.33
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	26.27
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.26E+00
Np-237	1.98E-05
Pu-238	2.45E-01
Pu-239	6.06E+00
Pu-240	1.38E+00
Pu-241	1.78E+01
Pu-242	1.69E-04
Th-229	4.18E-13
Th-230	1.90E-08
Th-232	1.46E-16
U-233	8.13E-10
U-234	1.81E-04
U-235	5.66E-06
U-236	4.92E-07
U-238	5.48E-06

Waste Stream Description

Cloth, paper, cellulosic, and plastic debris material generated from plutonium operations/activities. Combustible waste consisting of any dry combustibles (IDC821), wet combustibles (IDC822), and plastic wastes (IDC825) packed into a 35-gallon drum that was slightly compressed prior to being packed into a 55-gallon drum. This waste was previously referred to as "supercompacted" but is in reality compressed waste.

Management Comments

Required prior EPA approval. Drums of compressed debris were determined to be equivalent to the uncompressed portion of the debris streams that are currently approved by EPA for disposal from the Rocky Flats Environmental Technology Site (RFETS), as referenced in the March 9, 2005 letter from Bonnie C. Gitlin to Dr. Ines Triay.

Waste Stream ID: **RF-TT3010**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W109	Stream Name	Metal/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Decontamination and Decommissioning

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	3.7	20.0	23.7
Standard Waste Box	34.2	302.1	336.3
As-Generated Total	37.9	322.1	360.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	3.8	20.0	23.8
Standard Waste Box	34.0	300.5	334.5
Final Form Total	37.8	320.5	358.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	259.62
Aluminum-Base Metal/Alloys	19.27
Other Metal/Alloys	12.97
Other Inorganic Materials	15.25
Cellulosics	4.88
Rubber	3.26
Plastics	15.26
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	151.71
Packaging Material, Plastic	7.48
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.26E-01
Np-237	7.07E-06
Pu-238	9.49E-02
Pu-239	2.25E+00
Pu-240	5.15E-01
Pu-241	7.13E+00
Pu-242	6.27E-05
Th-229	1.78E-13
Th-230	9.45E-10
Th-232	5.43E-17
U-233	3.29E-10
U-234	1.04E-05
U-235	2.53E-07
U-236	1.83E-07
U-238	9.27E-09

Waste Stream Description

"This IDC is assigned to composite debris, rubble, or material composed of such things as gloveboxes, process equipment and other inorganic materials, such as concrete, glass, firebrick, ceramics, asbestos, etc. The materials contain up to 10 weight percent hydrogenous (organic) material such as cellulosics, Plexiglas, rubber, small quantities of nonhazardous liquid (e.g., Texaco 650 oil) absorbed or solidified using Oil Dri or Nochar polymer, or other organic materials associated with the waste items."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT3011**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W109	Stream Name	Metal/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5490
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Drum / 55 gallon	17.1	1.0	18.1
Standard Waste Box	723.9	685.9	1409.8
As-Generated Total	741.0	686.9	1427.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	17.1	1.0	18.1
Standard Waste Box	720.1	682.3	1402.4
Final Form Total	737.2	683.3	1420.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	201.02
Aluminum-Base Metal/Alloys	7.15
Other Metal/Alloys	69.19
Other Inorganic Materials	36.29
Cellulosics	4.42
Rubber	4.22
Plastics	29.68
Solidified, Inorganic Matrix	4.72
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	16.27
Soils	0.00
Packaging Material, Steel	152.42
Packaging Material, Plastic	5.24
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.82E-01
Np-237	8.11E-06
Pu-238	6.55E-02
Pu-239	1.53E+00
Pu-240	3.51E-01
Pu-241	5.04E+00
Pu-242	4.44E-05
Th-229	2.11E-13
Th-230	1.80E-09
Th-232	3.70E-17
U-233	3.85E-10
U-234	1.78E-05
U-235	5.21E-07
U-236	1.25E-07
U-238	3.87E-07

Waste Stream Description

"This IDC is assigned to composite debris, rubble, or material composed of such things as gloveboxes, process equipment and other inorganic materials, such as concrete, glass, firebrick, ceramics, asbestos, etc. This material typically contains greater than 10 weight percent hydrogenous (organic) material such as cellulosics, plastic, Plexiglas, rubber, small quantities of nonhazardous liquid (e.g., Texaco 650 oil) absorbed or solidified using Oil Dri or Nochar polymer, or other organic materials associated with the waste items; however, there is no upper limit for the amount of hydrogenous material. "

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT301U**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W117	Stream Name	Coarse Graphite/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Graphite	Waste Matrix Code	S5126
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	15.6	0.0	15.6
As-Generated Total	15.6	0.0	15.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	15.6	0.0	15.6
Final Form Total	15.6	0.0	15.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	84.62
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	288.22
Cellulosics	12.89
Rubber	0.00
Plastics	19.44
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.53
Packaging Material, Plastic	30.36
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.06E+00
Np-237	2.65E-05
Pu-238	9.64E-01
Pu-239	2.32E+01
Pu-240	5.40E+00
Pu-241	6.93E+01
Pu-242	6.61E-04
Th-229	5.08E-13
Th-230	2.98E-09
Th-232	5.70E-16
U-233	1.01E-09
U-234	4.46E-05
U-235	6.63E-07
U-236	1.92E-06
U-238	6.54E-06

Waste Stream Description

Classified graphite shapes that have been sanitized by crushing in a hammermill to a size of less than ½-inch in diameter.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT310P**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W117	Stream Name	Coarse Graphite/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Graphite	Waste Matrix Code	S5126
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Residue Repackaging

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC / 55 gallon	2.7	0.0	2.7
As-Generated Total	2.7	0.0	2.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	2.7	0.0	2.7
Final Form Total	2.7	0.0	2.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	8.22
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	33.05
Cellulosics	167.07
Rubber	0.00
Plastics	1.91
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.17
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.85E+00
Np-237	3.01E-05
Pu-238	1.45E+00
Pu-239	4.50E+01
Pu-240	9.79E+00
Pu-241	8.35E+01
Pu-242	7.15E-04
Th-229	3.34E-13
Th-230	2.99E-09
Th-232	1.03E-15
U-233	8.27E-10
U-234	5.32E-05
U-235	5.76E-07
U-236	3.49E-06
U-238	3.89E-10

Waste Stream Description

A blended product of IDC 310 and IDC 301U

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT338S**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W115	Stream Name	Coarse Graphite/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Residue Repackaging

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Slip Lid Can	0.0	0.0	0.0
As-Generated Total	0.0	0.0	0.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	19.44
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	23.87
Other Inorganic Materials	92.37
Cellulosics	12.89
Rubber	0.00
Plastics	15.87
Solidified, Inorganic Matrix	80.40
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.51
Packaging Material, Plastic	29.39
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.98E-01
Np-237	2.00E-06
Pu-238	4.31E-01
Pu-239	1.01E+01
Pu-240	2.31E+00
Pu-241	3.32E+01
Pu-242	2.93E-04
Th-229	1.12E-14
Th-230	8.44E-10
Th-232	2.44E-16
U-233	3.75E-11
U-234	1.54E-05
U-235	1.20E-07
U-236	8.23E-07
U-238	5.30E-13

Waste Stream Description

Insulation standards discovered during residue repackaging.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT390P**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W116	Stream Name	"Sand, Slag, and Crucible/TRU"			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC / 55 gallon	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	9.07
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	23.39
Cellulosics	167.07
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.62E+00
Np-237	3.00E-05
Pu-238	1.17E+00
Pu-239	4.91E+01
Pu-240	1.03E+01
Pu-241	8.27E+01
Pu-242	5.42E-04
Th-229	2.73E-13
Th-230	9.75E-09
Th-232	1.09E-15
U-233	7.45E-10
U-234	1.11E-04
U-235	2.81E-06
U-236	3.68E-06
U-238	1.97E-08

Waste Stream Description

"Unpulverized calcium fluoride slag processed for shipment to the Savannah River Site (SRS). The SRS project was cancelled, and this IDC is now considered waste."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT391P**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W116	Stream Name	"Sand, Slag, and Crucible/TRU"			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC / 55 gallon	22.7	0.0	22.7
As-Generated Total	22.7	0.0	22.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	22.7	0.0	22.7
Final Form Total	22.7	0.0	22.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	28.20
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	26.93
Cellulosics	167.07
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.46E+00
Np-237	3.79E-05
Pu-238	9.62E-01
Pu-239	4.05E+01
Pu-240	9.13E+00
Pu-241	9.19E+01
Pu-242	6.57E-04
Th-229	5.20E-13
Th-230	1.88E-09
Th-232	9.63E-16
U-233	1.18E-09
U-234	3.44E-05
U-235	4.80E-07
U-236	3.25E-06
U-238	1.19E-12

Waste Stream Description

"Unpulverized magnesium oxide sand and crucible processed for shipment to the SRS. The SRS project was cancelled, and this IDC is now considered waste."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT392P**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W116	Stream Name	"Sand, Slag, and Crucible/TRU"			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC / 55 gallon	65.1	0.0	65.1
As-Generated Total	65.1	0.0	65.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	65.2	0.0	65.2
Final Form Total	65.2	0.0	65.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	26.82
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	25.48
Cellulosics	167.07
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.99E+00
Np-237	2.06E-05
Pu-238	1.21E+00
Pu-239	4.24E+01
Pu-240	9.65E+00
Pu-241	6.36E+01
Pu-242	6.19E-04
Th-229	1.85E-13
Th-230	2.45E-09
Th-232	1.02E-15
U-233	5.08E-10
U-234	4.40E-05
U-235	5.27E-07
U-236	3.43E-06
U-238	2.27E-10

Waste Stream Description

"Unpulverized magnesium oxide sand, calcium fluoride slag, and magnesium oxide crucible processed for shipment to the SRS."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT393R**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W116	Stream Name	"Sand, Slag, and Crucible/TRU"			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S5129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
8802 Can	0.0	0.0	0.0
POC / 55 gallon	12.3	0.0	12.3
As-Generated Total	12.3	0.0	12.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	12.5	0.0	12.5
Final Form Total	12.5	0.0	12.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	51.47
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	45.01
Cellulosics	167.07
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.47E+00
Np-237	1.61E-05
Pu-238	1.07E+00
Pu-239	3.37E+01
Pu-240	7.74E+00
Pu-241	5.37E+01
Pu-242	4.91E-04
Th-229	1.64E-13
Th-230	3.59E-09
Th-232	8.17E-16
U-233	4.22E-10
U-234	5.22E-05
U-235	8.45E-07
U-236	2.75E-06
U-238	3.94E-09

Waste Stream Description

"Repackaged/blended sand, slag, and crucible heel. These materials may be blended with reagent magnesium oxide sand. Materials which may become IDC 393R for disposal include sand, slag, and crucible heel (IDC 393), ground/blended sand, slag, and crucible heel (IDC 393P), and SS&C heel repack/processed (IDC 393R)."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT394P**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W116	Stream Name	"Sand, Slag, and Crucible/TRU"			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC / 55 gallon	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	26.82
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	25.48
Cellulosics	167.07
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.30E+01
Np-237	1.36E-04
Pu-238	1.33E+00
Pu-239	5.23E+01
Pu-240	1.11E+01
Pu-241	7.74E+01
Pu-242	5.89E-04
Th-229	3.02E-12
Th-230	3.83E-09
Th-232	1.17E-15
U-233	5.77E-09
U-234	5.89E-05
U-235	9.86E-07
U-236	3.94E-06
U-238	3.25E-09

Waste Stream Description

"Magnesium oxide sand processed for shipment to the SRS. The SRS project was cancelled, and this IDC is now considered waste. The sand will contain small particles of calcium fluoride slag and small pieces of magnesium oxide crucible."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT395P**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W116	Stream Name	"Sand, Slag, and Crucible/TRU"			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Materials Production/Repackaging

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC / 55 gallon	0.8	0.0	0.8
As-Generated Total	0.8	0.0	0.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	0.8	0.0	0.8
Final Form Total	0.8	0.0	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	19.09
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	28.64
Cellulosics	167.07
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.30E+01
Np-237	1.36E-04
Pu-238	1.33E+00
Pu-239	5.23E+01
Pu-240	1.11E+01
Pu-241	7.74E+01
Pu-242	5.89E-04
Th-229	3.02E-12
Th-230	3.83E-09
Th-232	1.17E-15
U-233	5.77E-09
U-234	5.89E-05
U-235	9.86E-07
U-236	3.94E-06
U-238	3.25E-09

Waste Stream Description

"Unpulverized calcium fluoride slag and magnesium oxide crucible processed for shipment to the SRS. The SRS project was cancelled, and this IDC is now considered waste."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT396P**

Appendix J

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W116	Stream Name	"Sand, Slag, and Crucible/TRU"			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC / 55 gallon	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	26.82
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	25.48
Cellulosics	167.07
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.30E+01
Np-237	1.36E-04
Pu-238	1.33E+00
Pu-239	5.23E+01
Pu-240	1.11E+01
Pu-241	7.74E+01
Pu-242	5.89E-04
Th-229	3.02E-12
Th-230	3.83E-09
Th-232	1.17E-15
U-233	5.77E-09
U-234	5.89E-05
U-235	9.86E-07
U-236	3.94E-06
U-238	3.25E-09

Waste Stream Description

"Pulverized calcium fluoride slag processed for shipment to the SRS. The SRS project was cancelled, and this IDC is now considered waste."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT398P**

Appendix J

DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W116	Stream Name	"Sand, Slag, and Crucible/TRU"			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC / 55 gallon	43.1	0.0	43.1
As-Generated Total	43.1	0.0	43.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	43.1	0.0	43.1
Final Form Total	43.1	0.0	43.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	21.60
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	22.49
Cellulosics	167.07
Rubber	0.00
Plastics	0.96
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.27E+00
Np-237	1.79E-05
Pu-238	1.11E+00
Pu-239	3.96E+01
Pu-240	8.96E+00
Pu-241	6.01E+01
Pu-242	5.44E-04
Th-229	1.60E-13
Th-230	2.20E-09
Th-232	9.46E-16
U-233	4.41E-10
U-234	4.00E-05
U-235	4.76E-07
U-236	3.19E-06
U-238	6.13E-11

Waste Stream Description

"Pulverized sand, slag, and crucible processed for shipment to the SRS. The SRS project was cancelled, and this IDC is now considered waste. This waste stream may also include ground/blended sand, slag and crucible consisting of repackaged pulverized material or fines. Sand, slag, and crucible materials which may become IDC 398P for disposal include reburned sand, slag, and crucible sweepings (IDC 387); ground/blended reburned sand, slag, and crucible sweepings (IDC 387P); ground/blended slag (IDC 390P); ground/blended sand and crucible (IDC 391P); ground/blended sand, slag, and crucible (IDC 392P); magnesium oxide sand (IDC 394); ground/blended magnesium oxide sand (IDC 394P); ground/blended slag and crucible (IDC 395P); pulverized slag (IDC 396); ground/blended slag (IDC 396P); pulverized sand, slag, and crucible (IDC 398); and ground/blended sand, slag, and crucible (IDC 398P)."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT398R**

Appendix J

DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W116	Stream Name	"Sand, Slag, and Crucible/TRU"			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC / 55 gallon	69.7	0.0	69.7
As-Generated Total	69.7	0.0	69.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	69.8	0.0	69.8
Final Form Total	69.8	0.0	69.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	29.06
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	24.80
Cellulosics	167.07
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.50E+01
Np-237	4.39E-04
Pu-238	1.28E+00
Pu-239	3.96E+01
Pu-240	8.96E+00
Pu-241	7.24E+01
Pu-242	6.82E-04
Th-229	1.02E-11
Th-230	2.50E-09
Th-232	9.46E-16
U-233	1.93E-08
U-234	4.57E-05
U-235	4.68E-07
U-236	3.19E-06
U-238	1.24E-12

Waste Stream Description

"Repackaged/blended sand slag and crucible consisting of unpulverized material or unpulverized material mixed with pulverized material or fines. Any sand, slag, and crucible IDC may become IDC 398R for disposal."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT411R**

Appendix J

DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W103	Stream Name	Miscellaneous Plutonium Recovery Byproduct/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Salt	Waste Matrix Code	S3141
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Materials Recovery/Repackaging

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC / 55 gallon	7.7	0.0	7.7
As-Generated Total	7.7	0.0	7.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	7.7	0.0	7.7
Final Form Total	7.7	0.0	7.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	11.20
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	6.51
Other Inorganic Materials	18.41
Cellulosics	167.07
Rubber	0.00
Plastics	1.27
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.14
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.07E+01
Np-237	3.99E-05
Pu-238	1.04E+00
Pu-239	4.09E+01
Pu-240	9.25E+00
Pu-241	4.63E+01
Pu-242	7.25E-04
Th-229	3.78E-13
Th-230	2.36E-09
Th-232	9.76E-16
U-233	1.02E-09
U-234	4.01E-05
U-235	5.81E-07
U-236	3.29E-06
U-238	8.64E-10

Waste Stream Description

"Repackaged spent salt from the ER processes. Salts which become IDC 411R for disposal include electrorefining salt, first use (IDC 363), electrorefining salt, second use (IDC 364), electrorefining salt – final disposition (IDC 411), impure salt from cell clean-out (IDC 413), returned salt from cell cleanout (IDC 426), stabilized electrorefining salt (IDC 411X), and electrorefining salt packaged for LANL (IDC 473). This output may also contain some broken or irregularly shaped pieces of magnesium oxide ceramic crucible coated with pyrochemical salt."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT429R**

Appendix J

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W103	Stream Name	Miscellaneous Plutonium Recovery Byproduct/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Salt	Waste Matrix Code	S3141
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Materials Recovery/Repackaging

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC / 55 gallon	2.1	0.0	2.1
As-Generated Total	2.1	0.0	2.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	2.1	0.0	2.1
Final Form Total	2.1	0.0	2.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	9.12
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	5.74
Other Inorganic Materials	11.94
Cellulosics	167.07
Rubber	0.00
Plastics	1.15
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.18
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.46E+01
Np-237	8.78E-04
Pu-238	8.24E-01
Pu-239	3.50E+01
Pu-240	7.78E+00
Pu-241	2.99E+01
Pu-242	3.93E-04
Th-229	1.84E-11
Th-230	1.61E-09
Th-232	8.21E-16
U-233	3.60E-08
U-234	2.94E-05
U-235	4.14E-07
U-236	2.77E-06
U-238	7.12E-13

Waste Stream Description

"Repackaged spent salt from the MSE scrub alloy process including materials from failed production runs. Salts which become IDC 429R for disposal include MSE, unknown percent unpulverized (IDC 405), MSE, unknown percent pulverized (IDC 406), MSE, 8 percent unpulverized (IDC 407), MSE, 8 percent pulverized (IDC 408), MSE, 30 percent unpulverized (IDC 409), MSE, 30 percent pulverized (IDC 410), plutonium chloride mixed salt (IDC 415), MSE salt packaged for LANL (IDC 418), stabilized scrub alloy spent salt (IDC 429X), and scrub alloy spent salt (IDC 429). This output may also contain some broken or irregularly shaped pieces of magnesium oxide ceramic crucible coated with pyrochemical salt."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT433X**

Appendix J

DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W103	Stream Name	Miscellaneous Plutonium Recovery Byproduct/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Salt	Waste Matrix Code	S3141
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Materials Recovery/Repackaging

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC / 55 gallon	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	17.34
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	31.82
Cellulosics	167.07
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.89E+01
Np-237	3.87E-04
Pu-238	7.61E-01
Pu-239	3.35E+01
Pu-240	6.73E+00
Pu-241	3.95E+01
Pu-242	3.24E-04
Th-229	3.77E-12
Th-230	1.49E-09
Th-232	7.10E-16
U-233	1.00E-08
U-234	2.72E-05
U-235	3.97E-07
U-236	2.39E-06
U-238	5.86E-13

Waste Stream Description

"Spent salt from the MSE scrub alloy process that used cesium salt. Other salts, which become IDC 433X for disposal, include MSE spent cesium salt (IDC 427), scrub alloy spent cesium salt (IDC 433), free calcium containing spent salt (IDC 434), and cerium/calcium spent salt (IDC 435). Salts which also may become IDC 433X for disposal include salt from bad DOR run (IDC 365), MSE Salt, Ca, Zn, K (IDC 404), Gibson salt (IDC 412), DOR salt – unoxidized calcium (IDC 414), Zn-Mg alloy metal (IDC 416) and DOR salt oxidized calcium (IDC 454)."

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT436R**

Appendix J

DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W103	Stream Name	Miscellaneous Plutonium Recovery Byproduct/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Salt	Waste Matrix Code	S3141
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC / 55 gallon	7.1	0.0	7.1
As-Generated Total	7.1	0.0	7.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	7.1	0.0	7.1
Final Form Total	7.1	0.0	7.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	11.25
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	7.77
Other Inorganic Materials	14.32
Cellulosics	167.07
Rubber	0.00
Plastics	1.56
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.22
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.25E+01
Np-237	6.90E-04
Pu-238	9.72E-01
Pu-239	3.88E+01
Pu-240	8.77E+00
Pu-241	6.73E+01
Pu-242	5.56E-04
Th-229	1.54E-11
Th-230	1.90E-09
Th-232	9.25E-16
U-233	2.95E-08
U-234	3.47E-05
U-235	4.59E-07
U-236	3.12E-06
U-238	1.01E-12

Waste Stream Description

This output consists of repackaged Salt Residue Project material including any salt historically generated by pyrochemistry operations that contains less than 6 percent by weight moisture. This output may also contain some broken or irregularly shaped pieces of magnesium oxide ceramic crucible coated with pyrochemical salt.

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RF-TT454X**

Appendix J

DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W103	Stream Name	Miscellaneous Plutonium Recovery Byproduct/TRU			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Salt	Waste Matrix Code	S3141
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Materials Recovery/Repackaging

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
POC / 55 gallon	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon POCs	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	11.20
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	6.51
Other Inorganic Materials	18.41
Cellulosics	167.07
Rubber	0.00
Plastics	1.27
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	525.14
Packaging Material, Plastic	23.87
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.25E+01
Np-237	6.90E-04
Pu-238	9.72E-01
Pu-239	3.88E+01
Pu-240	8.77E+00
Pu-241	6.73E+01
Pu-242	5.56E-04
Th-229	1.54E-11
Th-230	1.90E-09
Th-232	9.25E-16
U-233	2.95E-08
U-234	3.47E-05
U-235	4.59E-07
U-236	3.12E-06
U-238	1.01E-12

Waste Stream Description

"Spent salt from the direct oxide reduction (DOR) process. Other salts which become IDC 454X for disposal include salt from bad DOR run (IDC 365), MSE salt, Ca, Zn, K (IDC 404), Gibson salt (IDC 412), DOR salt-unoxidized calcium (IDC 414), Zn-Mg alloy metal (IDC 416), Pu chloride mixed salt (IDC 415) and DOR salt – oxidized calcium (IDC 454)"

Management Comments

New Waste Stream being added to TWBIR

Waste Stream ID: **RL-T101**

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DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W236	Stream Name	202A Bldg TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	320.9	0.0	320.9
Standard Waste Box	247.0	0.0	247.0
As-Generated Total	567.9	0.0	567.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	320.9	0.0	320.9
Standard Waste Box	247.0	0.0	247.0
Final Form Total	567.9	0.0	567.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	619.28
Aluminum-Base Metal/Alloys	122.62
Other Metal/Alloys	0.00
Other Inorganic Materials	41.43
Cellulosics	64.29
Rubber	25.55
Plastics	70.99
Solidified, Inorganic Matrix	10.39
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	10.17
Packaging Material, Steel	141.00
Packaging Material, Plastic	21.43
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	4.42E-02
Pu-238	4.33E-02
Pu-239	1.54E+00
Pu-240	3.46E-01
Pu-241	6.98E+00
Pu-242	2.08E-05
Sr-90	4.13E-02
U-234	3.51E-13
U-235	1.57E-14
U-238	3.42E-13

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums, and 85% of the waste stored in boxes are expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Waste in boxes will be opened, and size-reduced to fit into TRUPACT-II SWBs. No volume reduction is projected. Upper and lower weights of final waste form are unknown.

Waste Stream ID: **RL-T102**

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DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W237	Stream Name	202-AL Bldg TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	198.2	0.0	198.2
Standard Waste Box	1.9	0.0	1.9
As-Generated Total	200.1	0.0	200.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	198.2	0.0	198.2
Standard Waste Box	1.9	0.0	1.9
Final Form Total	200.1	0.0	200.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	553.47
Aluminum-Base Metal/Alloys	87.78
Other Metal/Alloys	0.00
Other Inorganic Materials	42.97
Cellulosics	104.11
Rubber	44.58
Plastics	106.21
Solidified, Inorganic Matrix	14.90
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	17.83
Packaging Material, Steel	131.22
Packaging Material, Plastic	36.66
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	6.15E-04
Pu-238	1.56E-06
Pu-239	5.58E-05
Pu-240	1.25E-05
Pu-241	2.52E-04
Pu-242	7.52E-10
Sr-90	5.73E-04
U-234	5.74E-09
U-235	2.57E-10
U-238	5.57E-09

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums, and 85% of the waste stored in boxes are expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified waste in drums (WHC-SD-W026-SDRD-001, Rev. 3). Waste in boxes will be opened, and size-reduced to fit into TRUPACT-II SWBs. No volume reduction is projected. Upper and lower weights of final waste form are unknown.

Waste Stream ID: **RL-T103**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W238	Stream Name	216-Z-9 Retrieved Soil			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Soils	Waste Matrix Code	S4100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	99.6	0.0	99.6
As-Generated Total	99.6	0.0	99.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	99.6	0.0	99.6
Final Form Total	99.6	0.0	99.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	324.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.05E-01
Cs-137	2.92E-03
Pu-238	2.99E-01
Pu-239	3.84E+00
Pu-240	8.53E-01
Pu-241	2.11E+01
Pu-242	4.93E-05
Sr-90	2.67E-03

Waste Stream Description

Waste consists of soil contaminated with TRU solutions. Soil is contained in a 0.3 mm polyethylene bag within an inner container. The outer container is a standard 55-gallon drum. Vermiculite is a packing material between the inner and outer container.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums is expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights of final waste form are unknown.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights of final waste form are unknown.

Waste Stream ID: **RL-T104**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W239	Stream Name	221-T TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	5.0	0.0	5.0
As-Generated Total	5.0	0.0	5.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	5.0	0.0	5.0
Final Form Total	5.0	0.0	5.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	552.00
Aluminum-Base Metal/Alloys	87.00
Other Metal/Alloys	0.00
Other Inorganic Materials	43.00
Cellulosics	105.00
Rubber	45.00
Plastics	107.00
Solidified, Inorganic Matrix	15.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	18.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	8.61E-05
Pu-238	8.95E-05
Pu-239	3.19E-03
Pu-240	7.17E-04
Pu-241	1.45E-02
Pu-242	4.32E-08
Sr-90	8.03E-05
U-234	6.53E-09
U-235	2.92E-10
U-238	6.34E-09

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Absorbed combustible liquids such as oils have also been placed in some drums. Drums are also used for disposal of high-efficiency particulate air filters.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums is expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights of final waste form are unknown.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights of final waste form are unknown.

Waste Stream ID: **RL-T105**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W240	Stream Name	222-S TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	44.3	0.0	44.3
Standard Waste Box	36.1	0.0	36.1
As-Generated Total	80.4	0.0	80.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	44.3	0.0	44.3
Standard Waste Box	36.1	0.0	36.1
Final Form Total	80.4	0.0	80.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	621.46
Aluminum-Base Metal/Alloys	123.77
Other Metal/Alloys	0.00
Other Inorganic Materials	41.38
Cellulosics	62.98
Rubber	24.92
Plastics	69.82
Solidified, Inorganic Matrix	10.24
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	9.92
Packaging Material, Steel	141.33
Packaging Material, Plastic	20.93
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.70E-04
Cs-137	4.86E-04
Pu-238	2.11E-03
Pu-239	7.51E-02
Pu-240	1.68E-02
Pu-241	3.39E-01
Pu-242	1.01E-06
Sr-90	4.53E-04
U-233	1.17E-02
U-234	5.57E-07
U-235	5.72E-08
U-238	6.16E-10

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums, and 85% of the waste stored in boxes are expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified waste in drums (WHC-SD-W026-SDRD-001, Rev. 3). Waste in boxes will be opened, and size-reduced to fit into TRUPACT-II SWBs. No volume reduction is projected. Upper and lower weights of final waste form are unknown.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified waste in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights of final waste form are unknown.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W241	Stream Name	233-S TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	8.1	0.0	8.1
As-Generated Total	8.1	0.0	8.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	8.1	0.0	8.1
Final Form Total	8.1	0.0	8.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	552.00
Aluminum-Base Metal/Alloys	87.00
Other Metal/Alloys	0.00
Other Inorganic Materials	43.00
Cellulosics	105.00
Rubber	45.00
Plastics	107.00
Solidified, Inorganic Matrix	15.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	18.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	8.79E-05
Pu-238	2.04E-02
Pu-239	7.28E-01
Pu-240	1.63E-01
Pu-241	3.30E+00
Pu-242	9.80E-06
Sr-90	8.19E-05

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Absorbed combustible liquids such as oils have also been placed in some drums. Drums are also used for disposal of high-efficiency particulate air filters.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums is expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T107**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W242	Stream Name	234-5Z TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	2901.4	0.0	2901.4
Standard Waste Box	3254.7	0.0	3254.7
As-Generated Total	6156.1	0.0	6156.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	2901.4	0.0	2901.4
Standard Waste Box	3254.7	0.0	3254.7
Final Form Total	6156.1	0.0	6156.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	633.79
Aluminum-Base Metal/Alloys	130.30
Other Metal/Alloys	0.00
Other Inorganic Materials	41.10
Cellulosics	55.51
Rubber	21.36
Plastics	63.22
Solidified, Inorganic Matrix	9.40
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	8.48
Packaging Material, Steel	143.16
Packaging Material, Plastic	18.07
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.42E-04
Cs-137	6.03E-03
Pu-238	1.58E+01
Pu-239	2.65E+00
Pu-240	5.92E-01
Pu-241	1.19E+01
Pu-242	3.57E-05
Sr-90	5.62E-03
Th-232	1.01E-08
U-233	6.76E-05
U-234	1.37E-04
U-235	3.07E-06
U-238	5.70E-05

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums, and 85% of the waste stored in boxes are expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Waste in boxes will be opened, and size-reduced to fit into TRUPACT-II SWBs. No volume reduction is projected. Upper and lower weights for final waste form are unknown.

The contact-handled TRU waste from Building 2345Z was reported in Waste Nos. RL-T146 and RL-T150 in Revision 1 of the WTWBIR. This waste is reported in RL-T107 in Revision 2; RL-T146 and RL-T150 have been deleted in Revision 2.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W243	Stream Name	Misc 200 West Area TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	8.3	0.0	8.3
Standard Waste Box	184.3	0.0	184.3
As-Generated Total	192.6	0.0	192.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	8.3	0.0	8.3
Standard Waste Box	184.3	0.0	184.3
Final Form Total	192.6	0.0	192.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	700.02
Aluminum-Base Metal/Alloys	165.36
Other Metal/Alloys	0.00
Other Inorganic Materials	39.56
Cellulosics	15.44
Rubber	4.62
Plastics	27.78
Solidified, Inorganic Matrix	4.86
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.78
Packaging Material, Steel	153.01
Packaging Material, Plastic	2.75
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	1.02E-04
Pu-238	8.72E-02
Pu-239	4.82E-02
Pu-240	1.08E-02
Pu-241	2.18E-01
Pu-242	6.51E-07
Sr-90	9.45E-05
U-234	1.52E-07
U-235	6.79E-09
U-238	1.48E-07

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixtures, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums, and 85% of the waste stored in boxes are expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Waste in boxes will be opened, and size-reduced to fit into TRUPACT-II SWBs. No volume reduction is projected. Upper and lower weights of final waste form are unknown.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T109**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W244	Stream Name	308 Bldg TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	8.3	0.0	8.3
Standard Waste Box	11.4	0.0	11.4
As-Generated Total	19.7	0.0	19.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	8.3	0.0	8.3
Standard Waste Box	11.4	0.0	11.4
Final Form Total	19.7	0.0	19.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	641.43
Aluminum-Base Metal/Alloys	134.35
Other Metal/Alloys	0.00
Other Inorganic Materials	40.92
Cellulosics	50.89
Rubber	19.15
Plastics	59.13
Solidified, Inorganic Matrix	8.87
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	7.59
Packaging Material, Steel	144.30
Packaging Material, Plastic	16.30
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.71E-03
Cs-137	5.41E-04
Pu-238	1.75E-02
Pu-239	6.24E-01
Pu-240	1.40E-01
Pu-241	2.83E+00
Pu-242	8.43E-06
Sr-90	5.04E-04
U-233	5.54E-03
U-234	1.18E-03
U-235	1.57E-05
U-238	4.03E-04

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums, and 85% of the waste stored in boxes are expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Wastes in boxes will be opened, and size-reduced to fit into TRUPACT-II SWBs. No volume reduction is projected. Upper and lower weights for final waste form are unknown.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T110**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W245	Stream Name	324, 325 and 327 Bldg Oper TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	364.8	0.0	364.8
Standard Waste Box	129.2	0.0	129.2
As-Generated Total	494.0	0.0	494.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	364.8	0.0	364.8
Standard Waste Box	129.2	0.0	129.2
Final Form Total	494.0	0.0	494.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	592.46
Aluminum-Base Metal/Alloys	108.42
Other Metal/Alloys	0.00
Other Inorganic Materials	42.06
Cellulosics	80.52
Rubber	33.30
Plastics	85.35
Solidified, Inorganic Matrix	12.23
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	13.29
Packaging Material, Steel	137.01
Packaging Material, Plastic	27.64
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.61E-03
Cs-137	1.05E-02
Pu-238	1.34E-01
Pu-239	2.86E+00
Pu-240	6.41E-01
Pu-241	1.30E+01
Pu-242	3.86E-05
Sr-90	9.80E-03
Th-232	5.17E-06
U-233	2.30E-04
U-234	2.76E-03
U-235	1.33E-04
U-238	3.86E-04

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums, and 85% of the waste stored in boxes are expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Waste in boxes will be opened, and size-reduced to fit into TRUPACT-II SWBs. No volume reduction is projected. Upper and lower weights for final waste form are unknown.

The contact-handled TRU waste from Building 327C was reported as Waste No. RL-T111A in Revision 1 of the WTWBIR. RL-T111A has been deleted in Revision 2 of the WTWBIR.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T112**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W246	Stream Name	340 Bldg Oper and R&D TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	50.3	0.0	50.3
Standard Waste Box	87.4	0.0	87.4
As-Generated Total	137.7	0.0	137.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	50.3	0.0	50.3
Standard Waste Box	87.4	0.0	87.4
Final Form Total	137.7	0.0	137.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	650.16
Aluminum-Base Metal/Alloys	138.97
Other Metal/Alloys	0.00
Other Inorganic Materials	40.72
Cellulosics	45.61
Rubber	16.62
Plastics	54.46
Solidified, Inorganic Matrix	8.27
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	6.58
Packaging Material, Steel	145.59
Packaging Material, Plastic	14.28
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.42E-01
Cs-137	8.48E-04
Pu-238	2.02E-01
Pu-239	1.36E+00
Pu-240	3.04E-01
Pu-241	6.15E+00
Pu-242	1.83E-05
Sr-90	7.91E-04
Th-232	1.95E-06
U-233	5.71E-05
U-234	5.34E-03
U-235	3.71E-04
U-238	2.32E-04

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums, and 85% of the waste stored in boxes are expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Waste in boxes will be opened, and size-reduced to fit into TRUPACT-II SWBs. No volume reduction is projected. Upper and lower weights for final waste form are unknown.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T113**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W247	Stream Name	100 Areas and 200 Areas R&D TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	18.1	0.0	18.1
Standard Waste Box	24.7	0.0	24.7
As-Generated Total	42.8	0.0	42.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	18.1	0.0	18.1
Standard Waste Box	24.7	0.0	24.7
Final Form Total	42.8	0.0	42.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	641.29
Aluminum-Base Metal/Alloys	134.27
Other Metal/Alloys	0.00
Other Inorganic Materials	40.92
Cellulosics	50.98
Rubber	19.19
Plastics	59.21
Solidified, Inorganic Matrix	8.88
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	7.61
Packaging Material, Steel	144.27
Packaging Material, Plastic	16.34
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	2.02E-04
Pu-238	1.26E-03
Pu-239	1.44E-02
Pu-240	3.23E-03
Pu-241	6.53E-02
Pu-242	1.95E-07
Sr-90	1.89E-04

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums, and 85% of the waste stored in boxes are expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Waste in boxes will be opened, and size-reduced to fit into TRUPACT-II SWBs. No volume reduction is projected. Upper and lower weights for final waste form are unknown.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W248	Stream Name	209 E Bldg TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste **Source:** R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	17.7	0.0	17.7
Standard Waste Box	1.9	0.0	1.9
As-Generated Total	19.6	0.0	19.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	17.7	0.0	17.7
Standard Waste Box	1.9	0.0	1.9
Final Form Total	19.6	0.0	19.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	567.01
Aluminum-Base Metal/Alloys	94.95
Other Metal/Alloys	0.00
Other Inorganic Materials	42.65
Cellulosics	95.92
Rubber	40.66
Plastics	98.97
Solidified, Inorganic Matrix	13.97
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	16.25
Packaging Material, Steel	133.23
Packaging Material, Plastic	33.53
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	2.60E-03
Pu-238	1.35E-01
Pu-239	4.78E+00
Pu-240	1.07E+00
Pu-241	2.16E+01
Pu-242	6.45E-05
Sr-90	2.43E-03

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums, and 85% of the waste stored in boxes are expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Waste in boxes will be opened, and size-reduced to fit into TRUPACT-II SWBs. No volume reduction is projected. Upper and lower weights for final waste form are unknown.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T115**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W249	Stream Name	231-Z Bldg TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	193.2	0.0	193.2
Standard Waste Box	832.2	0.0	832.2
As-Generated Total	1025.4	0.0	1025.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	193.2	0.0	193.2
Standard Waste Box	832.2	0.0	832.2
Final Form Total	1025.4	0.0	1025.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	677.55
Aluminum-Base Metal/Alloys	153.47
Other Metal/Alloys	0.00
Other Inorganic Materials	40.08
Cellulosics	29.04
Rubber	8.71
Plastics	39.80
Solidified, Inorganic Matrix	6.40
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	3.39
Packaging Material, Steel	149.67
Packaging Material, Plastic	7.95
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.53E-01
Cs-137	1.89E-04
Pu-238	8.31E-02
Pu-239	1.20E+00
Pu-240	2.69E-01
Pu-241	6.08E+00
Pu-242	1.62E-05
Sr-90	1.73E-04
Th-232	4.35E-08
U-234	4.03E-04
U-235	1.14E-06
U-238	4.45E-05

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums, and 85% of the waste stored in boxes are expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Waste in boxes will be opened, and size-reduced to fit into TRUPACT-II SWBs. No volume reduction is projected. Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T116**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W250	Stream Name	303C Bldg TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	11.0	0.0	11.0
As-Generated Total	11.0	0.0	11.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	11.0	0.0	11.0
Final Form Total	11.0	0.0	11.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	552.00
Aluminum-Base Metal/Alloys	87.00
Other Metal/Alloys	0.00
Other Inorganic Materials	43.00
Cellulosics	105.00
Rubber	45.00
Plastics	107.00
Solidified, Inorganic Matrix	15.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	18.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	9.50E-01
Pu-238	3.92E-01
Pu-239	1.39E+01
Pu-240	3.12E+00
Pu-241	6.31E+01
Pu-242	1.88E-04
Sr-90	8.84E-01
Th-232	3.21E-03
U-233	4.27E+00
U-234	5.10E-03
U-235	5.24E-04
U-238	5.64E-06

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Absorbed combustible liquids such as oils have also been placed in some drums. Drums are also used for disposal of high-efficiency particulate air filters.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums is expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W251	Stream Name	300 Area R&D TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	227.8	0.0	227.8
Standard Waste Box	34.2	0.0	34.2
As-Generated Total	262.0	0.0	262.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	227.8	0.0	227.8
Standard Waste Box	34.2	0.0	34.2
Final Form Total	262.0	0.0	262.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	572.20
Aluminum-Base Metal/Alloys	97.69
Other Metal/Alloys	0.00
Other Inorganic Materials	42.53
Cellulosics	92.78
Rubber	39.16
Plastics	96.19
Solidified, Inorganic Matrix	13.62
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	15.65
Packaging Material, Steel	134.00
Packaging Material, Plastic	32.33
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.45E-01
Cs-137	1.52E-03
Pu-238	1.32E-01
Pu-239	5.82E-01
Pu-240	1.30E-01
Pu-241	2.63E+00
Pu-242	7.85E-06
Sr-90	1.42E-03
Th-232	1.26E-05
U-233	9.48E-05
U-234	3.18E-03
U-235	6.33E-05
U-238	6.00E-04

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums, and 85% of the waste stored in boxes are expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Waste in boxes will be opened, and size-reduced to fit into TRUPACT-II SWBs. No volume reduction is projected. Upper and lower weights for final waste form are unknown.

The contact-handled TRU waste from Building 318 was reported as Waste No. RL-T117 in Revision 1 of the WTWBIR. This waste is reported in RL-T118 in Revision 2; RL-T117 has been deleted.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W252	Stream Name	TRU Construction Debris			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	44.5	0.0	44.5
Standard Waste Box	89.3	0.0	89.3
As-Generated Total	133.8	0.0	133.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	44.5	0.0	44.5
Standard Waste Box	89.3	0.0	89.3
Final Form Total	133.8	0.0	133.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	655.24
Aluminum-Base Metal/Alloys	141.66
Other Metal/Alloys	0.00
Other Inorganic Materials	40.60
Cellulosics	42.54
Rubber	15.16
Plastics	51.74
Solidified, Inorganic Matrix	7.93
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	5.99
Packaging Material, Steel	146.35
Packaging Material, Plastic	13.11
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.93E-02
Cs-137	5.40E-04
Pu-238	2.71E-02
Pu-239	3.37E-01
Pu-240	7.50E-02
Pu-241	1.81E+00
Pu-242	4.45E-06
Sr-90	4.92E-04
U-234	4.22E-09
U-235	1.89E-10
U-238	4.11E-09

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums, and 85% of the waste stored in boxes are expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Waste in boxes will be opened, and size-reduced to fit into TRUPACT-II SWBs. No volume reduction is projected. Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T121**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W253	Stream Name	105-KE Bldg TRU Waste		Inventory Date	9/30/2002			
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440	Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
RH Canister	53.4	0.0	53.4
As-Generated Total	53.4	0.0	53.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Canister	53.4	0.0	53.4
Final Form Total	53.4	0.0	53.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	710.00
Aluminum-Base Metal/Alloys	164.50
Other Metal/Alloys	0.00
Other Inorganic Materials	41.00
Cellulosics	22.50
Rubber	6.60
Plastics	34.60
Solidified, Inorganic Matrix	5.70
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	2.10
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	5.63E-01
Pu-238	1.78E-02
Pu-239	1.17E-01
Pu-240	5.83E-02
Pu-241	2.89E+00
Pu-242	1.72E-06
Sr-90	5.25E-01

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.2A, Radioactive Waste Management. Upper and lower weights of final waste form are unknown.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W254	Stream Name	105-C, 105KE, and 105-N Bldg TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	2.7	0.0	2.7
Standard Waste Box	26.6	0.0	26.6
As-Generated Total	29.3	0.0	29.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	2.7	0.0	2.7
Standard Waste Box	26.6	0.0	26.6
Final Form Total	29.3	0.0	29.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	692.43
Aluminum-Base Metal/Alloys	161.34
Other Metal/Alloys	0.00
Other Inorganic Materials	39.73
Cellulosics	20.04
Rubber	4.41
Plastics	31.84
Solidified, Inorganic Matrix	5.38
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	1.66
Packaging Material, Steel	151.88
Packaging Material, Plastic	4.50
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	3.06E-01
Pu-238	5.22E-03
Pu-239	1.85E-01
Pu-240	4.17E-02
Pu-241	8.39E-01
Pu-242	2.50E-06
Sr-90	2.85E-01
Th-232	3.78E-06
U-234	4.98E-02
U-235	5.13E-03
U-238	5.52E-05

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums, and 85% of the waste stored in boxes are expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Waste in boxes will be opened, and size-reduced to fit into TRUPACT-II SWBs. No volume reduction is projected. Upper and lower weights for final waste form are unknown.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T123**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W255	Stream Name	Argonne Nat Lab Type 1 TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	552.00
Aluminum-Base Metal/Alloys	87.00
Other Metal/Alloys	0.00
Other Inorganic Materials	43.00
Cellulosics	105.00
Rubber	45.00
Plastics	107.00
Solidified, Inorganic Matrix	15.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	18.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	7.18E-01
Pu-239	2.55E+01
Pu-240	5.74E+00
Pu-241	1.16E+02
Pu-242	3.46E-04
Th-232	1.44E-05
U-234	9.56E-02
U-235	9.81E-03
U-238	1.06E-04

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Absorbed combustible liquids such as oils have also been placed in some drums. Drums are also used for disposal of high-efficiency particulate air filters.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums is expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T124**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W256	Stream Name	Argonne Nat Lab Type II TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
As-Generated Total	0.9	0.0	0.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	744.80
Aluminum-Base Metal/Alloys	117.60
Other Metal/Alloys	0.00
Other Inorganic Materials	57.50
Cellulosics	141.30
Rubber	60.30
Plastics	144.70
Solidified, Inorganic Matrix	20.70
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	24.40
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	2.78E+01
Sr-90	2.58E+01
Th-232	1.56E-04
U-233	2.03E-01

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Absorbed combustible liquids such as oils have also been placed in some drums. Drums are also used for disposal of high-efficiency particulate air filters.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.2A, Radioactive Waste Management. Upper and lower weights of final waste form are unknown.

This waste stream was erroneously identified as contact-handled TRU waste in Revision 1 of the WTWBIR. It has been reclassified as remote-handled waste in Revision 2 of the WTWBIR.

Waste Stream ID: **RL-T125**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W257	Stream Name	Argonne Nat Lab Type III TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	15.2	0.0	15.2
As-Generated Total	15.2	0.0	15.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	15.2	0.0	15.2
Final Form Total	15.2	0.0	15.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	552.00
Aluminum-Base Metal/Alloys	87.00
Other Metal/Alloys	0.00
Other Inorganic Materials	43.00
Cellulosics	105.00
Rubber	45.00
Plastics	107.00
Solidified, Inorganic Matrix	15.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	18.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.05E+00
Cs-137	1.05E-04
Pu-238	7.29E+00
Pu-239	2.19E+01
Pu-240	1.13E+01
Pu-241	7.47E+02
Pu-242	4.94E-03
Sr-90	9.58E-05
Th-232	1.70E-04
U-233	2.92E-01

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Absorbed combustible liquids such as oils have also been placed in some drums. Drums are also used for disposal of high-efficiency particulate air filters.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums is expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T127**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W258	Stream Name	Babcock Wilcox TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	163.9	0.0	163.9
Standard Waste Box	119.7	0.0	119.7
As-Generated Total	283.6	0.0	283.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	163.9	0.0	163.9
Standard Waste Box	119.7	0.0	119.7
Final Form Total	283.6	0.0	283.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	617.29
Aluminum-Base Metal/Alloys	121.57
Other Metal/Alloys	0.00
Other Inorganic Materials	41.48
Cellulosics	65.49
Rubber	26.13
Plastics	72.05
Solidified, Inorganic Matrix	10.53
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	10.40
Packaging Material, Steel	140.71
Packaging Material, Plastic	21.89
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.14E+00
Cs-137	3.20E-03
Pu-238	9.82E-02
Pu-239	3.51E+00
Pu-240	7.85E-01
Pu-241	1.59E+01
Pu-242	4.73E-05
Sr-90	2.98E-03
U-234	2.82E-04
U-235	5.96E-07
U-238	3.32E-05

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums, and 85% of the waste stored in boxes are expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Waste in boxes will be opened, and size-reduced to fit into TRUPACT-II SWBs. No volume reduction is projected. Upper and lower weights for final waste form are unknown.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W259	Stream Name	Bartlesville TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	552.00
Aluminum-Base Metal/Alloys	87.00
Other Metal/Alloys	0.00
Other Inorganic Materials	43.00
Cellulosics	105.00
Rubber	45.00
Plastics	107.00
Solidified, Inorganic Matrix	15.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	18.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.70E+00
Cs-137	5.15E-02
Pu-238	1.63E-06
Pu-239	5.81E-05
Pu-240	1.30E-05
Pu-241	2.63E-04
Pu-242	7.85E-10
Sr-90	4.80E-02

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Absorbed combustible liquids such as oils have also been placed in some drums. Drums are also used for disposal of high-efficiency particulate air filters.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums is expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T129**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W260	Stream Name	Battelle Columbus TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	11.6	0.0	11.6
Standard Waste Box	17.1	0.0	17.1
As-Generated Total	28.7	0.0	28.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	11.6	0.0	11.6
Standard Waste Box	17.1	0.0	17.1
Final Form Total	28.7	0.0	28.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	644.02
Aluminum-Base Metal/Alloys	135.72
Other Metal/Alloys	0.00
Other Inorganic Materials	40.86
Cellulosics	49.32
Rubber	18.40
Plastics	57.75
Solidified, Inorganic Matrix	8.69
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	7.29
Packaging Material, Steel	144.68
Packaging Material, Plastic	15.71
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	2.61E-03
Pu-238	4.48E+00
Pu-239	4.75E-01
Pu-240	1.06E-01
Pu-241	2.14E+00
Pu-242	6.40E-06
Sr-90	2.44E-03
U-234	2.67E-04
U-235	1.85E-05
U-238	5.74E-05

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums, and 85% of the waste stored in boxes are expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Waste in boxes will be opened, and size-reduced to fit into TRUPACT-II SWBs. No volume reduction is projected. Upper and lower weights for final waste form are unknown.

The Type II Battelle Columbus waste reported as Waste No. RL-T130 in Revision 1 of the WTWBIR has been merged in Revision 2 with the Type I waste reported in RL-T129. RL-T130 has been replaced in Revision 2 of the WTWBIR with TRU waste generated by Bettis Atomic Power Laboratory.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T130**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W261	Stream Name	Bettis TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	552.00
Aluminum-Base Metal/Alloys	87.00
Other Metal/Alloys	0.00
Other Inorganic Materials	43.00
Cellulosics	105.00
Rubber	45.00
Plastics	107.00
Solidified, Inorganic Matrix	15.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	18.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	4.02E-01
Pu-238	3.92E-03
Pu-239	1.40E-01
Pu-240	3.13E-02
Pu-241	6.31E-01
Pu-242	1.88E-06
Sr-90	3.75E-01
U-234	3.99E-04
U-235	4.09E-05
U-238	4.40E-07

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Absorbed combustible liquids such as oils have also been placed in some drums. Drums are also used for disposal of high-efficiency particulate air filters.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums is expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

The Type II Battelle Columbus waste reported as Waste No. RL-T130 in Revision 1 of the WTWBIR has been merged in Revision 2 with the Type I waste reported in RL-T129. RL-T130 has been replaced in Revision 2 of the WTWBIR with TRU waste generated by Bettis Atomic Power Laboratory.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W262	Stream Name	Energy Systems Group TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	30.2	0.0	30.2
As-Generated Total	30.2	0.0	30.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	30.2	0.0	30.2
Final Form Total	30.2	0.0	30.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	552.00
Aluminum-Base Metal/Alloys	87.00
Other Metal/Alloys	0.00
Other Inorganic Materials	43.00
Cellulosics	105.00
Rubber	45.00
Plastics	107.00
Solidified, Inorganic Matrix	15.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	18.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.70E-02
Cs-137	2.70E-05
Pu-238	1.48E-02
Pu-239	1.84E-01
Pu-240	4.09E-02
Pu-241	9.82E-01
Pu-242	2.43E-06
Sr-90	2.46E-05
U-234	2.73E-04
U-235	2.78E-05
U-238	5.71E-07

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Absorbed combustible liquids such as oils have also been placed in some drums. Drums are also used for disposal of high-efficiency particulate air filters.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums is expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T132**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W263	Stream Name	Exxon TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	28.7	0.0	28.7
As-Generated Total	28.7	0.0	28.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	28.7	0.0	28.7
Final Form Total	28.7	0.0	28.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	552.00
Aluminum-Base Metal/Alloys	87.00
Other Metal/Alloys	0.00
Other Inorganic Materials	43.00
Cellulosics	105.00
Rubber	45.00
Plastics	107.00
Solidified, Inorganic Matrix	15.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	18.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	4.31E-03
Pu-238	2.74E+00
Pu-239	9.78E+01
Pu-240	2.19E+01
Pu-241	4.41E+02
Pu-242	1.32E-03
Sr-90	4.01E-03
U-234	8.54E-03
U-235	3.81E-04
U-238	8.30E-03

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Absorbed combustible liquids such as oils have also been placed in some drums. Drums are also used for disposal of high-efficiency particulate air filters.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums is expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

The Exxon waste reported as Waste No. RL-T133 in Revision 1 of the WTWBIR has been merged in Revision 2 with the Exxon waste reported in RL-T132. RL-T133 has been replaced in Revision 2 of the WTWBIR with TRU waste generated by the International Atomic Energy Agency.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T133**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W264	Stream Name	International Atomic Energy Agency TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Source Unknown

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	552.00
Aluminum-Base Metal/Alloys	87.00
Other Metal/Alloys	0.00
Other Inorganic Materials	43.00
Cellulosics	105.00
Rubber	45.00
Plastics	107.00
Solidified, Inorganic Matrix	15.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	18.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.30E-02
Cs-137	4.77E-04
Pu-238	6.07E-03
Pu-239	2.22E-01
Pu-240	4.97E-02
Pu-241	8.68E-01
Pu-242	2.99E-06
Sr-90	4.35E-04

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Absorbed combustible liquids such as oils have also been placed in some drums. Drums are also used for disposal of high-efficiency particulate air filters.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums is expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

The Exxon waste reported as Waste No. RL-T133 in Revision 1 of the WTWBIR has been merged in Revision 2 with the Exxon waste reported in RL-T132. RL-T133 has been replaced in Revision 2 of the WTWBIR with TRU waste generated by the International Atomic Energy Agency.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T134**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W265	Stream Name	Lawrence Berkeley Nat Lab TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
				Activity Concentrations Decayed to CY		2002	

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	552.00
Aluminum-Base Metal/Alloys	87.00
Other Metal/Alloys	0.00
Other Inorganic Materials	43.00
Cellulosics	105.00
Rubber	45.00
Plastics	107.00
Solidified, Inorganic Matrix	15.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	18.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	3.71E+00
Pu-238	1.63E-02
Pu-239	5.82E-01
Pu-240	1.30E-01
Pu-241	2.63E+00
Pu-242	7.85E-06
Sr-90	3.46E+00

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Absorbed combustible liquids such as oils have also been placed in some drums. Drums are also used for disposal of high-efficiency particulate air filters.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums is expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T135**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W266	Stream Name	Lawrence Livermore TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	552.00
Aluminum-Base Metal/Alloys	87.00
Other Metal/Alloys	0.00
Other Inorganic Materials	43.00
Cellulosics	105.00
Rubber	45.00
Plastics	107.00
Solidified, Inorganic Matrix	15.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	18.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	2.32E-04
Pu-238	3.82E-02
Pu-239	1.36E+00
Pu-240	3.04E-01
Pu-241	6.14E+00
Pu-242	1.83E-05
Sr-90	2.16E-04
U-234	9.97E-03
U-235	1.78E-05
U-238	1.11E-03

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Absorbed combustible liquids such as oils have also been placed in some drums. Drums are also used for disposal of high-efficiency particulate air filters.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums is expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

The Type II Lawrence Livermore National Laboratories waste reported as Waste No. RL-T136 in Revision 1 of the WTWBIR has been merged in Revision 2 with the Type I waste reported in RL-T135. RL-T136 has been deleted in Revision 2 of the WTWBIR.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T137**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W267	Stream Name	Kerr McGee TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	151.6	0.0	151.6
As-Generated Total	151.6	0.0	151.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	151.6	0.0	151.6
Final Form Total	151.6	0.0	151.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	552.00
Aluminum-Base Metal/Alloys	87.00
Other Metal/Alloys	0.00
Other Inorganic Materials	43.00
Cellulosics	105.00
Rubber	45.00
Plastics	107.00
Solidified, Inorganic Matrix	15.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	18.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.16E+00
Cs-137	5.22E-03
Pu-238	2.29E+00
Pu-239	2.84E+01
Pu-240	6.33E+00
Pu-241	1.54E+02
Pu-242	3.76E-04
Sr-90	4.77E-03
U-234	4.11E-05
U-235	1.84E-06
U-238	3.99E-05

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Absorbed combustible liquids such as oils have also been placed in some drums. Drums are also used for disposal of high-efficiency particulate air filters.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums is expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T140**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W268	Stream Name	Rocky Flats TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes				
Container Type	Stored	Proj.	Total	
55 Gallon Drum	138.1	0.0	138.1	
As-Generated Total		138.1	0.0	138.1

Final Form Volumes				
Container Type	Stored	Proj.	Total	
55 Gallon Drum	138.1	0.0	138.1	
Final Form Total		138.1	0.0	138.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	552.00
Aluminum-Base Metal/Alloys	87.00
Other Metal/Alloys	0.00
Other Inorganic Materials	43.00
Cellulosics	105.00
Rubber	45.00
Plastics	107.00
Solidified, Inorganic Matrix	15.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	18.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.19E+00
Cs-137	5.21E-03
Pu-238	2.39E+00
Pu-239	3.02E+01
Pu-240	7.44E+00
Pu-241	1.44E+02
Pu-242	6.40E-04
Sr-90	4.77E-03
U-234	1.90E-01
U-235	3.54E-04
U-238	2.12E-02

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Absorbed combustible liquids such as oils have also been placed in some drums. Drums are also used for disposal of high-efficiency particulate air filters.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums is expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

The Type II Rocky Flats waste reported as Waste No. RL-T141 in Revision 1 of the WTWBIR has been merged in Revision 2 with the Type I waste reported in RL-T140. RL-T141 has been deleted in Revision 2 of the WTWBIR.

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T143**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W269	Stream Name	GE San Jose and Vallecitos TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	23.7	0.0	23.7
Standard Waste Box	380.0	0.0	380.0
As-Generated Total	403.7	0.0	403.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	23.7	0.0	23.7
Standard Waste Box	380.0	0.0	380.0
Final Form Total	403.7	0.0	403.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	697.61
Aluminum-Base Metal/Alloys	164.09
Other Metal/Alloys	0.00
Other Inorganic Materials	39.61
Cellulosics	16.90
Rubber	2.91
Plastics	29.06
Solidified, Inorganic Matrix	5.02
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	1.06
Packaging Material, Steel	152.65
Packaging Material, Plastic	3.30
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	2.74E-04
Pu-238	4.69E-03
Pu-239	1.67E-01
Pu-240	3.74E-02
Pu-241	7.57E-01
Pu-242	2.25E-06
Sr-90	2.56E-04
U-234	9.55E-05
U-235	5.84E-06
U-238	6.69E-05

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums, and 85% of the waste stored in boxes are expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Waste in boxes will be opened, and size-reduced to fit into TRUPACT-II SWBs. No volume reduction is projected. Upper and lower weights for final waste form are unknown.

The Type I and II GE Pleasanton waste reported in Waste Nos. RL-T138 and RL-T139 and RL-139, and the GE Vallecitos waste reported in RL-T144 in Revision 1 of the WTWBIR have been merged in Revision 2 with the waste reported in RL-T143. RL-T138, RL-T139, and RL-T144 have been deleted in Revision 2.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T145**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W270	Stream Name	Ward TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	129.8	0.0	129.8
Standard Waste Box	581.4	0.0	581.4
As-Generated Total	711.2	0.0	711.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	129.8	0.0	129.8
Standard Waste Box	581.4	0.0	581.4
Final Form Total	711.2	0.0	711.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	678.47
Aluminum-Base Metal/Alloys	153.95
Other Metal/Alloys	0.00
Other Inorganic Materials	40.06
Cellulosics	28.48
Rubber	8.44
Plastics	39.31
Solidified, Inorganic Matrix	6.33
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	3.28
Packaging Material, Steel	149.80
Packaging Material, Plastic	7.73
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	1.80E-03
Pu-238	7.57E-03
Pu-239	2.70E-01
Pu-240	6.03E-02
Pu-241	1.22E+00
Pu-242	3.64E-06
Sr-90	1.68E-03
Th-232	1.37E-07
U-234	1.26E-04
U-235	7.46E-06
U-238	1.75E-05

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.A, Radioactive Waste Management. Of the TRU waste stored from May 1970 to December 1986 that has not been assayed and redesignated as low level waste (by December 1993), 50% of the waste stored in 55-gallon drums, and 85% of the waste stored in boxes are expected to be TRU waste upon assaying. The remainder is expected to be low-level waste upon assaying. The reported volumes and radionuclides have been adjusted to take this assumption into account. Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Waste in boxes will be opened, and size-reduced to fit into TRUPACT-II SWBs. No volume reduction is projected. Upper and lower weights for final waste form are unknown.

The Ward waste reported in Waste Nos. RL-T144 in Revision 1 of the WTWBIR has been merged in Revision 2 with the waste reported in RL-T145. RL-T144 has been deleted in Revision 2.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste in drums will be opened, examined to remove non-certifiable waste, and then packaged into new drums. The projection is that repackaging will result in a 35% increase in the volume of TRU-certified wastes in drums (WHC-SD-W026-SDRD-001, Rev. 3). Upper and lower weights for final waste form are unknown.

Waste Stream ID: **RL-T147**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W271	Stream Name	325 and 325B Bldg Op TRU Caisson Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
RH Canister	27.6	0.0	27.6
As-Generated Total	27.6	0.0	27.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Canister	27.6	0.0	27.6
Final Form Total	27.6	0.0	27.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	709.30
Aluminum-Base Metal/Alloys	165.40
Other Metal/Alloys	0.00
Other Inorganic Materials	40.70
Cellulosics	20.10
Rubber	5.50
Plastics	32.40
Solidified, Inorganic Matrix	5.40
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	1.70
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.58E-01
Cs-137	7.51E+01
Pu-238	1.89E+00
Pu-239	1.24E+01
Pu-240	6.17E+00
Pu-241	2.91E+02
Pu-242	1.82E-04
Sr-90	7.00E+01
Th-232	1.06E-05
U-233	1.85E-02
U-234	4.41E-02
U-235	4.30E-03
U-238	3.23E-04

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.2A, Radioactive Waste Management. Upper and lower weights of final waste form are unknown.

The remote-handled TRU waste from Building 324 reported under Waste No. RL-T147 in Revision 1 of the WTWBIR has been merged with waste reported under RL-T148. This waste is reported in RL-T148 in Revision 2.

Waste Stream ID: **RL-T148**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W272	Stream Name	324 and 327C TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
RH Canister	24.0	0.0	24.0
As-Generated Total	24.0	0.0	24.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Canister	24.0	0.0	24.0
Final Form Total	24.0	0.0	24.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	737.60
Aluminum-Base Metal/Alloys	127.30
Other Metal/Alloys	0.00
Other Inorganic Materials	54.10
Cellulosics	116.70
Rubber	49.20
Plastics	121.90
Solidified, Inorganic Matrix	17.60
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	19.80
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	1.65E+03
Pu-238	2.38E+00
Pu-239	1.56E+01
Pu-240	7.78E+00
Pu-241	3.68E+02
Pu-242	2.29E-04
Sr-90	1.54E+03
Th-232	5.37E-05
U-233	1.12E-02
U-234	6.81E-02
U-235	6.66E-03
U-238	4.78E-04

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.2A, Radioactive Waste Management. Upper and lower weights of final waste form are unknown.

The remote-handled TRU waste from Building 324 reported under Waste No. RL-T147 in revision 1 of the WTWBIR has been merged with waste reported under RL-T148 in Revision 2.

Waste Stream ID: **RL-T149**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W273	Stream Name	325A and 325B R&D TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	69.4	0.0	69.4
As-Generated Total		69.4	0.0
			69.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	69.4	0.0	69.4
Final Form Total		69.4	0.0
			69.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	707.60
Aluminum-Base Metal/Alloys	167.80
Other Metal/Alloys	0.00
Other Inorganic Materials	39.90
Cellulosics	14.10
Rubber	2.80
Plastics	26.80
Solidified, Inorganic Matrix	4.70
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.50
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	2.72E+01
Pu-238	3.89E-03
Pu-239	2.55E-02
Pu-240	1.27E-02
Pu-241	6.01E-01
Pu-242	3.74E-07
Sr-90	2.64E+01
Th-232	5.97E-04
U-233	1.09E-01
U-234	6.48E-05
U-235	6.65E-06
U-238	7.13E-08

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.2A, Radioactive Waste Management. Upper and lower weights of final waste form are unknown.

This waste stream has been expanded in Revision 2 of the WTWBIR to report remote-handled waste from both Buildings 325A and 325B.

Waste Stream ID: **RL-W161**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W274	Stream Name	202A Bldg Remote-Handled TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
RH Canister	5.3	0.0	5.3
As-Generated Total	5.3	0.0	5.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Canister	5.3	0.0	5.3
Final Form Total	5.3	0.0	5.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	725.80
Aluminum-Base Metal/Alloys	143.30
Other Metal/Alloys	0.00
Other Inorganic Materials	48.50
Cellulosics	76.30
Rubber	30.90
Plastics	84.50
Solidified, Inorganic Matrix	12.50
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	12.20
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	1.40E-01
Pu-238	2.06E-03
Pu-239	1.35E-02
Pu-240	6.73E-03
Pu-241	3.18E-01
Pu-242	1.98E-07
Sr-90	1.30E-01

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30 % of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Boxes typically contain whole and sectioned glove boxes, hoods, ducting, conduit, lathes, pumps, piping, fans, light fixture, instrumentation, tools, conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oils have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.2A, Radioactive Waste Management. Upper and lower weights of final waste form are unknown.

Waste Stream ID: **RL-W162**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W275	Stream Name	202AL and 222S Bldg Remote-Handled TRU Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	18.7	0.0	18.7
As-Generated Total			18.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	18.7	0.0	18.7
Final Form Total			18.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	744.80
Aluminum-Base Metal/Alloys	117.60
Other Metal/Alloys	0.00
Other Inorganic Materials	57.50
Cellulosics	141.30
Rubber	60.30
Plastics	144.70
Solidified, Inorganic Matrix	20.70
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	24.40
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	2.88E-01
Pu-238	6.10E-06
Pu-239	4.00E-05
Pu-240	1.99E-05
Pu-241	9.44E-04
Pu-242	5.87E-10
Sr-90	2.69E-01
U-234	9.14E-08
U-235	4.09E-09
U-238	8.87E-08

Waste Stream Description

Typically, 70 to 80% of waste in drums is combustible items such as wood, plastics, paper, absorbents, rubber, rags. Approximately 20 to 30% of waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing and fixture and soil. Absorbed combustible liquids such as oils have also been placed in some drums. Drums are also used for disposal of high-efficiency particulate air filters.

Management Comments

Inventory is from the site's record solid waste tracking system, a requirement of DOE Order 5820.2A, Radioactive Waste Management. Upper and lower weights of final form are unknown.

Waste Stream ID: **RL-W407**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W407	Stream Name	Future CH-TRU RH and Oversized MLLW/TRU(M) Facilities (M-91)			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Waste Treatment Process

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	0.0	231.8	231.8
As-Generated Total	0.0	231.8	231.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	0.0	231.8	231.8
Final Form Total	0.0	231.8	231.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	143.57
Other Inorganic Materials	1.19
Cellulosics	9.52
Rubber	0.00
Plastics	17.14
Solidified, Inorganic Matrix	1.19
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.28E-02
Pu-238	2.36E-02
Pu-239	9.01E-01
Pu-240	2.02E-01
Pu-241	2.71E+00
Pu-242	1.22E-05

Waste Stream Description

Typically, 70 to 80% of the waste in the drums is combustible items such as wood, plastics, paper, absorbents, rubber and rags. Approximately 20 to 30% of the waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing fixtures and soil. Boxes typically contain whole and sectioned glove boxes, hoods, conduit, lathes, pumps, fans, light fixtures, tools conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oil have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

While not forecasted from 1995 to 1999, additional generation is forecasted from 2000 to 2024.

Waste Stream ID: **RL-W408**

Appendix J

DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W408	Stream Name	Future CH-TRU T Plant Canyon Cleanout			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	3.8	0.0	3.8
As-Generated Total	3.8	0.0	3.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	3.8	0.0	3.8
Final Form Total	3.8	0.0	3.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	28.57
Other Inorganic Materials	9.47
Cellulosics	66.67
Rubber	123.40
Plastics	33.33
Solidified, Inorganic Matrix	0.96
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	325.10
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.12E-05
Pu-238	1.28E-05
Pu-239	4.68E-04
Pu-240	1.05E-04
Pu-241	1.79E-03
Pu-242	6.32E-09

Waste Stream Description

Typically, 70 to 80% of the waste in the drums is combustible items such as wood, plastics, paper, absorbents, rubber and rags. Approximately 20 to 30% of the waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing fixtures and soil. Boxes typically contain whole and sectioned glove boxes, hoods, conduit, lathes, pumps, fans, light fixtures, tools conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oil have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

While not forecasted from 1995 to 1999, additional generation is forecasted from 2000 to 2024.

Waste Stream ID: **RL-W415**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W415	Stream Name	Future CH-MTRU T Plant Transition			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 gallon drum	0.0	39.9	39.9
As-Generated Total		0.0	39.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	39.9	39.9
Final Form Total		0.0	39.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	28.57
Other Inorganic Materials	9.47
Cellulosics	66.67
Rubber	123.40
Plastics	33.33
Solidified, Inorganic Matrix	0.96
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	325.10
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.12E-05
Pu-238	1.28E-05
Pu-239	4.68E-04
Pu-240	1.05E-04
Pu-241	1.79E-03
Pu-242	6.32E-09

Waste Stream Description

Typically, 70 to 80% of the waste in the drums is combustible items such as wood, plastics, paper, absorbents, rubber and rags. Approximately 20 to 30% of the waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing fixtures and soil. Boxes typically contain whole and sectioned glove boxes, hoods, conduit, lathes, pumps, fans, light fixtures, tools conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oil have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

The assumption is that the WIPP No Migration Petition will be approved by EPA and the State of New Mexico. Under the assumption, treatment of the waste stream to meet LDR is not required nor planned.

Waste Stream ID: **RL-W418**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W418	Stream Name	Future CH-MTRU Waste Feed Delivery System (8 tanks)			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.0	8.2	8.2
As-Generated Total	0.0	8.2	8.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.0	8.2	8.2
Final Form Total	0.0	8.2	8.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	596.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.08E-04
Pu-238	2.61E-04
Pu-239	9.80E-03
Pu-240	2.19E-03
Pu-241	3.24E-02
Pu-242	1.32E-07

Waste Stream Description

Typically, 70 to 80% of the waste in the drums is combustible items such as wood, plastics, paper, absorbents, rubber and rags. Approximately 20 to 30% of the waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing fixtures and soil. Boxes typically contain whole and sectioned glove boxes, hoods, conduit, lathes, pumps, fans, light fixtures, tools conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oil have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

The assumption is that the WIPP No Migration Petition will be approved by EPA and the State of New Mexico. Under the assumption, treatment of the waste stream to meet LDR is not required nor planned.

Waste Stream ID: **RL-W419**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W419	Stream Name	Future RH-TRU K-Basin Transition			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	3.6	3.6
As-Generated Total	0.0	3.6	3.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	3.6	3.6
Final Form Total	0.0	3.6	3.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	28.57
Other Inorganic Materials	9.47
Cellulosics	66.67
Rubber	123.40
Plastics	33.33
Solidified, Inorganic Matrix	0.96
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	325.10
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.12E-05
Pu-238	1.28E-05
Pu-239	4.68E-04
Pu-240	1.05E-04
Pu-241	1.79E-03
Pu-242	6.32E-09

Waste Stream Description

Typically, 70 to 80% of the waste in the drums is combustible items such as wood, plastics, paper, absorbents, rubber and rags. Approximately 20 to 30% of the waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing fixtures and soil. Boxes typically contain whole and sectioned glove boxes, hoods, conduit, lathes, pumps, fans, light fixtures, tools conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oil have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

N/A

Waste Stream ID: **RL-W420**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W420	Stream Name	Future RH-TRU Waste Treatment Plant - Operations			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
RH Canister	0.0	26.7	26.7
As-Generated Total	0.0	26.7	26.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Canister	0.0	26.7	26.7
Final Form Total	0.0	26.7	26.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	596.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.08E-04
Pu-238	2.61E-04
Pu-239	9.80E-03
Pu-240	2.19E-03
Pu-241	3.24E-02
Pu-242	1.32E-07

Waste Stream Description

Typically, 70 to 80% of the waste in the drums is combustible items such as wood, plastics, paper, absorbents, rubber and rags. Approximately 20 to 30% of the waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing fixtures and soil. Boxes typically contain whole and sectioned glove boxes, hoods, conduit, lathes, pumps, fans, light fixtures, tools conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oil have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

While not forecasted from 1995 to 1999, additional generation is forecasted from 2000 to 2024.

Waste Stream ID: **RL-W421**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W421	Stream Name	Future RH-MTRU Waste Feed Delivery System (8 tanks)			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
RH Canister	0.0	315.9	315.9
As-Generated Total	0.0	315.9	315.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Canister	0.0	315.9	315.9
Final Form Total	0.0	315.9	315.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	28.57
Other Inorganic Materials	9.47
Cellulosics	66.67
Rubber	123.40
Plastics	33.33
Solidified, Inorganic Matrix	0.96
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	325.10
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.12E-05
Pu-238	1.28E-05
Pu-239	4.68E-04
Pu-240	1.05E-04
Pu-241	1.79E-03
Pu-242	6.32E-09

Waste Stream Description

Typically, 70 to 80% of the waste in the drums is combustible items such as wood, plastics, paper, absorbents, rubber and rags. Approximately 20 to 30% of the waste in drums is noncombustible waste, such as failed machinery, tools, glass, concrete, plumbing fixtures and soil. Boxes typically contain whole and sectioned glove boxes, hoods, conduit, lathes, pumps, fans, light fixtures, tools conveyor sections, wire, etc. The combustible materials in boxes may include cotton rags and clothing, plastic sheeting, plastic pipe, tape, ladders, plexiglass, step benches, polyethylene bottles, gloves and rubber. Absorbed combustible liquids such as oil have also been placed in some drums and boxes. Drums and boxes are also used for disposal of high-efficiency particulate air filters. Several boxes contain only high-efficiency particulate air filters, while others contain these filters and other waste forms.

Management Comments

The assumption is that the WIPP No Migration Petition will be approved by EPA and the State of New Mexico. Under the assumption, treatment of the waste stream to meet LDR is not required nor planned.

Waste Stream ID: **RL-W428**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W428	Stream Name	Future RH-TRU RH and Oversized MLLW/TRU(M) Facilities (M-91)			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Waste Treatment Process

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	21.4	21.4
As-Generated Total		0.0	21.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	21.4	21.4
Final Form Total		0.0	21.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	60.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	30.00
Other Inorganic Materials	75.00
Cellulosics	0.00
Rubber	0.00
Plastics	7.00
Solidified, Inorganic Matrix	83.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	31.00
Soils	24.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.78E-03
Pu-238	1.72E-03
Pu-239	2.10E-05
Pu-240	3.78E-05
Pu-241	9.27E-02
Pu-242	1.92E-11

Waste Stream Description

The waste stream ranges from contaminated clothing to process equipment.

Management Comments

N/A

Waste Stream ID: **RL-W433**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W433	Stream Name	Future RH-MTRU Waste Treatment Plant - Operations			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	43.6	43.6
As-Generated Total	0.0	43.6	43.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	43.6	43.6
Final Form Total	0.0	43.6	43.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	60.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	30.00
Other Inorganic Materials	75.00
Cellulosics	0.00
Rubber	0.00
Plastics	7.00
Solidified, Inorganic Matrix	83.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	31.00
Soils	24.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.78E-03
Pu-238	1.72E-03
Pu-239	2.10E-05
Pu-240	3.78E-05
Pu-241	9.27E-02
Pu-242	1.92E-11

Waste Stream Description

The waste stream ranges from contaminated clothing to process equipment, contaminated with RCRA regulated constituents.

Management Comments

N/A

Waste Stream ID: **RL-W436**

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DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W436	Stream Name	Future RH-MTRU SST Long Length Equipment			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	488.6	488.6
As-Generated Total	0.0	488.6	488.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.0	488.6	488.6
Final Form Total	0.0	488.6	488.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	596.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.47E-01
Pu-238	9.47E-02
Pu-239	5.92E-03
Pu-240	5.05E-03
Pu-242	3.75E-09

Waste Stream Description

Equipment removed from the high level waste tanks (instrument trees, pumps, circulators, agitators, heaters, sluicers, steam coils, air lances, cameras)

Management Comments

N/A

Waste Stream ID: **RL-W438**

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DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W438	Stream Name	Future CH-TRU 200 Area Accelerated Deactivation			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	2.5	2.5
As-Generated Total	0.0	2.5	2.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	2.5	2.5
Final Form Total	0.0	2.5	2.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	28.57
Other Inorganic Materials	9.47
Cellulosics	66.67
Rubber	123.40
Plastics	33.33
Solidified, Inorganic Matrix	0.96
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	325.10
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.12E-05
Pu-238	1.28E-05
Pu-239	4.68E-04
Pu-240	1.05E-04
Pu-241	1.79E-03
Pu-242	6.32E-09

Waste Stream Description

Description is presently not available; however typical deactivation waste includes cleanout and removal of equipment, mixers, tanks, vessels and pumps.

Management Comments

N/A

Waste Stream ID: **RL-W444**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W444	Stream Name	Future CH-MTRU SST Long Length Equipment			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	0.0	495.9	495.9
As-Generated Total	0.0	495.9	495.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	0.0	495.9	495.9
Final Form Total	0.0	495.9	495.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	68.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	60.00
Other Inorganic Materials	35.00
Cellulosics	5.00
Rubber	0.00
Plastics	6.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.28E-02
Pu-238	2.36E-02
Pu-239	9.01E-01
Pu-240	2.02E-01
Pu-241	2.71E+00
Pu-242	1.22E-05

Waste Stream Description

Description is presently not available; however typical deactivation waste includes cleanout and removal of equipment, mixers, tanks, vessels and pumps.

Management Comments

N/A

Waste Stream ID: **RL-W445**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W445	Stream Name	105KE TRU RH solidified inorganic S3150 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	15.1	115.7	130.8
As-Generated Total	15.1	115.7	130.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	15.1	115.7	130.8
Final Form Total	15.1	115.7	130.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	212.02
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	7.91
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	778.27
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.47E+00
Cs-137	1.11E+00
Pu-238	9.23E-01
Pu-239	7.10E-03
Pu-240	1.27E-02
Pu-241	2.87E+02
Sr-90	1.14E+00

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the REACTOR FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W446**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W446	Stream Name	105KE TRU RH inorganic non-metal S5121 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5121
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	22.3	0.0	22.3
As-Generated Total	22.3	0.0	22.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	22.3	0.0	22.3
Final Form Total	22.3	0.0	22.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	304.81
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	1955.60
Cellulosics	0.00
Rubber	0.00
Plastics	15.19
Solidified, Inorganic Matrix	56.98
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.93E+00
Cs-137	1.77E+00
Pu-238	1.10E+00
Pu-239	1.08E-02
Pu-240	2.34E-02
Pu-241	8.61E+02
Pu-242	1.68E-07
Sr-90	1.57E+00

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the REACTOR FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W447**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W447	Stream Name	201C MTRU CH soils S4100 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Soils	Waste Matrix Code	S4100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	9.9	0.0	9.9
As-Generated Total	9.9	0.0	9.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	9.9	0.0	9.9
Final Form Total	9.9	0.0	9.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	28.78
Other Inorganic Materials	0.00
Cellulosics	66.67
Rubber	0.00
Plastics	33.33
Solidified, Inorganic Matrix	1.17
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	443.11
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.18E-04
Pu-238	2.94E-04
Pu-239	1.08E-02
Pu-240	2.42E-03
Pu-241	4.12E-02
Pu-242	1.46E-07

Waste Stream Description

The waste is generated from Remediation/D&D Waste activities at the PROCESS BUILDING, 3 HOT CELLS (DEMO'D).

Management Comments

N/A

Waste Stream ID: **RL-W448**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W448	Stream Name	201C MTRU CH heterogeneous S5900 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.7	0.0	1.7
As-Generated Total	1.7	0.0	1.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.7	0.0	1.7
Final Form Total	1.7	0.0	1.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	28.57
Other Inorganic Materials	9.47
Cellulosics	66.67
Rubber	123.40
Plastics	33.33
Solidified, Inorganic Matrix	0.96
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	325.10
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.12E-05
Pu-238	1.28E-05
Pu-239	4.68E-04
Pu-240	1.05E-04
Pu-241	1.79E-03
Pu-242	6.32E-09

Waste Stream Description

The waste is generated from Remediation/D&D Waste activities at the PROCESS BUILDING, 3 HOT CELLS (DEMO'D).

Management Comments

N/A

Waste Stream ID: **RL-W449**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W449	Stream Name	202A MTRU CH solidified inorganic S3119 Mixed RCRA w/ org,met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.0	0.0	1.0
As-Generated Total	1.0	0.0	1.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.0	0.0	1.0
Final Form Total	1.0	0.0	1.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.01
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	73.33
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	109.89
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	66.59
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.22E+00
Pu-238	7.49E-04
Pu-239	2.14E-02
Pu-240	4.80E-03
Pu-241	5.20E-02
Pu-242	2.89E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W450**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W450	Stream Name	202A MTRU CH solidified inorganic S3119 Mixed RCRA w/ org.ign			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
As-Generated Total	0.8	0.0	0.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
Final Form Total	0.8	0.0	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	71.43
Other Inorganic Materials	11.90
Cellulosics	0.00
Rubber	0.00
Plastics	21.67
Solidified, Inorganic Matrix	56.07
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.41E-04
Pu-238	3.86E-04
Pu-239	1.41E-02
Pu-240	3.17E-03
Pu-241	5.40E-02
Pu-242	1.91E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W451**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W451	Stream Name	202A MTRU CH solidified inorganic S3119 Mixed RCRA w/ org			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	71.43
Other Inorganic Materials	7.98
Cellulosics	0.00
Rubber	0.00
Plastics	21.19
Solidified, Inorganic Matrix	44.17
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.68E-04
Pu-238	1.10E-04
Pu-239	4.03E-03
Pu-240	9.03E-04
Pu-241	1.54E-02
Pu-242	5.44E-08

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W452**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W452	Stream Name	202A MTRU CH uncategorized metal S5119 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	7.6	0.0	7.6
As-Generated Total	7.6	0.0	7.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	7.6	0.0	7.6
Final Form Total	7.6	0.0	7.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	90.39
Other Inorganic Materials	0.96
Cellulosics	9.03
Rubber	0.00
Plastics	19.92
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.08E-04
Pu-238	2.61E-04
Pu-239	9.80E-03
Pu-240	2.19E-03
Pu-241	3.24E-02
Pu-242	1.32E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W453**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W453	Stream Name	202A MTRU CH inorganic non-metal S5190 Mixed State Reg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5190
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	182.40
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	39.20
Other Inorganic Materials	342.00
Cellulosics	1.20
Rubber	0.00
Plastics	12.96
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.35E-03
Pu-238	2.67E-03
Pu-239	1.02E-01
Pu-240	2.28E-02
Pu-241	3.05E-01
Pu-242	1.37E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W454**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W454	Stream Name	202A TRU CH combustible S5319 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	4.80
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	24.00
Other Inorganic Materials	0.00
Cellulosics	1.20
Rubber	24.00
Plastics	105.12
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.31E-01
Pu-238	3.73E-02
Pu-239	1.42E+00
Pu-240	3.19E-01
Pu-241	4.27E+00
Pu-242	1.92E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W455**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W455	Stream Name	202A MTRU CH combustible S5319 Mixed RCRA w/ met,cor			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	63.57
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.95
Other Inorganic Materials	0.00
Cellulosics	9.52
Rubber	0.00
Plastics	131.14
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.11E-02
Pu-238	1.00E-02
Pu-239	3.77E-01
Pu-240	8.44E-02
Pu-241	1.25E+00
Pu-242	5.09E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W456**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W456	Stream Name	202A MTRU CH combustible S5319 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	9.0	0.0	9.0
As-Generated Total	9.0	0.0	9.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	9.0	0.0	9.0
Final Form Total	9.0	0.0	9.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	54.32
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	26.22
Other Inorganic Materials	1.25
Cellulosics	5.41
Rubber	47.33
Plastics	73.43
Solidified, Inorganic Matrix	1.41
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.04E-01
Pu-238	3.06E-02
Pu-239	1.16E+00
Pu-240	2.60E-01
Pu-241	3.58E+00
Pu-242	1.57E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W457**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W457	Stream Name	202A MTRU CH combustible S5319 Mixed State Reg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	25.60
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	24.00
Other Inorganic Materials	2.88
Cellulosics	7.20
Rubber	1.20
Plastics	117.60
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.45E-01
Pu-238	4.26E-02
Pu-239	1.62E+00
Pu-240	3.62E-01
Pu-241	4.97E+00
Pu-242	2.18E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W458**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W458	Stream Name	202A MTRU CH filter S5410 Mixed RCRA w/ met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.48
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	6.67
Other Inorganic Materials	23.81
Cellulosics	0.00
Rubber	0.00
Plastics	7.14
Solidified, Inorganic Matrix	28.57
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.33E-01
Cs-137	4.88E-04
Pu-238	6.50E-01
Pu-239	1.99E+00
Pu-240	1.11E+00
Pu-241	5.99E+01
Pu-242	4.04E-04
Sr-90	4.45E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W459**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W459	Stream Name	202A MTRU CH filter S5410 Mixed State Reg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Standard Waste Box	5.7	0.0	5.7
As-Generated Total	6.1	0.0	6.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Standard Waste Box	5.7	0.0	5.7
Final Form Total	6.1	0.0	6.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	6.85
Other Inorganic Materials	74.43
Cellulosics	0.00
Rubber	0.00
Plastics	4.62
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	152.42
Packaging Material, Plastic	3.66
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.85E-01
Cs-137	8.38E-04
Pu-238	2.31E-01
Pu-239	1.70E+00
Pu-240	5.22E-01
Pu-241	2.04E+01
Pu-242	1.17E-04
Sr-90	7.64E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W460**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W460	Stream Name	202A TRU CH heterogeneous S5420 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	240.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	36.00
Rubber	0.00
Plastics	28.80
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.28E-02
Pu-238	2.36E-02
Pu-239	9.01E-01
Pu-240	2.02E-01
Pu-241	2.71E+00
Pu-242	1.22E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W461**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W461	Stream Name	202A MTRU CH heterogeneous S5420 Mixed RCRA w/ org,met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.06
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	352.76
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	54.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.01
Soils	297.99
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.12E-02

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W462**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W462	Stream Name	202A MTRU CH heterogeneous S5420 Mixed RCRA w/ met,cor			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	214.71
Other Inorganic Materials	0.00
Cellulosics	2.90
Rubber	21.43
Plastics	27.62
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.97E-02
Pu-238	6.84E-03
Pu-239	2.55E-01
Pu-240	5.70E-02
Pu-241	8.84E-01
Pu-242	3.44E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W463**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W463	Stream Name	202A MTRU CH heterogeneous S5420 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	72.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	210.82
Other Inorganic Materials	0.00
Cellulosics	6.02
Rubber	7.15
Plastics	65.71
Solidified, Inorganic Matrix	14.52
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.08E-02
Pu-238	1.73E-02
Pu-239	6.61E-01
Pu-240	1.48E-01
Pu-241	1.98E+00
Pu-242	8.92E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W464**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W464	Stream Name	202A TRU CH heterogeneous S5440 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	69.60
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	38.40
Other Inorganic Materials	0.00
Cellulosics	19.92
Rubber	24.00
Plastics	59.04
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.80E-02
Pu-238	7.99E-03
Pu-239	3.04E-01
Pu-240	6.82E-02
Pu-241	9.14E-01
Pu-242	4.10E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W465**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W465	Stream Name	202A MTRU CH heterogeneous S5440 Mixed RCRA w/ met,cor			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
As-Generated Total	0.8	0.0	0.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
Final Form Total	0.8	0.0	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	100.07
Aluminum-Base Metal/Alloys	0.48
Other Metal/Alloys	89.03
Other Inorganic Materials	0.72
Cellulosics	7.79
Rubber	41.75
Plastics	56.58
Solidified, Inorganic Matrix	6.63
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.48E-02
Pu-238	2.70E-02
Pu-239	1.01E+00
Pu-240	2.27E-01
Pu-241	3.31E+00
Pu-242	1.37E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W466**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W466	Stream Name	202A MTRU CH heterogeneous S5440 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	14.1	0.0	14.1
As-Generated Total	14.1	0.0	14.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	14.1	0.0	14.1
Final Form Total	14.1	0.0	14.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	91.57
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	61.17
Other Inorganic Materials	1.30
Cellulosics	7.77
Rubber	39.47
Plastics	57.54
Solidified, Inorganic Matrix	8.18
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.21E-02
Pu-238	2.20E-02
Pu-239	8.30E-01
Pu-240	1.86E-01
Pu-241	2.63E+00
Pu-242	1.12E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W467**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W467	Stream Name	202A MTRU CH heterogeneous S5440 Mixed RCRA w/ met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.3	0.0	1.3
As-Generated Total	1.3	0.0	1.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.3	0.0	1.3
Final Form Total	1.3	0.0	1.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	55.22
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	13.98
Other Inorganic Materials	1.16
Cellulosics	15.22
Rubber	60.64
Plastics	46.82
Solidified, Inorganic Matrix	35.07
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.75E-02
Pu-238	1.27E-02
Pu-239	4.73E-01
Pu-240	1.06E-01
Pu-241	1.61E+00
Pu-242	6.38E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W468**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W468	Stream Name	202A MTRU CH heterogeneous S5440 Mixed RCRA w/cor			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1.67
Other Inorganic Materials	9.52
Cellulosics	19.76
Rubber	2.76
Plastics	23.43
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.12E-03
Pu-238	3.90E-04
Pu-239	1.45E-02
Pu-240	3.25E-03
Pu-241	5.04E-02
Pu-242	1.96E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W469**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W469	Stream Name	202A MTRU CH heterogeneous S5440 Mixed State Reg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.3	0.0	1.3
As-Generated Total	1.3	0.0	1.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.3	0.0	1.3
Final Form Total	1.3	0.0	1.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	80.53
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	43.79
Other Inorganic Materials	1.59
Cellulosics	9.18
Rubber	9.20
Plastics	76.97
Solidified, Inorganic Matrix	4.84
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.65E-02
Pu-238	2.61E-02
Pu-239	9.88E-01
Pu-240	2.21E-01
Pu-241	3.10E+00
Pu-242	1.33E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W470**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W470	Stream Name	202A MTRU CH heterogeneous S5900 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	37.10
Other Inorganic Materials	5.33
Cellulosics	1.19
Rubber	1.90
Plastics	21.05
Solidified, Inorganic Matrix	14.33
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.05E+00
Cs-137	1.05E-04
Pu-238	7.29E+00
Pu-239	2.19E+01
Pu-240	1.13E+01
Pu-241	7.47E+02
Pu-242	4.94E-03
Sr-90	9.58E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W474**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W474	Stream Name	202A TRU CH uncategorized metal S5119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	1.9	0.0	1.9
As-Generated Total	1.9	0.0	1.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	101.96
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	16.93
Cellulosics	0.00
Rubber	0.00
Plastics	1.05
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.38E-01
Pu-238	8.92E-02
Pu-239	5.57E-03
Pu-240	4.76E-03
Pu-242	3.53E-09

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W476**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W476	Stream Name	202A TRU CH combustible S5390 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	4.8	0.0	4.8
As-Generated Total	4.8	0.0	4.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	4.8	0.0	4.8
Final Form Total	4.8	0.0	4.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	2.11
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	10.95
Other Inorganic Materials	27.38
Cellulosics	47.34
Rubber	1.18
Plastics	59.70
Solidified, Inorganic Matrix	1.26
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.09E-02
Cs-137	1.86E-02
Pu-238	1.27E-02
Pu-239	4.81E-01
Pu-240	1.08E-01
Pu-241	1.48E+00
Pu-242	6.48E-06
Sr-90	1.68E-02

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PUREX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W480**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W480	Stream Name	202AL MTRU CH combustible S5319 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Analytical Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	185.45
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	23.19
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	283.76
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.18E-02
Pu-238	2.32E-02
Pu-239	8.70E-01
Pu-240	1.95E-01
Pu-241	2.88E+00
Pu-242	1.17E-05

Waste Stream Description

The waste is generated from Analytical Laboratory Waste activities at the PUREX PROCESS LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W481**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W481	Stream Name	202AL MTRU CH heterogeneous S5440 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Analytical Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	46.84
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	258.54
Other Inorganic Materials	0.00
Cellulosics	0.73
Rubber	0.00
Plastics	104.62
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.51E-02
Pu-238	2.43E-02
Pu-239	9.10E-01
Pu-240	2.04E-01
Pu-241	3.01E+00
Pu-242	1.23E-05

Waste Stream Description

The waste is generated from Analytical Laboratory Waste activities at the PUREX PROCESS LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W482**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W482	Stream Name	202AL TRU CH combustible S5390 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Analytical Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	2.5	0.0	2.5
As-Generated Total	2.5	0.0	2.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	2.5	0.0	2.5
Final Form Total	2.5	0.0	2.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	11.07
Other Inorganic Materials	45.78
Cellulosics	22.51
Rubber	1.33
Plastics	25.05
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.52E+01
Pu-238	2.04E+00
Pu-239	2.92E-02
Pu-240	5.46E-02
Pu-241	1.01E+03
Pu-242	3.66E-07

Waste Stream Description

The waste is generated from Analytical Laboratory Waste activities at the PUREX PROCESS LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W483**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W483	Stream Name	202AL TRU CH heterogeneous S5440 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Analytical Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	1.0	0.0	1.0
As-Generated Total	1.0	0.0	1.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	1.0	0.0	1.0
Final Form Total	1.0	0.0	1.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	19.97
Other Inorganic Materials	51.97
Cellulosics	20.83
Rubber	0.24
Plastics	28.09
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.52E+00
Pu-238	3.80E-01
Pu-239	4.54E-03
Pu-240	9.29E-03
Pu-241	1.81E+02
Pu-242	2.28E-08

Waste Stream Description

The waste is generated from Analytical Laboratory Waste activities at the PUREX PROCESS LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W484**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W484	Stream Name	202S MTRU CH combustible S5319 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
As-Generated Total	0.8	0.0	0.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
Final Form Total	0.8	0.0	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	3.57
Aluminum-Base Metal/Alloys	1.19
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	2.38
Rubber	0.00
Plastics	51.92
Solidified, Inorganic Matrix	3.57
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.99E-02
Cs-137	6.54E-01
Pu-238	3.78E-03
Pu-239	7.85E-02
Pu-240	1.88E-02
Pu-241	1.85E-01
Pu-242	1.00E-06
Sr-90	5.99E-01

Waste Stream Description

The waste is generated from Remediation/D&D Waste activities at the REDOX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W485**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID Stream Name Inventory Date
 Local ID Handling Final Waste Form Waste Matrix Code Activity Concentrations Decayed to CY

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	2.83
Other Inorganic Materials	0.00
Cellulosics	5.57
Rubber	2.83
Plastics	47.30
Solidified, Inorganic Matrix	0.48
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.32E-02
Pu-238	2.14E-03
Pu-239	3.39E-02
Pu-240	8.15E-03

Waste Stream Description

The waste is generated from Remediation/D&D Waste activities at the REDOX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W486**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID Stream Name Inventory Date
 Local ID Handling Final Waste Form Waste Matrix Code Activity Concentrations Decayed to CY

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1.17
Other Inorganic Materials	0.00
Cellulosics	2.33
Rubber	1.17
Plastics	22.00
Solidified, Inorganic Matrix	3.95
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.56E-03
Pu-238	9.02E-04
Pu-239	1.43E-02
Pu-240	3.42E-03

Waste Stream Description

The waste is generated from Remediation/D&D Waste activities at the REDOX CANYON AND SERVICE FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W487**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W487	Stream Name	222S MTRU CH solidified inorganic S3119 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Non-defense TRU Waste Source: Analytical Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	931.43
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	34.29
Solidified, Inorganic Matrix	66.67
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	31.43
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.73E-01
Pu-238	1.16E-01
Pu-239	2.05E+00
Pu-240	5.67E-01
Pu-241	6.91E+00
Pu-242	4.95E-05

Waste Stream Description

The waste is generated from Analytical Laboratory Waste activities at the CONTROL LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W488**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W488	Stream Name	222S MTRU CH heterogeneous S5440 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Non-defense TRU Waste Source: Analytical Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	5.62
Other Inorganic Materials	57.81
Cellulosics	52.81
Rubber	0.00
Plastics	44.71
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	24.29
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	6.86E-03
Sr-90	6.26E-03

Waste Stream Description

The waste is generated from Analytical Laboratory Waste activities at the CONTROL LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W489**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W489	Stream Name	231Z MTRU CH inorganic non-metal S5190 Mixed State Reg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5190
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	174.76
Other Inorganic Materials	2.38
Cellulosics	0.00
Rubber	0.00
Plastics	14.29
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.69E-01
Cs-137	5.72E-03
Pu-238	1.09E-01
Pu-239	2.66E+00
Pu-240	6.04E-01
Pu-241	1.12E+01
Pu-242	2.69E-05
Sr-90	5.22E-03

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the MATERIALS ENGINEERING LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W490**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W490	Stream Name	231Z MTRU CH filter S5410 Mixed State Reg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Non-defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	1.9	0.0	1.9
As-Generated Total		1.9	0.0
			1.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	1.9	0.0	1.9
Final Form Total		1.9	0.0
			1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	48.47
Cellulosics	0.00
Rubber	0.00
Plastics	1.05
Solidified, Inorganic Matrix	0.65
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	3.79E-05
Sr-90	3.45E-05

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the MATERIALS ENGINEERING LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W491**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W491	Stream Name	231Z MTRU CH heterogeneous S5420 Mixed RCRA w/ met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	173.33
Other Inorganic Materials	0.00
Cellulosics	0.95
Rubber	0.00
Plastics	22.86
Solidified, Inorganic Matrix	66.66
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.55E-02
Cs-137	4.77E-03
Pu-238	9.23E-02
Pu-239	2.79E-01
Pu-240	6.13E-02
Pu-241	4.05E+00
Pu-242	1.30E-05
Sr-90	4.35E-03

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the MATERIALS ENGINEERING LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W492**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W492	Stream Name	231Z MTRU CH heterogeneous S5420 Mixed State Reg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	47.62
Other Inorganic Materials	4.29
Cellulosics	70.00
Rubber	0.00
Plastics	5.71
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.81E-03
Cs-137	4.77E-04
Pu-238	2.28E-03
Pu-239	5.55E-02
Pu-240	1.26E-02
Pu-241	2.33E-01
Pu-242	5.61E-07
Sr-90	4.35E-04

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the MATERIALS ENGINEERING LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W493**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID Stream Name Inventory Date
 Local ID Handling Final Waste Form Waste Matrix Code Activity Concentrations Decayed to CY

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	9.52
Cellulosics	148.57
Rubber	0.00
Plastics	11.43
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	6.86E-03
Sr-90	6.26E-03

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the MATERIALS ENGINEERING LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W494**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W494	Stream Name	231Z TRU CH solidified inorganic S3119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	77.5	0.0	77.5
As-Generated Total	77.5	0.0	77.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	77.5	0.0	77.5
Final Form Total	77.5	0.0	77.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	71.25
Other Inorganic Materials	0.13
Cellulosics	4.46
Rubber	1.06
Plastics	13.97
Solidified, Inorganic Matrix	63.37
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.00E-01
Pu-238	3.57E-01
Pu-239	3.81E-03
Pu-240	3.27E-03
Pu-241	2.53E+01
Pu-242	2.94E-08

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the MATERIALS ENGINEERING LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W495**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W495	Stream Name	231Z TRU CH uncategorized metal S5119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	353.84
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	16.11
Solidified, Inorganic Matrix	9.61
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.33E+00
Pu-238	1.81E-01
Pu-239	6.79E-03
Pu-240	5.43E-03
Pu-241	8.58E+01
Pu-242	1.67E-09

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the MATERIALS ENGINEERING LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W496**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W496	Stream Name	231Z TRU CH heterogeneous S5420 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	644.69
Other Inorganic Materials	0.00
Cellulosics	2.40
Rubber	9.63
Plastics	28.84
Solidified, Inorganic Matrix	14.42
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.94
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.74E+01
Pu-238	4.17E+00
Pu-239	4.47E-02
Pu-240	3.60E-02
Pu-241	1.11E+03
Pu-242	1.56E-08

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the MATERIALS ENGINEERING LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W497**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W497	Stream Name	233S TRU CH inorganic non-metal S5190 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5190
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Remediation/D&D Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.95
Other Inorganic Materials	97.38
Cellulosics	0.00
Rubber	0.00
Plastics	17.26
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.46
Soils	48.95
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.31E+00
Pu-238	8.12E-01
Pu-239	2.66E+00
Pu-240	1.21E+00
Pu-241	2.88E+01
Pu-242	2.24E-03

Waste Stream Description

The waste is generated from Remediation/D&D Waste activities at the PLUTONIUM CONCENTRATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W498**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W498	Stream Name	2345Z MTRU CH solidified organics L2290 Mixed RCRA/TSCA-PCB w/ ign			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	L2290
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.0	338.1	339.1
As-Generated Total	1.0	338.1	339.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.0	338.1	339.1
Final Form Total	1.0	338.1	339.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.96
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	50.11
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	124.80
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.10E-03
Pu-238	3.56E-04
Pu-239	1.34E-02
Pu-240	2.99E-03
Pu-241	4.42E-02
Pu-242	1.80E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W499**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W499	Stream Name	2345Z MTRU CH solidified organics L2290 Mixed TSCA-PCB				Inventory Date	9/30/2002	
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	L2290	Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	40.00
Solidified, Inorganic Matrix	21.90
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	161.90
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.36E-05
Pu-238	1.09E-05
Pu-239	4.07E-04
Pu-240	9.12E-05
Pu-241	1.35E-03
Pu-242	5.49E-09

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W500**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W500	Stream Name	2345Z TRU CH solidified inorganic S3119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	19.05
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	18.10
Solidified, Inorganic Matrix	20.48
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.43E-03
Pu-238	1.35E-03
Pu-239	1.66E-02
Pu-240	3.70E-03
Pu-241	9.46E-02
Pu-242	2.21E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W501**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W501	Stream Name	2345Z MTRU CH solidified inorganic S3119 Mixed RCRA w/ org,met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	25.6	26.0
As-Generated Total	0.4	25.6	26.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	25.6	26.0
Final Form Total	0.4	25.6	26.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	10.71
Other Inorganic Materials	11.19
Cellulosics	1.19
Rubber	0.48
Plastics	45.48
Solidified, Inorganic Matrix	68.10
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	6.19
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.73E-01
Pu-238	1.16E-01
Pu-239	2.05E+00
Pu-240	5.67E-01
Pu-241	6.91E+00
Pu-242	4.95E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W502**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W502	Stream Name	2345Z MTRU CH solidified inorganic S3119 Mixed RCRA w/ org			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	3.1	0.0	3.1
As-Generated Total	3.1	0.0	3.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	3.1	0.0	3.1
Final Form Total	3.1	0.0	3.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.22
Other Inorganic Materials	34.16
Cellulosics	2.76
Rubber	0.06
Plastics	54.83
Solidified, Inorganic Matrix	117.71
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.41
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.20E-03
Pu-238	3.86E-04
Pu-239	1.45E-02
Pu-240	3.25E-03
Pu-241	4.79E-02
Pu-242	1.95E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W503**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W503	Stream Name	2345Z MTRU CH solidified inorganic S3119 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.24
Other Inorganic Materials	3.10
Cellulosics	1.67
Rubber	46.90
Plastics	37.98
Solidified, Inorganic Matrix	249.45
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	5.90
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.05E-01
Cs-137	2.92E-03
Pu-238	2.99E-01
Pu-239	3.84E+00
Pu-240	8.53E-01
Pu-241	2.11E+01
Pu-242	4.93E-05
Sr-90	2.67E-03

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W504**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W504	Stream Name	2345Z MTRU CH solidified inorganic S3119 Mixed RCRA w/ met,Hg,cor			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	4.52
Solidified, Inorganic Matrix	7.38
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	2.38
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.73E-01
Pu-238	1.16E-01
Pu-239	2.05E+00
Pu-240	5.67E-01
Pu-241	6.91E+00
Pu-242	4.95E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W505**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W505	Stream Name	2345Z MTRU CH solidified inorganic S3119 Mixed RCRA w/ ign			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	3.33
Cellulosics	0.00
Rubber	0.00
Plastics	33.33
Solidified, Inorganic Matrix	25.24
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.30E-02
Cs-137	4.77E-04
Pu-238	6.07E-03
Pu-239	2.22E-01
Pu-240	4.97E-02
Pu-241	8.68E-01
Pu-242	2.99E-06
Sr-90	4.35E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W506**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W506	Stream Name	2345Z MTRU CH solidified inorganic S3119 Mixed State Reg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	9.52
Other Inorganic Materials	3.17
Cellulosics	2.86
Rubber	0.00
Plastics	59.05
Solidified, Inorganic Matrix	88.35
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.19E-03
Pu-238	7.98E-04
Pu-239	2.43E-02
Pu-240	5.44E-03
Pu-241	8.65E-02
Pu-242	3.27E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W507**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W507	Stream Name	2345Z MTRU CH solidified inorganic S3119 Mixed TSCA-PCB			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	3.17
Rubber	0.95
Plastics	19.05
Solidified, Inorganic Matrix	149.84
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.16E-04
Pu-238	6.98E-05
Pu-239	2.62E-03
Pu-240	5.87E-04
Pu-241	8.66E-03
Pu-242	3.53E-08

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W508**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W508	Stream Name	2345Z MTRU CH solidified inorganic S3150 Mixed RCRA w/ org,met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	48.02
Solidified, Inorganic Matrix	129.76
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	9.52
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.16E+00
Cs-137	5.22E-03
Pu-238	2.29E+00
Pu-239	2.84E+01
Pu-240	6.33E+00
Pu-241	1.54E+02
Pu-242	3.76E-04
Sr-90	4.77E-03

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W509**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W509	Stream Name	2345Z MTRU CH solidified inorganic S3150 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	4.8	0.0	4.8
As-Generated Total	4.8	0.0	4.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	4.8	0.0	4.8
Final Form Total	4.8	0.0	4.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	33.31
Solidified, Inorganic Matrix	148.04
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	1.76
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.19E+00
Cs-137	5.21E-03
Pu-238	2.39E+00
Pu-239	3.02E+01
Pu-240	7.44E+00
Pu-241	1.44E+02
Pu-242	6.40E-04
Sr-90	4.77E-03

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W510**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W510	Stream Name	2345Z MTRU CH solidified inorganic S3150 Mixed State Reg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	3.4	0.0	3.4
As-Generated Total	3.4	0.0	3.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	3.4	0.0	3.4
Final Form Total	3.4	0.0	3.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1.34
Other Inorganic Materials	12.65
Cellulosics	0.00
Rubber	0.00
Plastics	32.19
Solidified, Inorganic Matrix	167.19
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.24E-01
Pu-238	3.50E-01
Pu-239	4.31E+00
Pu-240	9.60E-01
Pu-241	2.46E+01
Pu-242	5.70E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W511**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W511	Stream Name	2345Z MTRU CH solidified inorganic S3190 Mixed RCRA w/ org,met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	52.9	0.0	52.9
As-Generated Total	52.9	0.0	52.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	52.9	0.0	52.9
Final Form Total	52.9	0.0	52.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	3.92
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	4.13
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.56
Solidified, Inorganic Matrix	13.97
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.58E+00
Pu-238	1.08E+00
Pu-239	3.66E+01
Pu-240	8.05E+00
Pu-241	8.51E+01
Pu-242	8.84E-04
U-234	6.50E-06
U-235	2.25E-06
U-236	2.66E-07
U-238	1.85E-08

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W512**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W512	Stream Name	2345Z MTRU CH solidified inorganic S3190 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	31.3	0.0	31.3
As-Generated Total	31.3	0.0	31.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	31.3	0.0	31.3
Final Form Total	31.3	0.0	31.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	5.59
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	2.13
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	2.19
Solidified, Inorganic Matrix	12.10
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.15E+01
Pu-238	1.23E+00
Pu-239	3.73E+01
Pu-240	9.33E+00
Pu-241	7.34E+01
Pu-242	8.30E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W513**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W513	Stream Name	2345Z TRU CH uncategorized metal S5119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	742.3	743.0
Standard Waste Box	1.9	3427.6	3429.5
As-Generated Total	2.5	4169.9	4172.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	742.3	743.0
Standard Waste Box	1.9	3427.6	3429.5
Final Form Total	2.5	4169.9	4172.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	127.75
Other Inorganic Materials	0.00
Cellulosics	0.13
Rubber	0.04
Plastics	6.97
Solidified, Inorganic Matrix	14.38
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	149.90
Packaging Material, Plastic	7.57
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.91E+00
Pu-238	1.77E+00
Pu-239	2.17E+00
Pu-240	1.08E+00
Pu-241	4.15E+01
Pu-242	6.97E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W514**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W514	Stream Name	2345Z MTRU CH uncategorized metal S5119 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	445.81
Other Inorganic Materials	0.00
Cellulosics	8.48
Rubber	0.00
Plastics	1.45
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.41E-03
Pu-238	4.26E-04
Pu-239	1.61E-02
Pu-240	3.61E-03
Pu-241	5.08E-02
Pu-242	2.18E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W515**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W515	Stream Name	2345Z MTRU CH uncategorized metal S5119 Mixed RCRA w/ met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Standard Waste Box	7.6	0.0	7.6
As-Generated Total	8.0	0.0	8.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Standard Waste Box	7.6	0.0	7.6
Final Form Total	8.0	0.0	8.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	233.95
Other Inorganic Materials	0.71
Cellulosics	4.98
Rubber	0.34
Plastics	12.16
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	152.80
Packaging Material, Plastic	3.07
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.72E-03
Pu-238	8.76E-04
Pu-239	3.29E-02
Pu-240	7.36E-03
Pu-241	1.09E-01
Pu-242	4.43E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W516**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W516	Stream Name	2345Z MTRU CH uncategorized metal S5119 Mixed RCRA/TSCA-PCB w/Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	26.6	0.0	26.6
As-Generated Total	26.6	0.0	26.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	26.6	0.0	26.6
Final Form Total	26.6	0.0	26.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	7.78
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	234.92
Other Inorganic Materials	3.59
Cellulosics	2.88
Rubber	0.00
Plastics	10.68
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.03
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.13E-03
Pu-238	3.66E-04
Pu-239	1.37E-02
Pu-240	3.08E-03
Pu-241	4.54E-02
Pu-242	1.85E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W517**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W517	Stream Name	2345Z MTRU CH inorganic non-metal S5123 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	1666.67
Cellulosics	4.76
Rubber	0.00
Plastics	19.05
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.19E-09
Pu-238	4.15E-10
Pu-239	1.55E-08
Pu-240	3.46E-09
Pu-241	5.37E-08
Pu-242	2.09E-13

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W518**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W518	Stream Name	2345Z TRU CH combustible S5319 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
As-Generated Total	0.8	0.0	0.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
Final Form Total	0.8	0.0	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	9.34
Other Inorganic Materials	0.00
Cellulosics	7.55
Rubber	16.84
Plastics	103.60
Solidified, Inorganic Matrix	10.89
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	3.57
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.16E+00
Pu-238	4.37E-01
Pu-239	5.55E+00
Pu-240	1.34E+00
Pu-241	2.89E+01
Pu-242	1.13E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W519**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W519	Stream Name	2345Z MTRU CH combustible S5319 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.7	0.0	1.7
As-Generated Total	1.7	0.0	1.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.7	0.0	1.7
Final Form Total	1.7	0.0	1.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	31.55
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	13.03
Other Inorganic Materials	0.36
Cellulosics	9.66
Rubber	57.40
Plastics	91.29
Solidified, Inorganic Matrix	0.12
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	1.19
Soils	10.69
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.68E-02
Pu-238	2.59E-02
Pu-239	9.82E-01
Pu-240	2.20E-01
Pu-241	3.05E+00
Pu-242	1.32E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W520**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W520	Stream Name	2345Z MTRU CH combustible S5319 Mixed RCRA w/ met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	280.81
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	14.29
Cellulosics	0.00
Rubber	104.62
Plastics	38.14
Solidified, Inorganic Matrix	0.55
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	2.07
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.10E-02
Pu-238	1.17E-02
Pu-239	4.31E-01
Pu-240	9.65E-02
Pu-241	1.57E+00
Pu-242	5.81E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W521**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W521	Stream Name	2345Z MTRU CH combustible S5319 Mixed RCRA/TSCA-PCB w/ ign				Inventory Date	9/30/2002	
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319	Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	26.19
Rubber	16.67
Plastics	128.57
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	18.95
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.33E-03
Pu-238	4.28E-04
Pu-239	1.61E-02
Pu-240	3.60E-03
Pu-241	5.31E-02
Pu-242	2.17E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W522**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W522	Stream Name	2345Z TRU CH combustible S5330 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5330
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.3	0.0	2.3
As-Generated Total	2.3	0.0	2.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.3	0.0	2.3
Final Form Total	2.3	0.0	2.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	1.73
Cellulosics	169.33
Rubber	2.05
Plastics	3.81
Solidified, Inorganic Matrix	4.76
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.59E+00
Pu-238	1.44E+00
Pu-239	9.66E+00
Pu-240	2.78E+00
Pu-241	7.03E+01
Pu-242	3.72E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W523**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W523	Stream Name	2345Z MTRU CH combustible S5330 Mixed RCRA w/ met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5330
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.02
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	109.05
Rubber	0.00
Plastics	3.81
Solidified, Inorganic Matrix	5.10
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.46E+01
Pu-238	6.02E+00
Pu-239	7.04E+00
Pu-240	4.30E+00
Pu-241	1.53E+02
Pu-242	3.02E-03

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W524**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W524	Stream Name	2345Z TRU CH combustible S5390 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.7	0.0	2.7
As-Generated Total	2.7	0.0	2.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.7	0.0	2.7
Final Form Total	2.7	0.0	2.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	24.37
Other Inorganic Materials	2.56
Cellulosics	49.32
Rubber	17.14
Plastics	37.93
Solidified, Inorganic Matrix	10.84
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	1.10
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.41E+00
Pu-238	1.78E+00
Pu-239	4.98E+00
Pu-240	1.94E+00
Pu-241	5.59E+01
Pu-242	6.22E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W525**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W525	Stream Name	2345Z MTRU CH combustible S5390 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.01
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	31.75
Other Inorganic Materials	3.17
Cellulosics	75.24
Rubber	28.57
Plastics	50.63
Solidified, Inorganic Matrix	1.43
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	7.94
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.52E+00
Pu-238	5.22E-01
Pu-239	2.55E+00
Pu-240	8.50E-01
Pu-241	1.91E+01
Pu-242	9.65E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W526**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W526	Stream Name	2345Z MTRU CH combustible S5390 Mixed State Reg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.0	0.0	1.0
Standard Waste Box	13.3	0.0	13.3
As-Generated Total	14.4	0.0	14.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.0	0.0	1.0
Standard Waste Box	13.3	0.0	13.3
Final Form Total	14.4	0.0	14.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.24
Other Inorganic Materials	0.00
Cellulosics	69.55
Rubber	0.28
Plastics	29.37
Solidified, Inorganic Matrix	0.64
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	9.46
Packaging Material, Steel	152.32
Packaging Material, Plastic	3.82
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.53E-01
Cs-137	1.89E-04
Pu-238	8.31E-02
Pu-239	1.20E+00
Pu-240	2.69E-01
Pu-241	6.08E+00
Pu-242	1.62E-05
Sr-90	1.73E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W527**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W527	Stream Name	2345Z TRU CH filter S5410 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	3.37
Other Inorganic Materials	84.23
Cellulosics	12.13
Rubber	6.06
Plastics	33.46
Solidified, Inorganic Matrix	4.76
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.04E+00
Pu-238	8.17E-01
Pu-239	8.65E+00
Pu-240	2.07E+00
Pu-241	4.85E+01
Pu-242	1.77E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W528**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W528	Stream Name	2345Z TRU CH heterogeneous S5420 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	3.4	0.0	3.4
Standard Waste Box	1.9	0.0	1.9
As-Generated Total	5.3	0.0	5.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	3.4	0.0	3.4
Standard Waste Box	1.9	0.0	1.9
Final Form Total	5.3	0.0	5.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	3.62
Other Metal/Alloys	120.00
Other Inorganic Materials	5.98
Cellulosics	2.51
Rubber	1.10
Plastics	12.45
Solidified, Inorganic Matrix	2.58
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	139.31
Packaging Material, Plastic	24.07
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.83E+01
Pu-238	1.39E+01
Pu-239	1.10E+01
Pu-240	1.06E+01
Pu-241	2.97E+02
Pu-242	1.40E-02

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W529**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W529	Stream Name	2345Z MTRU CH heterogeneous S5420 Mixed RCRA w/ Org, Met, Cor			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	1.9	0.0	1.9
As-Generated Total	1.9	0.0	1.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	253.34
Other Inorganic Materials	59.93
Cellulosics	0.00
Rubber	16.16
Plastics	59.53
Solidified, Inorganic Matrix	7.89
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.93E-02
Cs-137	5.40E-04
Pu-238	2.71E-02
Pu-239	3.37E-01
Pu-240	7.50E-02
Pu-241	1.81E+00
Pu-242	4.45E-06
Sr-90	4.92E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W530**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W530	Stream Name	2345Z MTRU CH heterogeneous S5420 Mixed RCRA w/ org,met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	48.81
Other Inorganic Materials	92.86
Cellulosics	0.00
Rubber	0.00
Plastics	16.67
Solidified, Inorganic Matrix	0.24
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.53E+00
Pu-238	1.42E+00
Pu-239	1.74E+01
Pu-240	3.89E+00
Pu-241	9.95E+01
Pu-242	2.31E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W531**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W531	Stream Name	2345Z MTRU CH heterogeneous S5420 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	3.6	0.0	3.6
Standard Waste Box	1.9	0.0	1.9
As-Generated Total	5.5	0.0	5.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	3.6	0.0	3.6
Standard Waste Box	1.9	0.0	1.9
Final Form Total	5.5	0.0	5.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	31.85
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	76.17
Other Inorganic Materials	2.48
Cellulosics	7.71
Rubber	15.25
Plastics	22.89
Solidified, Inorganic Matrix	23.75
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	8.03
Packaging Material, Steel	138.99
Packaging Material, Plastic	24.56
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.04E+01
Pu-238	1.09E+01
Pu-239	5.78E+00
Pu-240	4.18E+00
Pu-241	2.03E+02
Pu-242	5.20E-03

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W532**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W532	Stream Name	2345Z MTRU CH heterogeneous S5420 Mixed RCRA/TSCA-PCB w/Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	30.4	0.0	30.4
As-Generated Total	30.4	0.0	30.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	30.4	0.0	30.4
Final Form Total	30.4	0.0	30.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	3.40
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	178.72
Other Inorganic Materials	33.45
Cellulosics	4.11
Rubber	0.00
Plastics	19.88
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.62E-03
Pu-238	2.14E-03
Pu-239	8.02E-02
Pu-240	1.80E-02
Pu-241	2.65E-01
Pu-242	1.08E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W533**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W533	Stream Name	2345Z MTRU CH heterogeneous S5420 Mixed State Reg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	3.8	0.0	3.8
As-Generated Total	3.8	0.0	3.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	3.8	0.0	3.8
Final Form Total	3.8	0.0	3.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	23.42
Other Inorganic Materials	0.00
Cellulosics	2.11
Rubber	1.58
Plastics	25.00
Solidified, Inorganic Matrix	0.01
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	2.11
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.70E-02
Cs-137	2.70E-05
Pu-238	1.48E-02
Pu-239	1.84E-01
Pu-240	4.09E-02
Pu-241	9.82E-01
Pu-242	2.43E-06
Sr-90	2.46E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W534**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W534	Stream Name	2345Z MTRU CH heterogeneous S5420 Mixed TSCA-PCB			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	261.90
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	52.38
Solidified, Inorganic Matrix	23.81
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	9.52
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.67E-05
Pu-238	8.64E-06
Pu-239	3.24E-04
Pu-240	7.26E-05
Pu-241	1.07E-03
Pu-242	4.38E-09

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W535**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W535	Stream Name	2345Z TRU CH heterogeneous S5440 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	19.9	0.0	19.9
Standard Waste Box	3.8	0.0	3.8
As-Generated Total	23.7	0.0	23.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	19.9	0.0	19.9
Standard Waste Box	3.8	0.0	3.8
Final Form Total	23.7	0.0	23.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.02
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	56.21
Other Inorganic Materials	4.37
Cellulosics	31.12
Rubber	17.59
Plastics	33.98
Solidified, Inorganic Matrix	13.28
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	1.18
Packaging Material, Steel	134.68
Packaging Material, Plastic	31.27
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.95E+00
Pu-238	7.52E-01
Pu-239	3.68E+00
Pu-240	1.13E+00
Pu-241	2.89E+01
Pu-242	2.86E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W536**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W536	Stream Name	2345Z MTRU CH heterogeneous S5440 Mixed RCRA w/ org,met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	6.5	0.0	6.5
As-Generated Total	6.5	0.0	6.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	6.5	0.0	6.5
Final Form Total	6.5	0.0	6.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	28.68
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	48.85
Other Inorganic Materials	0.35
Cellulosics	24.58
Rubber	59.72
Plastics	63.08
Solidified, Inorganic Matrix	34.93
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	17.20
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.28E-01
Pu-238	3.70E-02
Pu-239	4.66E-01
Pu-240	1.06E-01
Pu-241	2.40E+00
Pu-242	7.44E-06
U-234	4.91E-07
U-235	2.15E-07
U-236	2.01E-08
U-238	1.40E-09

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W537**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W537	Stream Name	2345Z MTRU CH heterogeneous S5440 Mixed RCRA w/ org,met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	5.0	0.0	5.0
As-Generated Total	5.0	0.0	5.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	5.0	0.0	5.0
Final Form Total	5.0	0.0	5.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	2.90
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1.14
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	15.25
Solidified, Inorganic Matrix	10.36
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.28E+00
Pu-238	1.08E+00
Pu-239	3.70E+01
Pu-240	8.14E+00
Pu-241	8.71E+01
Pu-242	6.27E-04
U-234	5.39E-06
U-235	1.86E-06
U-236	2.21E-07
U-238	1.54E-08

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W538**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W538	Stream Name	2345Z MTRU CH heterogeneous S5440 Mixed RCRA w/ org			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.7	0.0	1.7
As-Generated Total	1.7	0.0	1.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.7	0.0	1.7
Final Form Total	1.7	0.0	1.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	36.15
Other Inorganic Materials	0.00
Cellulosics	12.56
Rubber	25.57
Plastics	69.04
Solidified, Inorganic Matrix	18.71
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	27.86
Soils	7.08
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.25E-05
Pu-238	1.37E-05
Pu-239	5.15E-04
Pu-240	1.15E-04
Pu-241	1.70E-03
Pu-242	6.94E-09

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W539**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W539	Stream Name	2345Z MTRU CH heterogeneous S5440 Mixed RCRA w/ met,cor			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	80.14
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	29.45
Other Inorganic Materials	0.12
Cellulosics	7.55
Rubber	99.81
Plastics	38.12
Solidified, Inorganic Matrix	37.62
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	59.55
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.64E-02
Pu-238	6.16E-03
Pu-239	2.28E-01
Pu-240	5.10E-02
Pu-241	8.29E-01
Pu-242	3.07E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W540**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W540	Stream Name	2345Z MTRU CH heterogeneous S5440 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	30.9	0.0	30.9
As-Generated Total	30.9	0.0	30.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	30.9	0.0	30.9
Final Form Total	30.9	0.0	30.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	30.39
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	52.49
Other Inorganic Materials	5.90
Cellulosics	26.90
Rubber	47.34
Plastics	52.58
Solidified, Inorganic Matrix	14.87
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	19.63
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.18E-01
Pu-238	3.69E-01
Pu-239	1.11E+00
Pu-240	3.86E-01
Pu-241	1.08E+01
Pu-242	1.83E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W541**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W541	Stream Name	2345Z MTRU CH heterogeneous S5440 Mixed RCRA w/ met,Hg,cor			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	2.41
Other Inorganic Materials	0.03
Cellulosics	13.05
Rubber	105.10
Plastics	24.00
Solidified, Inorganic Matrix	113.71
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	38.52
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.30E-02
Pu-238	1.18E-02
Pu-239	4.40E-01
Pu-240	9.85E-02
Pu-241	1.56E+00
Pu-242	5.93E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W542**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W542	Stream Name	2345Z MTRU CH heterogeneous S5440 Mixed RCRA w/ met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	4.0	0.0	4.0
As-Generated Total	4.0	0.0	4.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	4.0	0.0	4.0
Final Form Total	4.0	0.0	4.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	42.74
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	19.40
Other Inorganic Materials	5.55
Cellulosics	25.27
Rubber	74.68
Plastics	36.81
Solidified, Inorganic Matrix	53.93
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	28.71
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.89E-01
Pu-238	1.39E-01
Pu-239	1.76E+00
Pu-240	4.09E-01
Pu-241	1.01E+01
Pu-242	3.32E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W543**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W543	Stream Name	2345Z MTRU CH heterogeneous S5440 Mixed RCRA w/cor			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Standard Waste Box	3.8	0.0	3.8
As-Generated Total	4.0	0.0	4.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Standard Waste Box	3.8	0.0	3.8
Final Form Total	4.0	0.0	4.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	169.57
Other Inorganic Materials	0.00
Cellulosics	5.86
Rubber	1.25
Plastics	22.19
Solidified, Inorganic Matrix	2.74
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	2.49
Packaging Material, Steel	152.80
Packaging Material, Plastic	3.07
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.31E-04
Pu-238	2.70E-04
Pu-239	1.01E-02
Pu-240	2.27E-03
Pu-241	3.36E-02
Pu-242	1.37E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W544**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W544	Stream Name	2345Z MTRU CH heterogeneous S5440 Mixed RCRA w/ ign,cor			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	142.86
Other Inorganic Materials	0.00
Cellulosics	11.90
Rubber	36.19
Plastics	35.71
Solidified, Inorganic Matrix	14.76
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.16E-01
Pu-238	2.10E-01
Pu-239	2.20E+00
Pu-240	5.51E-01
Pu-241	1.28E+01
Pu-242	4.60E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W545**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W545	Stream Name	2345Z MTRU CH heterogeneous S5440 Mixed RCRA/TSCA-PCB w/Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	3.8	0.0	3.8
As-Generated Total	3.8	0.0	3.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	3.8	0.0	3.8
Final Form Total	3.8	0.0	3.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	190.53
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	48.42
Other Inorganic Materials	2.37
Cellulosics	0.00
Rubber	0.00
Plastics	32.50
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.28E-03
Pu-238	1.71E-03
Pu-239	6.40E-02
Pu-240	1.43E-02
Pu-241	2.12E-01
Pu-242	8.63E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W546**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W546	Stream Name	2345Z MTRU CH heterogeneous S5440 Mixed RCRA/TSCA-PCB w/ ign			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
As-Generated Total	0.8	0.0	0.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
Final Form Total	0.8	0.0	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	23.40
Rubber	5.10
Plastics	81.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	38.40
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.05E-03
Pu-238	3.38E-04
Pu-239	1.27E-02
Pu-240	2.84E-03
Pu-241	4.20E-02
Pu-242	1.71E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W547**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W547	Stream Name	2345Z MTRU CH heterogeneous S5440 Mixed State Reg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.9	0.0	2.9
Standard Waste Box	53.2	0.0	53.2
As-Generated Total	56.1	0.0	56.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.9	0.0	2.9
Standard Waste Box	53.2	0.0	53.2
Final Form Total	56.1	0.0	56.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	67.79
Other Inorganic Materials	0.43
Cellulosics	70.65
Rubber	0.00
Plastics	34.19
Solidified, Inorganic Matrix	0.30
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.19
Soils	6.88
Packaging Material, Steel	152.80
Packaging Material, Plastic	3.07
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.00E-07
Pu-238	1.29E-07
Pu-239	4.85E-06
Pu-240	1.09E-06
Pu-241	1.60E-05
Pu-242	6.54E-11

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W548**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W548	Stream Name	2345Z MTRU CH heterogeneous S5440 Mixed TSCA-PCB			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	9.52
Rubber	2.38
Plastics	50.24
Solidified, Inorganic Matrix	17.38
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	8.57
Soils	4.76
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.40E-05
Pu-238	1.50E-05
Pu-239	5.60E-04
Pu-240	1.25E-04
Pu-241	1.92E-03
Pu-242	7.55E-09

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W549**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W549	Stream Name	2345Z TRU CH heterogeneous S5900 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.1	0.0	2.1
Standard Waste Box	1.9	0.0	1.9
As-Generated Total	4.0	0.0	4.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.1	0.0	2.1
Standard Waste Box	1.9	0.0	1.9
Final Form Total	4.0	0.0	4.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	124.30
Other Inorganic Materials	24.62
Cellulosics	11.66
Rubber	2.61
Plastics	36.80
Solidified, Inorganic Matrix	14.36
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	141.93
Packaging Material, Plastic	19.99
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.42E+00
Pu-238	6.33E-01
Pu-239	3.02E+00
Pu-240	9.05E-01
Pu-241	2.55E+01
Pu-242	2.57E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W550**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W550	Stream Name	2345Z MTRU CH heterogeneous S5900 Mixed RCRA w/ org,met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	4.4	0.0	4.4
As-Generated Total	4.4	0.0	4.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	4.4	0.0	4.4
Final Form Total	4.4	0.0	4.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	3.09
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1.20
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	8.76
Solidified, Inorganic Matrix	11.03
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.43E+00
Pu-238	1.09E+00
Pu-239	3.72E+01
Pu-240	8.21E+00
Pu-241	8.73E+01
Pu-242	6.35E-04
U-234	4.36E-06
U-235	1.51E-06
U-236	1.79E-07
U-238	1.25E-08

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W551**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID **RL-W551** Stream Name **2345Z MTRU CH heterogeneous S5900 Mixed RCRA w/ met** Inventory Date **9/30/2002**
 Local ID **N/A** Handling **CH** Final Waste Form **Heterogeneous Debris** Waste Matrix Code **S5900** Activity Concentrations Decayed to CY **2002**

Final Waste Form Descriptors

Category: **Defense TRU Waste** Source: **Facility/Equipment Operation and Maintenance Waste**

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	8.0	0.0	8.0
Standard Waste Box	7.6	0.0	7.6
As-Generated Total	15.6	0.0	15.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	8.0	0.0	8.0
Standard Waste Box	7.6	0.0	7.6
Final Form Total	15.6	0.0	15.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	46.05
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	67.09
Other Inorganic Materials	0.98
Cellulosics	12.05
Rubber	7.45
Plastics	18.47
Solidified, Inorganic Matrix	8.82
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	7.04
Packaging Material, Steel	142.22
Packaging Material, Plastic	19.54
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.85E+00
Pu-238	4.55E-01
Pu-239	1.19E+01
Pu-240	3.03E+00
Pu-241	2.62E+01
Pu-242	2.87E-04
U-235	1.37E-07
U-238	2.76E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W552**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W552	Stream Name	2345Z MTRU CH heterogeneous S5900 Mixed RCRA w/ met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
As-Generated Total	0.8	0.0	0.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
Final Form Total	0.8	0.0	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	22.62
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	24.37
Other Inorganic Materials	4.54
Cellulosics	6.88
Rubber	40.75
Plastics	31.77
Solidified, Inorganic Matrix	42.81
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	40.55
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.32E-02
Pu-238	4.67E-03
Pu-239	1.73E-01
Pu-240	3.88E-02
Pu-241	6.08E-01
Pu-242	2.34E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W553**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W553	Stream Name	2345Z MTRU CH heterogeneous S5900 Mixed RCRA w/ ign,cor			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	71.67
Other Inorganic Materials	2.62
Cellulosics	0.00
Rubber	0.48
Plastics	17.38
Solidified, Inorganic Matrix	31.67
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.64E-04
Cs-137	2.68E-01
Pu-238	8.81E-04
Pu-239	3.09E-02
Pu-240	6.92E-03
Pu-241	1.54E-01
Pu-242	4.17E-07
Sr-90	2.46E-01

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W554**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W554	Stream Name	2345Z MTRU CH heterogeneous S5900 Mixed RCRA/TSCA-PCB w/Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	9.5	0.0	9.5
As-Generated Total	9.5	0.0	9.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	9.5	0.0	9.5
Final Form Total	9.5	0.0	9.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	119.79
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	159.16
Other Inorganic Materials	0.00
Cellulosics	2.11
Rubber	0.00
Plastics	18.21
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.79E-03
Pu-238	5.78E-04
Pu-239	2.17E-02
Pu-240	4.86E-03
Pu-241	7.17E-02
Pu-242	2.93E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W555**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W555	Stream Name	2345Z MTRU CH heterogeneous S5900 Mixed State Reg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Standard Waste Box	11.4	0.0	11.4
As-Generated Total	12.0	0.0	12.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Standard Waste Box	11.4	0.0	11.4
Final Form Total	12.0	0.0	12.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	34.92
Other Inorganic Materials	7.50
Cellulosics	7.11
Rubber	0.19
Plastics	25.23
Solidified, Inorganic Matrix	5.80
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	5.90
Packaging Material, Steel	152.80
Packaging Material, Plastic	3.07
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.50E-04
Pu-238	2.10E-04
Pu-239	7.89E-03
Pu-240	1.77E-03
Pu-241	2.61E-02
Pu-242	1.06E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W563**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W563	Stream Name	2345Z MTRU CH solidified inorganic X6200 Mixed RCRA w/ met,cor			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	X6200
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	31.43
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	32.86
Solidified, Inorganic Matrix	94.35
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.72E-01
Pu-238	3.01E-01
Pu-239	3.75E+00
Pu-240	8.32E-01
Pu-241	2.04E+01
Pu-242	4.97E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W564**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W564	Stream Name	2345Z MTRU CH solidified inorganic X6200 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	X6200
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.3	0.0	1.3
As-Generated Total	1.3	0.0	1.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.3	0.0	1.3
Final Form Total	1.3	0.0	1.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1.75
Other Inorganic Materials	2.38
Cellulosics	94.92
Rubber	0.00
Plastics	33.33
Solidified, Inorganic Matrix	40.29
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	41.67
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.82E-02
Pu-238	3.33E-02
Pu-239	4.04E-01
Pu-240	8.98E-02
Pu-241	2.61E+00
Pu-242	5.33E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W565**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W565	Stream Name	2345Z MTRU CH Pb/Cd metal X7219 Mixed RCRA w/ met,cor			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Lead/Cadmium Metal	Waste Matrix Code	X7219
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	589.05
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.67
Other Inorganic Materials	0.00
Cellulosics	20.00
Rubber	106.67
Plastics	89.05
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	37.62
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.23E-02
Pu-238	1.12E-02
Pu-239	4.18E-01
Pu-240	9.37E-02
Pu-241	1.45E+00
Pu-242	5.65E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W566**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W566	Stream Name	2345Z MTRU CH Pb/Cd metal X7219 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Lead/Cadmium Metal	Waste Matrix Code	X7219
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.3	0.0	2.3
As-Generated Total	2.3	0.0	2.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.3	0.0	2.3
Final Form Total	2.3	0.0	2.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	217.20
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	9.24
Other Inorganic Materials	1.35
Cellulosics	1.69
Rubber	64.82
Plastics	21.01
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	14.56
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.52E-02
Pu-238	1.50E-02
Pu-239	5.60E-01
Pu-240	1.25E-01
Pu-241	1.88E+00
Pu-242	7.55E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W567**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W567	Stream Name	2345Z TRU CH solidified inorganic S3119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	35.09
Solidified, Inorganic Matrix	75.48
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.36E+01
Pu-238	4.25E+00
Pu-239	1.91E-01
Pu-240	1.55E-01
Pu-241	1.77E+03
Pu-242	1.60E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W568**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W568	Stream Name	2345Z TRU CH uncategorized metal S5119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	3.7	0.0	3.7
As-Generated Total	3.7	0.0	3.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	3.7	0.0	3.7
Final Form Total	3.7	0.0	3.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	23.96
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	453.79
Other Inorganic Materials	5.21
Cellulosics	6.99
Rubber	0.77
Plastics	32.70
Solidified, Inorganic Matrix	4.28
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	14.85
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.04E+01
Pu-238	4.98E+00
Pu-239	5.03E-01
Pu-240	4.01E-01
Pu-241	2.03E+03
Pu-242	3.25E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W569**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W569	Stream Name	2345Z TRU CH inorganic non-metal S5121 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5121
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
Standard Waste Box	1.9	0.0	1.9
As-Generated Total	2.1	0.0	2.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
Standard Waste Box	1.9	0.0	1.9
Final Form Total	2.1	0.0	2.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	39.08
Cellulosics	0.48
Rubber	0.00
Plastics	2.38
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	1.90
Packaging Material, Steel	151.72
Packaging Material, Plastic	4.75
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.69E-02
Pu-238	6.65E-03
Pu-239	2.99E-04
Pu-240	2.43E-05
Pu-241	2.78E+00
Pu-242	2.43E-10

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W570**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W570	Stream Name	2345Z TRU CH inorganic non-metal S5122 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	232.62
Cellulosics	0.00
Rubber	0.00
Plastics	25.44
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	19.19
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.91E-02
Cs-137	2.14E-02
Pu-238	5.89E-03
Pu-239	2.24E-01
Pu-240	5.01E-02
Pu-241	6.89E-01
Pu-242	3.02E-06
Sr-90	1.94E-02

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W571**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W571	Stream Name	2345Z TRU CH combustible S5319 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	12.5	0.0	12.5
As-Generated Total	12.5	0.0	12.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	12.5	0.0	12.5
Final Form Total	12.5	0.0	12.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1.37
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	13.37
Other Inorganic Materials	3.72
Cellulosics	8.06
Rubber	26.22
Plastics	88.11
Solidified, Inorganic Matrix	0.04
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	11.71
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.38E+00
Pu-238	6.67E-01
Pu-239	6.06E-01
Pu-240	3.04E-01
Pu-241	9.32E+01
Pu-242	3.66E-08

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W572**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W572	Stream Name	2345Z TRU CH combustible S5330 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5330
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	2.3	0.0	2.3
As-Generated Total	2.3	0.0	2.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	2.3	0.0	2.3
Final Form Total	2.3	0.0	2.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1.36
Other Inorganic Materials	0.22
Cellulosics	92.55
Rubber	5.27
Plastics	9.97
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	14.56
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.03E-03
Pu-238	1.09E-03
Pu-239	1.78E-03
Pu-240	3.98E-05
Pu-241	4.53E-01
Pu-242	3.97E-11

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W573**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W573	Stream Name	2345Z TRU RH combustible S5390 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	15.0	0.0	15.0
As-Generated Total	15.0	0.0	15.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	15.0	0.0	15.0
Final Form Total	15.0	0.0	15.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	17.63
Other Inorganic Materials	2.46
Cellulosics	60.54
Rubber	19.07
Plastics	39.36
Solidified, Inorganic Matrix	0.06
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	23.56
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.23E+01
Pu-238	2.13E+00
Pu-239	1.49E-01
Pu-240	1.12E-01
Pu-241	8.80E+02
Pu-242	1.01E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W574**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W574	Stream Name	2345Z TRU CH heterogeneous S5420 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	23.3	0.0	23.3
Standard Waste Box	58.6	0.0	58.6
As-Generated Total	81.9	0.0	81.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	23.3	0.0	23.3
Standard Waste Box	58.6	0.0	58.6
Final Form Total	81.9	0.0	81.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.05
Aluminum-Base Metal/Alloys	0.01
Other Metal/Alloys	98.95
Other Inorganic Materials	9.58
Cellulosics	9.73
Rubber	3.73
Plastics	29.12
Solidified, Inorganic Matrix	0.80
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	10.04
Packaging Material, Steel	147.46
Packaging Material, Plastic	11.38
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.30E+00
Pu-238	1.68E+00
Pu-239	1.04E-01
Pu-240	7.60E-02
Pu-241	7.03E+02
Pu-242	7.80E-08

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W575**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W575	Stream Name	2345Z TRU CH heterogeneous S5440 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55-Gallon Drum	199.1	0.0	199.1
Standard Waste Box	85.1	0.0	85.1
As-Generated Total	284.1	0.0	284.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-Gallon Drum	199.1	0.0	199.1
Standard Waste Box	85.1	0.0	85.1
Final Form Total	284.1	0.0	284.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.40
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	45.71
Other Inorganic Materials	8.03
Cellulosics	34.41
Rubber	13.99
Plastics	49.96
Solidified, Inorganic Matrix	0.79
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	23.40
Packaging Material, Steel	137.89
Packaging Material, Plastic	26.28
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.92E+01
Pu-238	3.27E+00
Pu-239	2.87E-01
Pu-240	1.75E-01
Pu-241	1.27E+03
Pu-242	3.92E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W576**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W576	Stream Name	2345Z TRU CH heterogeneous S5900 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	8.9	0.0	8.9
Standard Waste Box	32.1	0.0	32.1
As-Generated Total	41.1	0.0	41.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	8.9	0.0	8.9
Standard Waste Box	32.1	0.0	32.1
Final Form Total	41.1	0.0	41.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	55.57
Other Inorganic Materials	10.80
Cellulosics	18.55
Rubber	3.51
Plastics	26.16
Solidified, Inorganic Matrix	5.87
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.14
Soils	13.65
Packaging Material, Steel	148.99
Packaging Material, Plastic	9.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.67E+00
Pu-238	1.58E+00
Pu-239	1.01E-01
Pu-240	7.30E-02
Pu-241	6.60E+02
Pu-242	5.98E-08

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the PLUTONIUM FABRICATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W579**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W579	Stream Name	2714U MTRU CH heterogeneous S5420 Mixed RCRA w/ org,met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.05
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	291.07
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	54.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	236.31
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.52E-01
Pu-238	4.06E-03
Pu-239	4.94E-02
Pu-240	1.11E-02
Pu-241	2.28E-01
Pu-242	6.65E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the WAREHOUSE.

Management Comments

N/A

Waste Stream ID: **RL-W580**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W580	Stream Name	2718E MTRU CH filter S5410 Mixed State Reg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Standard Waste Box	1.9	0.0	1.9
As-Generated Total	2.1	0.0	2.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Standard Waste Box	1.9	0.0	1.9
Final Form Total	2.1	0.0	2.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	117.25
Cellulosics	0.00
Rubber	0.00
Plastics	9.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	151.71
Packaging Material, Plastic	4.76
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	1.42E-04
Pu-239	7.88E-02
Pu-240	1.29E-02
Sr-90	1.30E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the CRITICAL MASS STORAGE.

Management Comments

N/A

Waste Stream ID: **RL-W581**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W581	Stream Name	2718E TRU CH heterogeneous S5440 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	7.21
Other Inorganic Materials	0.00
Cellulosics	48.07
Rubber	64.91
Plastics	50.49
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.79E+00

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the CRITICAL MASS STORAGE.

Management Comments

N/A

Waste Stream ID: **RL-W582**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W582	Stream Name	308 MTRU CH solidified inorganic S3119 Mixed RCRA w/ met,Hg,cor			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.95
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.95
Cellulosics	0.00
Rubber	4.29
Plastics	10.48
Solidified, Inorganic Matrix	88.10
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.36E-02
Cs-137	4.88E-03
Pu-238	6.92E-03
Pu-239	2.53E-02
Pu-240	1.32E-02
Pu-241	7.36E-02
Pu-242	3.85E-07
Sr-90	4.45E-03

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the FUELS DEVELOPMENT LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W583**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W583	Stream Name	308 MTRU CH combustible S5319 Mixed RCRA w/ met,ign			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	24.00
Other Inorganic Materials	0.00
Cellulosics	18.00
Rubber	12.00
Plastics	100.80
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.31E-02
Pu-238	3.75E-03
Pu-239	1.43E-01
Pu-240	3.20E-02
Pu-241	4.29E-01
Pu-242	1.93E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the FUELS DEVELOPMENT LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W584**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W584	Stream Name	308 MTRU CH heterogeneous S5420 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	296.24
Other Inorganic Materials	0.00
Cellulosics	19.05
Rubber	0.00
Plastics	24.24
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.81E-01
Cs-137	9.77E-04
Pu-238	2.46E-01
Pu-239	8.35E-01
Pu-240	4.10E-01
Pu-241	2.16E+00
Pu-242	1.20E-05
Sr-90	8.91E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the FUELS DEVELOPMENT LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W585**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W585	Stream Name	308 MTRU CH heterogeneous S5420 Mixed RCRA w/ ign			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	143.57
Other Inorganic Materials	1.19
Cellulosics	9.52
Rubber	0.00
Plastics	17.14
Solidified, Inorganic Matrix	1.19
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.18E-01
Cs-137	7.72E-06
Pu-238	6.54E-01
Pu-239	2.44E+00
Pu-240	1.25E+00
Pu-241	3.28E+01
Pu-242	3.64E-04
Sr-90	7.04E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the FUELS DEVELOPMENT LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W586**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W586	Stream Name	308 TRU CH heterogeneous S5440 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	163.20
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	90.40
Cellulosics	18.00
Rubber	18.00
Plastics	43.20
Solidified, Inorganic Matrix	3.84
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.08E-04
Pu-238	5.92E-05
Pu-239	2.26E-03
Pu-240	5.06E-04
Pu-241	6.78E-03
Pu-242	3.05E-08

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the FUELS DEVELOPMENT LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W587**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W587	Stream Name	308 MTRU CH heterogeneous S5440 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	38.10
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	37.10
Other Inorganic Materials	0.00
Cellulosics	27.52
Rubber	40.67
Plastics	62.02
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.10E-03
Pu-238	6.38E-04
Pu-239	2.41E-02
Pu-240	5.40E-03
Pu-241	7.60E-02
Pu-242	3.25E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the FUELS DEVELOPMENT LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W588**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W588	Stream Name	308 MTRU CH heterogeneous S5440 Mixed RCRA w/ met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	19.05
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	37.76
Other Inorganic Materials	0.00
Cellulosics	28.57
Rubber	80.95
Plastics	38.38
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.27E-01
Cs-137	9.77E-04
Pu-238	2.07E-01
Pu-239	7.03E-01
Pu-240	3.45E-01
Pu-241	1.81E+00
Pu-242	1.01E-05
Sr-90	8.91E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the FUELS DEVELOPMENT LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W589**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W589	Stream Name	308 MTRU CH Pb/Cd metal X7219 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Lead/Cadmium Metal	Waste Matrix Code	X7219
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Non-defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1369.05
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	87.14
Rubber	0.00
Plastics	90.95
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	1.41E-04
Sr-90	1.29E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the FUELS DEVELOPMENT LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W590**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W590	Stream Name	308 TRU CH solidified organics L2290 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	L2290
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	129.38
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	100.32
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.26E+00
Pu-238	1.49E+00
Pu-239	1.82E-02
Pu-240	3.27E-02
Pu-241	8.01E+01
Pu-242	1.66E-08

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the FUELS DEVELOPMENT LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W591**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W591	Stream Name	308 TRU CH solidified inorganic S3119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	346.15
Other Inorganic Materials	12.02
Cellulosics	16.82
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	110.57
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.87E+01
Pu-238	5.05E+00
Pu-239	6.78E-02
Pu-240	1.27E-01
Pu-241	1.45E+03
Pu-242	6.41E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the FUELS DEVELOPMENT LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W592**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W592	Stream Name	308 TRU CH uncategorized metal S5119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	2.5	0.0	2.5
As-Generated Total	2.5	0.0	2.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	2.5	0.0	2.5
Final Form Total	2.5	0.0	2.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	456.34
Other Inorganic Materials	7.13
Cellulosics	4.13
Rubber	2.80
Plastics	17.79
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	3.33
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.46E+00
Pu-238	4.60E+00
Pu-239	2.62E-01
Pu-240	3.42E-01
Pu-241	4.88E+02
Pu-242	1.12E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the FUELS DEVELOPMENT LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W593**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W593	Stream Name	308 TRU CH inorganic non-metal S5121 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5121
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	46.84
Other Inorganic Materials	652.22
Cellulosics	0.00
Rubber	0.00
Plastics	7.27
Solidified, Inorganic Matrix	0.64
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-239	3.78E-02
Pu-240	6.42E-02

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the FUELS DEVELOPMENT LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W594**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W594	Stream Name	308 TRU CH combustible S5319 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	2.5	0.0	2.5
As-Generated Total	2.5	0.0	2.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	2.5	0.0	2.5
Final Form Total	2.5	0.0	2.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	7.73
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	51.79
Other Inorganic Materials	2.81
Cellulosics	4.16
Rubber	22.72
Plastics	234.84
Solidified, Inorganic Matrix	1.12
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.10
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.86E+01
Pu-238	8.30E-01
Pu-239	1.17E-02
Pu-240	2.17E-02
Pu-241	1.22E+02
Pu-242	4.10E-08

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the FUELS DEVELOPMENT LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W595**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W595	Stream Name	308 TRU CH combustible S5390 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	70.39
Other Inorganic Materials	0.00
Cellulosics	42.65
Rubber	4.26
Plastics	48.55
Solidified, Inorganic Matrix	4.01
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.40E-02
Pu-238	3.46E-01
Pu-239	3.20E-02
Pu-240	6.31E-02
Pu-241	4.84E+00
Pu-242	3.83E-09

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the FUELS DEVELOPMENT LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W596**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W596	Stream Name	308 TRU CH filter S5410 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	9.4	0.0	9.4
As-Generated Total	9.4	0.0	9.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	9.4	0.0	9.4
Final Form Total	9.4	0.0	9.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	9.95
Cellulosics	6.02
Rubber	0.00
Plastics	0.21
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.84E-03
Pu-238	1.78E-03
Pu-239	2.18E-05
Pu-240	3.92E-05
Pu-241	9.60E-02
Pu-242	1.99E-11

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the FUELS DEVELOPMENT LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W597**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W597	Stream Name	308 TRU CH heterogeneous S5420 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	3.1	0.0	3.1
As-Generated Total	3.1	0.0	3.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	3.1	0.0	3.1
Final Form Total	3.1	0.0	3.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	305.22
Other Inorganic Materials	51.90
Cellulosics	10.49
Rubber	0.19
Plastics	44.33
Solidified, Inorganic Matrix	10.85
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.00E+01
Pu-238	2.37E+00
Pu-239	1.28E-01
Pu-240	2.15E-01
Pu-241	5.43E+02
Pu-242	2.35E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the FUELS DEVELOPMENT LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W598**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W598	Stream Name	308 TRU CH heterogeneous S5440 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	8.7	0.0	8.7
As-Generated Total	8.7	0.0	8.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	8.7	0.0	8.7
Final Form Total	8.7	0.0	8.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	38.60
Aluminum-Base Metal/Alloys	0.10
Other Metal/Alloys	87.53
Other Inorganic Materials	17.28
Cellulosics	28.93
Rubber	9.83
Plastics	72.51
Solidified, Inorganic Matrix	2.83
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.25
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.92E+00
Pu-238	4.99E+00
Pu-239	6.36E-02
Pu-240	9.58E-02
Pu-241	2.00E+02
Pu-242	4.98E-08

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the FUELS DEVELOPMENT LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W599**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W599	Stream Name	308 TRU CH heterogeneous S5900 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	346.15
Other Inorganic Materials	0.00
Cellulosics	5.78
Rubber	0.00
Plastics	49.04
Solidified, Inorganic Matrix	153.87
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.28E+00
Pu-238	1.69E+00
Pu-239	2.26E-02
Pu-240	4.24E-02
Pu-241	4.84E+02
Pu-242	2.14E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the FUELS DEVELOPMENT LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W600**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W600	Stream Name	318 TRU CH solidified inorganic S3119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.2	0.6
As-Generated Total	0.4	0.2	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.2	0.6
Final Form Total	0.4	0.2	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	180.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	24.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	163.20
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.48E-07
Pu-238	4.23E-08
Pu-239	1.61E-06
Pu-240	3.61E-07
Pu-241	4.84E-06
Pu-242	2.18E-11

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the RADIOLOGICAL CALIBRATIONS LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W601**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W601	Stream Name	324 MTRU CH solidified organics L2290 Mixed RCRA w/ met,ign			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Organics	Waste Matrix Code	L2290
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.4	0.8
As-Generated Total	0.4	0.4	0.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.4	0.8
Final Form Total	0.4	0.4	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	59.05
Other Inorganic Materials	14.39
Cellulosics	0.00
Rubber	0.00
Plastics	19.13
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	59.52
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.33E-04
Cs-137	8.91E-05
Pu-238	1.54E-04
Pu-239	5.39E-03
Pu-240	1.21E-03
Pu-241	2.68E-02
Pu-242	7.27E-08
Sr-90	8.18E-05

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W602**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID Stream Name Inventory Date
 Local ID Handling Final Waste Form Waste Matrix Code Activity Concentrations Decayed to CY

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	0.0	0.4	0.4
Standard Waste Box	1.9	0.0	1.9
As-Generated Total	1.9	0.4	2.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.0	0.4	0.4
Standard Waste Box	1.9	0.0	1.9
Final Form Total	1.9	0.4	2.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	2105.26
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	78.95
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	149.84
Packaging Material, Plastic	7.68
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.69E-01
Pu-238	5.88E-02
Pu-239	2.19E+00
Pu-240	4.91E-01
Pu-241	7.60E+00
Pu-242	2.95E-05

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W603**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W603	Stream Name	324 TRU CH uncategorized metal S5119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	7.6	0.0	7.6
As-Generated Total	7.6	0.0	7.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	7.6	0.0	7.6
Final Form Total	7.6	0.0	7.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	79.83
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.58E-01
Pu-238	1.25E-01
Pu-239	4.64E+00
Pu-240	1.04E+00
Pu-241	1.61E+01
Pu-242	6.25E-05

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W604**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID

RL-W604

 Stream Name

324 MTRU CH uncategorized metal S5119 Mixed RCRA w/ org

 Inventory Date

9/30/2002

 Local ID

N/A

 Handling

CH

 Final Waste Form

Uncategorized Metal

 Waste Matrix Code

S5119

 Activity Concentrations Decayed to CY

2002

Final Waste Form Descriptors

Category:

Defense TRU Waste

 Source:

R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	161.81
Other Inorganic Materials	0.00
Cellulosics	3.76
Rubber	0.00
Plastics	24.69
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.35E-02
Cs-137	1.70E-01
Pu-238	1.18E-02
Pu-239	8.14E-02
Pu-240	4.05E-02
Pu-241	6.90E-01
Pu-242	3.97E-06
Sr-90	1.68E-03

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W605**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W605	Stream Name	324 MTRU CH combustible S5330 Mixed RCRA w/ org			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5330
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	100.00
Rubber	0.00
Plastics	28.57
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.23E-03
Cs-137	3.59E-03
Pu-238	2.57E-03
Pu-239	9.01E-02
Pu-240	2.02E-02
Pu-241	4.48E-01
Pu-242	1.22E-06
Sr-90	3.29E-03

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W606**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W606	Stream Name	324 MTRU CH combustible S5390 Mixed RCRA w/ org			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	193.33
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	117.14
Rubber	111.90
Plastics	71.43
Solidified, Inorganic Matrix	2.38
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.98E-04
Cs-137	1.75E-02
Pu-238	1.03E-03
Pu-239	3.63E-02
Pu-240	8.13E-03
Pu-241	1.81E-01
Pu-242	4.90E-07
Sr-90	1.60E-02

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W607**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W607	Stream Name	324 MTRU CH heterogeneous S5440 Mixed RCRA w/ org			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	45.19
Other Inorganic Materials	0.00
Cellulosics	116.52
Rubber	0.00
Plastics	19.05
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.03E-03
Cs-137	1.50E-01
Pu-238	2.00E-03
Pu-239	1.38E-02
Pu-240	6.85E-03
Pu-241	1.17E-01
Pu-242	6.70E-07
Sr-90	1.48E-03

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W608**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W608	Stream Name	324 MTRU CH heterogeneous S5490 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5490
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Standard Waste Box	5.7	0.0	5.7
As-Generated Total	6.1	0.0	6.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Standard Waste Box	5.7	0.0	5.7
Final Form Total	6.1	0.0	6.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	3.41
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	16.96
Other Inorganic Materials	102.62
Cellulosics	0.29
Rubber	0.00
Plastics	1.80
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	152.42
Packaging Material, Plastic	3.66
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.23E-03
Cs-137	2.13E-01
Pu-238	2.67E-03
Pu-239	6.14E-04
Pu-240	7.63E-04
Pu-241	6.14E-02
Pu-242	1.77E-06
Sr-90	1.37E-01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W610**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID

RL-W610

 Stream Name

324 TRU CH Pb/Cd metal X7219 Non-mixed
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 Inventory Date

9/30/2002

 Local ID

N/A

 Handling

CH

 Final Waste Form

Lead/Cadmium Metal

 Waste Matrix Code

X7219

 Activity Concentrations Decayed to CY

2002

Final Waste Form Descriptors

Category:

Defense TRU Waste

 Source:

R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	3.8	0.0	3.8
As-Generated Total	3.8	0.0	3.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	3.8	0.0	3.8
Final Form Total	3.8	0.0	3.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1024.21
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	863.26
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.04E-01
Pu-238	2.29E-01
Pu-239	8.74E+00
Pu-240	1.96E+00
Pu-241	2.63E+01
Pu-242	1.18E-04

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W612**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W612	Stream Name	324 TRU CH solidified inorganic S3119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	2.7	2.9
Standard Waste Box	0.0	1.9	1.9
As-Generated Total	0.2	4.6	4.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	2.7	2.9
Standard Waste Box	0.0	1.9	1.9
Final Form Total	0.2	4.6	4.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	8.82
Other Inorganic Materials	2.65
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	53.48
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	140.05
Packaging Material, Plastic	22.91
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.26E-04
Cs-137	1.30E-02
Pu-238	2.13E-04
Pu-239	8.15E-03
Pu-240	1.83E-03
Pu-241	2.39E-02
Pu-242	1.10E-07
Sr-90	1.15E-02

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W613**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID **RL-W613** Stream Name **324 TRU RH uncategorized metal S5119 Non-mixed** Inventory Date **9/30/2002**
 Local ID **N/A** Handling **RH** Final Waste Form **Uncategorized Metal** Waste Matrix Code **S5119** Activity Concentrations Decayed to CY **2002**

Final Waste Form Descriptors

Category: **Defense TRU Waste** Source: **R&D/R&D Laboratory Waste**

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	45.4	0.0	45.4
As-Generated Total	45.4	0.0	45.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	45.4	0.0	45.4
Final Form Total	45.4	0.0	45.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	141.11
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	510.44
Other Inorganic Materials	0.64
Cellulosics	1.80
Rubber	6.42
Plastics	3.03
Solidified, Inorganic Matrix	0.42
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.58E+00
Cs-137	9.19E+02
Pu-238	7.23E-02
Pu-239	1.39E-01
Pu-240	3.38E-02
Pu-241	1.05E+00
Pu-242	1.28E-03
Sr-90	4.49E+02

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W614**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID **RL-W614** Stream Name **324 MTRU RH uncategorized metal S5119 Mixed RCRA w/ met** Inventory Date **9/30/2002**
 Local ID **N/A** Handling **RH** Final Waste Form **Uncategorized Metal** Waste Matrix Code **S5119** Activity Concentrations Decayed to CY **2002**

Final Waste Form Descriptors

Category: **Defense TRU Waste** Source: **R&D/R&D Laboratory Waste**

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	15.1	21.4	36.5
As-Generated Total	15.1	21.4	36.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	15.1	21.4	36.5
Final Form Total	15.1	21.4	36.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	293.95
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	288.50
Other Inorganic Materials	0.00
Cellulosics	2.19
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	10.37
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.24E+00
Cs-137	2.00E+03
Pu-238	4.56E-01
Pu-239	8.52E-02
Pu-240	8.33E-02
Pu-241	4.10E+00
Pu-242	1.39E-04
Sr-90	1.50E+03

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W615**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W615	Stream Name	324 TRU CH inorganic non-metal S5122 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	1.9	0.0	1.9
As-Generated Total	1.9	0.0	1.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	166.67
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	335.45
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-239	1.79E-01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W616**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID **RL-W616** Stream Name **324 TRU RH inorganic non-metal S5190 Non-mixed** Inventory Date **9/30/2002**
 Local ID **N/A** Handling **RH** Final Waste Form **Inorganic Non-Metal** Waste Matrix Code **S5190** Activity Concentrations Decayed to CY **2002**

Final Waste Form Descriptors

Category: **Defense TRU Waste** Source: **R&D/R&D Laboratory Waste**

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	5.3	0.0	5.3
As-Generated Total	5.3	0.0	5.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	5.3	0.0	5.3
Final Form Total	5.3	0.0	5.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	768.48
Other Inorganic Materials	1302.99
Cellulosics	0.05
Rubber	19.66
Plastics	15.39
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.35E+00
Cs-137	5.55E+02
Pu-238	1.05E-01
Pu-239	3.28E-02
Pu-240	3.21E-02
Pu-241	1.51E+00
Pu-242	5.37E-05
Sr-90	5.51E+02

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W617**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W617	Stream Name	324 TRU RH filter S5410 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	1.8	0.0	1.8
As-Generated Total	1.8	0.0	1.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	1.8	0.0	1.8
Final Form Total	1.8	0.0	1.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	261.43
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	164.38
Cellulosics	0.00
Rubber	1.41
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.30E-01
Cs-137	8.00E+01
Pu-238	1.50E-02
Pu-239	4.63E-03
Pu-240	4.52E-03
Pu-241	2.22E-01
Pu-242	7.52E-06
Sr-90	7.94E+01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W618**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W618	Stream Name	324 TRU RH heterogeneous S5420 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	1.8	0.0	1.8
As-Generated Total	1.8	0.0	1.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	1.8	0.0	1.8
Final Form Total	1.8	0.0	1.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	2737.01
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1290.48
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	9.88
Plastics	39.50
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.50E+00
Cs-137	3.00E+02
Pu-238	5.90E-01
Pu-239	7.78E-02
Pu-240	7.42E-02
Pu-241	2.52E+02
Pu-242	1.22E-06
Sr-90	1.17E+01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W619**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID **RL-W619** Stream Name **324 MTRU RH heterogeneous S5420 Mixed RCRA w/ met** Inventory Date **9/30/2002**
 Local ID **N/A** Handling **RH** Final Waste Form **Heterogeneous Debris** Waste Matrix Code **S5420** Activity Concentrations Decayed to CY **2002**

Final Waste Form Descriptors

Category: **Defense TRU Waste** Source: **R&D/R&D Laboratory Waste**

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	24.9	0.0	24.9
As-Generated Total	24.9	0.0	24.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	24.9	0.0	24.9
Final Form Total	24.9	0.0	24.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	312.95
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	211.92
Other Inorganic Materials	0.70
Cellulosics	0.02
Rubber	0.00
Plastics	0.20
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	123.18
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.13E+01
Cs-137	3.55E+03
Pu-238	8.02E-01
Pu-239	1.57E-01
Pu-240	1.54E-01
Pu-241	7.32E+00
Pu-242	2.36E-04
Sr-90	2.23E+03

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W620**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W620	Stream Name	324 TRU RH heterogeneous S5440 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	1.8	0.0	1.8
As-Generated Total	1.8	0.0	1.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	1.8	0.0	1.8
Final Form Total	1.8	0.0	1.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	261.43
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	229.55
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.24E-02
Cs-137	2.23E+01
Pu-238	4.18E-03
Pu-239	1.29E-03
Pu-240	1.27E-03
Pu-241	6.21E-02
Pu-242	2.13E-06
Sr-90	2.23E+01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W621**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W621	Stream Name	324 MTRU RH heterogeneous S5490 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5490
				Activity Concentrations Decayed to CY		2002	

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
RH Canister	12.5	0.0	12.5	
As-Generated Total		12.5	0.0	12.5

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
RH Canister	12.5	0.0	12.5	
Final Form Total		12.5	0.0	12.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	5.98
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	17.38
Other Inorganic Materials	96.14
Cellulosics	0.00
Rubber	0.00
Plastics	2.65
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.26E-03
Cs-137	1.02E+00
Pu-238	1.10E-02
Pu-239	1.14E-03
Pu-240	2.08E-03
Pu-241	2.96E-01
Pu-242	8.57E-06
Sr-90	6.56E-01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W622**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID **RL-W622** Stream Name **324 TRU CH Pb/Cd metal X7219 Non-mixed** Inventory Date **9/30/2002**
 Local ID **N/A** Handling **CH** Final Waste Form **Lead/Cadmium Metal** Waste Matrix Code **X7219** Activity Concentrations Decayed to CY **2002**

Final Waste Form Descriptors

Category: **Defense TRU Waste** Source: **R&D/R&D Laboratory Waste**

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	1.9	0.0	1.9
As-Generated Total	1.9	0.0	1.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	892.80
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	44.57
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.37E-05
Pu-238	1.82E-05
Pu-239	6.93E-04
Pu-240	1.55E-04
Pu-241	2.08E-03
Pu-242	9.35E-09

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W623**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W623	Stream Name	324 MTRU RH Pb/Cd metal X7219 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Lead/Cadmium Metal	Waste Matrix Code	X7219
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	9.8	0.0	9.8
As-Generated Total	9.8	0.0	9.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	9.8	0.0	9.8
Final Form Total	9.8	0.0	9.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	434.76
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	140.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.12E-02
Cs-137	3.22E+01
Pu-238	6.98E-03
Pu-239	1.17E-03
Pu-240	1.15E-03
Pu-241	5.37E-02
Pu-242	1.91E-06
Sr-90	1.72E+01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMICAL ENGINEERING BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W625**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID

RL-W625

 Stream Name

325 MTRU CH solidified inorganic L1190 Mixed State Reg
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 Inventory Date

9/30/2002

 Local ID

N/A

 Handling

CH

 Final Waste Form

Solidified Inorganics

 Waste Matrix Code

L1190

 Activity Concentrations Decayed to CY

2002

Final Waste Form Descriptors

Category:

Defense TRU Waste

 Source:

R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	4.76
Solidified, Inorganic Matrix	28.42
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.41E-03
Pu-238	2.49E-02
Pu-239	3.19E-02
Pu-240	3.15E-02
Pu-241	1.02E+00

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W626**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID **RL-W626** Stream Name **325 MTRU CH solidified inorganic S3113 Mixed RCRA w/ met,Hg** Inventory Date **9/30/2002**
 Local ID **N/A** Handling **CH** Final Waste Form **Solidified Inorganics** Waste Matrix Code **S3113** Activity Concentrations Decayed to CY **2002**

Final Waste Form Descriptors

Category: **Defense TRU Waste** Source: **R&D/R&D Laboratory Waste**

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	11.62
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	10.67
Other Inorganic Materials	11.62
Cellulosics	3.62
Rubber	0.00
Plastics	15.90
Solidified, Inorganic Matrix	321.69
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.67E+00
Pu-238	5.65E-01
Pu-239	1.25E+00
Pu-240	7.55E-01
Pu-241	1.77E+01
Pu-242	3.98E-04
U-235	9.40E-06
U-238	6.45E-06

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W627**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W627	Stream Name	325 MTRU CH solidified inorganic S3119 Mixed RCRA w/ org,met,ign,cor			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	23.43
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	193.33
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.48E-03
Cs-137	4.51E-03
Pu-238	7.59E-04
Pu-239	5.90E-06
Pu-241	2.10E-01
Sr-90	4.11E-03

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W628**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W628	Stream Name	325 MTRU CH solidified inorganic S3119 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	105.60
Other Inorganic Materials	14.40
Cellulosics	2.40
Rubber	4.80
Plastics	20.16
Solidified, Inorganic Matrix	101.76
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.57E-03
Pu-238	4.76E-04
Pu-239	1.80E-02
Pu-240	4.03E-03
Pu-241	5.67E-02
Pu-242	2.43E-07

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W629**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W629	Stream Name	325 MTRU CH solidified inorganic S3119 Mixed RCRA w/cor			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	4.76
Cellulosics	0.00
Rubber	0.00
Plastics	36.67
Solidified, Inorganic Matrix	63.67
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.68E-05
Pu-238	3.27E-05
Pu-239	1.21E-03
Pu-240	2.71E-04
Pu-241	4.40E-03
Pu-242	1.63E-08

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W630**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W630	Stream Name	325 TRU CH uncategorized metal S5119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	621.67
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	135.49
Other Inorganic Materials	4.54
Cellulosics	4.54
Rubber	3.02
Plastics	19.56
Solidified, Inorganic Matrix	1.19
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.90E-01
Pu-238	3.05E-01
Pu-239	7.00E+00
Pu-240	1.63E+00
Pu-241	2.39E+01
Pu-242	2.80E-04
U-238	7.02E-06

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W631**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID **RL-W631** Stream Name **325 MTRU CH uncategorized metal S5119 Mixed RCRA w/ met** Inventory Date **9/30/2002**
 Local ID **N/A** Handling **CH** Final Waste Form **Uncategorized Metal** Waste Matrix Code **S5119** Activity Concentrations Decayed to CY **2002**

Final Waste Form Descriptors

Category: **Defense TRU Waste** Source: **R&D/R&D Laboratory Waste**

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	358.33
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	15.48
Solidified, Inorganic Matrix	9.52
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.66E-03
Cs-137	5.35E-08
Pu-238	3.06E-03
Pu-239	1.07E-01
Pu-240	2.41E-02
Pu-241	5.35E-01
Pu-242	1.45E-06
Sr-90	4.91E-08

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W632**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W632	Stream Name	325 MTRU CH combustible S5319 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	272.38
Cellulosics	12.38
Rubber	0.00
Plastics	119.05
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.39E+00
Cs-137	1.05E-02
Pu-238	8.31E-01
Pu-239	2.84E+01
Pu-240	9.38E+00
Pu-241	3.56E+02
Pu-242	3.96E-03
Sr-90	9.58E-03

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W633**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W633	Stream Name	325 TRU CH combustible S5390 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	39.00
Other Inorganic Materials	5.19
Cellulosics	104.00
Rubber	52.00
Plastics	64.57
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.94E-02
Pu-238	4.79E-03
Pu-239	4.46E-03
Pu-240	3.96E-03
Pu-241	4.39E-01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W634**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W634	Stream Name	325 TRU CH filter S5410 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	61.90
Cellulosics	0.00
Rubber	0.00
Plastics	11.43
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-239	4.87E-02

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W635**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID **RL-W635** Stream Name **325 TRU CH heterogeneous S5420 Non-mixed** Inventory Date **9/30/2002**
 Local ID **N/A** Handling **CH** Final Waste Form **Heterogeneous Debris** Waste Matrix Code **S5420** Activity Concentrations Decayed to CY **2002**

Final Waste Form Descriptors

Category: **Defense TRU Waste** Source: **R&D/R&D Laboratory Waste**

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	4.0	0.0	4.0
Standard Waste Box	11.4	0.0	11.4
As-Generated Total	15.4	0.0	15.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	4.0	0.0	4.0
Standard Waste Box	11.4	0.0	11.4
Final Form Total	15.4	0.0	15.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	714.26
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	78.22
Other Inorganic Materials	140.68
Cellulosics	8.76
Rubber	0.41
Plastics	9.35
Solidified, Inorganic Matrix	0.17
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	148.04
Packaging Material, Plastic	10.48
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.55E+00
Cs-137	5.66E-02
Pu-238	2.21E+00
Pu-239	2.82E-01
Pu-240	4.24E-01
Pu-241	6.04E+01
Pu-242	1.49E-03
Sr-90	1.14E-01
U-235	1.27E-05

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W636**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W636	Stream Name	325 MTRU CH heterogeneous S5420 Mixed RCRA w/ org.met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.0	0.0	1.0
As-Generated Total	1.0	0.0	1.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.0	0.0	1.0
Final Form Total	1.0	0.0	1.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	2295.28
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	67.35
Other Inorganic Materials	56.13
Cellulosics	10.14
Rubber	1.65
Plastics	50.03
Solidified, Inorganic Matrix	1.31
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.57E-01
Cs-137	8.87E-02
Pu-238	6.14E-02
Pu-239	5.40E-02
Pu-240	4.81E-02
Pu-241	5.38E+00
Pu-242	5.38E-05
Sr-90	1.78E-01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W637**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W637	Stream Name	325 MTRU CH heterogeneous S5420 Mixed RCRA w/ org,met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	120.66
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	486.67
Other Inorganic Materials	23.81
Cellulosics	0.79
Rubber	0.00
Plastics	15.87
Solidified, Inorganic Matrix	27.78
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.04E-03
Cs-137	3.14E-02
Pu-238	2.60E-03
Pu-239	1.01E-03
Pu-240	1.00E-03
Pu-241	3.22E-02
Sr-90	1.20E-02

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W638**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W638	Stream Name	325 MTRU CH heterogeneous S5420 Mixed RCRA w/ org			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Standard Waste Box	3.8	0.0	3.8
As-Generated Total			4.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Standard Waste Box	3.8	0.0	3.8
Final Form Total			4.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	227.11
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1.76
Other Inorganic Materials	449.26
Cellulosics	4.79
Rubber	0.42
Plastics	10.15
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	152.80
Packaging Material, Plastic	3.07
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.35E-03
Cs-137	8.98E-02
Pu-238	4.17E-03
Pu-239	1.56E-03
Pu-240	1.48E-03
Pu-241	1.89E-01
Pu-242	1.09E-06
Sr-90	1.52E-01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W639**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W639	Stream Name	325 MTRU CH heterogeneous S5420 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	423.81
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	44.60
Other Inorganic Materials	64.62
Cellulosics	39.84
Rubber	1.59
Plastics	66.51
Solidified, Inorganic Matrix	7.30
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.10E-03
Pu-238	6.77E-04
Pu-239	2.54E-02
Pu-240	5.69E-03
Pu-241	8.40E-02
Pu-242	3.43E-07

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W640**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID

RL-W640

 Stream Name

325 MTRU CH heterogeneous S5420 Mixed RCRA w/ met,Hg
--

 Inventory Date

9/30/2002

 Local ID

N/A

 Handling

CH

 Final Waste Form

Heterogeneous Debris

 Waste Matrix Code

S5420

 Activity Concentrations Decayed to CY

2002

Final Waste Form Descriptors

Category:

Defense TRU Waste

 Source:

R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	240.00
Other Inorganic Materials	0.00
Cellulosics	24.00
Rubber	12.00
Plastics	28.80
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.24E-01
Pu-238	6.78E-02
Pu-239	2.57E+00
Pu-240	5.75E-01
Pu-241	8.09E+00
Pu-242	3.46E-05

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W641**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W641	Stream Name	325 TRU CH heterogeneous S5440 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	5.5	0.0	5.5
As-Generated Total	5.5	0.0	5.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	5.5	0.0	5.5
Final Form Total	5.5	0.0	5.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	36.26
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	49.83
Other Inorganic Materials	35.00
Cellulosics	33.57
Rubber	10.45
Plastics	83.46
Solidified, Inorganic Matrix	2.74
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.18E-01
Cs-137	9.80E-02
Pu-238	5.72E-01
Pu-239	4.75E-01
Pu-240	1.96E-01
Pu-241	5.00E+00
Pu-242	3.32E-05
Sr-90	1.70E-01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W642**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID

RL-W642

 Stream Name

325 MTRU CH heterogeneous S5440 Mixed RCRA w/ org.met

 Inventory Date

9/30/2002

 Local ID

N/A

 Handling

CH

 Final Waste Form

Heterogeneous Debris

 Waste Matrix Code

S5440

 Activity Concentrations Decayed to CY

2002

Final Waste Form Descriptors

Category:

Defense TRU Waste

 Source:

R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.7	0.0	1.7
As-Generated Total	1.7	0.0	1.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.7	0.0	1.7
Final Form Total	1.7	0.0	1.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1416.29
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	52.04
Other Inorganic Materials	9.10
Cellulosics	5.12
Rubber	8.93
Plastics	47.26
Solidified, Inorganic Matrix	6.63
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.72E-02
Cs-137	6.34E-01
Pu-238	1.93E-04
Pu-239	1.88E-02
Pu-240	9.67E-05
Pu-241	7.03E-03
Pu-242	4.60E-08
Sr-90	1.14E+00

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W643**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W643	Stream Name	325 MTRU CH heterogeneous S5440 Mixed RCRA w/ org,met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.7	0.0	1.7
As-Generated Total	1.7	0.0	1.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.7	0.0	1.7
Final Form Total	1.7	0.0	1.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1411.88
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	43.12
Other Inorganic Materials	17.33
Cellulosics	9.54
Rubber	0.83
Plastics	53.26
Solidified, Inorganic Matrix	5.59
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.18E-01
Cs-137	9.80E-02
Pu-238	5.72E-01
Pu-239	4.75E-01
Pu-240	1.96E-01
Pu-241	5.00E+00
Pu-242	3.32E-05
Sr-90	1.70E-01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W644**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID

RL-W644

 Stream Name

325 MTRU CH heterogeneous S5440 Mixed RCRA w/ org

 Inventory Date

9/30/2002

 Local ID

N/A

 Handling

CH

 Final Waste Form

Heterogeneous Debris

 Waste Matrix Code

S5440

 Activity Concentrations Decayed to CY

2002

Final Waste Form Descriptors

Category:

Defense TRU Waste

 Source:

R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
As-Generated Total	0.8	0.0	0.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
Final Form Total	0.8	0.0	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1714.29
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	100.92
Other Inorganic Materials	3.21
Cellulosics	16.19
Rubber	0.00
Plastics	122.85
Solidified, Inorganic Matrix	1.19
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	6.35E-01
Pu-239	6.54E-02
Sr-90	2.40E+00

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W645**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID **RL-W645** Stream Name **325 MTRU CH heterogeneous S5440 Mixed RCRA w/ met** Inventory Date **9/30/2002**
 Local ID **N/A** Handling **CH** Final Waste Form **Heterogeneous Debris** Waste Matrix Code **S5440** Activity Concentrations Decayed to CY **2002**

Final Waste Form Descriptors

Category: **Defense TRU Waste** Source: **R&D/R&D Laboratory Waste**

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.5	0.0	1.5
As-Generated Total	1.5	0.0	1.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.5	0.0	1.5
Final Form Total	1.5	0.0	1.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	212.96
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	40.50
Other Inorganic Materials	36.62
Cellulosics	31.90
Rubber	20.86
Plastics	78.47
Solidified, Inorganic Matrix	5.80
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.62E-03
Pu-238	2.94E-03
Pu-239	7.33E-02
Pu-240	1.74E-02
Pu-241	3.12E-01
Pu-242	9.72E-07

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W646**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID **RL-W646** Stream Name **325 MTRU CH heterogeneous S5440 Mixed RCRA w/ met,Hg** Inventory Date **9/30/2002**
 Local ID **N/A** Handling **CH** Final Waste Form **Heterogeneous Debris** Waste Matrix Code **S5440** Activity Concentrations Decayed to CY **2002**

Final Waste Form Descriptors

Category: **Defense TRU Waste** Source: **R&D/R&D Laboratory Waste**

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	85.76
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	49.51
Other Inorganic Materials	14.66
Cellulosics	29.87
Rubber	20.69
Plastics	9.52
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.37E-02
Cs-137	8.92E-02
Pu-238	9.19E-03
Pu-239	6.14E-02
Pu-240	3.01E-02
Pu-241	5.32E-01
Sr-90	1.35E-01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W647**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID

RL-W647

 Stream Name

325 MTRU CH heterogeneous S5440 Mixed State Reg

 Inventory Date

9/30/2002

 Local ID

N/A

 Handling

CH

 Final Waste Form

Heterogeneous Debris

 Waste Matrix Code

S5440

 Activity Concentrations Decayed to CY

2002

Final Waste Form Descriptors

Category:

Defense TRU Waste

 Source:

R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	81.83
Other Inorganic Materials	24.23
Cellulosics	9.37
Rubber	14.17
Plastics	120.88
Solidified, Inorganic Matrix	0.02
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.71E-01
Pu-238	2.75E+00
Pu-239	5.23E-01
Pu-240	8.33E-02
Pu-241	3.56E+00

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W648**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W648	Stream Name	325 MTRU CH heterogeneous S5900 Mixed RCRA w/ org.met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	65.41
Other Inorganic Materials	87.93
Cellulosics	1.82
Rubber	0.00
Plastics	73.42
Solidified, Inorganic Matrix	0.42
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.28E-03
Cs-137	1.07E-01
Pu-238	4.70E-03
Pu-239	2.86E-04
Pu-240	5.66E-04
Pu-241	1.14E-01
Sr-90	2.15E-01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W649**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID Stream Name Inventory Date
 Local ID Handling Final Waste Form Waste Matrix Code Activity Concentrations Decayed to CY

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	1.9	0.0	1.9
As-Generated Total	1.9	0.0	1.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	175.26
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.78
Other Inorganic Materials	360.00
Cellulosics	2.10
Rubber	0.00
Plastics	4.74
Solidified, Inorganic Matrix	0.01
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.20E-04
Cs-137	4.37E-02
Pu-238	1.91E-03
Pu-239	1.16E-04
Pu-240	2.30E-04
Pu-241	4.62E-02
Sr-90	8.73E-02

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W653**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W653	Stream Name	325 MTRU CH Pb/Cd metal X7219 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Lead/Cadmium Metal	Waste Matrix Code	X7219
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1030.07
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1.90
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	4.76
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.78E-04
Pu-238	6.18E-05
Pu-239	2.30E-03
Pu-240	5.15E-04
Pu-241	7.98E-03
Pu-242	3.10E-08

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W654**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W654	Stream Name	325 MTRU CH Pb/Cd metal X7219 Mixed RCRA w/ met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Lead/Cadmium Metal	Waste Matrix Code	X7219
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	127.62
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	30.38
Cellulosics	0.00
Rubber	0.00
Plastics	1.19
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.09E-03
Pu-238	6.75E-04
Pu-239	2.53E-02
Pu-240	5.67E-03
Pu-241	8.38E-02
Pu-242	3.42E-07

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W655**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W655	Stream Name	325 TRU CH solidified inorganic S3119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	1.5	0.0	1.5
As-Generated Total	1.5	0.0	1.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	1.5	0.0	1.5
Final Form Total	1.5	0.0	1.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	29.34
Other Inorganic Materials	20.90
Cellulosics	3.64
Rubber	6.36
Plastics	20.02
Solidified, Inorganic Matrix	213.14
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.56E+01
Pu-238	2.31E+01
Pu-239	1.45E-01
Pu-240	3.44E-01
Pu-241	3.23E+03
Pu-242	1.85E-06

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W656**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W656	Stream Name	325 TRU CH solidified inorganic S3150 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	3.1	0.0	3.1
As-Generated Total	3.1	0.0	3.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	3.1	0.0	3.1
Final Form Total	3.1	0.0	3.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	36.66
Other Inorganic Materials	0.58
Cellulosics	0.96
Rubber	1.73
Plastics	30.51
Solidified, Inorganic Matrix	792.57
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.16
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.80E+01
Pu-238	4.84E+00
Pu-239	1.59E-01
Pu-240	1.65E-01
Pu-241	7.19E+03
Pu-242	5.08E-07

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W657**

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DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W657	Stream Name	325 TRU CH uncategorized metal S5119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	5.4	0.0	5.4
Standard Waste Box	9.4	0.0	9.4
As-Generated Total	14.9	0.0	14.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	5.4	0.0	5.4
Standard Waste Box	9.4	0.0	9.4
Final Form Total	14.9	0.0	14.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	251.37
Other Inorganic Materials	2.44
Cellulosics	5.58
Rubber	2.10
Plastics	18.45
Solidified, Inorganic Matrix	0.27
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	145.63
Packaging Material, Plastic	14.23
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.41E+01
Pu-238	1.50E+00
Pu-239	1.64E-02
Pu-240	3.30E-02
Pu-241	6.67E+02
Pu-242	3.70E-07

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W658**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID **RL-W658** Stream Name **325 MTRU RH inorganic non-metal S5121 Mixed RCRA w/ org** Inventory Date **9/30/2002**
 Local ID **N/A** Handling **RH** Final Waste Form **Inorganic Non-Metal** Waste Matrix Code **S5121** Activity Concentrations Decayed to CY **2002**

Final Waste Form Descriptors

Category: **Defense TRU Waste** Source: **R&D/R&D Laboratory Waste**

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	42.7	43.6
As-Generated Total	0.9	42.7	43.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	42.7	43.6
Final Form Total	0.9	42.7	43.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	67.42
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.58
Other Inorganic Materials	759.45
Cellulosics	1.51
Rubber	0.00
Plastics	3.52
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.31E-02
Cs-137	1.93E+00
Pu-238	8.48E-02
Pu-239	5.17E-03
Pu-240	1.02E-02
Pu-241	2.05E+00
Sr-90	3.87E+00

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W659**

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DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W659	Stream Name	325 TRU CH inorganic non-metal S5190 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5190
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	33.65
Other Inorganic Materials	24.75
Cellulosics	2.40
Rubber	6.01
Plastics	1.93
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.72E+01
Pu-238	1.21E+01
Pu-239	1.13E-01
Pu-240	1.41E-01
Pu-241	2.69E+03
Pu-242	5.03E-09

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W660**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W660	Stream Name	325 TRU CH combustible S5319 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	2.1	0.0	2.1
As-Generated Total	2.1	0.0	2.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	2.1	0.0	2.1
Final Form Total	2.1	0.0	2.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	31.67
Other Inorganic Materials	5.14
Cellulosics	2.40
Rubber	16.76
Plastics	157.26
Solidified, Inorganic Matrix	7.88
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.97E+01
Pu-238	2.91E+01
Pu-239	4.17E-01
Pu-240	7.49E-01
Pu-241	3.07E+03
Pu-242	1.38E-06

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W661**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W661	Stream Name	325 TRU CH combustible S5330 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5330
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.94
Other Inorganic Materials	0.00
Cellulosics	109.62
Rubber	4.79
Plastics	49.51
Solidified, Inorganic Matrix	94.22
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.71E+00
Pu-238	3.64E-01
Pu-239	2.01E-03
Pu-240	1.84E-02
Pu-241	3.73E+02
Pu-242	1.64E-08

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W662**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W662	Stream Name	325 TRU CH combustible S5390 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	37.01
Other Inorganic Materials	4.79
Cellulosics	52.89
Rubber	9.63
Plastics	38.47
Solidified, Inorganic Matrix	19.73
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.21E-01
Pu-238	2.17E-02
Pu-239	5.14E-04
Pu-240	9.27E-04
Pu-241	7.66E+00
Pu-242	4.49E-09

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W663**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID **RL-W663** Stream Name **325 TRU RH heterogeneous S5420 Non-mixed** Inventory Date **9/30/2002**
 Local ID **N/A** Handling **RH** Final Waste Form **Heterogeneous Debris** Waste Matrix Code **S5420** Activity Concentrations Decayed to CY **2002**

Final Waste Form Descriptors

Category: **Defense TRU Waste** Source: **R&D/R&D Laboratory Waste**

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	16.0	0.0	16.0
As-Generated Total	16.0	0.0	16.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	16.0	0.0	16.0
Final Form Total	16.0	0.0	16.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	353.21
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	245.11
Other Inorganic Materials	121.24
Cellulosics	7.77
Rubber	8.54
Plastics	31.04
Solidified, Inorganic Matrix	6.64
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.25E+01
Cs-137	5.04E+00
Pu-238	6.78E+00
Pu-239	3.80E-01
Pu-240	4.90E-01
Pu-241	2.13E+03
Pu-242	2.44E-04
Sr-90	3.07E+00
U-235	6.61E-06

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W664**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID

RL-W664

 Stream Name

325 MTRU RH heterogeneous S5420 Mixed RCRA w/ org.met

 Inventory Date

9/30/2002

 Local ID

N/A

 Handling

RH

 Final Waste Form

Heterogeneous Debris

 Waste Matrix Code

S5420

 Activity Concentrations Decayed to CY

2002

Final Waste Form Descriptors

Category:

Defense TRU Waste

 Source:

R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	2.7	0.0	2.7
As-Generated Total	2.7	0.0	2.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	2.7	0.0	2.7
Final Form Total	2.7	0.0	2.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	143.45
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	21.44
Other Inorganic Materials	246.67
Cellulosics	4.12
Rubber	0.10
Plastics	16.67
Solidified, Inorganic Matrix	0.23
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.29E-03
Cs-137	4.44E-01
Pu-238	1.95E-02
Pu-239	1.18E-03
Pu-240	2.34E-03
Pu-241	4.70E-01
Sr-90	6.30E-01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W665**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID **RL-W665** Stream Name **325 TRU CH heterogeneous S5440 Non-mixed** Inventory Date **9/30/2002**
 Local ID **N/A** Handling **CH** Final Waste Form **Heterogeneous Debris** Waste Matrix Code **S5440** Activity Concentrations Decayed to CY **2002**

Final Waste Form Descriptors

Category: **Defense TRU Waste** Source: **R&D/R&D Laboratory Waste**

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	8.5	0.0	8.5
As-Generated Total	8.5	0.0	8.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	8.5	0.0	8.5
Final Form Total	8.5	0.0	8.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	5.94
Aluminum-Base Metal/Alloys	0.23
Other Metal/Alloys	81.79
Other Inorganic Materials	39.32
Cellulosics	30.66
Rubber	15.15
Plastics	60.91
Solidified, Inorganic Matrix	59.31
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	1.13
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.75E+01
Pu-238	4.23E+01
Pu-239	1.54E-01
Pu-240	2.07E-01
Pu-241	3.70E+03
Pu-242	1.37E-06

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W666**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W666	Stream Name	325 TRU CH heterogeneous S5900 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	1.5	0.0	1.5
As-Generated Total	1.5	0.0	1.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	1.5	0.0	1.5
Final Form Total	1.5	0.0	1.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	78.10
Other Inorganic Materials	13.85
Cellulosics	15.81
Rubber	16.19
Plastics	26.25
Solidified, Inorganic Matrix	111.47
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.58E+00
Pu-238	6.07E-01
Pu-239	3.77E-02
Pu-240	4.00E-02
Pu-241	3.14E+02
Pu-242	2.75E-08

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W668**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID **RL-W668** Stream Name **325A MTRU CH heterogeneous S5420 Mixed RCRA w/ org,met,Hg** Inventory Date **9/30/2002**
 Local ID **N/A** Handling **CH** Final Waste Form **Heterogeneous Debris** Waste Matrix Code **S5420** Activity Concentrations Decayed to CY **2002**

Final Waste Form Descriptors

Category: **Defense TRU Waste** Source: **R&D/R&D Laboratory Waste**

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	20.2	20.4
As-Generated Total	0.2	20.2	20.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	20.2	20.4
Final Form Total	0.2	20.2	20.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	14.29
Other Inorganic Materials	95.24
Cellulosics	66.67
Rubber	0.00
Plastics	9.52
Solidified, Inorganic Matrix	9.52
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.87E-02
Cs-137	1.17E-01
Pu-238	6.51E-04
Pu-239	3.39E-03
Pu-240	9.70E-04
Pu-241	2.53E-02
Sr-90	1.11E+00

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CESIUM RECOVERY FAC.

Management Comments

N/A

Waste Stream ID: **RL-W669**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID **RL-W669** Stream Name **325A MTRU CH heterogeneous S5440 Mixed RCRA w/ org,met,Hg** Inventory Date **9/30/2002**
 Local ID **N/A** Handling **CH** Final Waste Form **Heterogeneous Debris** Waste Matrix Code **S5440** Activity Concentrations Decayed to CY **2002**

Final Waste Form Descriptors

Category: **Defense TRU Waste** Source: **R&D/R&D Laboratory Waste**

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.3	0.0	1.3
As-Generated Total	1.3	0.0	1.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.3	0.0	1.3
Final Form Total	1.3	0.0	1.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	17.06
Other Inorganic Materials	45.24
Cellulosics	44.05
Rubber	2.38
Plastics	19.05
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.18E-01
Cs-137	9.80E-02
Pu-238	5.72E-01
Pu-239	4.75E-01
Pu-240	1.96E-01
Pu-241	5.00E+00
Pu-242	3.32E-05
Sr-90	1.70E-01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CESIUM RECOVERY FAC.

Management Comments

N/A

Waste Stream ID: **RL-W670**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W670	Stream Name	325A MTRU CH heterogeneous S5900 Mixed RCRA w/ org,met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	2.38
Other Metal/Alloys	0.00
Other Inorganic Materials	204.76
Cellulosics	0.00
Rubber	0.00
Plastics	97.62
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.21E-01
Cs-137	4.37E-01
Pu-238	2.44E-03
Pu-239	1.28E-02
Pu-240	3.65E-03
Pu-241	9.51E-02
Sr-90	3.97E+00

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CESIUM RECOVERY FAC.

Management Comments

N/A

Waste Stream ID: **RL-W671**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID **RL-W671** Stream Name **325A TRU CH uncategorized metal S5119 Non-mixed** Inventory Date **9/30/2002**
 Local ID **N/A** Handling **CH** Final Waste Form **Uncategorized Metal** Waste Matrix Code **S5119** Activity Concentrations Decayed to CY **2002**

Final Waste Form Descriptors

Category: **Defense TRU Waste** Source: **R&D/R&D Laboratory Waste**

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	9.4	0.0	9.4
As-Generated Total	9.4	0.0	9.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	9.4	0.0	9.4
Final Form Total	9.4	0.0	9.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	149.87
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	53.62
Other Inorganic Materials	16.80
Cellulosics	47.94
Rubber	0.00
Plastics	8.22
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.72E-01
Pu-238	2.78E-02
Pu-239	5.20E-04
Pu-240	5.44E-04
Pu-241	6.95E+00

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CESIUM RECOVERY FAC.

Management Comments

N/A

Waste Stream ID: **RL-W672**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W672	Stream Name	325A TRU CH combustible S5390 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	9.4	0.0	9.4
As-Generated Total	9.4	0.0	9.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	9.4	0.0	9.4
Final Form Total	9.4	0.0	9.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	27.89
Other Inorganic Materials	0.00
Cellulosics	152.15
Rubber	6.88
Plastics	80.32
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.88E+00
Pu-238	1.89E-01
Pu-239	3.54E-03
Pu-240	3.69E-03
Pu-241	4.72E+01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CESIUM RECOVERY FAC.

Management Comments

N/A

Waste Stream ID: **RL-W673**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID

RL-W673

 Stream Name

325A TRU CH heterogeneous S5420 Non-mixed

 Inventory Date

9/30/2002

 Local ID

N/A

 Handling

CH

 Final Waste Form

Heterogeneous Debris

 Waste Matrix Code

S5420

 Activity Concentrations Decayed to CY

2002

Final Waste Form Descriptors

Category:

Defense TRU Waste

 Source:

R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	49.1	0.0	49.1
As-Generated Total	49.1	0.0	49.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	49.1	0.0	49.1
Final Form Total	49.1	0.0	49.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	19.57
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	168.19
Other Inorganic Materials	43.34
Cellulosics	48.83
Rubber	0.00
Plastics	24.87
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.21E-01
Cs-137	3.74E-01
Pu-238	3.51E-02
Pu-239	6.59E-04
Pu-240	6.86E-04
Pu-241	8.76E+00

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CESIUM RECOVERY FAC.

Management Comments

N/A

Waste Stream ID: **RL-W674**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W674	Stream Name	327 TRU CH Pb/Cd metal S5112 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Lead/Cadmium Metal	Waste Matrix Code	S5112
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	4.4	0.4	4.8
Standard Waste Box	0.0	13.3	13.3
As-Generated Total	4.4	13.7	18.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	4.4	0.4	4.8
Standard Waste Box	0.0	13.3	13.3
Final Form Total	4.4	13.7	18.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	10674.50
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	147.87
Packaging Material, Plastic	10.74
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.95E-03
Pu-238	2.31E-03
Pu-239	3.35E-01
Pu-240	2.94E-03
Pu-241	9.01E-02
Pu-242	1.08E-06
U-235	5.34E-09
U-238	2.67E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the POST IRRADIATION TEST LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W675**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W675	Stream Name	327 MTRU CH Pb/Cd metal S5112 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Lead/Cadmium Metal	Waste Matrix Code	S5112
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	9985.71
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.80E+00
Cs-137	9.64E+02
Pu-238	2.02E+00
Pu-239	6.23E-01
Pu-240	5.42E-01
Pu-241	3.48E+01
Pu-242	8.97E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the POST IRRADIATION TEST LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W676**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W676	Stream Name	327 TRU CH inorganic non-metal S5121 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5121
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	4.4	0.0	4.4
As-Generated Total	4.4	0.0	4.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	4.4	0.0	4.4
Final Form Total	4.4	0.0	4.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	2718.68
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.78E-03
Cs-137	1.92E-02
Pu-238	5.79E-04
Pu-239	3.33E-02
Pu-240	4.88E-04
Pu-241	4.92E-02
Pu-242	5.50E-07
Sr-90	7.34E-03
U-235	1.01E-09
U-238	5.05E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the POST IRRADIATION TEST LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W677**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W677	Stream Name	327 TRU CH heterogeneous S5420 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	3.1	0.0	3.1
As-Generated Total	3.1	0.0	3.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	3.1	0.0	3.1
Final Form Total	3.1	0.0	3.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	7342.38
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	56.57
Other Inorganic Materials	4480.78
Cellulosics	12.95
Rubber	14.03
Plastics	30.08
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.89
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.21E+01
Cs-137	1.46E+00
Pu-238	2.00E+00
Pu-239	1.82E+00
Pu-240	1.60E+00
Pu-241	1.66E+02
Pu-242	1.77E-03
Sr-90	5.58E-01
U-235	2.85E-05
U-238	1.09E-03

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the POST IRRADIATION TEST LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W678**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W678	Stream Name	327 MTRU CH heterogeneous S5420 Mixed RCRA w/ org.met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	891.67
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	8.33
Other Inorganic Materials	0.00
Cellulosics	5.71
Rubber	0.00
Plastics	90.71
Solidified, Inorganic Matrix	1.19
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.57E-02
Cs-137	1.35E+00
Pu-238	1.26E-01
Pu-239	1.23E-01
Pu-240	1.09E-01
Pu-241	9.77E+00
Pu-242	1.22E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the POST IRRADIATION TEST LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W679**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W679	Stream Name	327 MTRU CH heterogeneous S5420 Mixed State Reg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	3.8	0.0	3.8
As-Generated Total	3.8	0.0	3.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Standard Waste Box	3.8	0.0	3.8
Final Form Total	3.8	0.0	3.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	269.16
Other Inorganic Materials	19.97
Cellulosics	18.39
Rubber	0.00
Plastics	11.99
Solidified, Inorganic Matrix	0.53
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.97E-01
Cs-137	3.25E-04
Pu-238	3.11E-02
Pu-239	2.92E-02
Pu-240	2.59E-02
Pu-241	2.76E+00
Pu-242	2.92E-05
Sr-90	1.24E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the POST IRRADIATION TEST LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W680**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W680	Stream Name	327 TRU CH heterogeneous S5440 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	312.38
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	125.71
Other Inorganic Materials	0.00
Cellulosics	210.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	10.76
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.51E-04
Cs-137	2.18E-02
Pu-238	7.93E-04
Pu-239	8.27E-05
Pu-240	1.50E-04
Pu-241	2.15E-02
Pu-242	6.18E-07
Sr-90	1.40E-02

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the POST IRRADIATION TEST LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W681**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W681	Stream Name	327 MTRU CH heterogeneous S5440 Mixed RCRA w/ org			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	23.81
Rubber	0.00
Plastics	33.33
Solidified, Inorganic Matrix	0.48
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.12E-04
Cs-137	1.45E-03
Pu-238	3.21E-04
Pu-239	2.23E-03
Pu-240	1.11E-03
Pu-241	1.78E-02
Pu-242	1.09E-07
Sr-90	6.95E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the POST IRRADIATION TEST LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W682**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W682	Stream Name	327 TRU RH Pb/Cd metal S5112 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Lead/Cadmium Metal	Waste Matrix Code	S5112
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	7.1	8.0
As-Generated Total	0.9	7.1	8.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	7.1	8.0
Final Form Total	0.9	7.1	8.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	11902.28
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.91E+00
Cs-137	2.19E+03
Pu-238	5.38E-01
Pu-239	6.00E-01
Pu-240	5.68E-01
Pu-241	1.04E+01
Pu-242	3.82E-04
Sr-90	8.36E+02
U-235	1.09E-06
U-238	5.45E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the POST IRRADIATION TEST LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W683**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W683	Stream Name	327 TRU RH unclassified metal S5119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
As-Generated Total	0.9	0.0	0.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	4232.25
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	9.33
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.23E+01
Cs-137	7.53E+03
Pu-238	7.59E+01
Pu-239	1.07E+02
Pu-240	7.33E+01
Pu-241	6.21E+03
Pu-242	7.05E-02
Sr-90	2.76E+03
U-234	3.81E-03
U-235	2.97E-03
U-236	2.30E-04
U-238	2.46E-03

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the POST IRRADIATION TEST LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W685**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W685	Stream Name	327C TRU CH heterogeneous S5420 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Materials Production/Recovery Effluents

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.7	38.0	40.7
Standard Waste Box	0.0	28.5	28.5
As-Generated Total	2.7	66.5	69.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.7	38.0	40.7
Standard Waste Box	0.0	28.5	28.5
Final Form Total	2.7	66.5	69.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	896.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	48.00
Other Inorganic Materials	380.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	140.47
Packaging Material, Plastic	22.26
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.46E-03
Pu-238	4.18E-04
Pu-239	1.59E-02
Pu-240	3.57E-03
Pu-241	4.79E-02
Pu-242	2.15E-07

Waste Stream Description

The waste is generated from Materials Production/Recovery Effluents activities at the POST IRRADIATION TEST LABORATORY C CELL.

Management Comments

N/A

Waste Stream ID: **RL-W686**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W686	Stream Name	327C TRU RH combustible S5319 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Materials Production/Recovery Effluents

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
As-Generated Total	0.9	0.0	0.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1.89
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.38
Other Inorganic Materials	0.00
Cellulosics	0.38
Rubber	0.00
Plastics	4.53
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.71E-03
Cs-137	2.41E-01
Pu-238	5.51E-04
Pu-239	3.85E-03
Pu-240	1.92E-03
Pu-241	6.17E-02
Pu-242	5.64E-08
Sr-90	2.18E-01

Waste Stream Description

The waste is generated from Materials Production/Recovery Effluents activities at the POST IRRADIATION TEST LABORATORY C CELL.

Management Comments

N/A

Waste Stream ID: **RL-W687**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID **RL-W687** Stream Name **327C TRU RH heterogeneous S5420 Non-mixed** Inventory Date **9/30/2002**
 Local ID **N/A** Handling **RH** Final Waste Form **Heterogeneous Debris** Waste Matrix Code **S5420** Activity Concentrations Decayed to CY **2002**

Final Waste Form Descriptors

Category: **Defense TRU Waste** Source: **Materials Production/Recovery Effluents**

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
As-Generated Total	0.9	0.0	0.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	7.85
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	8.87
Other Inorganic Materials	5.38
Cellulosics	1.15
Rubber	0.00
Plastics	2.40
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.07E+00
Cs-137	8.83E+00
Pu-238	3.31E-01
Pu-239	2.32E+00
Pu-240	1.16E+00
Pu-241	3.60E+01
Pu-242	3.41E-05
Sr-90	7.99E+00

Waste Stream Description

The waste is generated from Materials Production/Recovery Effluents activities at the POST IRRADIATION TEST LABORATORY C CELL.

Management Comments

N/A

Waste Stream ID: **RL-W688**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID **RL-W688** Stream Name **327C TRU RH heterogeneous S5440 Non-mixed** Inventory Date **9/30/2002**
 Local ID **N/A** Handling **RH** Final Waste Form **Heterogeneous Debris** Waste Matrix Code **S5440** Activity Concentrations Decayed to CY **2002**

Final Waste Form Descriptors

Category: **Defense TRU Waste** Source: **Materials Production/Recovery Effluents**

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
As-Generated Total	0.9	0.0	0.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	43.79
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	21.71
Other Inorganic Materials	7.18
Cellulosics	12.89
Rubber	0.09
Plastics	59.40
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.17E+00
Cs-137	2.07E+01
Pu-238	1.30E+00
Pu-239	9.11E+00
Pu-240	4.53E+00
Pu-241	1.42E+02
Pu-242	1.34E-04
Sr-90	1.87E+01

Waste Stream Description

The waste is generated from Materials Production/Recovery Effluents activities at the POST IRRADIATION TEST LABORATORY C CELL.

Management Comments

N/A

Waste Stream ID: **RL-W689**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W689	Stream Name	340 MTRU CH heterogeneous S5440 Mixed RCRA w/ org			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	9.52
Rubber	7.14
Plastics	7.14
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	4.76
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.37E-02
Cs-137	1.75E-01
Pu-238	3.42E-03
Pu-239	1.84E-03
Pu-241	3.13E-02
Sr-90	3.25E-02

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the WASTE NEUTRALIZATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W690**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W690	Stream Name	340 TRU CH uncategorized metal S5119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	411.92
Other Inorganic Materials	0.00
Cellulosics	1.22
Rubber	1.82
Plastics	18.16
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.38E-01
Cs-137	4.20E-02
Pu-238	1.27E-01
Pu-239	4.88E+00
Pu-240	1.09E+00
Pu-241	1.43E+01
Pu-242	6.58E-05
Sr-90	3.79E-02

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the WASTE NEUTRALIZATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W691**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W691	Stream Name	340 TRU CH combustible S5319 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	145.40
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.03E-02
Cs-137	4.20E-02
Pu-238	5.91E-03
Pu-239	2.26E-01
Pu-240	5.06E-02
Pu-241	6.63E-01
Pu-242	3.05E-06
Sr-90	3.79E-02

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the WASTE NEUTRALIZATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W692**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W692	Stream Name	340 TRU CH combustible S5390 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	72.70
Other Inorganic Materials	0.00
Cellulosics	76.93
Rubber	0.60
Plastics	36.35
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.02E-01
Cs-137	4.20E-02
Pu-238	1.17E-01
Pu-239	4.48E+00
Pu-240	1.00E+00
Pu-241	1.31E+01
Pu-242	6.04E-05
Sr-90	3.79E-02

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the WASTE NEUTRALIZATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W693**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W693	Stream Name	340 TRU CH heterogeneous S5420 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	129.24
Other Inorganic Materials	255.78
Cellulosics	18.17
Rubber	0.00
Plastics	36.34
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.31E-01
Cs-137	4.20E-02
Pu-238	9.63E-02
Pu-239	3.69E+00
Pu-240	8.26E-01
Pu-241	1.08E+01
Pu-242	4.97E-05
Sr-90	3.79E-02

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the WASTE NEUTRALIZATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W694**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W694	Stream Name	340 TRU CH heterogeneous S5440 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	2.3	0.0	2.3
As-Generated Total	2.3	0.0	2.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	2.3	0.0	2.3
Final Form Total	2.3	0.0	2.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	103.54
Other Inorganic Materials	30.55
Cellulosics	28.86
Rubber	1.66
Plastics	72.04
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.47E-01
Cs-137	4.20E-02
Pu-238	2.76E-01
Pu-239	1.06E+01
Pu-240	2.36E+00
Pu-241	3.10E+01
Pu-242	1.42E-04
Sr-90	3.79E-02

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the WASTE NEUTRALIZATION FACILITY.

Management Comments

N/A

Waste Stream ID: **RL-W695**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W695	Stream Name	3720 TRU CH heterogeneous S5440 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
As-Generated Total	0.8	0.0	0.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
Final Form Total	0.8	0.0	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	65.71
Other Inorganic Materials	13.10
Cellulosics	53.71
Rubber	65.48
Plastics	79.81
Solidified, Inorganic Matrix	19.10
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	2.38
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.55E-03
Pu-239	2.84E-03

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMISTRY AND METAL SCIENCES LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W696**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID

RL-W696

 Stream Name

3720 TRU CH heterogeneous S5900 Non-mixed

 Inventory Date

9/30/2002

 Local ID

N/A

 Handling

CH

 Final Waste Form

Heterogeneous Debris

 Waste Matrix Code

S5900

 Activity Concentrations Decayed to CY

2002

Final Waste Form Descriptors

Category:

Defense TRU Waste

 Source:

R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	20.60
Other Inorganic Materials	7.05
Cellulosics	0.00
Rubber	15.14
Plastics	5.50
Solidified, Inorganic Matrix	30.29
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.71E-03
Pu-238	1.10E-02
Pu-239	1.38E-02
Pu-240	1.37E-02
Pu-241	4.63E-01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMISTRY AND METAL SCIENCES LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W697**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID Stream Name Inventory Date
 Local ID Handling Final Waste Form Waste Matrix Code Activity Concentrations Decayed to CY

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	48.48
Other Inorganic Materials	29.10
Cellulosics	0.00
Rubber	0.00
Plastics	43.60
Solidified, Inorganic Matrix	96.92
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.54E+00
Pu-238	2.34E+01
Pu-239	3.33E-02
Pu-240	4.60E-03
Pu-242	1.38E-06

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CHEMISTRY AND METAL SCIENCES LABORATORY.

Management Comments

N/A

Waste Stream ID: **RL-W698**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W698	Stream Name	622F TRU CH heterogeneous S5440 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	20.67
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	61.14
Solidified, Inorganic Matrix	6.48
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	4.57
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.75E-01
Cs-137	4.60E-01
Pu-239	1.57E-04

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the FIELD OFFICE BUILDING.

Management Comments

N/A

Waste Stream ID: **RL-W699**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W699	Stream Name	6652H TRU CH soils S4100 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Soils	Waste Matrix Code	S4100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	132.22
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	603.36
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.94E-02
Pu-238	7.78E-04
Pu-239	5.28E-03
Pu-240	6.25E-04
Pu-241	9.83E-01
Pu-242	1.07E-09

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the ALE LABORATORY 1.

Management Comments

N/A

Waste Stream ID: **RL-W700**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W700	Stream Name	ARGON TRU CH Pb/Cd metal X7219 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Lead/Cadmium Metal	Waste Matrix Code	X7219
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Non-defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.3	0.0	1.3
As-Generated Total	1.3	0.0	1.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.3	0.0	1.3
Final Form Total	1.3	0.0	1.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1120.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	134.40
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	167.20
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.09E-03
Pu-238	6.75E-04
Pu-239	2.53E-02
Pu-240	5.67E-03
Pu-241	8.38E-02
Pu-242	3.42E-07

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Argonne National Laboratory - East (IL).

Management Comments

N/A

Waste Stream ID: **RL-W701**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W701	Stream Name	BATCO MTRU RH Pb/Cd metal X7219 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Lead/Cadmium Metal	Waste Matrix Code	X7219
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
As-Generated Total			0.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	0.9	0.0	0.9
Final Form Total			0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1377.22
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	12.30
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	434.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.22E-08
Pu-238	9.18E-09
Pu-239	3.50E-07
Pu-240	7.84E-08
Pu-241	1.05E-06
Pu-242	4.72E-12

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Battelle Columbus (OH).

Management Comments

N/A

Waste Stream ID: **RL-W702**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W702	Stream Name	CUPRC TRU CH soils S4100 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Soils	Waste Matrix Code	S4100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Non-defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Material Parameters

No Final Form Radionuclides Provided

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	9.71
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	23.28
Solidified, Inorganic Matrix	3.89
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	613.84
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CEER University Laboratory.

Management Comments

N/A

Waste Stream ID: **RL-W703**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W703	Stream Name	CUPRC TRU CH inorganic non-metal S5121 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5121
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Non-defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	48.48
Other Inorganic Materials	690.56
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	4.29E-02
Sr-90	3.89E-02

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CEER University Laboratory.

Management Comments

N/A

Waste Stream ID: **RL-W704**

Appendix J

DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID

RL-W704

 Stream Name

ESG MTRU CH heterogeneous S5440 Mixed RCRA w/ met

 Inventory Date

9/30/2002

 Local ID

N/A

 Handling

CH

 Final Waste Form

Heterogeneous Debris

 Waste Matrix Code

S5440

 Activity Concentrations Decayed to CY

2002

Final Waste Form Descriptors

Category:

Non-defense TRU Waste

 Source:

R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	146.40
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	28.80
Other Inorganic Materials	0.00
Cellulosics	55.44
Rubber	34.80
Plastics	0.00
Solidified, Inorganic Matrix	9.60
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	95.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.18E-01
Cs-137	9.80E-02
Pu-238	5.72E-01
Pu-239	4.75E-01
Pu-240	1.96E-01
Pu-241	5.00E+00
Pu-242	3.32E-05
Sr-90	1.70E-01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Rockwell International, Energy Systems Group (CA).

Management Comments

N/A

Waste Stream ID: **RL-W705**

Appendix J

DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W705	Stream Name	ESG TRU CH solidified inorganic S3119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1.61
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	193.20
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.14E-03
Cs-137	3.72E-03
Pu-238	3.54E-04
Pu-239	1.34E-02
Pu-240	3.01E-03
Pu-241	4.13E-02
Pu-242	1.81E-07
Sr-90	3.37E-03

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Rockwell International, Energy Systems Group (CA).

Management Comments

N/A

Waste Stream ID: **RL-W706**

Appendix J

DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W706	Stream Name	ESG TRU CH soils S4100 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Soils	Waste Matrix Code	S4100
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Non-defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	132.56
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	583.16
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Cs-137	3.09E-01
Sr-90	2.80E-01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Rockwell International, Energy Systems Group (CA).

Management Comments

N/A

Waste Stream ID: **RL-W707**

Appendix J

DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W707	Stream Name	ESG TRU CH uncategorized metal S5119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	1.9	0.0	1.9
As-Generated Total	1.9	0.0	1.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	354.87
Aluminum-Base Metal/Alloys	0.22
Other Metal/Alloys	101.73
Other Inorganic Materials	6.14
Cellulosics	0.00
Rubber	0.00
Plastics	1.62
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.36E-02
Cs-137	1.81E-04
Pu-238	4.20E-03
Pu-239	1.59E-01
Pu-240	3.57E-02
Pu-241	4.90E-01
Pu-242	2.15E-06
Sr-90	1.64E-04

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Rockwell International, Energy Systems Group (CA).

Management Comments

N/A

Waste Stream ID: **RL-W708**

Appendix J

DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W708	Stream Name	ESG TRU CH combustible S5319 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	9.70
Other Inorganic Materials	0.00
Cellulosics	9.70
Rubber	80.77
Plastics	24.23
Solidified, Inorganic Matrix	12.92
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.16E-03
Cs-137	8.59E-05
Pu-238	1.91E-03
Pu-239	7.24E-02
Pu-240	1.62E-02
Pu-241	2.23E-01
Pu-242	9.76E-07
Sr-90	7.77E-05

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Rockwell International, Energy Systems Group (CA).

Management Comments

N/A

Waste Stream ID: **RL-W709**

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DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W709	Stream Name	ESG TRU CH combustible S5320 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5320
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	29.10
Other Metal/Alloys	24.22
Other Inorganic Materials	0.00
Cellulosics	116.30
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.38E+00
Cs-137	4.29E-03
Pu-238	1.97E+00
Pu-239	7.50E+01
Pu-240	1.68E+01
Pu-241	2.31E+02
Pu-242	1.01E-03
Sr-90	3.89E-03

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Rockwell International, Energy Systems Group (CA).

Management Comments

N/A

Waste Stream ID: **RL-W710**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W710	Stream Name	ESG TRU CH combustible S5330 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5330
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	48.48
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	109.02
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.81E-04
Cs-137	8.59E-05
Pu-238	1.18E-04
Pu-239	4.48E-03
Pu-240	1.00E-03
Pu-241	1.38E-02
Pu-242	6.04E-08
Sr-90	7.77E-05

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Rockwell International, Energy Systems Group (CA).

Management Comments

N/A

Waste Stream ID: **RL-W711**

Appendix J

DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W711	Stream Name	ESG TRU CH heterogeneous S5420 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	169.61
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	145.39
Other Inorganic Materials	61.06
Cellulosics	0.00
Rubber	0.00
Plastics	5.82
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.19E-01
Cs-137	4.29E-04
Pu-238	3.68E-02
Pu-239	1.40E+00
Pu-240	3.13E-01
Pu-241	4.30E+00
Pu-242	1.88E-05
Sr-90	3.89E-04

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Rockwell International, Energy Systems Group (CA).

Management Comments

N/A

Waste Stream ID: **RL-W712**

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DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W712	Stream Name	ESG TRU CH heterogeneous S5440 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	4.84
Other Inorganic Materials	0.00
Cellulosics	65.42
Rubber	36.33
Plastics	14.55
Solidified, Inorganic Matrix	9.71
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.54E-01
Cs-137	1.03E-03
Pu-238	4.76E-02
Pu-239	1.81E+00
Pu-240	4.05E-01
Pu-241	5.56E+00
Pu-242	2.44E-05
Sr-90	9.33E-04

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Rockwell International, Energy Systems Group (CA).

Management Comments

N/A

Waste Stream ID: **RL-W713**

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DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W713	Stream Name	ESG TRU CH heterogeneous S5900 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	7.74
Other Metal/Alloys	67.86
Other Inorganic Materials	40.69
Cellulosics	48.48
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	54.26
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.33E-01
Cs-137	4.29E-03
Pu-238	4.11E-02
Pu-239	1.56E+00
Pu-240	3.50E-01
Pu-241	4.81E+00
Pu-242	2.11E-05
Sr-90	3.89E-03

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Rockwell International, Energy Systems Group (CA).

Management Comments

N/A

Waste Stream ID: **RL-W714**

Appendix J

DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W714	Stream Name	KAPL TRU CH solidified inorganic S3119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	1.20
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

No Final Form Radionuclides Provided

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the Knolls Atomic Power Laboratory.

Management Comments

N/A

Waste Stream ID: **RL-W715**

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DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W715	Stream Name	MCGEE TRU CH solidified inorganic S3119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	19.20
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	2.40
Other Inorganic Materials	48.52
Cellulosics	2.88
Rubber	0.00
Plastics	3.60
Solidified, Inorganic Matrix	227.16
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	17.28
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.20E-03
Pu-238	3.43E-04
Pu-239	1.31E-02
Pu-240	2.93E-03
Pu-241	3.92E-02
Pu-242	1.76E-07

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Kerr McGee.

Management Comments

N/A

Waste Stream ID: **RL-W716**

Appendix J

DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W716	Stream Name	MCGEE TRU CH uncategorized metal S5119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
As-Generated Total	0.8	0.0	0.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
Final Form Total	0.8	0.0	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	388.80
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	5.00
Other Inorganic Materials	24.70
Cellulosics	6.36
Rubber	0.90
Plastics	6.84
Solidified, Inorganic Matrix	18.20
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	2.88
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.25E-03
Pu-238	1.78E-03
Pu-239	6.81E-02
Pu-240	1.52E-02
Pu-241	2.04E-01
Pu-242	9.18E-07

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Kerr McGee.

Management Comments

N/A

Waste Stream ID: **RL-W717**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W717	Stream Name	MCGEE MTRU CH uncategorized metal S5119 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Non-defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	480.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.25E-03
Pu-238	1.78E-03
Pu-239	6.81E-02
Pu-240	1.52E-02
Pu-241	2.04E-01
Pu-242	9.18E-07

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Kerr McGee.

Management Comments

N/A

Waste Stream ID: **RL-W718**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W718	Stream Name	MCGEE TRU CH combustible S5330 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5330
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	3.84
Cellulosics	109.80
Rubber	0.00
Plastics	4.32
Solidified, Inorganic Matrix	2.88
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.51E-04
Pu-238	1.57E-04
Pu-239	6.00E-03
Pu-240	1.34E-03
Pu-241	1.80E-02
Pu-242	8.09E-08

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Kerr McGee.

Management Comments

N/A

Waste Stream ID: **RL-W719**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W719	Stream Name	MCGEE TRU CH heterogeneous S5420 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	232.80
Aluminum-Base Metal/Alloys	5.76
Other Metal/Alloys	26.40
Other Inorganic Materials	10.08
Cellulosics	2.40
Rubber	0.00
Plastics	17.28
Solidified, Inorganic Matrix	28.80
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	6.72
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.49E-03
Pu-238	7.10E-04
Pu-239	2.71E-02
Pu-240	6.07E-03
Pu-241	8.13E-02
Pu-242	3.65E-07

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Kerr McGee.

Management Comments

N/A

Waste Stream ID: **RL-W720**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W720	Stream Name	MCGEE TRU CH heterogeneous S5440 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.5	0.0	2.5
As-Generated Total	2.5	0.0	2.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.5	0.0	2.5
Final Form Total	2.5	0.0	2.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	79.60
Aluminum-Base Metal/Alloys	3.84
Other Metal/Alloys	24.87
Other Inorganic Materials	19.30
Cellulosics	28.50
Rubber	5.80
Plastics	48.12
Solidified, Inorganic Matrix	20.27
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	4.32
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.57E-03
Pu-238	7.32E-04
Pu-239	2.79E-02
Pu-240	6.25E-03
Pu-241	8.38E-02
Pu-242	3.77E-07

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Kerr McGee.

Management Comments

N/A

Waste Stream ID: **RL-W721**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W721	Stream Name	MCGEE TRU CH heterogeneous S5900 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.3	0.0	2.3
As-Generated Total	2.3	0.0	2.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.3	0.0	2.3
Final Form Total	2.3	0.0	2.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	140.95
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	12.65
Other Inorganic Materials	27.35
Cellulosics	10.34
Rubber	1.53
Plastics	34.17
Solidified, Inorganic Matrix	28.74
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	23.21
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.90E-03
Pu-238	5.41E-04
Pu-239	2.06E-02
Pu-240	4.62E-03
Pu-241	6.19E-02
Pu-242	2.78E-07

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Kerr McGee.

Management Comments

N/A

Waste Stream ID: **RL-W723**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W723	Stream Name	MCGEE TRU CH solidified inorganic S3119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	69.46
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	4.85
Other Inorganic Materials	12.92
Cellulosics	0.00
Rubber	0.00
Plastics	1.45
Solidified, Inorganic Matrix	272.06
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.32E-02
Cs-137	1.68E-04
Pu-238	6.77E-03
Pu-239	2.59E-01
Pu-240	5.80E-02
Pu-241	7.59E-01
Pu-242	3.49E-06
Sr-90	1.52E-04

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Kerr McGee.

Management Comments

N/A

Waste Stream ID: **RL-W724**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W724	Stream Name	MCGEE TRU CH uncategorized metal S5119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	3.3	0.0	3.3
As-Generated Total	3.3	0.0	3.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	3.3	0.0	3.3
Final Form Total	3.3	0.0	3.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	322.87
Aluminum-Base Metal/Alloys	3.75
Other Metal/Alloys	91.02
Other Inorganic Materials	11.56
Cellulosics	0.09
Rubber	0.76
Plastics	9.72
Solidified, Inorganic Matrix	0.36
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.90E-02
Cs-137	2.87E-03
Pu-238	8.45E-03
Pu-239	3.23E-01
Pu-240	7.25E-02
Pu-241	9.48E-01
Pu-242	4.36E-06
Sr-90	2.59E-03

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Kerr McGee.

Management Comments

N/A

Waste Stream ID: **RL-W725**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W725	Stream Name	MCGEE TRU CH combustible S5319 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	1.2	0.0	1.2
As-Generated Total	1.2	0.0	1.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	1.2	0.0	1.2
Final Form Total	1.2	0.0	1.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	17.77
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	3.23
Other Inorganic Materials	24.30
Cellulosics	4.61
Rubber	0.00
Plastics	124.79
Solidified, Inorganic Matrix	14.21
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.44E-02
Cs-137	5.73E-04
Pu-238	7.10E-03
Pu-239	2.72E-01
Pu-240	6.09E-02
Pu-241	7.97E-01
Pu-242	3.67E-06
Sr-90	5.18E-04

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Kerr McGee.

Management Comments

N/A

Waste Stream ID: **RL-W726**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W726	Stream Name	MCGEE TRU CH filter S5410 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	1.7	0.0	1.7
As-Generated Total	1.7	0.0	1.7

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	1.7	0.0	1.7
Final Form Total	1.7	0.0	1.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	96.32
Aluminum-Base Metal/Alloys	1.45
Other Metal/Alloys	32.21
Other Inorganic Materials	60.29
Cellulosics	4.76
Rubber	0.45
Plastics	11.26
Solidified, Inorganic Matrix	6.78
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.44E-02
Cs-137	6.92E-04
Pu-238	4.20E-03
Pu-239	1.61E-01
Pu-240	3.60E-02
Pu-241	4.71E-01
Pu-242	2.17E-06
Sr-90	6.26E-04

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Kerr McGee.

Management Comments

N/A

Waste Stream ID: **RL-W727**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W727	Stream Name	MCGEE TRU CH heterogeneous S5420 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	6.2	0.0	6.2
As-Generated Total	6.2	0.0	6.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	6.2	0.0	6.2
Final Form Total	6.2	0.0	6.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	182.54
Aluminum-Base Metal/Alloys	7.11
Other Metal/Alloys	88.42
Other Inorganic Materials	65.38
Cellulosics	6.14
Rubber	1.66
Plastics	24.42
Solidified, Inorganic Matrix	11.50
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.36E-02
Cs-137	1.75E-03
Pu-238	6.87E-03
Pu-239	2.63E-01
Pu-240	5.89E-02
Pu-241	7.71E-01
Pu-242	3.55E-06
Sr-90	1.58E-03

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Kerr McGee.

Management Comments

N/A

Waste Stream ID: **RL-W728**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID **RL-W728** Stream Name **MCGEE TRU CH heterogeneous S5440 Non-mixed** Inventory Date **9/30/2002**
 Local ID **N/A** Handling **CH** Final Waste Form **Heterogeneous Debris** Waste Matrix Code **S5440** Activity Concentrations Decayed to CY **2002**

Final Waste Form Descriptors

Category: **Defense TRU Waste** Source: **R&D/R&D Laboratory Waste**

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	8.3	0.0	8.3
As-Generated Total	8.3	0.0	8.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	8.3	0.0	8.3
Final Form Total	8.3	0.0	8.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	98.61
Aluminum-Base Metal/Alloys	0.78
Other Metal/Alloys	36.84
Other Inorganic Materials	25.62
Cellulosics	14.31
Rubber	2.75
Plastics	70.29
Solidified, Inorganic Matrix	7.47
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.61E-02
Cs-137	1.19E-03
Pu-238	4.70E-03
Pu-239	1.80E-01
Pu-240	4.03E-02
Pu-241	5.27E-01
Pu-242	2.43E-06
Sr-90	1.08E-03

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Kerr McGee.

Management Comments

N/A

Waste Stream ID: **RL-W729**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W729	Stream Name	MCGEE TRU CH heterogeneous S5900 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5900
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	2.9	0.0	2.9
As-Generated Total	2.9	0.0	2.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	2.9	0.0	2.9
Final Form Total	2.9	0.0	2.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	103.50
Aluminum-Base Metal/Alloys	4.43
Other Metal/Alloys	16.13
Other Inorganic Materials	73.70
Cellulosics	7.02
Rubber	2.34
Plastics	33.96
Solidified, Inorganic Matrix	35.52
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.13E-02
Cs-137	5.16E-04
Pu-238	6.20E-03
Pu-239	2.37E-01
Pu-240	5.31E-02
Pu-241	6.95E-01
Pu-242	3.20E-06
Sr-90	4.66E-04

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Kerr McGee.

Management Comments

N/A

Waste Stream ID: **RL-W730**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W730	Stream Name	PNL TRU CH heterogeneous S5420 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	28.3	28.5
Standard Waste Box	0.0	28.4	28.4
As-Generated Total	0.2	56.6	56.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	28.3	28.5
Standard Waste Box	0.0	28.4	28.4
Final Form Total	0.2	56.6	56.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	32.03
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	1.94
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	142.47
Packaging Material, Plastic	19.15
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.31E-01

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the PNNL.

Management Comments

N/A

Waste Stream ID: **RL-W731**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W731	Stream Name	Repackaged MTRU CH solidified inorganic S3119 Mixed RCRA w/ org			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1.67
Other Inorganic Materials	3.57
Cellulosics	4.52
Rubber	0.00
Plastics	35.71
Solidified, Inorganic Matrix	40.24
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.91E-05
Cs-137	1.84E-01
Pu-239	2.15E-03
Pu-240	8.85E-06
Sr-90	6.34E+00
U-235	5.80E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the REPACKAGED WASTE.

Management Comments

N/A

Waste Stream ID: **RL-W732**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W732	Stream Name	Repackaged TRU CH inorganic non-metal S5129 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	30.4	30.9
As-Generated Total	0.4	30.4	30.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	30.4	30.9
Final Form Total	0.4	30.4	30.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	245.24
Cellulosics	5.71
Rubber	2.86
Plastics	20.90
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.02E-01
Pu-238	1.59E-01
Pu-239	1.97E+00
Pu-240	4.38E-01
Pu-241	1.12E+01
Pu-242	2.56E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the REPACKAGED WASTE.

Management Comments

N/A

Waste Stream ID: **RL-W733**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W733	Stream Name	Repackaged TRU CH combustible S5319 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
As-Generated Total	0.6	0.0	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	10.21
Aluminum-Base Metal/Alloys	1.59
Other Metal/Alloys	0.63
Other Inorganic Materials	10.46
Cellulosics	10.35
Rubber	63.05
Plastics	36.25
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.62E-01
Cs-137	1.15E-04
Pu-238	2.13E-01
Pu-239	2.18E+00
Pu-240	5.46E-01
Pu-241	1.25E+01
Pu-242	4.86E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the REPACKAGED WASTE.

Management Comments

N/A

Waste Stream ID: **RL-W734**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W734	Stream Name	Repackaged MTRU CH combustible S5319 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	107.43
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.11
Other Inorganic Materials	4.55
Cellulosics	10.64
Rubber	121.74
Plastics	66.57
Solidified, Inorganic Matrix	12.71
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.80E+00
Cs-137	3.06E-06
Pu-238	1.06E+00
Pu-239	1.13E+01
Pu-240	2.76E+00
Pu-241	5.58E+01
Pu-242	2.35E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the REPACKAGED WASTE.

Management Comments

N/A

Waste Stream ID: **RL-W735**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W735	Stream Name	Repackaged MTRU CH combustible S5319 Mixed RCRA w/ met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	37.95
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	1.00
Other Inorganic Materials	0.10
Cellulosics	2.58
Rubber	359.86
Plastics	16.48
Solidified, Inorganic Matrix	46.48
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.09E+00
Pu-238	1.62E+00
Pu-239	1.77E+01
Pu-240	4.41E+00
Pu-241	8.68E+01
Pu-242	3.80E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the REPACKAGED WASTE.

Management Comments

N/A

Waste Stream ID: **RL-W736**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W736	Stream Name	Repackaged TRU CH combustible S5330 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5330
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	106.38
Rubber	4.62
Plastics	17.19
Solidified, Inorganic Matrix	4.62
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.76E-03
Pu-238	3.46E-06
Pu-239	1.17E-02
Pu-240	3.04E-03
Pu-241	2.65E-02
Pu-242	3.34E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the REPACKAGED WASTE.

Management Comments

N/A

Waste Stream ID: **RL-W737**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W737	Stream Name	Repackaged TRU CH combustible S5390 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
As-Generated Total	0.8	0.0	0.8

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.8	0.0	0.8
Final Form Total	0.8	0.0	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	24.98
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	17.68
Cellulosics	63.15
Rubber	17.70
Plastics	53.81
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.12E-01
Pu-238	3.70E-01
Pu-239	4.19E+00
Pu-240	1.02E+00
Pu-241	1.86E+01
Pu-242	8.67E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the REPACKAGED WASTE.

Management Comments

N/A

Waste Stream ID: **RL-W738**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W738	Stream Name	Repackaged TRU CH heterogeneous S5420 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.3	0.0	2.3
As-Generated Total	2.3	0.0	2.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.3	0.0	2.3
Final Form Total	2.3	0.0	2.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	131.99
Aluminum-Base Metal/Alloys	7.23
Other Metal/Alloys	3.46
Other Inorganic Materials	57.84
Cellulosics	11.45
Rubber	3.51
Plastics	38.28
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.94E-01
Pu-238	4.64E-01
Pu-239	4.85E+00
Pu-240	1.28E+00
Pu-241	2.46E+01
Pu-242	1.12E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the REPACKAGED WASTE.

Management Comments

N/A

Waste Stream ID: **RL-W739**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W739	Stream Name	Repackaged MTRU CH heterogeneous S5420 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	381.48
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	20.95
Cellulosics	3.81
Rubber	10.95
Plastics	45.43
Solidified, Inorganic Matrix	48.57
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.75E-01
Pu-238	4.50E-01
Pu-239	8.65E+00
Pu-240	1.99E+00
Pu-241	2.46E+01
Pu-242	1.44E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the REPACKAGED WASTE.

Management Comments

N/A

Waste Stream ID: **RL-W740**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W740	Stream Name	Repackaged TRU CH heterogeneous S5440 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	13.2	0.0	13.2
As-Generated Total	13.2	0.0	13.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	13.2	0.0	13.2
Final Form Total	13.2	0.0	13.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	32.71
Aluminum-Base Metal/Alloys	10.15
Other Metal/Alloys	1.30
Other Inorganic Materials	33.58
Cellulosics	27.23
Rubber	11.66
Plastics	62.55
Solidified, Inorganic Matrix	0.55
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.04
Soils	0.02
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.90E-01
Cs-137	4.88E-07
Pu-238	2.61E-01
Pu-239	3.35E+00
Pu-240	8.76E-01
Pu-241	1.97E+01
Pu-242	9.61E-05
U-235	1.05E-08

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the REPACKAGED WASTE.

Management Comments

N/A

Waste Stream ID: **RL-W741**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W741	Stream Name	Repackaged MTRU CH heterogeneous S5440 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.0	0.0	1.0
As-Generated Total	1.0	0.0	1.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1.0	0.0	1.0
Final Form Total	1.0	0.0	1.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	82.24
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.57
Other Inorganic Materials	38.38
Cellulosics	12.99
Rubber	30.93
Plastics	38.08
Solidified, Inorganic Matrix	0.76
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.93E+01
Pu-238	7.76E+00
Pu-239	8.21E+00
Pu-240	5.86E+00
Pu-241	1.87E+02
Pu-242	4.61E-03

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the REPACKAGED WASTE.

Management Comments

N/A

Waste Stream ID: **RL-W742**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W742	Stream Name	Repackaged MTRU CH heterogeneous S5440 Mixed RCRA w/ met,Hg			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	8.52
Other Inorganic Materials	4.48
Cellulosics	15.29
Rubber	2.24
Plastics	78.10
Solidified, Inorganic Matrix	0.30
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.98E+00
Pu-238	1.17E+00
Pu-239	1.33E+01
Pu-240	3.16E+00
Pu-241	8.02E+01
Pu-242	2.67E-04

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the REPACKAGED WASTE.

Management Comments

N/A

Waste Stream ID: **RL-W743**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W743	Stream Name	Repackaged MTRU CH heterogeneous S5490 Mixed RCRA w/ org			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5490
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	44.73
Cellulosics	0.00
Rubber	0.00
Plastics	26.67
Solidified, Inorganic Matrix	9.52
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.03E-02
Cs-137	5.98E-01
Pu-238	3.17E-04
Pu-239	8.62E-03
Sr-90	1.71E-01

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the REPACKAGED WASTE.

Management Comments

N/A

Waste Stream ID: **RL-W744**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W744	Stream Name	Repackaged TRU CH heterogeneous S5440 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	34.53
Cellulosics	39.15
Rubber	14.42
Plastics	44.67
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	98.88
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-239	4.34E-01
Pu-240	3.71E-01

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the REPACKAGED WASTE.

Management Comments

N/A

Waste Stream ID: **RL-W745**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W745	Stream Name	Tank Farms MTRU CH solidified inorganic S3119 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	228.57
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.14
Other Inorganic Materials	0.00
Cellulosics	1.76
Rubber	0.00
Plastics	1.33
Solidified, Inorganic Matrix	428.57
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.86E-03
Pu-238	2.22E-03
Pu-239	8.32E-02
Pu-240	1.86E-02
Pu-241	2.75E-01
Pu-242	1.12E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the TANK FARMS.

Management Comments

N/A

Waste Stream ID: **RL-W746**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W746	Stream Name	Tank Farms MTRU CH heterogeneous S5420 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	9.76
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	178.33
Other Inorganic Materials	15.24
Cellulosics	66.67
Rubber	18.10
Plastics	9.29
Solidified, Inorganic Matrix	17.38
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.32E-02
Pu-238	4.27E-03
Pu-239	1.60E-01
Pu-240	3.59E-02
Pu-241	5.30E-01
Pu-242	2.16E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the TANK FARMS.

Management Comments

N/A

Waste Stream ID: **RL-W747**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W747	Stream Name	Tank Farms MTRU CH heterogeneous S5440 Mixed RCRA w/ met			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	62.40
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	68.40
Rubber	24.00
Plastics	14.40
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.16E-02
Pu-238	2.31E-02
Pu-239	8.67E-01
Pu-240	1.94E-01
Pu-241	2.87E+00
Pu-242	1.17E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the TANK FARMS.

Management Comments

N/A

Waste Stream ID: **RL-W748**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W748	Stream Name	Tank Farms TRU CH uncategorized metal S5119 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5119
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	13.2	0.0	13.2
As-Generated Total	13.2	0.0	13.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	13.2	0.0	13.2
Final Form Total	13.2	0.0	13.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	272.59
Other Inorganic Materials	8.36
Cellulosics	3.41
Rubber	0.87
Plastics	12.16
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.14E+00
Pu-238	1.03E+00
Pu-239	2.28E-02
Pu-240	3.77E-02
Pu-241	3.42E+02
Pu-242	3.49E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the TANK FARMS.

Management Comments

N/A

Waste Stream ID: **RL-W749**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W749	Stream Name	Tank Farms TRU CH combustible S5319 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5319
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	3.8	0.0	3.8
As-Generated Total	3.8	0.0	3.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
Standard Waste Box	3.8	0.0	3.8
Final Form Total	3.8	0.0	3.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	4.06
Other Inorganic Materials	6.09
Cellulosics	0.00
Rubber	0.00
Plastics	108.09
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	1.20
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.55E-02
Pu-238	1.10E-02
Pu-239	4.18E-01
Pu-240	9.35E-02
Pu-241	1.28E+00
Pu-242	5.63E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the TANK FARMS.

Management Comments

N/A

Waste Stream ID: **RL-W750**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W750	Stream Name	Tank Farms TRU CH combustible S5330 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5330
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.4	0.0	0.4
As-Generated Total	0.4	0.0	0.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	107.83
Rubber	4.24
Plastics	7.27
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.83E+02
Pu-238	4.95E+01
Pu-239	1.19E+00
Pu-240	1.96E+00
Pu-241	1.54E+04
Pu-242	1.83E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the TANK FARMS.

Management Comments

N/A

Waste Stream ID: **RL-W751**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W751	Stream Name	Tank Farms TRU CH combustible S5390 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
As-Generated Total	0.2	0.0	0.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	89.90
Rubber	33.93
Plastics	4.36
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.92E+02
Pu-238	8.93E+01
Pu-239	2.14E+00
Pu-240	3.55E+00
Pu-241	2.78E+04
Pu-242	3.30E-05

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the TANK FARMS.

Management Comments

N/A

Waste Stream ID: **RL-W752**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W752	Stream Name	Tank Farms TRU CH heterogeneous S5420 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.4	0.0	0.4
Standard Waste Box	9.4	0.0	9.4
As-Generated Total	9.9	0.0	9.9

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	0.4	0.0	0.4
Standard Waste Box	9.4	0.0	9.4
Final Form Total	9.9	0.0	9.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	7.30
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	304.86
Other Inorganic Materials	35.03
Cellulosics	4.31
Rubber	1.93
Plastics	22.85
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	153.03
Packaging Material, Plastic	2.71
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.35E+00
Pu-238	8.19E-01
Pu-239	1.97E-02
Pu-240	3.25E-02
Pu-241	2.54E+02
Pu-242	3.03E-07

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the TANK FARMS.

Management Comments

N/A

Waste Stream ID: **RL-W753**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RL-W753	Stream Name	Tank Farms TRU CH heterogeneous S5440 Non-mixed			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Facility/Equipment Operation and Maintenance Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	2.7	0.0	2.7
Standard Waste Box	9.4	0.0	9.4
As-Generated Total	12.2	0.0	12.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55-Gallon Drum	2.7	0.0	2.7
Standard Waste Box	9.4	0.0	9.4
Final Form Total	12.2	0.0	12.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	8.85
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	161.54
Other Inorganic Materials	4.26
Cellulosics	25.26
Rubber	7.33
Plastics	49.55
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	148.88
Packaging Material, Plastic	9.16
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.93E+01
Pu-238	8.95E+00
Pu-239	2.15E-01
Pu-240	3.55E-01
Pu-241	2.78E+03
Pu-242	3.31E-06

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the TANK FARMS.

Management Comments

N/A

Waste Stream ID: **RP-W013**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	PFP TRU Solids			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	L1220
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Tank / Misc Sizes	270.0	0.0	270.0
As-Generated Total	270.0	0.0	270.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	525.1	0.0	525.1
Final Form Total	525.1	0.0	525.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	1.02
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	526.00
Packaging Material, Plastic	26.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.58E+00
Cs-137	9.30E+01
Np-237	1.14E-03
Pu-238	3.42E-04
Pu-239	5.84E+00
Pu-240	1.31E+00
Pu-241	3.42E+01
Pu-242	3.13E-04
Sr-90	9.59E+01
U-233	6.52E-04
U-234	3.64E-04
U-235	1.53E-05
U-236	8.80E-06
U-238	3.05E-04

Waste Stream Description

Solidified aqueous waste slurry.

Management Comments

Waste will be packaged with an absorbent for neutralization

Waste is currently RH; however, it may be, if cost effective, processed resulting in CH final waste form. Total volume of stream is 371 m3 in final waste form and 270 m3 in interim waste form. The difference in the volume between the final and interim for is the addition of absorbent. Projected waste is planned, but the amount has yet to be determined.

Waste Stream ID: **RP-W016**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	PUREX TRU Cladding Removal Solids			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	L1220
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Materials Production/Recovery Effluents

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Tank / Misc Sizes	2030.0	0.0	2030.0
As-Generated Total	2030.0	0.0	2030.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
RH Canister	3943.6	0.0	3943.6
Final Form Total	3943.6	0.0	3943.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.89
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	526.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	464.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.28E+00
Cs-137	1.91E+01
Np-237	9.30E-06
Pu-238	2.51E-03
Pu-239	2.82E-01
Pu-240	8.52E-02
Pu-241	8.95E-02
Pu-242	1.31E-05
Sr-90	6.28E+00
U-233	4.92E-04
U-234	3.66E-03
U-235	1.39E-04
U-236	2.97E-04
U-238	3.21E-02

Waste Stream Description

Solidified aqueous waste slurry

Management Comments

Waste will be packaged with an absorbent for neutralization.

Waste is currently RH; however, it may be, if cost effective, processed resulting in CH final waste form. Total volume of stream is 2791 m3 in final waste form and 2030 m3 in interim waste form. The difference in the volume between the final and interim for is the addition of absorbent.

Waste Stream ID: **RP-W754**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	224 Waste			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	L1220
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Tank / Misc Sizes	1079.0	0.0	1079.0
As-Generated Total	1079.0	0.0	1079.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	1484.1	0.0	1484.1
Final Form Total	1484.1	0.0	1484.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	1.12
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	120.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.01E-02
Cs-137	1.73E-01
Np-237	2.02E-07
Pu-238	9.31E-03
Pu-239	1.25E+00
Pu-240	1.03E-01
Pu-241	2.10E-01
Pu-242	4.14E-06
Sr-90	4.24E+00
U-233	1.83E-10
U-234	2.38E-04
U-235	9.96E-06
U-236	2.23E-06
U-238	2.26E-04

Waste Stream Description

Solidified aqueous waste slurry.

Management Comments

Waste will be packaged with an absorbent for neutralization.

Total volume of stream is 1484 m3 in final waste form and 1079 m3 in interim waste form. The difference in the volume between the final and interim for is the addition of absorbent. This stream has the potential to receive an additional 396,000 gallons (1397 m3) of as stored waste. On packaging the waste, the volume would increase to 500,000 gallons (1893 m3) of waste.

Waste Stream ID: **RP-W755**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Bismuth Phosphate Process TRU Solids			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	L1220
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Tank / Misc Sizes	1780.0	0.0	1780.0
As-Generated Total	1780.0	0.0	1780.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2448.0	0.0	2448.0
Final Form Total	2448.0	0.0	2448.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	1.13
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	120.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.81E-01
Cs-137	4.71E-01
Np-237	1.20E-06
Pu-238	3.38E-03
Pu-239	5.69E-01
Pu-240	4.72E-02
Pu-241	9.53E-02
Pu-242	6.36E-07
Sr-90	1.89E+01
U-233	4.47E-09
U-234	5.16E-03
U-235	2.30E-04
U-236	4.15E-05
U-238	5.27E-03

Waste Stream Description

Solidified aqueous waste slurry

Management Comments

Waste will be packaged with an absorbent for neutralization

Total volume of stream is 2248 m3 in final waste form and 1780 m3 in interim waste form. The difference in the volume between the final and interim for is the addition of absorbent.

Waste Stream ID: SA-T001

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	SA-T001	Stream Name	Lovlace ITRI Waste Stream			Inventory Date	9/30/2002
Local ID	NA	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55-gallon	5.4	0.0	5.4
As-Generated Total	5.4	0.0	5.4

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	5.4	0.0	5.4
Final Form Total	5.4	0.0	5.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	100.00
Aluminum-Base Metal/Alloys	3.00
Other Metal/Alloys	6.00
Other Inorganic Materials	15.00
Cellulosics	3.00
Rubber	5.00
Plastics	5.00
Solidified, Inorganic Matrix	40.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	5.00
Soils	0.00
Packaging Material, Steel	100.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.68E-01
Cm-244	8.83E-01
Np-237	3.34E-06
Pu-238	3.66E-02
Pu-239	5.60E-01
Pu-240	8.75E-04
Th-229	4.49E-14
Th-230	3.12E-11
Th-232	7.30E-04
U-233	1.15E-10
U-234	8.58E-07
U-235	4.42E-09
U-236	1.09E-10

Waste Stream Description

Waste is in final form.

Management Comments

This waste stream has been characterized by process knowledge as TRU waste. The waste is not mixed.

Waste Stream ID: SA-W134

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	SA-W134	Stream Name	Transuranic Waste at Hot Cell Facility			Inventory Date	9/30/2002
Local ID	NA	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5490
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box /7' x 4' x 4'	12.7	0.0	12.7
Can / Stainless Steel / 2 gallon	0.0	0.0	0.0
Drum / 10 gallon	0.1	0.0	0.1
Drum / 14 gallon	0.1	0.0	0.1
Drum / 20 gallon	0.1	0.0	0.1
Drum / 30 gallon	0.5	0.0	0.5
Drum / 5 gallon	0.1	0.0	0.1
Drum / 55-gallon	3.7	0.0	3.7
Drum / 85 gallon	0.3	0.0	0.3
As-Generated Total	17.5	0.0	17.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	16.0	0.0	16.0
Final Form Total	16.0	0.0	16.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	80.00
Aluminum-Base Metal/Alloys	5.00
Other Metal/Alloys	10.00
Other Inorganic Materials	1.00
Cellulosics	2.00
Rubber	2.00
Plastics	5.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.50E-01
Am-243	7.64E-04
Cm-244	1.16E-04
Cs-137	4.30E+00
Np-237	7.77E-03
Pu-238	8.43E-02
Pu-239	8.64E-02
Pu-240	2.74E-02
Pu-241	3.71E-01
Pu-242	4.23E-09
Sr-90	4.07E+00
Th-229	6.15E-08
Th-230	4.68E-07
Th-232	5.01E-19
U-233	1.31E-04
U-234	1.04E-02
U-235	6.78E-04
U-236	4.06E-09
U-238	4.97E-04

Waste Stream Description

Heterogeneous Debris from SNL/NM Hot Cell Facility D&D project and other miscellaneous waste generators.

Management Comments

8 drums of tru waste are estimated to be generated with the FY1996 hot cell decontamination project. This is a one time generation.

Waste Stream ID: **SA-W134M**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	Mixed-TRU Waste from SNL/NM - Contact Handled			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5490
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55 gallon	2.1	0.0	2.1
As-Generated Total	2.1	0.0	2.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.1	0.0	2.1
Final Form Total	2.1	0.0	2.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	80.00
Aluminum-Base Metal/Alloys	5.00
Other Metal/Alloys	10.00
Other Inorganic Materials	1.00
Cellulosics	2.00
Rubber	2.00
Plastics	5.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.50E-01
Am-243	7.64E-04
Cm-244	1.16E-04
Cs-137	4.30E+00
Np-237	7.77E-03
Pu-238	8.43E-02
Pu-239	8.64E-02
Pu-240	2.74E-02
Pu-241	3.71E-01
Pu-242	4.23E-09
Sr-90	4.07E+00
Th-229	6.15E-08
Th-230	4.68E-07
Th-232	5.01E-19
U-233	1.31E-04
U-234	1.04E-02
U-235	6.78E-04
U-236	4.06E-09
U-238	4.97E-04

Waste Stream Description

Heterogeneous debris from SNL/NM Hot Cell Facility D&D project and other Miscellaneous waste generators.

Management Comments

N/A

Waste Stream ID: SA-W135

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	TRU Waste from SNL/NM - Remote Handled			Inventory Date	9/30/2002
Local ID	N/A	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5490
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes				
ContainerType	Stored	Proj.	Total	
Cask / Lead lined	3.9	0.0	3.9	
Drum / 55 gallon	0.4	0.0	0.4	
Lead Pig	0.1	0.0	0.1	
As-Generated Total		4.4	0.0	4.4

Final Form Volumes				
ContainerType	Stored	Proj.	Total	
55 Gallon Drum	4.6	0.0	4.6	
Final Form Total		4.6	0.0	4.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	80.00
Aluminum-Base Metal/Alloys	5.00
Other Metal/Alloys	10.00
Other Inorganic Materials	1.00
Cellulosics	2.00
Rubber	2.00
Plastics	5.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.66E+00
Cm-244	9.08E-02
Cs-137	1.07E+02
Np-237	1.98E-04
Pu-238	9.23E-01
Pu-239	6.20E-01
Pu-240	9.30E-02
Pu-241	5.42E-03
Sr-90	1.07E+02
Th-229	1.01E-12
Th-230	7.23E-08
Th-232	1.70E-18
U-233	4.22E-09
U-234	1.61E-03
U-235	1.20E-04
U-236	1.38E-08
U-238	4.00E-05

Waste Stream Description

Heterogeneous debris from SNL/NM Hot Cell Facility D&D Project and other miscellaneous waste generators.

Management Comments

N/A

Waste Stream ID: T001-221F-HET

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	SR-W074	Stream Name	CH TRU - Heterogeneous debris from 221F			Inventory Date	9/30/2002
Local ID	SR-T001	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Box / 12ft W x 18ft L x 7ft H	807.5	0.0	807.5
Box / Misc.	14.0	0.0	14.0
Drum / 55 gallon	140.2	106.9	247.1
Polybox	150.5	0.0	150.5
As-Generated Total	1112.2	106.9	1219.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	140.2	106.9	247.1
5'x5'x8' Box	1103.7	0.0	1103.7
Standard Waste Box	0.0	372.3	372.3
Final Form Total	1243.9	479.2	1723.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	101.00
Aluminum-Base Metal/Alloys	0.01
Other Metal/Alloys	0.00
Other Inorganic Materials	23.00
Cellulosics	17.00
Rubber	0.04
Plastics	16.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	153.57
Packaging Material, Plastic	1.02
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.95E-01
Np-237	1.55E-06
Pu-238	7.01E+01
Pu-239	1.28E+01
Pu-240	3.17E-01
Pu-241	8.64E+00
Th-229	1.29E-14
Th-230	1.37E-07
Th-232	3.34E-17
U-233	3.64E-11
U-234	2.50E-03
U-235	1.51E-07
U-236	1.13E-07

Waste Stream Description

This waste stream is defense related, contact handled TRU waste and is composed of Job Control waste, sludges and resins, HEPA filters and large, metal equipment

Management Comments

The current plan is to characterize the waste followed by shipment and disposal at WIPP. HEPA filters packaged in polyboxes will be packaged into SWB's. All miscellaneous box waste and waste currently stored in 12'x18x7' steel boxes will be shipped utilizing 5'x5'x8' or smaller containers that meet TRUPACT III and WIPP disposal limits. Regulatory relief is expected to allow shipment of the higher activity drummed waste without volume expansion. Only physical dimension limitations have been assumed for TRUPACT III. TDOPs are planned to overpack drums.

Waste Stream ID: T001-221H-HET

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	SR-W074	Stream Name	CH TRU - Heterogeneous debris from 221H			Inventory Date	9/30/2002
Local ID	SR-T001	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Box / 12ft W x 18ft L x 7ft H	2295.0	0.0	2295.0
Drum / 55-gallon	397.1	77.0	474.0
Polybox	82.5	0.0	82.5
As-Generated Total		2774.6	2851.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	397.1	77.0	474.0
5'x5'x8' Box	3079.0	0.0	3079.0
Standard Waste Box	0.0	204.1	204.1
Final Form Total		3476.1	3757.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	110.00
Aluminum-Base Metal/Alloys	0.01
Other Metal/Alloys	0.00
Other Inorganic Materials	27.00
Cellulosics	22.00
Rubber	0.03
Plastics	8.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	153.62
Packaging Material, Plastic	0.66
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.95E-01
Np-237	1.55E-06
Pu-238	7.01E+01
Pu-239	1.28E+01
Pu-240	3.17E-01
Pu-241	8.64E+00
Th-229	1.29E-14
Th-230	1.37E-07
Th-232	3.34E-17
U-233	3.64E-11
U-234	2.50E-03
U-235	1.51E-07
U-236	1.13E-07

Waste Stream Description

This waste stream is defense related, contact handled TRU waste and is composed of Job Control waste, sludges and resins, HEPA filters and large, metal equipment

Management Comments

The current plan is to characterize the waste followed by shipment and disposal at WIPP. HEPA filters packaged in polyboxes will be packaged into SWB's. All miscellaneous box waste and waste currently stored in 12'x18x7' steel boxes will be shipped utilizing 5'x5'x8' or smaller containers that meet TRUPACT III and WIPP disposal limits. Regulatory relief is expected to allow shipment of the higher activity drummed waste without volume expansion. Only physical dimension limitations have been assumed for TRUPACT III. TDOPs are planned to overpack drums; however, TDOPs are not identified in the final waste form container description.

Waste Stream ID: T001-235F-HET

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID SR-W074 Stream Name CH TRU Heterogeneous debris from 235F Inventory Date 9/30/2002
 Local ID SR-T001 Handling CH Final Waste Form Heterogeneous Debris Waste Matrix Code S5000 Activity Concentrations Decayed to CY 2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / Misc.	42.0	0.0	42.0
Drum / 55-gallon	12.1	13.1	25.2
Polybox	25.0	0.0	25.0
As-Generated Total	79.1	13.1	92.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	12.1	13.1	25.2
5'x5'x8' Box	50.9	0.0	50.9
Standard Waste Box	0.0	68.0	68.0
Final Form Total	63.0	81.1	144.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	84.00
Aluminum-Base Metal/Alloys	0.01
Other Metal/Alloys	0.00
Other Inorganic Materials	15.00
Cellulosics	9.00
Rubber	0.05
Plastics	27.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	153.30
Packaging Material, Plastic	1.75
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.95E-01
Np-237	1.55E-06
Pu-238	7.01E+01
Pu-239	1.28E+01
Pu-240	3.17E-01
Pu-241	8.64E+00
Th-229	1.29E-14
Th-230	1.37E-07
Th-232	3.34E-17
U-233	3.64E-11
U-234	2.50E-03
U-235	1.51E-07
U-236	1.13E-07

Waste Stream Description

This waste stream is defense related, contact handled TRU waste and is composed of Job Control waste, sludges and resins, HEPA filters and large, metal equipment

Management Comments

The current plan is to characterize the waste followed by shipment and disposal at WIPP. HEPA filters packaged in polyboxes will be packaged into SWB's. All miscellaneous box waste and waste currently stored in 12'x18x7' steel boxes will be shipped utilizing 5'x5'x8' or smaller containers that meet TRUPACT III and WIPP disposal limits. Regulatory relief is expected to allow shipment of the higher activity drummed waste without volume expansion. Only physical dimension limitations have been assumed for TRUPACT III. TDOPs are planned to overpack drums; however, TDOPs are not identified in the final waste form container description.

Waste Stream ID: T001-772F-HET

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	SR-W074	Stream Name	CH TRU - Heterogeneous debris from 772F			Inventory Date	9/30/2002
Local ID	SR-T001	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Box / Misc.	8.4	0.0	8.4
Drum / 55-gallon	93.2	907.9	1001.1
As-Generated Total	101.6	907.9	1009.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	93.2	907.9	1001.1
5'x5'x8' Box	11.3	0.0	11.3
Final Form Total	104.5	907.9	1012.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	4.60
Aluminum-Base Metal/Alloys	0.10
Other Metal/Alloys	0.00
Other Inorganic Materials	1.60
Cellulosics	0.00
Rubber	0.30
Plastics	15.20
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.26
Packaging Material, Plastic	36.59
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.95E-01
Np-237	1.55E-06
Pu-238	7.01E+01
Pu-239	1.28E+01
Pu-240	3.17E-01
Pu-241	8.64E+00
Th-229	1.29E-14
Th-230	1.37E-07
Th-232	3.34E-17
U-233	3.64E-11
U-234	2.50E-03
U-235	1.51E-07
U-236	1.13E-07

Waste Stream Description

This waste stream is defense related, contact handled TRU waste and is composed of Job Control waste, sludges and resins, HEPA filters and large, metal equipment

Management Comments

The current plan is to characterize the waste followed by shipment and disposal at WIPP. HEPA filters packaged in polyboxes will be packaged into SWB's. All miscellaneous box waste and waste currently stored in 12'x18x7' steel boxes will be shipped utilizing 5'x5'x8' or smaller containers that meet TRUPACT III and WIPP disposal limits. Regulatory relief is expected to allow shipment of the higher activity drummed waste without volume expansion. Only physical dimension limitations have been assumed for TRUPACT III. TDOPs are planned to overpack drums; however, TDOPs are not identified in the final waste form container description.

Waste Stream ID: T001-773A-CLAS

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	SR-W074	Stream Name	CH TRU - Classified waste from 773A			Inventory Date	9/30/2002
Local ID	SR-T001	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / 162 ft3	23.0	0.0	23.0
As-Generated Total	23.0	0.0	23.0

Final Form Volumes			
ContainerType	Stored	Proj.	Total
5'x5'x8' Box	22.6	0.0	22.6
Final Form Total	22.6	0.0	22.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	129.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	32.10
Cellulosics	26.70
Rubber	0.00
Plastics	5.30
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.95E-01
Np-237	1.55E-06
Pu-238	7.01E+01
Pu-239	1.28E+01
Pu-240	3.17E-01
Pu-241	8.64E+00
Th-229	1.29E-14
Th-230	1.37E-07
Th-232	3.34E-17
U-233	3.64E-11
U-234	2.50E-03
U-235	1.51E-07
U-236	1.13E-07

Waste Stream Description

This waste stream is defense related, contact handled TRU waste and is composed of Job Control waste, sludges and resins, HEPA filters and large, metal equipment

Management Comments

The current plan is to characterize the waste followed by shipment and disposal at WIPP. HEPA filters packaged in polyboxes will be packaged into SWB's. All miscellaneous box waste and waste currently stored in 12'x18x7' steel boxes will be shipped utilizing 5'x5'x8' or smaller containers that meet TRUPACT III and WIPP disposal limits. Regulatory relief is expected to allow shipment of the higher activity drummed waste without volume expansion. Only physical dimension limitations have been assumed for TRUPACT III. TDOPs are planned to overpack drums; however, TDOPs are not identified in the final waste form container description.

Waste Stream ID: T001-773A-HET

Appendix J

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	SR-W074	Stream Name	CH TRU - Heterogeneous debris from 773A			Inventory Date	9/30/2002
Local ID	SR-T001	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Box / Misc.	19.6	0.0	19.6
Drum / 55-gallon	42.0	84.7	126.7
Polybox	4.0	0.0	4.0
As-Generated Total	65.6	84.7	150.3

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	42.0	84.7	126.7
5'x5'x8' Box	17.0	0.0	17.0
Standard Waste Box	0.0	11.3	11.3
Final Form Total	59.0	96.0	155.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	23.00
Aluminum-Base Metal/Alloys	0.06
Other Metal/Alloys	0.00
Other Inorganic Materials	5.20
Cellulosics	5.00
Rubber	0.20
Plastics	16.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	139.29
Packaging Material, Plastic	25.42
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.95E-01
Np-237	1.55E-06
Pu-238	7.01E+01
Pu-239	1.28E+01
Pu-240	3.17E-01
Pu-241	8.64E+00
Th-229	1.29E-14
Th-230	1.37E-07
Th-232	3.34E-17
U-233	3.64E-11
U-234	2.50E-03
U-235	1.51E-07
U-236	1.13E-07

Waste Stream Description

This waste stream is defense related, contact handled TRU waste and is composed of Job Control waste, sludges and resins, HEPA filters and large, metal equipment

Management Comments

The current plan is to characterize the waste followed by shipment and disposal at WIPP. HEPA filters packaged in polyboxes will be packaged into SWB's. All miscellaneous box waste and waste currently stored in 12'x18x7' steel boxes will be shipped utilizing 5'x5'x8' or smaller containers that meet TRUPACT III and WIPP disposal limits. Regulatory relief is expected to allow shipment of the higher activity drummed waste without volume expansion. Only physical dimension limitations have been assumed for TRUPACT III. TDOPs are planned to overpack drums; however, TDOPs are not identified in the final waste form container description.

Waste Stream ID: T003-773A-HET

Appendix J

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	SR-W076	Stream Name	RH TRU Heterogeneous Debris from 773A			Inventory Date	9/30/2002
Local ID	SR-T003	Handling	RH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Cask / 40"x41"x53"	1.4	15.6	17.0
As-Generated Total		1.4	15.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
5'x5'x8' Box	0.0	22.6	22.6
Final Form Total		0.0	22.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	23.00
Aluminum-Base Metal/Alloys	0.06
Other Metal/Alloys	0.00
Other Inorganic Materials	5.20
Cellulosics	5.00
Rubber	0.20
Plastics	16.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-243	1.83E-03
Cs-137	2.73E+00
Pu-238	1.59E-01
Pu-239	2.10E-07
Sr-90	2.56E+00
Th-230	1.35E-10
U-234	3.72E-06
U-235	5.53E-16

Waste Stream Description

This waste consists of miscellaneous job control waste such as laboratory supplies used in research programs in the shielded cells, e.g. glassware, paper wipes, stainless steel samples vials, poly bottles, pipettes and small lab equipment (stirrers, heaters). In addition to the job control waste, this stream contains shavings from the cuttings of a Mark 16 fuel element. Presently, this waste stream is stored as RH, but is reported as CH because after processing this stream will be CH.

Management Comments

This waste will be repackaged for shipment to WIPP.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	SR-W006	Stream Name	Contact handled TRU/Liquids from 773A			Inventory Date	9/30/2002
Local ID	SR-W006	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	L2000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Analytical Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Stainless Steel can / 1 gal	0.1	0.0	0.1
As-Generated Total	0.1	0.0	0.1

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1719.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	467.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.43E-03
Np-237	1.45E-08
Pu-239	8.60E+02
Th-229	9.80E-17
U-233	3.13E-13
U-235	8.48E-06

Waste Stream Description

The stream is a xylene-based chelating agent. It is a homogeneous, flammable liquid containing hazardous constituents. Total activity is 100 nCi/g. The waste is contact handled. TTA stands for Thenoyl Trifluoroacetone.

Management Comments

The waste is stored in a stainless steel can, (Safe-T-Can brand for storage of flammable liquids), in a Satellite Accumulation Area (SAA), which is located in a laboratory hood in Lab B-138 of Building 773-A of SRTC.

The preferred option in the PSTP is to assay and characterize the waste stream at the TRU Waste Certification/Characterization Facility (TWCCF), followed by preparation for shipment and disposal at WIPP. Because of the small volume of the stream alternative treatment options are being investigated. One alternative is to handle the waste as a 90 day generator, remove the TRU portion of the stream, and treat the ignitable characteristic.

Waste stream contains HNO3 = 10E-3 (Molar Based on solubility after contact with 1Molar HNO3) per lab procedure.

Waste Stream ID: **W026-221F-HET**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	SR-W026	Stream Name	CH Mixed TRU/Thirds Heterogeneous debris from 221F			Inventory Date	9/30/2002
Local ID	SR-W026	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Box / 12' x 18' x 7'	513.8	0.0	513.8
Drum / 55-gallon	101.1	0.0	101.1
As-Generated Total	614.9	0.0	614.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	101.1	0.0	101.1
5'x5'x8' Box	684.9	0.0	684.9
Final Form Total	785.9	0.0	785.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	112.00
Aluminum-Base Metal/Alloys	0.01
Other Metal/Alloys	0.00
Other Inorganic Materials	28.00
Cellulosics	24.00
Rubber	0.03
Plastics	6.60
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	153.61
Packaging Material, Plastic	0.62
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.95E-01
Np-237	1.55E-06
Pu-238	7.01E+01
Pu-239	1.28E+01
Pu-240	3.17E-01
Pu-241	8.64E+00
Th-229	1.29E-14
Th-230	1.37E-07
Th-232	3.34E-17
U-233	3.64E-11
U-234	2.50E-03
U-235	1.51E-07
U-236	1.13E-07

Waste Stream Description

200 Areas (F and H Separations Facilities). This waste is primarily solids consisting of mainly booties, lab coats, floor sweepings, rags, labware, and other job control wastes. Small Hepas, liquids, sludges and resins may also be found in this stream. The waste is generated primarily through separation activities in the course of plutonium production, includes small amounts of TRU waste from on site laboratories.

Management Comments

The current plan is to characterize the waste followed by shipment and disposal at WIPP. HEPA filters packaged in polyboxes will be packaged into Standard Waste Boxes. All miscellaneous box waste and waste currently stored in 12'x18'x7' steel boxes will be shipped utilizing 5'x5'x8' or smaller containers that meet TRUPACT III and WIPP disposal limits. Regulatory relief is expected to allow shipment of the higher activity drummed waste without volume expansion. Only physical dimension limitations have been assumed for TRUPACT III. TDOPs are planned to overpack drums; however, TDOPs are not identified in the final waste form container description.

Waste is double-bagged and placed in a 90-mil polyethylene drum liner inside a 55-gallon carbon steel drum.

Waste Stream ID: **W026-221H-HET**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	SR-W026	Stream Name	CH Mixed TRU/Thirds Heterogeneous debris from 221H			Inventory Date	9/30/2002
Local ID	SR-W026	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Box / 12' x 18' x 7'	342.5	0.0	342.5
Drum / 55-gallon	129.2	0.0	129.2
As-Generated Total	471.6	0.0	471.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	129.2	0.0	129.2
5'x5'x8' Box	458.5	0.0	458.5
Final Form Total	587.6	0.0	587.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	101.00
Aluminum-Base Metal/Alloys	0.02
Other Metal/Alloys	0.00
Other Inorganic Materials	25.00
Cellulosics	21.00
Rubber	0.06
Plastics	7.50
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	152.90
Packaging Material, Plastic	1.80
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.95E-01
Np-237	1.55E-06
Pu-238	7.01E+01
Pu-239	1.28E+01
Pu-240	3.17E-01
Pu-241	8.64E+00
Th-229	1.29E-14
Th-230	1.37E-07
Th-232	3.34E-17
U-233	3.64E-11
U-234	2.50E-03
U-235	1.51E-07
U-236	1.13E-07

Waste Stream Description

200 Areas (F and H Separations Facilities). This waste is primarily solids consisting of mainly booties, lab coats, floor sweepings, rags, labware, and other job control wastes. Small Hepas, liquids, sludges and resins may also be found in this stream. The waste is generated primarily through separation activities in the course of plutonium production, includes small amounts of TRU waste from on site laboratories.

Management Comments

The current plan is to characterize the waste followed by shipment and disposal at WIPP. HEPA filters packaged in polyboxes will be packaged into SWB's. All miscellaneous box waste and waste currently stored in 12'x18'x7' steel boxes will be shipped utilizing 5'x5'x8' or smaller containers that meet TRUPACT III and WIPP disposal limits. Regulatory relief is expected to allow shipment of the higher activity drummed waste without volume expansion. Only physical dimension limitations have been assumed for TRUPACT III. TDOPs are planned to overpack drums; however, TDOPs are not identified in the final waste form container description.

Waste is double-bagged and placed in a 90-mil polyethylene drum liner inside a 55-gallon carbon steel drum.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	SR-W026	Stream Name	CH Mixed TRU/Thirds Heterogeneous debris from 235F			Inventory Date	9/30/2002
Local ID	SR-W026	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55-gallon	9.2	0.0	9.2
As-Generated Total			9.2

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	9.2	0.0	9.2
Final Form Total			9.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	3.13
Aluminum-Base Metal/Alloys	0.07
Other Metal/Alloys	0.04
Other Inorganic Materials	1.24
Cellulosics	2.20
Rubber	0.26
Plastics	15.30
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.95E-01
Np-237	1.55E-06
Pu-238	7.01E+01
Pu-239	1.28E+01
Pu-240	3.17E-01
Pu-241	8.64E+00
Th-229	1.29E-14
Th-230	1.37E-07
Th-232	3.34E-17
U-233	3.64E-11
U-234	2.50E-03
U-235	1.51E-07
U-236	1.13E-07

Waste Stream Description

200 Areas (F and H Separations Facilities). This waste is primarily solids consisting of mainly booties, lab coats, floor sweepings, rags, labware, and other job control wastes. Small Hepas, liquids, sludges and resins may also be found in this stream. The waste is generated primarily through separation activities in the course of plutonium production, includes small amounts of TRU waste from on site laboratories.

Management Comments

The current plan is to characterize the waste followed by shipment and disposal at WIPP. HEPA filters packaged in polyboxes will be packed into SWB's. All miscellaneous box waste and waste currently stored in 12'x18x7' steel boxes will be shipped utilizing 5'x5'x8' or smaller containers that meet TRUPACT III and WIPP disposal limits. Regulatory relief is expected to allow shipment of the higher activity drummed waste without volume expansion. Only physical dimension limitations have been assumed for TRUPACT III. TDOPs are planned to overpack drums; however, TDOPs are not identified in the final waste form container description.

Waste is double-bagged and placed in a 90-mil polyethylene drum liner inside a 55-gallon carbon steel drum.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	SR-W026	Stream Name	CH Mixed TRU/Thirds Heterogeneous debris from 772F			Inventory Date	9/30/2002
Local ID	SR-W026	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
Drum / 55-gallon	2.5	0.0	2.5
As-Generated Total	2.5	0.0	2.5

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	2.5	0.0	2.5
Final Form Total	2.5	0.0	2.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	3.13
Aluminum-Base Metal/Alloys	0.07
Other Metal/Alloys	0.04
Other Inorganic Materials	1.24
Cellulosics	2.20
Rubber	0.26
Plastics	15.30
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.95E-01
Np-237	1.55E-06
Pu-238	7.01E+01
Pu-239	1.28E+01
Pu-240	3.17E-01
Pu-241	8.64E+00
Th-229	1.29E-14
Th-230	1.37E-07
Th-232	3.34E-17
U-233	3.64E-11
U-234	2.50E-03
U-235	1.51E-07
U-236	1.13E-07

Waste Stream Description

200 Areas (F and H Separations Facilities). This waste is primarily solids consisting of mainly booties, lab coats, floor sweepings, rags, labware, and other job control wastes. Small Hepas, liquids, sludges and resins may also be found in this stream. The waste is generated primarily through separation activities in the course of plutonium production, includes small amounts of TRU waste from on site laboratories.

Management Comments

The current plan is to characterize the waste followed by shipment and disposal at WIPP. HEPA filters packaged in polyboxes will be packaged into SWB's. All miscellaneous box waste and waste currently stored in 12'x18x7' steel boxes will be shipped utilizing 5'x5'x8' or smaller containers that meet TRUPACT III and WIPP disposal limits. Regulatory relief is expected to allow shipment of the higher activity drummed waste without volume expansion. Only physical dimension limitations have been assumed for TRUPACT III. TDOPs are planned to overpack drums; however, TDOPs are not identified in the final waste form container description.

Waste is double-bagged in a 90-mil polyethylene drum liner inside a 55-gallon carbon steel drum.

Waste Stream ID: **W026-773A-HET**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID Stream Name Inventory Date
 Local ID Handling Final Waste Form Waste Matrix Code Activity Concentrations Decayed to CY

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes

Container Type	Stored	Proj.	Total
40"X41"X53" CASK	15.6	0.0	15.6
Box / Misc.	1.9	0.0	1.9
Drum / 55-gallon	1.0	0.0	1.0
As-Generated Total	18.6	0.0	18.6

Final Form Volumes

Container Type	Stored	Proj.	Total
55 Gallon Drum	1.0	0.0	1.0
5'x5'x8' Box	39.6	0.0	39.6
Final Form Total	40.7	0.0	40.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	190.00
Aluminum-Base Metal/Alloys	0.01
Other Metal/Alloys	0.00
Other Inorganic Materials	1126.00
Cellulosics	96.00
Rubber	0.05
Plastics	60.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	153.97
Packaging Material, Plastic	0.03
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.95E-01
Np-237	1.55E-06
Pu-238	7.01E+01
Pu-239	1.28E+01
Pu-240	3.17E-01
Pu-241	8.64E+00
Th-229	1.29E-14
Th-230	1.37E-07
Th-232	3.34E-17
U-233	3.64E-11
U-234	2.50E-03
U-235	1.51E-07
U-236	1.13E-07

Waste Stream Description

200 Areas (F and H Separations Facilities). This waste is primarily solids consisting of mainly booties, lab coats, floor sweepings, rags, labware, and other job control wastes. Small Hepas, liquids, sludges and resins may also be found in this stream. The waste is generated primarily through separation activities in the course of plutonium production, includes small amounts of TRU waste from on site laboratories.

Management Comments

The current plan is to characterize the waste followed by shipment and disposal at WIPP. HEPA filters packaged in polyboxes will be packaged into SWB's. All miscellaneous box waste and waste currently stored in 12'x18x7' steel boxes will be shipped utilizing 5'x5'x8' or smaller containers that meet TRUPACT III and WIPP disposal limits. Regulatory relief is expected to allow shipment of the higher activity drummed waste without volume expansion. Only physical dimension limitations have been assumed for TRUPACT III. TDOPs are planned to overpack drums; however, TDOPs are not identified in the final waste form container description.

Waste is double-bagged and placed in a 90-mil polyethylene drum liner inside a 55-gallon carbon steel drum.

Waste Stream ID: **W027-221F-HET**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID Stream Name Inventory Date
 Local ID Handling Final Waste Form Waste Matrix Code Activity Concentrations Decayed to CY

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Box / 12' x 18' x 7'	385.3	0.0	385.3
Box / Misc.	30.8	0.0	30.8
Drum / 55-gallon	2508.1	0.0	2508.1
As-Generated Total	2924.1	0.0	2924.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	2508.1	0.0	2508.1
5'x5'x8' Box	543.4	0.0	543.4
Final Form Total	3051.4	0.0	3051.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	26.00
Aluminum-Base Metal/Alloys	0.10
Other Metal/Alloys	0.00
Other Inorganic Materials	6.70
Cellulosics	6.60
Rubber	0.20
Plastics	13.50
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.38
Packaging Material, Plastic	24.99
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.45E-01
Np-237	4.94E-06
Pu-238	6.08E+01
Pu-239	1.28E+01
Pu-240	3.16E-01
Pu-241	3.63E+00
Th-229	2.46E-13
Th-230	8.19E-07
Th-232	2.09E-16
U-233	2.85E-10
U-234	5.84E-03
U-235	3.78E-07
U-236	2.82E-07

Waste Stream Description

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste. This stream differs from SR-W026 because solvent rags are suspected to be in the waste.

Management Comments

The current plan is to characterize the waste followed by shipment and disposal at WIPP. HEPA filters packaged in polyboxes will be packaged into SWB's. All miscellaneous box waste and waste currently stored in 12'x18x7' steel boxes will be shipped utilizing 5'x5'x8' or smaller containers that meet TRUPACT III and WIPP disposal limits. Regulatory relief is expected to allow shipment of the higher activity drummed waste without volume expansion. Only physical dimension limitations have been assumed for TRUPACT III. TDOPs are planned to overpack drums; however, TDOPs are not identified in the final waste form container description.

Waste is double-bagged and placed in a 90-mil polyethylene drum liner inside a 55-gallon carbon steel drum. The liner lid is glued in place.

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	SR-W027	Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 221H			Inventory Date	9/30/2002
Local ID	SR-W0027	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: Other/Multiple Sources

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
40"x41"x53" CASK	14.2	0.0	14.2
Box / 12' x 18' x 7'	171.2	0.0	171.2
Box / Misc.	56.0	0.0	56.0
Drum / 55 gallon	1018.2	0.0	1018.2
As-Generated Total	1259.6	0.0	1259.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	1018.2	0.0	1018.2
5'x5'x8' Box	317.0	0.0	317.0
Final Form Total	1335.1	0.0	1335.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	36.00
Aluminum-Base Metal/Alloys	0.05
Other Metal/Alloys	0.00
Other Inorganic Materials	65.00
Cellulosics	13.20
Rubber	3.00
Plastics	16.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	140.27
Packaging Material, Plastic	21.35
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.45E-01
Np-237	4.94E-06
Pu-238	6.08E+01
Pu-239	1.28E+01
Pu-240	3.16E-01
Pu-241	3.63E+00
Th-229	2.46E-13
Th-230	8.19E-07
Th-232	2.09E-16
U-233	2.85E-10
U-234	5.84E-03
U-235	3.78E-07
U-236	2.82E-07

Waste Stream Description

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste. This stream differs from SR-W026 because solvent rags are suspected to be in the waste.

Management Comments

The current plan is to characterize the waste followed by shipment and disposal at WIPP. HEPA filters packaged in polyboxes will be packaged into SWB's. All miscellaneous box waste and waste currently stored in 12'x18x7' steel boxes will be shipped utilizing 5'x5'x8' or smaller containers that meet TRUPACT III and WIPP disposal limits. Regulatory relief is expected to allow shipment of the higher activity drummed waste without volume expansion. Only physical dimension limitations have been assumed for TRUPACT III. TDOPs are planned to overpack drums; however, TDOPs are not identified in the final waste form container description.

Waste is double-bagged and placed in a 90-mil polyethylene drum liner inside a 55-gallon carbon steel drum. The liner lid is glued in place.

Waste Stream ID: **W027-235F-HET**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	SR-W027	Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 235F			Inventory Date	9/30/2002
Local ID	SR-W0027	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Box / 12' x 18' x 7'	42.8	0.0	42.8
Box / Misc.	28.0	0.0	28.0
Drum / 55-gallon	311.2	0.0	311.2
As-Generated Total	382.0	0.0	382.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	311.2	0.0	311.2
5'x5'x8' Box	90.6	0.0	90.6
Final Form Total	401.7	0.0	401.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	30.00
Aluminum-Base Metal/Alloys	0.05
Other Metal/Alloys	0.00
Other Inorganic Materials	8.00
Cellulosics	7.50
Rubber	0.20
Plastics	13.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	140.06
Packaging Material, Plastic	22.46
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.45E-01
Np-237	4.94E-06
Pu-238	6.08E+01
Pu-239	1.28E+01
Pu-240	3.16E-01
Pu-241	3.63E+00
Th-229	2.46E-13
Th-230	8.19E-07
Th-232	2.09E-16
U-233	2.85E-10
U-234	5.84E-03
U-235	3.78E-07
U-236	2.82E-07

Waste Stream Description

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste. This stream differs from SR-W026 because solvent rags are suspected to be in the waste.

Management Comments

The current plan is to characterize the waste followed by shipment and disposal at WIPP. HEPA filters packaged in polyboxes will be packaged into SWB's. All miscellaneous box waste and waste currently stored in 12'x18x7' steel boxes will be shipped utilizing 5'x5'x8' or smaller containers that meet TRUPACT III and WIPP disposal limits. Regulatory relief is expected to allow shipment of the higher activity drummed waste without volume expansion. Only physical dimension limitations have been assumed for TRUPACT III. TDOPs are planned to overpack drums; however, TDOPs are not identified in the final waste form container description.

Waste is double-bagged and placed in a 90-mil polyethylene drum liner inside a 55-gallon carbon steel drum. The liner lid is glued in place.

Waste Stream ID: **W027-772F-HET**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID Stream Name Inventory Date
 Local ID Handling Final Waste Form Waste Matrix Code Activity Concentrations Decayed to CY

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Box / Misc.	84.0	0.0	84.0
Drum / 55-gallon	639.2	0.0	639.2
As-Generated Total	723.2	0.0	723.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	639.2	0.0	639.2
5'x5'x8' Box	90.6	0.0	90.6
Final Form Total	729.7	0.0	729.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	18.00
Aluminum-Base Metal/Alloys	0.50
Other Metal/Alloys	0.00
Other Inorganic Materials	5.00
Cellulosics	5.00
Rubber	0.20
Plastics	14.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	136.48
Packaging Material, Plastic	28.90
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.45E-01
Np-237	4.94E-06
Pu-238	6.08E+01
Pu-239	1.28E+01
Pu-240	3.16E-01
Pu-241	3.63E+00
Th-229	2.46E-13
Th-230	8.19E-07
Th-232	2.09E-16
U-233	2.85E-10
U-234	5.84E-03
U-235	3.78E-07
U-236	2.82E-07

Waste Stream Description

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste. This stream differs from SR-W026 because solvent rags are suspected to be in the waste.

Management Comments

The current plan is to characterize the waste followed by shipment and disposal at WIPP. HEPA filters packaged in polyboxes will be packaged into SWB's. All miscellaneous box waste and waste currently stored in 12'x18x7' steel boxes will be shipped utilizing 5'x5'x8' or smaller containers that meet TRUPACT III and WIPP disposal limits. Regulatory relief is expected to allow shipment of the higher activity drummed waste without volume expansion. Only physical dimension limitations have been assumed for TRUPACT III. TDOPs are planned to overpack drums; however, TDOPs are not identified in the final waste form container description.

Waste is double-bagged and placed in a 90-mil polyethylene drum liner inside a 55-gallon carbon steel drum. The liner lid is glued in place.

Waste Stream ID: **W027-773A-HET**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	SR-W027	Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 773A			Inventory Date	9/30/2002
Local ID	SR-W0027	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5000
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
40"X41"X53" CASK	324.0	0.0	324.0
Box / Misc.	142.8	0.0	142.8
Drum / 55-gallon	302.0	0.0	302.0
As-Generated Total	768.8	0.0	768.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	302.0	0.0	302.0
5'x5'x8' Box	786.7	0.0	786.7
Final Form Total	1088.8	0.0	1088.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	139.00
Aluminum-Base Metal/Alloys	0.02
Other Metal/Alloys	0.00
Other Inorganic Materials	798.00
Cellulosics	69.00
Rubber	37.00
Plastics	46.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	152.34
Packaging Material, Plastic	2.86
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.45E-01
Np-237	4.94E-06
Pu-238	6.08E+01
Pu-239	1.28E+01
Pu-240	3.16E-01
Pu-241	3.63E+00
Th-229	2.46E-13
Th-230	8.19E-07
Th-232	2.09E-16
U-233	2.85E-10
U-234	5.84E-03
U-235	3.78E-07
U-236	2.82E-07

Waste Stream Description

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste. This stream differs from SR-W026 because solvent rags are suspected to be in the waste.

Management Comments

The current plan is to characterize the waste followed by shipment and disposal at WIPP. HEPA filters packaged in polyboxes will be packaged into SWB's. All miscellaneous box waste and waste currently stored in 12'x18x7' steel boxes will be shipped utilizing 5'x5'x8' or smaller containers that meet TRUPACT III and WIPP disposal limits. Regulatory relief is expected to allow shipment of the higher activity drummed waste without volume expansion. Only physical dimension limitations have been assumed for TRUPACT III. TDOPs are planned to overpack drums; however, TDOPs are not identified in the final waste form container description.

Waste is double-bagged and placed in a 90-mil polyethylene drum liner inside a 55-gallon carbon steel drum. The liner lid is glued in place.

Waste Stream ID: **W027-999-HET**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	SR-W027	Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from offsite			Inventory Date	9/30/2002
Local ID	SR-W0027	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

As-Generated Volumes			
Container Type	Stored	Proj.	Total
Box / Misc.	100.8	137.2	238.0
Drum / 30 gallon	27.5	0.0	27.5
Drum / 55-gallon	155.0	135.0	290.0
DRUM / 83 gallon	18.8	0.0	18.8
As-Generated Total	302.1	272.2	574.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55 Gallon Drum	0.0	346.9	346.9
5'x5'x8' Box	0.0	243.4	243.4
Final Form Total	0.0	590.3	590.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	55.00
Aluminum-Base Metal/Alloys	0.04
Other Metal/Alloys	0.00
Other Inorganic Materials	14.00
Cellulosics	12.00
Rubber	0.20
Plastics	11.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	145.77
Packaging Material, Plastic	12.93
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.45E-01
Np-237	4.94E-06
Pu-238	6.08E+01
Pu-239	1.28E+01
Pu-240	3.16E-01
Pu-241	3.63E+00
Th-229	2.46E-13
Th-230	8.19E-07
Th-232	2.09E-16
U-233	2.85E-10
U-234	5.84E-03
U-235	3.78E-07
U-236	2.82E-07

Waste Stream Description

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste.

Management Comments

The current plan is to characterize the waste followed by shipment and disposal at WIPP. HEPA filters packaged in polyboxes will be packaged into SWB's. All miscellaneous box waste and waste currently stored in 12'x18x7' steel boxes will be shipped utilizing 5'x5'x8' or smaller containers that meet TRUPACT III and WIPP disposal limits. Regulatory relief is expected to allow shipment of the higher activity drummed waste without volume expansion. Only physical dimension limitations have been assumed for TRUPACT III. TDOPs are planned to overpack drums; however, TDOPs are not identified in the final waste form container description. This waste stream has been expanded to include the receipt of future Mound waste.

Waste is double-bagged and placed in a 90-mil polyethylene drum liner inside a 55-gallon carbon steel drum. The liner lid is glued in place.

Waste Stream ID: **W053-773A-VIT**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	SR-W053	Stream Name	Contact handled mixed TRU/Residues from 773A			Inventory Date	9/30/2002
Local ID	SR-W053	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Defense TRU Waste Source: R&D/R&D Laboratory Waste

Waste Volume Detail (m3)

As-Generated Volumes			
ContainerType	Stored	Proj.	Total
small carton in 30 gal containers	0.6	0.0	0.6
As-Generated Total		0.6	0.6

Final Form Volumes			
ContainerType	Stored	Proj.	Total
55 Gallon Drum	0.6	0.0	0.6
Final Form Total		0.6	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	273.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	2415.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	131.00
Packaging Material, Plastic	37.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-239	6.40E+02
U-235	6.31E-06

Waste Stream Description

This waste stream consists of Rocky Flats Incinerator Ash and F-listed solvents, and is contaminated with TRU nuclides from SRS laboratories. This waste is classified as contact-handled.

Management Comments

The preferred treatment option is to return the ash to Rocky Flats for consolidation and treatment with similar wastes. Treatment (if any) would then be at the discretion of Rocky Flats. Until a full agreement between SRS and RF has been reached, preliminary plans indicate SRS would add this small stream to a larger stream for vitrification.

The waste itself is in four small cartons which are placed in 30 gallon shipping containers at a ratio of two small cartons per shipping container.

This stream is currently stored in a total of 4 cartons which are placed in 30 gallon shipping containers (not TRAMPAC approved). 2 cartons per shipping container. The containers are stored in 235-F.

APPENDIX K
WASTE STREAM PROFILES – EMPLACED

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The following waste stream profiles contain information on waste streams emplaced in the WIPP as of the inventory date, September 30, 2002. The TRU waste sites that have shipped TRU waste to the WIPP are:

Idaho National Engineering and Environmental Laboratory	IN
Los Alamos National Laboratory	LA
Rocky Flats Environmental Technology Site	RF
Hanford (Richland)	RL
Savannah River Site	SR

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Waste Stream ID: **WP-INW169.001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	COMBUSTIBLE DEBRIS WASTE			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5330
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Drum	17.0	0.0	17.0
Final Form Total	17.0	0.0	17.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.27
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	2.75
Other Inorganic Materials	7.22
Cellulosics	127.53
Rubber	0.73
Plastics	7.76
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	127.43
Packaging Material, Plastic	38.60
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.95E-01
Np-237	6.25E-08
Pu-238	2.80E-02
Pu-239	9.07E-01
Pu-240	2.02E-01
Pu-241	2.34E+00
Pu-242	2.27E-05
Th-229	4.24E-18
Th-230	8.71E-11
Th-232	1.48E-19
U-233	1.36E-13
U-234	9.72E-06
U-235	3.10E-06
U-236	5.99E-09
U-238	1.74E-07

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-INW198.001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	PLASTICS DEBRIS			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5310
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
Container Type	Stored	Proj.	Total
Drum	44.7	0.0	44.7
Final Form Total	44.7	0.0	44.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.18
Aluminum-Base Metal/Alloys	0.01
Other Metal/Alloys	2.74
Other Inorganic Materials	13.35
Cellulosics	0.48
Rubber	0.55
Plastics	85.74
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	127.43
Packaging Material, Plastic	41.61
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.73E-02
Np-237	2.79E-08
Pu-238	1.86E-02
Pu-239	6.16E-01
Pu-240	1.37E-01
Pu-241	1.46E+00
Pu-242	1.28E-05
Th-229	2.81E-10
Th-230	1.62E-11
Th-232	1.00E-19
U-233	3.00E-06
U-234	1.83E-06
U-235	5.51E-07
U-236	4.06E-09
U-238	1.08E-06

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-INW211.001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	FILTER DEBRIS WASTE			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Drum	286.2	0.0	286.2
Final Form Total	286.2	0.0	286.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.06
Aluminum-Base Metal/Alloys	8.59
Other Metal/Alloys	0.42
Other Inorganic Materials	22.28
Cellulosics	137.66
Rubber	0.08
Plastics	7.28
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	127.43
Packaging Material, Plastic	38.69
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.53E+00
Np-237	4.91E-07
Pu-238	2.73E-01
Pu-239	8.94E+00
Pu-240	1.98E+00
Pu-241	2.59E+01
Pu-242	2.59E-04
Th-229	2.36E-09
Th-230	5.88E-11
Th-232	1.45E-18
U-233	2.52E-05
U-234	6.93E-06
U-235	2.13E-06
U-236	5.88E-08
U-238	2.33E-06

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-INW216.001-A**

Appendix K

DOE/TRU-2006-3344

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	SOLIDIFIED SLUDGE			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121
				Activity Concentrations Decayed to CY		2002	

Final Waste Form Descriptors

Category: N/A Source: N/A

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Drum	888.3	0.0	888.3
Final Form Total	888.3	0.0	888.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.01
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.10
Other Inorganic Materials	13.25
Cellulosics	0.25
Rubber	0.01
Plastics	0.44
Solidified, Inorganic Matrix	841.28
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.25
Soils	0.00
Packaging Material, Steel	127.43
Packaging Material, Plastic	44.12
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.82E+01
Np-237	1.83E-05
Pu-238	5.05E-02
Pu-239	1.67E+00
Pu-240	3.71E-01
Pu-241	4.61E+00
Pu-242	4.82E-05
Th-229	2.01E-09
Th-230	5.60E-09
Th-232	1.09E-18
U-233	1.07E-05
U-234	3.11E-04
U-235	5.54E-05
U-236	2.20E-08
U-238	2.36E-03

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-INW216.001-B**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	SOLIDIFIED SLUDGE			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: N/A Source: N/A

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Drum	308.7	0.0	308.7
Final Form Total	308.7	0.0	308.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.05
Other Inorganic Materials	0.87
Cellulosics	0.02
Rubber	0.00
Plastics	0.03
Solidified, Inorganic Matrix	787.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	127.43
Packaging Material, Plastic	45.15
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.24E+01
Np-237	1.45E-05
Pu-238	3.93E-02
Pu-239	1.30E+00
Pu-240	2.88E-01
Pu-241	3.58E+00
Pu-242	3.74E-05
Th-229	3.82E-09
Th-230	1.61E-09
Th-232	8.45E-19
U-233	2.04E-05
U-234	8.95E-05
U-235	2.80E-05
U-236	1.71E-08
U-238	1.24E-04

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-INW218.001-A**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	SLUDGE - BLDG. 374			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
Container Type	Stored	Proj.	Total
Drum	741.7	0.0	741.7
SWB	15.0	0.0	15.0
Final Form Total	756.8	0.0	756.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.01
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.01
Other Inorganic Materials	9.98
Cellulosics	0.24
Rubber	0.01
Plastics	0.77
Solidified, Inorganic Matrix	842.26
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.29
Soils	0.00
Packaging Material, Steel	129.06
Packaging Material, Plastic	43.84
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.03E-01
Np-237	1.95E-07
Pu-238	1.05E-02
Pu-239	3.41E-01
Pu-240	7.59E-02
Pu-241	9.81E-01
Pu-242	9.71E-06
Th-229	3.56E-10
Th-230	4.59E-09
Th-232	5.55E-20
U-233	3.79E-06
U-234	5.10E-04
U-235	6.36E-05
U-236	2.25E-09
U-238	5.22E-03

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-INW218.001-B**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	SLUDGE - BLDG. 374			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Drum	25.0	0.0	25.0
Final Form Total	25.0	0.0	25.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	1.12
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	1159.11
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	127.43
Packaging Material, Plastic	45.03
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.02E-02
Np-237	1.93E-08
Pu-238	8.74E-03
Pu-239	2.81E-01
Pu-240	6.25E-02
Pu-241	8.41E-01
Pu-242	8.12E-06
Th-229	1.31E-18
Th-230	1.35E-08
Th-232	4.58E-20
U-233	4.19E-14
U-234	1.50E-03
U-235	1.82E-04
U-236	1.85E-09
U-238	1.69E-02

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-INW222.001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	MISC. CEMENTED SLUDGES			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
Container Type	Stored	Proj.	Total
Drum	30.2	0.0	30.2
Final Form Total	30.2	0.0	30.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.04
Other Inorganic Materials	0.34
Cellulosics	0.00
Rubber	0.00
Plastics	7.86
Solidified, Inorganic Matrix	578.76
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	127.43
Packaging Material, Plastic	38.71
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.54E-01
Np-237	1.78E-07
Pu-238	7.77E-02
Pu-239	2.27E+00
Pu-240	5.08E-01
Pu-241	5.90E+00
Pu-242	5.11E-05
Th-229	1.21E-17
Th-230	1.70E-10
Th-232	3.72E-19
U-233	3.87E-13
U-234	1.90E-05
U-235	2.51E-06
U-236	1.51E-08
U-238	1.78E-04

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-INW243.001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	GLASS DEBRIS			Inventory Date	9/30/2002	
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122	
							Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Drum	67.2	0.0	67.2
Final Form Total	67.2	0.0	67.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.33
Aluminum-Base Metal/Alloys	0.01
Other Metal/Alloys	11.57
Other Inorganic Materials	163.64
Cellulosics	0.64
Rubber	0.11
Plastics	22.47
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	127.43
Packaging Material, Plastic	45.81
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.39E-01
Np-237	4.10E-07
Pu-238	7.54E-02
Pu-239	2.14E+00
Pu-240	4.82E-01
Pu-241	5.36E+00
Pu-242	4.97E-05
Th-229	3.57E-09
Th-230	2.29E-10
Th-232	1.41E-18
U-233	1.90E-05
U-234	1.29E-05
U-235	3.99E-06
U-236	2.86E-08
U-238	2.02E-06

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-INW247.001R1**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	RASHIG RINGS - GLASS DEBRIS			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Drum	108.4	0.0	108.4
Final Form Total	108.4	0.0	108.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.01
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.01
Other Inorganic Materials	235.08
Cellulosics	19.17
Rubber	0.00
Plastics	1.22
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	127.43
Packaging Material, Plastic	43.88
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.84E-01
Np-237	3.08E-07
Pu-238	1.09E-01
Pu-239	2.55E+00
Pu-240	5.81E-01
Pu-241	5.76E+00
Pu-242	4.42E-05
Th-229	6.67E-09
Th-230	7.32E-12
Th-232	1.70E-18
U-233	3.56E-05
U-234	7.16E-07
U-235	3.59E-08
U-236	3.45E-08
U-238	1.33E-14

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-INW276.001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	GRAPHITE MOLDS DEBRIS			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5126
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Drum	10.3	0.0	10.3
Final Form Total	10.3	0.0	10.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	326.14
Cellulosics	4.57
Rubber	0.00
Plastics	3.69
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	128.57
Packaging Material, Plastic	38.19
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.71E-01
Np-237	5.68E-07
Pu-238	1.12E-01
Pu-239	2.65E+00
Pu-240	6.06E-01
Pu-241	5.14E+00
Pu-242	4.46E-05
Th-229	9.17E-16
Th-230	3.67E-11
Th-232	1.11E-17
U-233	5.93E-12
U-234	1.62E-06
U-235	2.84E-08
U-236	8.99E-08
U-238	3.37E-14

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-INW276.002**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	GRAPHITE MOLDS DEBRIS			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5126
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
Container Type	Stored	Proj.	Total
Drum	16.2	0.0	16.2
Final Form Total	16.2	0.0	16.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.00
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	317.56
Cellulosics	8.66
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	128.57
Packaging Material, Plastic	41.82
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.84E-01
Np-237	5.90E-07
Pu-238	1.07E-01
Pu-239	2.48E+00
Pu-240	5.79E-01
Pu-241	4.91E+00
Pu-242	4.22E-05
Th-229	1.23E-08
Th-230	3.91E-11
Th-232	1.06E-17
U-233	2.62E-05
U-234	1.64E-06
U-235	4.07E-08
U-236	8.59E-08
U-238	3.18E-14

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-INW276.003**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	GRAPHITE WASTE DEBRIS			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5126
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Drum	185.8	0.0	185.8
Final Form Total	185.8	0.0	185.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.04
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.04
Other Inorganic Materials	326.03
Cellulosics	8.55
Rubber	0.00
Plastics	1.30
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	127.43
Packaging Material, Plastic	42.50
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.23E+00
Np-237	7.78E-07
Pu-238	3.46E-01
Pu-239	8.03E+00
Pu-240	1.83E+00
Pu-241	1.80E+01
Pu-242	1.36E-04
Th-229	2.94E-08
Th-230	2.57E-11
Th-232	5.37E-18
U-233	1.57E-04
U-234	2.41E-06
U-235	1.56E-07
U-236	1.09E-07
U-238	4.09E-09

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-INW276.004**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	GRAPHITE WASTE DEBRIS			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5126
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Drum	46.6	0.0	46.6
Final Form Total	46.6	0.0	46.6

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.26
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.17
Other Inorganic Materials	324.21
Cellulosics	2.11
Rubber	0.00
Plastics	3.08
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	127.43
Packaging Material, Plastic	46.30
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.24E+00
Np-237	7.86E-07
Pu-238	2.91E-01
Pu-239	6.76E+00
Pu-240	1.54E+00
Pu-241	1.51E+01
Pu-242	1.14E-04
Th-229	1.04E-07
Th-230	4.13E-11
Th-232	4.52E-18
U-233	5.56E-04
U-234	3.12E-06
U-235	4.84E-07
U-236	9.16E-08
U-238	3.45E-14

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-INW296.001-A**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	METAL DEBRIS			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5110
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Drum	10.9	0.0	10.9
Final Form Total	10.9	0.0	10.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	5.29
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	352.08
Other Inorganic Materials	9.46
Cellulosics	0.62
Rubber	0.34
Plastics	0.69
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	127.43
Packaging Material, Plastic	39.32
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.17E+00
Np-237	1.39E-06
Pu-238	2.96E-01
Pu-239	7.24E+00
Pu-240	1.65E+00
Pu-241	1.66E+01
Pu-242	1.33E-04
Th-229	3.77E-16
Th-230	4.64E-11
Th-232	4.82E-18
U-233	6.04E-12
U-234	3.42E-06
U-235	5.72E-07
U-236	9.76E-08
U-238	4.00E-14

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-INW296.001-B**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	METAL DEBRIS			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Lead/Cadmium Metal	Waste Matrix Code	S5112
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Drum	81.1	0.0	81.1
Final Form Total	81.1	0.0	81.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	4.90
Aluminum-Base Metal/Alloys	0.46
Other Metal/Alloys	204.23
Other Inorganic Materials	11.53
Cellulosics	0.82
Rubber	1.95
Plastics	4.56
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	127.43
Packaging Material, Plastic	45.88
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.36E-01
Np-237	5.34E-07
Pu-238	1.40E-01
Pu-239	3.45E+00
Pu-240	7.84E-01
Pu-241	8.04E+00
Pu-242	6.57E-05
Th-229	1.28E-08
Th-230	7.16E-11
Th-232	2.30E-18
U-233	6.83E-05
U-234	4.38E-06
U-235	1.13E-06
U-236	4.65E-08
U-238	1.46E-06

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: WP-LA-TA-55-19.01-A

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	COMBUSTIBLE WASTE, MIXED DEBRIS			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5300
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: N/A Source: N/A

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Drum	5.9	0.0	5.9
Final Form Total	5.9	0.0	5.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	3.57
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.09
Other Inorganic Materials	0.34
Cellulosics	61.11
Rubber	0.20
Plastics	94.17
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	101.19
Packaging Material, Plastic	0.77
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.18E-01
Am-243	4.75E-05
Cs-137	9.75E-08
Np-237	1.08E-05
Pu-238	9.01E-02
Pu-239	3.56E-01
Pu-240	8.62E-02
Pu-241	1.10E+00
Pu-242	3.55E-06
Th-229	8.76E-15
Th-230	4.10E-06
Th-232	2.53E-19
U-233	9.36E-11
U-234	4.49E-04
U-235	2.30E-05
U-236	5.11E-09
U-238	1.07E-15

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-LA-TA-55-19.01-B**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	COMBUSTIBLE WASTE, MIXED DEBRIS			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	75.2	0.0	75.2
Final Form Total	75.2	0.0	75.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	55.08
Aluminum-Base Metal/Alloys	0.03
Other Metal/Alloys	0.10
Other Inorganic Materials	0.26
Cellulosics	1.94
Rubber	2.34
Plastics	21.32
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.26
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.73E-01
Am-243	4.62E-05
Cs-137	6.34E-10
Np-237	3.77E-05
Pu-238	2.36E-01
Pu-239	2.83E+00
Pu-240	6.94E-01
Pu-241	8.56E+00
Pu-242	2.14E-03
Th-229	3.06E-14
Th-230	2.09E-08
Th-232	2.03E-18
U-233	3.27E-10
U-234	1.16E-03
U-235	8.51E-07
U-236	4.12E-08
U-238	6.78E-07

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-LA-TA-55-43.01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	COMBUSTIBLE DEBRIS WASTE			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5400
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	189.9	0.0	189.9
Final Form Total	189.9	0.0	189.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	45.92
Aluminum-Base Metal/Alloys	0.11
Other Metal/Alloys	0.39
Other Inorganic Materials	0.13
Cellulosics	1.22
Rubber	0.19
Plastics	8.91
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.26
Packaging Material, Plastic	0.00
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.11E-03
Am-243	5.04E-08
Np-237	1.37E-07
Pu-238	2.19E+00
Pu-239	1.70E-03
Pu-240	7.19E-04
Pu-241	3.04E-02
Pu-242	1.77E-06
Th-229	4.35E-16
Th-230	4.58E-09
Th-232	1.38E-08
U-233	2.32E-12
U-234	1.40E-04
U-235	6.71E-12
U-236	8.53E-11
U-238	1.07E-15

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-RF001.01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	CLOTH/PAPER DEBRIS FROM GLOVEBOX CLEANUP			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
Container Type	Stored	Proj.	Total
Drum	454.4	0.0	454.4
SWB	22.6	0.0	22.6
Final Form Total	477.0	0.0	477.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1.04
Aluminum-Base Metal/Alloys	0.01
Other Metal/Alloys	0.06
Other Inorganic Materials	0.12
Cellulosics	25.89
Rubber	0.27
Plastics	85.53
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.88
Packaging Material, Plastic	20.82
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.17E-01
Am-243	1.37E-09
Np-237	5.97E-05
Pu-238	3.01E-02
Pu-239	8.61E-01
Pu-240	1.96E-01
Pu-241	1.36E+00
Pu-242	1.75E-05
Th-229	1.27E-07
Th-230	2.55E-09
Th-232	3.24E-17
U-233	9.04E-05
U-234	1.96E-05
U-235	5.39E-06
U-236	8.74E-08
U-238	1.61E-07

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-RF002.01-A**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	METAL AND HEAVY METAL DEBRIS (NON-SS)			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
Container Type	Stored	Proj.	Total
Drum	145.7	0.0	145.7
SWB	204.9	0.0	204.9
Final Form Total	350.7	0.0	350.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	278.65
Aluminum-Base Metal/Alloys	0.02
Other Metal/Alloys	0.20
Other Inorganic Materials	0.22
Cellulosics	7.84
Rubber	0.01
Plastics	6.81
Solidified, Inorganic Matrix	0.01
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	147.79
Packaging Material, Plastic	11.95
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.79E-01
Am-243	8.94E-07
Np-237	2.60E-06
Pu-238	5.48E-02
Pu-239	1.32E+00
Pu-240	3.01E-01
Pu-241	4.09E+00
Pu-242	2.89E-05
Th-229	2.01E-08
Th-230	2.27E-09
Th-232	5.51E-18
U-233	4.29E-05
U-234	5.09E-05
U-235	2.08E-06
U-236	4.46E-08
U-238	1.46E-06

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-RF002.01-B**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	METAL AND HEAVY METAL DEBRIS (NON-SS)			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5390
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Drum	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	116.19
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	12.86
Rubber	0.00
Plastics	16.19
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.10
Packaging Material, Plastic	23.81
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.47E-01
Np-237	8.59E-07
Pu-238	6.31E-02
Pu-239	2.38E+00
Pu-240	5.42E-01
Pu-241	4.28E+00
Pu-242	4.44E-05
Th-229	1.41E-15
Th-230	2.07E-11
Th-232	9.92E-18
U-233	9.07E-12
U-234	9.13E-07
U-235	1.17E-08
U-236	8.03E-08
U-238	3.35E-14

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-RF003.01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	GRAPHITE DEBRIS WASTE			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5126
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
Container Type	Stored	Proj.	Total
Drum	11.5	0.0	11.5
Pipe OP	220.7	0.0	220.7
Final Form Total	232.3	0.0	232.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	9.86
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	36.02
Cellulosics	158.98
Rubber	0.00
Plastics	1.53
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	504.72
Packaging Material, Plastic	23.86
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.34E+00
Np-237	2.05E-05
Pu-238	1.33E+00
Pu-239	3.80E+01
Pu-240	8.68E+00
Pu-241	1.02E+02
Pu-242	6.99E-04
Th-229	1.64E-08
Th-230	1.18E-09
Th-232	1.59E-16
U-233	3.50E-05
U-234	3.59E-05
U-235	7.23E-07
U-236	1.29E-06
U-238	2.89E-08

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-RF004.01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	GLASS DEBRIS WASTE			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122
				Activity Concentrations Decayed to CY		2002	

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Drum	5.7	0.0	5.7
Final Form Total	5.7	0.0	5.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	0.19
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	220.02
Cellulosics	11.64
Rubber	0.00
Plastics	15.73
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.10
Packaging Material, Plastic	25.08
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.07E-01
Np-237	1.49E-06
Pu-238	3.64E-02
Pu-239	8.98E-01
Pu-240	2.07E-01
Pu-241	2.38E+00
Pu-242	1.46E-05
Th-229	4.46E-15
Th-230	8.01E-10
Th-232	2.42E-18
U-233	2.41E-11
U-234	2.25E-05
U-235	7.15E-07
U-236	2.45E-08
U-238	6.29E-09

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-RF005.01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	STABILIZED PYROCHEMICAL SALTS			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Salt	Waste Matrix Code	S3141
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
Container Type	Stored	Proj.	Total
Pipe OP	120.5	0.0	120.5
Final Form Total	120.5	0.0	120.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	18.86
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	3.04
Other Inorganic Materials	19.08
Cellulosics	166.66
Rubber	0.00
Plastics	1.71
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	523.81
Packaging Material, Plastic	23.81
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.29E+01
Np-237	7.51E-05
Pu-238	1.31E+00
Pu-239	3.87E+01
Pu-240	8.82E+00
Pu-241	7.80E+01
Pu-242	5.58E-04
Th-229	1.22E-13
Th-230	2.72E-10
Th-232	1.03E-16
U-233	8.04E-10
U-234	1.51E-05
U-235	4.79E-07
U-236	1.05E-06
U-238	3.37E-13

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-RF005.02**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	STABILIZED PYROCHEMICAL SALTS			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Salt	Waste Matrix Code	S3141
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
Container Type	Stored	Proj.	Total
Pipe OP	78.3	0.0	78.3
Final Form Total	78.3	0.0	78.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	13.77
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.23
Other Inorganic Materials	27.16
Cellulosics	166.67
Rubber	0.00
Plastics	0.00
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	523.81
Packaging Material, Plastic	23.81
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.05E+01
Np-237	1.32E-04
Pu-238	1.03E+00
Pu-239	3.57E+01
Pu-240	8.03E+00
Pu-241	6.16E+01
Pu-242	5.05E-04
Th-229	1.98E-13
Th-230	3.44E-10
Th-232	9.41E-17
U-233	1.35E-09
U-234	1.55E-05
U-235	2.56E-07
U-236	9.53E-07
U-238	1.02E-09

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-RF006.01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	MAGNESIUM OXIDE & LECO CRUCIBLES DEBRIS			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
Container Type	Stored	Proj.	Total
Pipe OP	220.9	0.0	220.9
Final Form Total	220.9	0.0	220.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	7.84
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.02
Other Inorganic Materials	31.16
Cellulosics	166.67
Rubber	0.00
Plastics	0.60
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	523.86
Packaging Material, Plastic	23.81
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.60E+00
Np-237	5.73E-05
Pu-238	1.34E+00
Pu-239	3.59E+01
Pu-240	8.22E+00
Pu-241	5.54E+01
Pu-242	1.01E-03
Th-229	2.97E-12
Th-230	1.48E-08
Th-232	4.40E-15
U-233	3.35E-09
U-234	1.16E-04
U-235	1.09E-06
U-236	6.59E-06
U-238	4.93E-10

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-RF008.01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	INORGANIC NONMETAL DEBRIS /CERAMICS			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Drum	0.2	0.0	0.2
Pipe OP	79.8	0.0	79.8
Final Form Total	80.0	0.0	80.0

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	4.95
Aluminum-Base Metal/Alloys	0.12
Other Metal/Alloys	0.15
Other Inorganic Materials	54.26
Cellulosics	166.23
Rubber	0.00
Plastics	0.04
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	522.80
Packaging Material, Plastic	23.68
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.85E+00
Np-237	6.89E-05
Pu-238	1.32E+00
Pu-239	2.89E+01
Pu-240	6.76E+00
Pu-241	1.01E+02
Pu-242	7.59E-04
Th-229	2.07E-13
Th-230	2.93E-10
Th-232	7.92E-17
U-233	1.12E-09
U-234	1.57E-05
U-235	2.32E-07
U-236	8.02E-07
U-238	1.49E-10

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-RF009.01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	REPACKAGED PYROCHEMICAL SALTS			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Salt	Waste Matrix Code	S3141
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
Container Type	Stored	Proj.	Total
Pipe OP	1299.1	0.0	1299.1
Final Form Total	1299.1	0.0	1299.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	10.10
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	3.93
Other Inorganic Materials	16.32
Cellulosics	166.65
Rubber	0.03
Plastics	0.79
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	523.89
Packaging Material, Plastic	23.81
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.80E+01
Np-237	3.08E-04
Pu-238	9.97E-01
Pu-239	3.92E+01
Pu-240	8.77E+00
Pu-241	7.12E+01
Pu-242	7.19E-04
Th-229	8.48E-13
Th-230	3.68E-10
Th-232	1.03E-16
U-233	4.70E-09
U-234	1.59E-05
U-235	2.98E-07
U-236	1.04E-06
U-238	1.27E-09

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-RF010.01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	TRU FILTER DEBRIS (NON-MIXED)			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Filter	Waste Matrix Code	S5410
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Drum	27.3	0.0	27.3
SWB	28.2	0.0	28.2
Final Form Total	55.5	0.0	55.5

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	1.11
Aluminum-Base Metal/Alloys	10.49
Other Metal/Alloys	0.04
Other Inorganic Materials	4.57
Cellulosics	49.62
Rubber	9.26
Plastics	8.31
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	146.50
Packaging Material, Plastic	13.26
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.58E-01
Np-237	2.50E-06
Pu-238	5.89E-02
Pu-239	1.39E+00
Pu-240	3.17E-01
Pu-241	5.13E+00
Pu-242	3.39E-05
Th-229	1.12E-14
Th-230	5.73E-10
Th-232	5.80E-18
U-233	4.90E-11
U-234	1.32E-05
U-235	4.04E-07
U-236	4.69E-08
U-238	1.34E-07

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-RF029.01-A**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	HETEROGENEOUS DEBRIS			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5420
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	48.9	0.0	48.9
Final Form Total	48.9	0.0	48.9

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	232.75
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	4.36
Rubber	0.00
Plastics	1.69
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.73
Packaging Material, Plastic	7.29
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.27E-02
Am-243	1.54E-08
Np-237	1.52E-06
Pu-238	1.26E-02
Pu-239	2.77E-01
Pu-240	6.33E-02
Pu-241	1.34E+00
Pu-242	8.01E-06
Th-229	4.64E-15
Th-230	5.34E-10
Th-232	7.42E-19
U-233	2.50E-11
U-234	1.49E-05
U-235	4.78E-07
U-236	7.51E-09
U-238	4.22E-09

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-RF029.01-B**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	HETEROGENEOUS DEBRIS			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5490
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
SWB	18.8	0.0	18.8
Final Form Total	18.8	0.0	18.8

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	206.45
Aluminum-Base Metal/Alloys	2.02
Other Metal/Alloys	0.00
Other Inorganic Materials	31.08
Cellulosics	10.34
Rubber	1.38
Plastics	9.80
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	154.74
Packaging Material, Plastic	6.27
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.66E-01
Am-243	1.82E-06
Np-237	5.93E-05
Pu-238	2.59E-02
Pu-239	5.70E-01
Pu-240	1.30E-01
Pu-241	2.75E+00
Pu-242	1.65E-05
Th-229	1.88E-13
Th-230	4.30E-09
Th-232	1.53E-18
U-233	1.00E-09
U-234	1.20E-04
U-235	3.85E-06
U-236	1.55E-08
U-238	3.40E-08

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-RF118.01**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	INCINERATOR ASH & PROCESS RESIDUES			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3111
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
Container Type	Stored	Proj.	Total
Pipe OP	1273.4	0.0	1273.4
Final Form Total	1273.4	0.0	1273.4

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	11.07
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.28
Other Inorganic Materials	16.42
Cellulosics	166.67
Rubber	0.00
Plastics	1.23
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	523.94
Packaging Material, Plastic	23.81
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.96E+00
Am-243	4.81E-07
Np-237	3.35E-05
Pu-238	1.92E+00
Pu-239	4.03E+01
Pu-240	9.06E+00
Pu-241	1.34E+02
Pu-242	8.60E-04
Th-229	5.36E-14
Th-230	4.33E-09
Th-232	5.97E-17
U-233	3.95E-10
U-234	1.69E-04
U-235	5.03E-06
U-236	8.06E-07
U-238	4.35E-08

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-RLMPDT.001**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	HETEROGENEOUS DEBRIS			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5490
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
Container Type	Stored	Proj.	Total
Drum	7.3	0.0	7.3
Final Form Total	7.3	0.0	7.3

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	39.94
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	2.43
Other Inorganic Materials	38.92
Cellulosics	27.16
Rubber	57.13
Plastics	54.98
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	138.10
Packaging Material, Plastic	2.73
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.51E-01
Cs-137	4.97E-08
Np-237	8.00E-08
Pu-238	9.72E-02
Pu-239	1.00E+00
Pu-240	2.62E-01
Pu-241	5.08E+00
Pu-242	2.81E-05
Th-229	5.41E-18
Th-230	1.25E-12
Th-232	1.92E-19
U-233	1.73E-13
U-234	2.77E-07
U-235	9.87E-10
U-236	7.76E-09
U-238	4.24E-15

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-RLNPDT.002**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	DEBRIS WASTES - PLASTICS			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5490
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: N/A Source: N/A

Waste Volume Detail (m3)

Final Form Volumes			
ContainerType	Stored	Proj.	Total
Drum	90.7	0.0	90.7
Final Form Total	90.7	0.0	90.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	68.83
Aluminum-Base Metal/Alloys	1.21
Other Metal/Alloys	0.45
Other Inorganic Materials	35.91
Cellulosics	24.29
Rubber	7.09
Plastics	45.43
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	140.38
Packaging Material, Plastic	3.06
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.60E-01
Am-243	1.06E-06
Cs-137	2.58E-06
Np-237	1.64E-07
Pu-238	7.50E-02
Pu-239	7.97E-01
Pu-240	2.14E-01
Pu-241	4.72E+00
Pu-242	2.28E-05
Th-229	4.40E-17
Th-230	3.87E-12
Th-232	6.28E-19
U-233	7.08E-13
U-234	4.29E-07
U-235	1.57E-09
U-236	1.27E-08
U-238	6.87E-15

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-SR2001.001.00**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	NON-HAZ DEBRIS WASTE 221FBL			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Combustible	Waste Matrix Code	S5300
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: N/A Source: N/A

Waste Volume Detail (m3)

Final Form Volumes			
Container Type	Stored	Proj.	Total
Drum	61.7	0.0	61.7
Final Form Total	61.7	0.0	61.7

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	11.78
Aluminum-Base Metal/Alloys	0.00
Other Metal/Alloys	0.29
Other Inorganic Materials	8.29
Cellulosics	7.67
Rubber	0.99
Plastics	85.21
Solidified, Inorganic Matrix	0.00
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.00
Soils	0.00
Packaging Material, Steel	136.73
Packaging Material, Plastic	31.67
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.79E-03
Cs-137	9.70E-07
Np-237	4.01E-09
Pu-238	1.27E-02
Pu-239	1.11E-01
Pu-240	2.20E-02
Pu-241	3.77E-01
Pu-242	2.22E-06
Th-229	1.04E-18
Th-230	6.54E-13
Th-232	6.44E-20
U-233	1.69E-14
U-234	7.25E-08
U-235	2.18E-10
U-236	1.30E-09
U-238	6.69E-16

Waste Stream Description

N/A

Management Comments

N/A

Waste Stream ID: **WP-SR-W027-221F-HETA**

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	N/A	Stream Name	HETEROGENEOUS DEBRIS			Inventory Date	9/30/2002
Local ID	N/A	Handling	CH	Final Waste Form	Heterogeneous Debris	Waste Matrix Code	S5440
						Activity Concentrations Decayed to CY	2002

Final Waste Form Descriptors

Category: Source:

Waste Volume Detail (m3)

Final Form Volumes			
Container Type	Stored	Proj.	Total
Drum	141.1	0.0	141.1
Final Form Total	141.1	0.0	141.1

Waste Material Parameters

Material Parameter	Average Density (kg/m3)
Iron-Base Metal/Alloys	18.20
Aluminum-Base Metal/Alloys	0.41
Other Metal/Alloys	0.12
Other Inorganic Materials	5.07
Cellulosics	13.46
Rubber	1.12
Plastics	64.30
Solidified, Inorganic Matrix	0.11
Cement (Solidified)	0.00
Vitrified	0.00
Solidified, Organic Matrix	0.15
Soils	0.00
Packaging Material, Steel	138.10
Packaging Material, Plastic	34.69
Packaging Material, Lead	0.00
Packaging Material, Steel Plug	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.85E-02
Cs-137	6.40E-07
Np-237	2.05E-07
Pu-238	1.63E-02
Pu-239	1.39E-01
Pu-240	3.89E-02
Pu-241	7.47E-01
Pu-242	1.29E-05
Th-229	7.59E-08
Th-230	1.19E-08
Th-232	2.85E-20
U-233	8.09E-04
U-234	1.32E-03
U-235	4.41E-07
U-236	1.15E-09
U-238	1.07E-04

Waste Stream Description

N/A

Management Comments

N/A

APPENDIX L
WASTE STREAMS CONTAINING
CHEMICAL COMPONENTS

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L.1.0 INTRODUCTION

This appendix provides waste stream information for the complexing agents, oxyanions, and cement that will be emplaced in the Waste Isolation Pilot Plant (WIPP). The total scaled masses of the complexing agents are provided in Table 28 of the main body of the report. Oxyanions and cement that are expected to fill the WIPP repository are provided in Table 29 of the main body of the report. The waste streams identified in this appendix contribute to the total concentrations provided in these two tables in the report.

Specifically, Table L-1 provides the total (kg) masses of acetic acid, sodium acetate, citric acid, sodium citrate, oxalic acid, sodium oxalate, and EDTA for each waste stream scaled to a full repository as reported in Crawford and Leigh (2003) and Crawford (2004). Table L-2 provides the total (kg) masses of the oxyanions (nitrate, sulfate, and phosphate) for each waste stream in which they have been identified scaled to a full repository and reported in Crawford (2005). Finally, Table L-3 provides the scaled cement mass (in kg) and volume (in m³) by waste stream as reported in Howard (2005), and cement density.

Table L-1. Waste Streams That Contain Complexing Agents for Disposal at WIPP^(a)

Waste Stream Identifier	Acetic Acid (kg)	Sodium Acetate (kg)	Citric Acid (kg)	Sodium Citrate (kg)	Oxalic Acid (kg)	Sodium Oxalate (kg)	EDTA (kg)
IN-W218.909	1.3E+02	1.1E+03	8.6E+01	3.8E+02	8.6E+01	0.0E+00	2.2E+01
RF-MT0007	4.9E-02	4.1E-01	3.3E-02	1.5E-01	3.3E-02	0.0E+00	8.5E-03
RF-MT0541	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.6E+00
RF-MT0803	1.4E-01	1.2E+00	9.5E-02	4.2E-01	9.5E-02	0.0E+00	2.4E-02
RF-MT0807	5.1E+00	4.3E+01	3.5E+00	1.6E+01	3.5E+00	0.0E+00	8.9E-01
RP-W013	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.6E+04	0.0E+00
RP-W016	0.0E+00	7.4E+03	0.0E+00	0.0E+00	0.0E+00	6.5E+03	0.0E+00
RP-W754	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.5E+04	0.0E+00
LA-TA-50-17	3.3E-01	0.0E+00	3.7E+01	0.0E+00	4.5E+02	0.0E+00	0.0E+00
LA-TA-50-10	1.5E-03	0.0E+00	1.7E-01	0.0E+00	2.1E+00	0.0E+00	0.0E+00
LA-TA-50-19	1.8E+00	0.0E+00	2.0E+02	0.0E+00	2.5E+03	0.0E+00	0.0E+00
LA-TA-55-38	1.3E+00	0.0E+00	1.4E+02	0.0E+00	1.8E+03	0.0E+00	0.0E+00
LA-TA-55-41	6.7E-02	0.0E+00	7.4E+00	0.0E+00	9.2E+01	0.0E+00	0.0E+00
LA-TA-55-19	5.0E+00	0.0E+00	5.5E+02	0.0E+00	6.8E+03	0.0E+00	0.0E+00
LA-TA-55-20	9.6E-01	0.0E+00	1.1E+02	0.0E+00	1.3E+03	0.0E+00	0.0E+00
LA-TA-55-43	9.9E-02	0.0E+00	1.1E+01	0.0E+00	1.4E+02	0.0E+00	0.0E+00
LA-TA-55-44	3.5E-01	0.0E+00	3.9E+01	0.0E+00	4.8E+02	0.0E+00	0.0E+00
LA-TA-55-62	1.1E-01	0.0E+00	1.2E+01	0.0E+00	1.5E+02	0.0E+00	0.0E+00

(a) Complexing Agents reported in Crawford and Leigh 2003 and Crawford 2004.

Table L-2. Waste Streams Containing Oxyanions for Disposal at WIPP^(a)

Waste Stream Identifier	Nitrate (kg)	Sulfate (kg)	Phosphate (kg)
IN-W164.153	0.0E+00	5.4E+02	0.0E+00
IN-W216.98	5.1E+05	7.0E+03	0.0E+00
IN-W218.909	8.3E+04	2.1E+02	0.0E+00
IN-W220.114	3.8E+04	1.1E+03	0.0E+00
IN-W228.101	1.5E+05	2.0E+03	0.0E+00
IN-W315.601	3.6E+03	0.0E+00	0.0E+00
LA-TA-03-28	5.7E+02	9.0E+01	0.0E+00
LA-TA-03-30	3.7E+01	3.5E+01	0.0E+00
LA-TA-21-13	1.9E+03	2.9E+02	0.0E+00
LA-TA-21-15	1.2E+02	2.2E+01	0.0E+00
LA-TA-21-16	6.3E+03	5.8E+03	0.0E+00
LA-TA-21-43	2.9E+05	4.6E+04	0.0E+00
LA-TA-48-01	2.5E+00	4.9E+00	0.0E+00
LA-TA-50-15	6.0E+03	1.2E+02	0.0E+00
LA-TA-50-17	1.3E+04	2.0E+03	0.0E+00
LA-TA-50-18	7.6E+03	1.2E+03	0.0E+00
LATA-50-19	5.8E+04	5.4E+04	0.0E+00
LA-TA-55-30	1.0E+05	9.6E+04	0.0E+00
LA-TA-55-32	2.4E+02	2.3E+02	0.0E+00
LA-TA-55-33	2.7E+02	5.2E+01	0.0E+00
LA-TA-55-34	2.4E+05	0.0E+00	0.0E+00
LA-TA-55-38	0.0E+00	1.8E+05	0.0E+00
LA-TA-55-41	3.1E+03	2.9E+03	0.0E+00
LA-TA-55-44	1.2E+03	1.1E+03	0.0E+00
LA-TA-55-49	9.0E+02	8.3E+02	0.0E+00
LA-TA-55-53	4.8E+03	4.5E+03	0.0E+00
LL-W019	0.0E+00	1.0E+03	0.0E+00
RF-MT-0001	2.7E+02	3.8E+00	0.0E+00
RF-MT0007	0.0E+00	9.0E-02	0.0E+00
RF-MT0541	8.5E+01	8.5E+01	8.5E+01
RF-MT0800	3.2E+03	8.9E+01	0.0E+00
RF-MT0801	0.0E+00	5.5E+04	0.0E+00
RF-MT0803	1.5E+02	2.1E+00	0.0E+00
RF-MT0807	5.6E+03	1.4E+01	0.0E+00
RP-W013	4.4E+05	1.4E+04	1.8E+04
RP-W016	5.1E+05	1.4E+04	1.3E+04
RP-W754	7.3E+04	7.5E+02	1.1E+04
RP-W755	1.2E+05	6.9E+03	6.3E+04

(a) Oxyanions reported in Crawford (2005).

Table L-3. Waste Streams Containing Cement for Disposal at WIPP

Waste Stream Identifier	Cement Density (kg/m ³) ^(a)	Scaled Volume (m ³) ^(a)	Scaled Cement Mass (kg)
AE-T003	73.1 ^(b)	0.83 ^(d)	6.2E+01
AW-W012.10	296.4	17.62	5.2E+03
AW-W020.13	296.4	18.32	5.4E+03
BCLCH-MT01	62.4	5.24	3.3E+02
BCLRH-MT01	18.5	0.89	1.6E+01
BCLRH-T001	33.7	0.89	3.0E+01
BCLRH-T002	25.3	1.78	4.5E+01
BCLRH-T003	17.6	16.79	3.0E+02
BCLRH-T004	17.8	15.01	2.7E+02
BCLRH-T005	72.0	0.89	1.5E+01
BCLRH-T006	16.8	0.89	1.5E+01
BCLRH-T008	16.9	0.89	1.5E+01
BCLRH-T009	35.1	1.78	6.3E+01
BCLRH-T011	283.0	4.45	1.3E+01
IN-BN-510	73.8/83.6/102.0/73.1 ^(b)	121.16 ^(d)	9.5E+03
IN-GEM-01	116.6	145.92	1.7E+04
IN-W157.144	222.7	714.25 ^(d)	1.5E+05
IN-W163.1007	73.1 ^(b)	11.47 ^(d)	8.4E+02
IN-W164.153	107.8	4.79 ^(d)	5.2E+02
IN-W167.149	109.5	383.30 ^(d)	4.2E+04
IN-W179.158	394.2/325.0 ^(b)	1,995.78 ^(d)	7.5E+05
IN-W181.162	268.5	80.29	2.2E+04
IN-W188.160	193.3	149.11 ^(d)	2.9E+04
IN-W216.98	196.9	12,743.17 ^(d)	2.5E+06
IN-W218.909	197.0	2,082.75	4.1E+05
IN-W219.914	146.6	1.89	2.8E+02
IN-W220.114	59.9	1,892.55 ^(d)	1.1E+05
IN-W221.927	131.5	39.20 ^(d)	5.2E+03
IN-W222.116	73.8	259.02 ^(d)	1.9E+04
IN-W228.101	84.78	8,063.41 ^(d)	6.8E+05
IN-W315.601	308.8	34.41	1.1E+04
IN-W319.584	73.1 ^(b)	4.79 ^(d)	2.7E+02
IN-W321.1023	73.1 ^(b)	11.47 ^(d)	7.2E+02
IN-W322.851	2150.0 ^(c)	1.89	4.1E+03
IN-W322.952	2150.0 ^(c)	1.66	3.6E+03
IN-W337.673	2150.0 ^(c)	0.21	4.5E+02
IN-W337.957	2150.0 ^(c)	1.89	4.1E+03
IN-W348.1012	73.1 ^(b)	22.94 ^(d)	6.0E+02
IN-W358.854	2150.0 ^(c)	0.21	4.5E+02
IN-W358.949	2150.0 ^(c)	6.06	1.3E+04
IN-W375.1096	308.8	199.78 ^(d)	1.2E+04
LA-TA-03-28	693.0 ^(b)	5.84	4.1E+03
LA-TA-03-30	124.1	0.83	1.0E+02
LA-TA-03-31	508.1	0.21	1.1E+02
LA-TA-21-12	514.4	263.95	1.4E+05
LA-TA-21-13	693.0	16.22	1.1E+04
LA-TA-21-15	13.4	3.54	4.8E+01
LA-TA-21-16	508.1	71.67	3.6E+04
LA-TA-21-43	693.0	2,533.70	1.8E+06
LA-TA-48-01	7.5	0.62	4.6E+00
LA-TA-50-10	645.9 ^(b)	1.04	6.7E+02
LA-TA-50-15	4.9	159.12	7.8E+02
LA-TA-50-17	693.0 ^(b)	174.70	1.2E+05

**Table L-3. Waste Streams Containing Cement for Disposal at WIPP -
continued**

Waste Stream Identifier	Cement Density (kg/m ³) ^(a)	Scaled Volume (m ³) ^(a)	Cement Mass (kg)
LA-TA-50-18	693.0 ^(b)	98.41	6.8E+04
LA-TA-50-19	645.9	1,179.79	7.6E+05
LA-TA-55-30	4.1	2,713.31	1.1E+04
LA-TA-55-32	16.4	4.78	7.8E+01
LA-TA-55-33	7.4	6.66	4.9E+01
LA-TA-55-38	90.0	744.30	6.7E+04
LA-TA-55-41	508.1	35.38	1.8E+04
LA-TA-55-44	508.1 ^(b)	230.66	1.2E+05
LA-TA-55-49	102.5	18.30	1.9E+03
LA-TA-55-53	508.1 ^(b)	174.68	8.9E+04
LL-M001	143.3 ^(c)	31.11	4.5E+03
LL-T001	100.0 ^(b)	276.82	2.8E+04
LL-T002	143.3 ^(c)	1,507.73	2.2E+05
OR-W215	396.6 ^(b)	165.51 ^(d)	6.6E+04
RF-MT0001	187.6 ^(b)	8.15	1.5E+03
RF-MT0002	130.6	0.63	8.2E+01
RF-MT0003	1490.0 ^(c)	1.67	2.5E+03
RF-MT0007	130.6	0.83	1.1E+02
RF-MT-0292	1490.0 ^(c)	23.97	3.6E+04
RF-MT-0299	1490.0 ^(c)	31.06	4.6E+04
RF-MT-0372	1490.0 ^(c)	1.46	2.2E+03
RF-MT0377	73.1 ^(b)	74.42	5.4E+03
RF-MT0800	193.8	62.48	1.2E+04
RF-MT0801	1490.0 ^(c)	101.83	1.5E+05
RF-MT0803	140.2	2.29	3.2E+02
RF-MT0806	73.1 ^(b)	0.21	1.5E+01
RF-MT0807	140.2	84.18	1.2E+04
RF-MT0823	1490.0 ^(c)	0.21	3.1E+02
RF-TT0376	1490.0 ^(c)	11.46	1.7E+04
RF-TT0430	1490.0 ^(c)	0.21	3.1E+04
RF-TT0431	1490.0 ^(c)	22.20	3.3E+04
RF-TT0802	1490.0 ^(c)	56.43	8.4E+03
RF-TT0809	32.0 ^(b)	4.07	1.3E+02
RF-TT0823	1490.0 ^(c)	0.21	3.1E+02

- (a) Cement density and scaled waste stream volumes are reported in Howard 2005. Density is reported for the TWBID Rev. 2.1 waste stream. See Howard 2005 for addition waste stream information.
- (b) Cement densities are recorded in TWBIR Rev. 3 (DOE 1996) Appendix B-7, Table 1. Where multiple densities are reported in this table, fractions of multiple waste streams were combined, resulting in the total mass reported. Details for these calculations can be found in Howard 2005, Table 5.
- (c) Cement densities were estimated for these waste streams using the methodology described in Howard 2005.
- (d) Volume used to produce the kg mass result for this waste stream was divided among various waste streams with the densities shown in column 2. The scaled waste volume shown here is that for the entire waste stream. For details see Howard 2005.

REFERENCES

Crawford 2005. *Determination of Waste Streams in TWBIR Revision 3 Containing Complexing Agents in Preparation for Response C-24-5*. ERMS # 537915. Carlsbad, NM: Los Alamos National Laboratories.

Crawford 2004. *Determination of Waste Streams in TWBIR Revision 3 Containing Complexing Agents in Preparation for Response C-24-5 (CRA-2004)*. ERMS #537915, Carlsbad, NM: Los Alamos National Laboratory.

Crawford and Leigh 2003. *Estimate of Complexing Agents in TRU Waste for Disposal in WIPP for the Compliance Recertification Application. Routine Calculation*. ERMS #531107. Carlsbad, NM: Los Alamos National Laboratory.

DOE 1996. *Waste Isolation Pilot Plant Transuranic Waste Baseline Inventory Report, Revision 3*, DOE/CAO-1996-2184. Carlsbad, NM: U.S. Department of Energy.

Howard 2005. *Estimate of Portland Cement in TRU Waste for Disposal in WIPP Based on TWBID Revision 2.1 Data Version D.4.15*, ERMS# 539241. Carlsbad, NM: Los Alamos National Laboratory.

GLOSSARY

40 CFR Part 191, Protection of Environment. EPA: Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes – The EPA’s environmental standards for the storage (Subpart A) and disposal (Subpart B) of spent nuclear fuel, and high-level and TRU radioactive wastes. This is the primary post-closure standard that applies to WIPP. Subpart C of 40 CFR Part 191 establishes the requirements that apply to the performance assessments and compliance assessments that will be used to demonstrate compliance with the requirements of the disposal regulations.

Acceptable Knowledge - Per 40 CFR 194.2, Acceptable knowledge is any information about the process used to generate waste, material inputs to the process, and the time period during which the waste was generated, as well as data resulting from the analysis of waste, conducted prior to or separate from the waste certification process authorized by EPA’s Certification Decision, to show compliance with Condition 3 of the certification decision appendix A of this part

Anticipated Inventory - The sum of the stored and projected inventories, as defined in this document.

As-Generated Waste - The chemical and physical status of waste when it is generated. The term “as-generated” applies to both stored and projected waste as it is generated.

Buried Waste - TRU waste buried in shallow trenches prior to the 1970 Atomic Energy Commission policy that required TRU waste to be retrievably stored. This waste is left in place for the majority of DOE TRU waste generator sites with the exception of INEEL. INEEL has been ordered by the state to remove and dispose of their buried waste.

Cement - A dry powder made from silica, alumina, lime, iron oxide, and magnesia, which hardens when mixed with water, used as an ingredient in concrete and also used to solidify liquid wastes, resulting in a homogeneous monolith.

Complexing Agent - see organic ligand

Contact-Handled (CH) TRU Waste - Packaged TRU wastes with an external surface dose rate of less than 200 mrem per hour.

Defense Waste - (1) Radioactive waste from any activity performed in whole or in part in support of DOE atomic energy defense activities; excludes waste under purview of the Nuclear Regulatory Commission or generated by the commercial nuclear power industry. (2) Nuclear waste derived mostly from the manufacturer of nuclear weapons, weapons-related research programs, the operation of naval reactors, and the decontamination of nuclear weapons production facilities.

Department of Energy Site - A DOE-owned or -controlled tract used for DOE operations. Either a tract owned by DOE or a tract leased or otherwise made available to the federal government under terms that afford to DOE rights of access and control substantially equal to

those that DOE would possess if it were the holder of the fee (or pertinent interest therein) as agent of and on behalf of the government. One or more DOE operations/program activities are carried out within the boundaries of the described tract.

Disposal - Emplacement of waste in a manner that assures isolation from the biosphere for the foreseeable future with no intent of retrieval and that requires deliberate action to regain access to the waste. For example, disposal of waste in a mined geologic repository occurs when all of the shafts to the repository area are backfilled and sealed.

Disposal Inventory Volume - The inventory volume defined for WIPP emplacement to be used for PA calculations is the “disposal inventory.” The LWA defines the total amount of TRU waste allowed in the WIPP as 6,200,000 cubic feet (approximately 175,540 cubic meters) (Public Law 1996). The “Agreement for Consultation and Cooperation” (C&C Agreement) limits the RH-TRU inventory to 250,000 cubic feet (approximately 7,078 cubic meters) (DOE and State of New Mexico 1981). Therefore by difference, the CH-TRU inventory is limited to 5,950,000 cubic feet (approximately 168,460 cubic meters).

Emplaced Inventory - Waste that has been disposed at the WIPP as of the inventory date (September 30, 2002) for the purposes of this 2003 update report.

Final Waste Form - Consists of a series of Waste Matrix Codes that for PA purposes have similar physical and chemical properties.

Final Form Waste - Form of waste in packaging that will be shipped to WIPP.

Foreign Key Value - A field within a table that bears values that are derived from a primary key in a related table.

Land Withdrawal Act - The 1992 legislation passed by the U.S. Congress withdrawing the surface land and underlying minerals at the WIPP site from public use, transforming the property from the Bureau of Land Management to the DOE, and enabling the start of the WIPP Test Phase. This act was amended in 1996.

Mixed TRU Waste - TRU waste that contains both radioactive and hazardous components as defined by the Atomic Energy Act and the RCRA as codified in 40 CFR Parts 261.3 (EPA 1980). The test phase was removed by Public Law 104-201 – 1996 Land Withdrawal Act Amendments.

Newly Generated Wastes - See Projected Inventory.

Non-WIPP Waste Stream - A waste stream that is a future potential WIPP waste stream or a waste stream that is not being shipped to WIPP at the time of the update.

Organic Ligands - Organic molecules that are capable of binding to metals including but not limited to acetate, citrate, oxalate and ethylenediaminetetraacetic acid (EDTA).

Oxyanion - Negatively charged ionic species containing oxygen such as sulfate, nitrate, and phosphate.

Payload Container Volume - For the purpose of this document, the payload container volume is the volume that the final form package occupies at the time it is emplaced in the repository. Examples of payload container volume used in this context are ten drum over-packs with a volume of 4.87 m³ and RH canister over-packs of 3 55-gallon drums with a volume of 0.89 m³.

Performance Assessment (PA) - Performance assessment means an analysis that: (1) Identifies the processes and events that might affect the disposal system; (2) examines the effects of these processes and events on the performance of the disposal system; and (3) estimates the cumulative releases of radionuclides, considering the associated uncertainties, caused by all significant processes and events. These estimates shall be incorporated into an overall probability distribution of cumulative release to the extent practicable

Performance Assessment Baseline Calculations (PABC) - The Performance Assessment Baseline Calculation (PABC) is a PA run during the recertification that incorporates EPA requested changes. The results of this PA become the WIPP regulatory performance baseline that demonstrates compliance with EPA's radioactive waste containment requirements.

Primary Key - A field or combination of fields within a database table whose values uniquely identify a record within that table.

Projected Inventory - That part of the inventory that has not been generated but is estimated to be generated at some time in the future by the TRU waste generator/storage sites. The estimated timeframe may vary, but is usually between 20 and 30 years. "Newly generated waste" also is sometimes used as a synonym for the projected inventory.

Pyrochemical Salt - Salts used as a medium for high temperature oxidation/reduction reactions of metals and actinides. Examples of pyrochemical reactions include; Molten Salts Extraction (MSE), Electrorefining (ER), and Direct Oxide Reduction (DOR).

Radioactive - Term used to refer to an unstable atomic nucleus that decays with the spontaneous emission of ionizing radiation (also see "radionuclide").

Radionuclide - (1) A species of atom having an unstable nucleus, that is subject to spontaneous decay or disintegration and usually accompanied by the emission of ionizing radiation. (2) Any nuclide that emits radiation. A nuclide is a species of atom characterized by the constitution of its nucleus and hence by the number of protons, the number of neutron, and the energy content.

Remote-Handled (RH) TRU Waste - Packaged TRU wastes with an external surface dose rate equal to or exceeding 200 mrem per hour.

Scaling - The process for adjusting the inventory so that the stored projected and the emplaced inventory in WIPP applies to a full repository for PA modeling purposes.

Shield Plug - A plug consisting of concrete (cement), steel, and plastic used to emplace RH waste at the WIPP repository.

Stored Inventory - That part of the TRU waste inventory currently in retrievable storage as of the time of the last data call for inventory information. Retrievably stored waste includes waste stored in buildings or in berms with earthen cover since 1970 and does not include any waste that was buried prior to 1970. Stored inventory can be in the “as-generated” form or “final waste form.” Retrievably stored waste also includes waste that is stored in underground storage tanks, ponds, and as decontamination and decommissioning material identified for disposal that requires retrieval at the sites.

Supersack - Woven plastic bags used to contain MgO used in backfill in the WIPP repository.

Table Joins - A defined relationship between tables in a relational database. TWBID, Revision 2.1 is a relational database.

Transuranic - Pertaining to elements that have atomic numbers greater than 92, including neptunium, plutonium, americium, and curium; all are radioactive, are not naturally occurring, and are members of the actinide group.

Transuranic (TRU) Waste - (1) Waste containing alpha-emitting radionuclide's with an atomic number greater than 92 and half-lives greater than 20 years, at concentrations of TRU isotopes greater than 100 nanocuries per gram of waste. This core definition appears in modified form in various relevant documents as follows: (a) DOE M 435.1-1 defines transuranic waste: Transuranic waste is radioactive waste containing more than 100 nanocuries (3700 becquerels) of alpha-emitting transuranic isotopes per gram of waste, with half lives greater than 20 years, except for; (1) High-level radioactive waste; (2) waste that the Secretary of Energy has determined, with the concurrence of the Administration of the Environmental Protection Agency, does not need the degree of isolation required by 40 CFR Part 191 disposal regulations; (3) waste that the Nuclear Regulatory Commission has approved for disposal on a case-by-case basis in accordance with 10 CFR Part 61.

Waste Acceptance Criteria (WAC) - The criteria used to determine if waste packages are acceptable. For the purposes of this document, WAC refers to WIPP WAC.

Waste Form - The physical form of the waste such as sludges, combustibles, metals, etc.

WIPP Waste Stream - A waste stream that is being shipped to WIPP or is being prepared for WIPP shipment.

TRU Waste Sites - The 5 major DOE facilities and several smaller sites throughout the U.S. that generate and store TRU waste.

Waste Isolation Pilot Plant (WIPP) - (1) The project authorized under Section 213 of the DOE National Security and Military Applications of Nuclear Energy Authorization Act of 1980 (Public Law 1979) to demonstrate the safe and environmentally sound disposal of radioactive waste materials generated by atomic energy defense activities. (2) A research and development

facility located near Carlsbad, New Mexico to be used to demonstrate a practical, long-term solution to a complex problem: the safe disposal in deep geologic repositories of TRU waste resulting from DOE activities.

Waste Material Parameter (WMP) - A waste material that occurs in TRU waste that is an input parameter into one (or more) current PA model(s) or is required to adequately describe the waste form.

Waste Matrix Code (WMC) - The WMCs were developed by DOE in response to the Federal Facilities Compliance Act (FFCA) (Public Law 1992b) as a methodology to aid in categorizing mixed waste streams in the DOE system into a series of five-digit alphanumeric codes (e.g., S3100; Inorganic Process Residues) that represent different physical/chemical matrices (DOE, 1995a). The waste matrix codes are detailed in the DOE Waste Treatability Group Guidance (DOE 1995c).

Waste Stream - Waste material generated from a single process or from an activity that is similar in material, physical form, and hazardous constituents.

Waste Stream Profile - A description of a CH-TRU or RH-TRU waste stream destined for shipment to and disposal in WIPP, if authorized under permits and certifications by appropriate regulatory agencies for disposal in the WIPP repository. The waste profile is presented in tabular format and is intended to provide a summary of the important information about a particular waste stream.

WIPP Waste Profile - Represents a summary of TRU waste at all DOE TRU waste generator/storage sites that have an identical Final Waste Form.