

ANNUAL TRANSURANIC WASTE INVENTORY REPORT – 2011
(Data Cutoff Date 12/31/2010)

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ACRONYMS AND ABBREVIATIONS

For a list of Site Identifiers, refer to Figure 1-1.

AK	Acceptable Knowledge
ANL	Argonne National Laboratory
ANL-E	Argonne National Laboratory – East (now known as Argonne National Laboratory)
AMWTP	Advanced Mixed Waste Treatment Project
Army	U.S. Army Materiel Command
ATWIR	Annual Transuranic Waste Inventory Report
BAPL	Bettis Atomic Power Laboratory
BCL	Battelle Columbus Laboratories
CBFO	Carlsbad Field Office
CFR	Code of Federal Regulations
CH	Contact-handled
Ci	Curie
Ci/m ³	Curies per cubic meter
CID	Comprehensive Inventory Database
CIT	CID Import Template
CPR	Cellulose, plastic, and rubber
CY	Calendar year
D&D	Decontamination and decommissioning
DOE	U.S. Department of Energy
DT	Data template
EDTA	Ethylenediaminetetraacetic acid
EPA	U.S. Environmental Protection Agency
GEVNC	General Electric Vallecitos Nuclear Center
Hanford-RL	Hanford (Richland Operations) Site
Hanford-RP	Hanford (Office of River Protection) Site
INL	Idaho National Laboratory
KAPL-S	Knolls Atomic Power Laboratory-Schenectady
KAPL-NFS	Knolls Atomic Power Laboratory – Nuclear Fuels Services
kg	Kilogram or kilograms
kg/m ³	Kilograms per cubic meter
LANL	Los Alamos National Laboratory

LANL-CO	Los Alamos National Laboratory – Carlsbad Operations
LBNL	Lawrence Berkeley National Laboratory
LLNL	Lawrence Livermore National Laboratory
LQS	Large quantity site
LWA	Land Withdrawal Act
m^3	Cubic meters
MFC	Material and Fuels Complex
MFP	Mixed fission product
MgO	Magnesium oxide
mrem	Millirem
NEPA	National Environmental Policy Act
NNSS	Nevada National Security Site (formerly NTS)
NQA	Nuclear quality assurance
NTP	National TRU Program
NRD	Nuclear Radiation Development Site
OSRP	Off-Site Source Recovery Program
ORIGEN	Oak Ridge Isotope Generation and Depletion Code
ORNL	Oak Ridge National Laboratory
PA	Performance assessment
PABC	Performance assessment baseline calculation
PAIR	Performance Assessment Inventory Report
PCR	Planned change request
PM	Packaging material
PVC	Polyvinyl chloride
QA	Quality assurance
QAPD	Quality Assurance Program Document
RCRA	Resource Conservation and Recovery Act
RFETS	Rocky Flats Environmental Technology Site
RH	Remote-handled
RSICC	Radiation Safety Information Computational Center
SCALE	Standardized Computer Analysis for Licensing Evaluation
SNL	Sandia National Laboratories
SNL-CPG	Sandia National Laboratories – Carlsbad Programs Group
SQS	Small quantity site
SPRU	Separations Process Research Unit
SRS	Savannah River Site
TDOP	Ten-drum overpack
TRU	Transuranic

TWBIR	Transuranic Waste Baseline Inventory Report
U.S.	United States
WAC	Waste Acceptance Criteria
WAP	Waste Analysis Plan
WDS	Waste Data System
WIPP	Waste Isolation Pilot Plant
WMP	Waste material parameter
WPR	Waste profile report
WTWBIR	WIPP Transuranic Waste Baseline Inventory Report
WV	West Valley (Demonstration Project)

EXECUTIVE SUMMARY

The U.S. Department of Energy's (DOE's) Waste Isolation Pilot Plant (WIPP) began accepting defense-related transuranic (TRU) waste on March 26, 1999, becoming the nation's first deep geologic repository for the permanent disposal of defense-generated TRU waste. TRU waste generation has occurred at both large quantity and small quantity sites (LQSs and SQSs) across the country. Many of these sites have emplaced their waste at WIPP, found other disposition pathways for the waste, or transferred the waste to other sites for further disposition. As of December 31, 2010 (the cutoff date for inventory data for this report), there have been 9,207 shipments (8,761 contact-handled [CH] and 446 remote-handled [RH]) of TRU waste to WIPP for emplacement since WIPP's opening (DOE 2011).

This *Annual Transuranic Waste Inventory Report – 2011* (ATWIR-2011) (hereafter referred to as “this report” or “ATWIR-2011”) reflects the changes that have occurred and provides an update to the defense-related TRU waste inventory data since the last published report, the *Annual Transuranic Waste Inventory Report – 2010* (ATWIR-2010) (DOE 2010a). This report focuses on the TRU waste remaining at the TRU waste sites and presents emplaced waste in Appendix C where significant changes are discussed. The ATWIR-2011 was developed from an annual inventory data update campaign involving the TRU waste sites. The inventory cutoff date was December 31, 2010, and data received were entered into the Comprehensive Inventory Database (CID).

The CID is a DOE Carlsbad Field Office (CBFO) database qualified in accordance with the Los Alamos National Laboratory – Carlsbad Operations (LANL-CO) Quality Assurance (QA) Program, which is driven by the CBFO *Quality Assurance Program Document* (QAPD) (DOE 2010b). The CID includes estimates for: 1) TRU waste volumes; 2) radionuclides (decayed to common years 2010 and 2033 [WIPP proposed closure date]); 3) waste material parameters (WMPs); 4) packaging materials (PMs); 5) complexing agents; 6) oxyanions; and 7) cements.

The purpose of this report is to provide current TRU waste inventory information for the DOE complex, WIPP stakeholders, and regulators and to provide the CBFO with updated strategic inventory information. The TRU waste inventory also supports CBFO input into National Environmental Policy Act (NEPA) analyses, the development of new containers or shipping packages, and planned change requests (PCRs) for containers and other design changes that may take place in the repository.

TRU waste must meet the WIPP requirements (e.g., WIPP Waste Acceptance Criteria [WAC] and the WIPP Hazardous Waste Facility Permit Waste Analysis Plan [WAP]) before it can be disposed of at WIPP, regardless of its designation in this inventory report.

The following tables are provided to summarize the TRU waste anticipated (stored plus projected) inventory volume, radionuclide activity, WMPs, and PMs mass estimates as of December 31, 2010:

- Table ES-1 Anticipated CH/RH Waste Inventory Volumes by Site
- Table ES-2 Anticipated CH/RH Waste Radionuclide Activity by Site Decayed through 2010
- Table ES-3 Anticipated CH/RH Waste and Packaging Material Inventory

Table ES-1. Anticipated CH/RH Waste Inventory Volumes by Site

TRU Waste Site	CH Volumes (m ³)	RH Volumes (m ³)	Total Volumes (m ³)
Hanford (Richland) Site	1.94E+04	2.29E+03	2.17E+04
Idaho National Laboratory	3.49E+04	3.87E+02	3.53E+04
Los Alamos National Laboratory	1.02E+04	7.92E+01	1.02E+04
Oak Ridge National Laboratory	9.54E+02	4.66E+02	1.42E+03
Savannah River Site	9.66E+03	4.93E+01	9.70E+03
Small Quantity Sites	1.54E+03	1.87E+02	1.73E+03
Grand Total	7.66E+04	3.46E+03	8.00E+04

Data Source: CID Data Version D.10.01, LANL-CO 2011a. Note: This table contains data for WIPP-bound waste streams reported by site only; it does not include data for emplaced or potential waste streams.

Table ES-2. Anticipated CH/RH Waste Radionuclide Activity by Site Decayed through 2010

TRU Waste Site	CH Activity (Ci)	RH Activity (Ci)	Total Activity (Ci)
Hanford (Richland) Site	8.00E+05	5.35E+05	1.34E+06
Idaho National Laboratory	1.23E+05	1.15E+05	2.38E+05
Los Alamos National Laboratory	4.53E+05	3.02E+03	4.56E+05
Oak Ridge National Laboratory	3.18E+04	6.63E+03	3.85E+04
Savannah River Site	2.32E+05	8.70E+03	2.41E+05
Small Quantity Sites	1.05E+05	2.65E+05	3.70E+05
Grand Total	1.75E+06	9.33E+05	2.68E+06

Data Source: CID Data Version D.10.01, LANL-CO 2011a. Note: This table contains data for WIPP-bound waste streams reported by site only; it does not include data for emplaced or potential waste streams.

Table ES-3. Anticipated CH/RH Waste and Packaging Material Inventory

Waste Material	CH Mass (kg)	RH Mass (kg)	Total Mass (kg)
Iron-based Metal/Alloys	3.62E+06	8.99E+05	4.52E+06
Aluminum-based Metal/Alloys	2.39E+05	3.09E+04	2.69E+05
Other Metal/Alloys	4.10E+05	3.74E+05	7.84E+05
Other Inorganic Materials	2.30E+06	8.70E+05	3.16E+06
Cellulosics	9.79E+05	8.73E+04	1.07E+06
Rubber	5.55E+05	6.97E+04	6.25E+05
Plastics	1.89E+06	1.98E+05	2.08E+06
Cement	3.20E+06	6.50E+05	3.85E+06
Solidified Inorganic Material	3.84E+06	7.88E+04	3.92E+06
Solidified Organic Material	1.96E+06	3.24E+03	1.96E+06
Soils	1.09E+06	1.37E+05	1.23E+06
Vitrified	--	--	--
Packaging Material, Cellulosics	2.02E+04	--	2.02E+04
Packaging Material, Plastic	1.03E+06	1.42E+05	1.18E+06
Packaging Material, Rubber	3.03E+04	1.93E+03	3.22E+04
Packaging Material, Steel	1.31E+07	3.21E+06	1.63E+07
Packaging Material, Lead	--	1.20E+04	1.20E+04
Grand Total	3.42E+07	6.76E+06	4.10E+07

Data Source: CID Data Version D.10.01, LANL-CO 2011a. Note: This table contains data for WIPP-bound waste streams reported by site only; it does not include data for emplaced or potential waste streams.

1.0 INTRODUCTION

This *Annual Transuranic Waste Inventory Report – 2011* (ATWIR-2011) (hereafter referred to as “this report” or “ATWIR-2011”) provides the National TRU Program (NTP) with a strategic inventory to be used for initiatives such as the development of transuranic (TRU) waste site-specific project plans or National Environmental Policy Act (NEPA) analyses. Also, if requested by the U.S. Department of Energy (DOE) Carlsbad Field Office (CBFO), this report will provide the basis for the Performance Assessment Inventory Report (PAIR) for Performance Assessment (PA) modeling purposes. This report includes the background and history of the TRU waste inventory, the information sources used to collect and prepare the inventory, descriptions of the ways inventory information is used, methodology used to develop the inventory, TRU waste inventory estimates, and comparisons to the *Annual Transuranic Waste Inventory Report – 2010* (ATWIR-2010)(DOE 2010a).

TRU waste must meet the Waste Isolation Pilot Plant (WIPP) requirements (e.g., WIPP Waste Acceptance Criteria [WAC] and the WIPP Hazardous Waste Facility Permit Waste Analysis Plan [WAP]) before it can be disposed of at WIPP.

Section 1.1, Background and History, explains how the TRU waste inventory was collected and used for the initial certification of WIPP. Currently, the inventory is collected on an annual basis to monitor how it is changing. Section 1.2 includes a description of all information sources used to update the Comprehensive Inventory Database (CID). Examples of sources include acceptable knowledge (AK) reports, TRU waste site information, and the WIPP’s Waste Data System (WDS). Section 1.3 includes uses of TRU waste inventory, such as supporting PA modeling calculations needed for WIPP recertification, NEPA analyses, and strategic inventory information for future waste management initiatives.

Section 2.0 describes the methodologies undertaken in order to prepare this report. These include:

- Collection, screening, and analyses of raw inventory data from the TRU waste sites
- Analysis of emplaced inventory data reported from the WDS
- Verification and validation of data entered into the CID
- Decay and buildup correction of radionuclide data using the Oak Ridge Isotope Generation and Depletion (ORIGEN-S) module of *SCALE: A Modular Code System for Performing Standardized Computer Analyses for Licensing Evaluation*, Version 6 (ORNL 2009)
- Calculations performed within the CID

Section 3.0 discusses the TRU waste inventory estimates and consists of summaries of the inventory information collected from the TRU waste sites. Section 3.1 presents rolled-up TRU waste volume estimates by site of contact-handled (CH) and remote-handled (RH)

TRU waste reported as stored, projected, and anticipated (stored plus projected). Section 3.2 presents the inventory of TRU waste material parameters (WMPs), packaging materials (PMs), and chemical and cement components. Section 3.3 presents the TRU waste radionuclide activity inventory from each site, rolled up and decayed through the end of calendar year (CY) 2010.

Section 4.0 discusses the potential TRU waste streams that have been excluded in accordance with DOE/CBFO guidance criteria. These criteria are documented in a “screening memorandum” that determines whether a waste stream is WIPP-bound or potential (see Appendix E). Also found in section 4.0 is a table showing waste streams that have been moved from potential to WIPP-bound status during this collection period.

This report includes comprehensive data from each TRU waste site and WDS summation data for emplaced waste used for comparison purposes (presented in Appendix C). More specific information on the emplaced waste can be obtained from the WDS, the official database that contains container-level data on the emplaced TRU waste. All site data are validated by the DOE TRU waste site representative to ensure the data best represent the site’s inventory at the time of the data cutoff.

1.1 Background and History

The WIPP Land Withdrawal Act (LWA)¹ (United States [U.S.] Congress 1992 and 1996) required the U.S. Environmental Protection Agency (EPA) to issue final disposal regulations to certify WIPP. On May 18, 1998, the EPA certified that the WIPP complied with the final disposal regulations and criteria of Title 40 Code of Federal Regulations (CFR) Parts 191 and 194 (EPA 1993; EPA 1996). DOE opened the WIPP on March 26, 1999, with the initial receipt of TRU waste, thus becoming the nation’s first deep geologic repository for the permanent disposal of defense-generated TRU waste. Regulations require that WIPP be recertified every five years from the time of the first receipt of waste; WIPP has been recertified twice. DOE submitted the first recertification application, CRA-2004 (DOE 2004), to the EPA in March 2004, and the EPA recertified WIPP in March 2006. DOE submitted the second recertification application, CRA-2009 (DOE 2009), to EPA in March 2009, and WIPP was recertified in November 2010.

Through WIPP disposal operations, the amount of waste remaining at the TRU waste sites has been periodically updated. Besides keeping track of the remaining TRU waste at the sites, the annually updated inventory information has been used for the development of new shipping and emplacement containers, to provide inventory information for the centralization project for the small quantity site (SQS) waste, and for the two recertifications.

¹See Pub. L. No. 102-579, § 8, 106 Stat. 4777, 4786-4788 (U.S. Congress 1992), as amended, Waste Isolation Pilot Plant Land Withdrawal Act Amendments, Pub. L. No. 104-201, § 3187, 110 Stat. 2422, 2852 (U.S. Congress 1996).

Table 1-1 lists the historical TRU waste inventory documents and their intended purpose.

Table 1-1. Historical Inventory Documents

Date	Title	Purpose
June 1994	WIPP Transuranic Waste Baseline Inventory Report (WTWBIR)	First attempt made by DOE complex to report all of its TRU waste at the waste-stream level.
December 1995	Transuranic Waste Baseline Inventory Report (TWBIR), Revision 2	Revisions 2 and 3 provided the inventory information to the Sandia National Laboratories-Carlsbad Program Group for the initial certification of WIPP.
June 1996	TWBIR, Revision 3	
March 2004	Appendix DATA, Attachment F of <i>Title 40 CFR 191, Subparts B and C, Compliance Recertification 2004</i>	Provided updated inventory information for the first recertification of WIPP in 2004.
March 2006	Transuranic Waste Baseline Inventory Report 2004	This was a revision of Appendix DATA, Attachment F. Provided updated inventory to support the Performance Assessment Baseline Calculation (PABC-2006).
August 2008	Annual Transuranic Waste Inventory Report (ATWIR)—2007	The first annual inventory report that contained both scaled (calculations to represent a full repository) and unscaled data.
December 2008	ATWIR—2008	Annual inventory report that reported only unscaled data.
April 2009	Performance Assessment Inventory Report—2008	Provided data from ATWIR-2008 in the required format for performance assessment calculations.
December 2009	ATWIR—2009	Provided updated annual inventory information.
December 2010	ATWIR—2010	Provided updated annual inventory information.

Depending upon programmatic and site waste management decisions and characterization data, TRU waste inventory information is reevaluated frequently; therefore, the TRU waste inventory is updated annually. This report, ATWIR-2011, is an update based on the TRU waste complex's known inventory as of December 31, 2010.

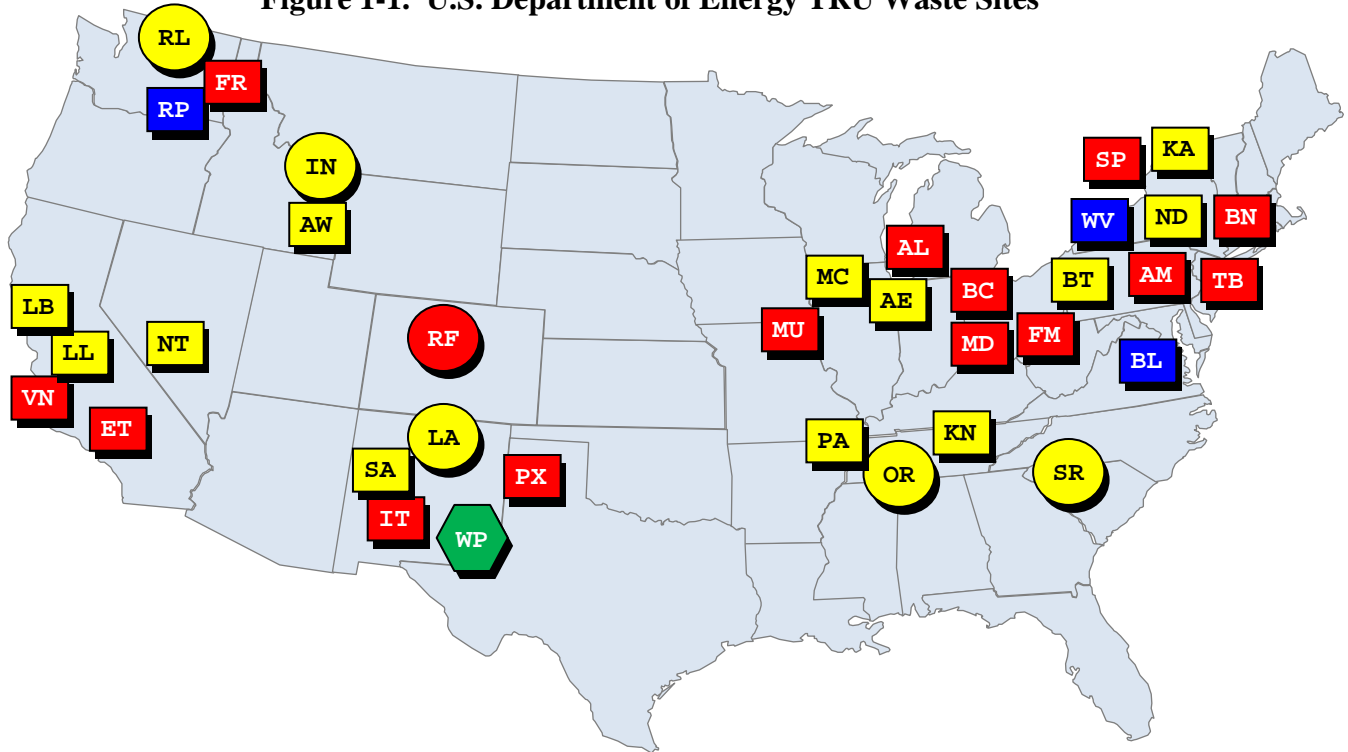
Since the ATWIR-2010 (DOE 2010a) was published, a number of changes and improvements have occurred that affected the volume, waste material, and radiological characteristics of TRU waste streams. Also, 11 waste streams have been moved from potential to WIPP-bound status to be in alignment with the DOE/CBFO screening memorandum (Patterson 2010) provided in Appendix E. The list of these waste streams (presented in Table 4-3) also includes the reasons for the moves. The other primary differences observed and addressed in this report are attributed to the following:

- Waste emplacement since the ATWIR-2010.
- General Electric Vallecitos Nuclear Center (GEVNC) completed shipping all of its legacy TRU waste in June 2010.
- Separations Process Research Unit's (SPRU's) TRU waste was found to be low-level waste through representative sampling and has been removed from this report.
- Lawrence Livermore National Laboratory (LLNL) removed all of its legacy TRU waste from Site 300.
- Seven new waste streams were added to the inventory. This includes both potential and WIPP-bound waste streams (see Table D-1 in Appendix D).
- Intersite shipments continue from Hanford Richland Operations Office (Hanford RL) and various SQSs to the Idaho National Laboratory (INL).
- Hanford Office of River Protection (Hanford RP) removed the RH tank waste from inventory.
- Emplaced waste is only reported in Appendix C for comparison purposes, detailed emplacement data can be obtained from the WDS.

TRU waste generation has occurred at both SQSs and large quantity sites (LQSs) across the country, as seen in Figure 1-1. The figure represents data as of December 31, 2010. Circles identify LQSs, boxes identify SQSs, yellow indicates active sites, red indicates sites that have been de-inventoried of their legacy TRU waste, and blue indicates sites containing only potential TRU waste.

This report was prepared by the Los Alamos National Laboratory – Carlsbad Operations (LANL-CO) TRU Waste Inventory Team. The work for this report was performed under the CBFO *Quality Assurance Program Document* (QAPD) (DOE 2010b). The processes used by the LANL-CO TRU Waste Inventory Team to collect, maintain, and report inventory information are graded and implemented to Nuclear Quality Assurance-1 (NQA-1) standards under the LANL-CO Quality Assurance (QA) Program. This includes the software QA procedures used to qualify the CID and other software, including ORIGEN-S, used to analyze TRU waste inventory information. LANL-CO software QA is documented in LCO-QPD-02, *LANL-CO Software Quality Assurance Plan* (LANL-CO 2011b), and LCO-QP19-1, *Software Quality Assurance* (LANL-CO 2011c).

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



Yellow – Active TRU Waste Sites **Red – De-inventoried Legacy TRU Waste Sites** **Blue – Potential TRU Waste Sites**

AE	Argonne National Laboratory
AL	Ames Laboratory — de-inventoried
AM	ARCO Medical Products — de-inventoried - shipped to the Offsite Source Recovery Program (OSRP)
AW	Material and Fuels Complex
BC	Battelle Columbus Laboratories— de-inventoried shipped to RL and SR
BL	Babcock and Wilcox Nuclear Energy Services (Potential) — de-inventoried of legacy TRU waste; has continuing mission
BN	Brookhaven National Laboratory— de-inventoried shipped to OSRP
BT	Bettis Atomic Power Laboratory
ET	Energy Technology Engineering Center— de-inventoried - shipped to RL
FM	Fernald Environmental Management Project— de-inventoried - shipped to OSRP
FR	Framatome— de-inventoried - shipped to Hanford Richland Operations
IN	Idaho National Laboratory
IT	Inhalation Toxicology Research Institute (Lovelace Respiratory Research Institute) — de-inventoried - shipped to SA
KA	Knolls Atomic Power Laboratory
KN	Knolls Atomic Power Laboratory-Nuclear Fuels Services — de-inventoried of legacy TRU waste; has continuing mission
LA	Los Alamos National Laboratory
LB	Lawrence Berkeley National Laboratory — de-inventoried of legacy TRU waste has continuing mission
LL	Lawrence Livermore National Laboratory — de-inventoried of legacy TRU has continuing mission
MC	U.S. Army Materiel Command (Army) — de-inventoried; has continuing mission
MD	Mound Plant – de-inventoried - shipped to SRS
MU	University of Missouri Research Reactor — de-inventoried - shipped to AE, then to WIPP
ND	Nuclear Radiation Development Site, Inc.
NT	Nevada Nuclear Security Site – de-inventoried of legacy waste; has ongoing project
OR	Oak Ridge National Laboratory
PA	Paducah Gaseous Diffusion Plant
PX	Pantex Plant—shipped to LA
RF	Rocky Flats Environmental Technology Site — de-inventoried - shipped to WIPP
RL	Hanford Site (Richland Operations Office)
RP	Hanford Site (Office of River Protection) (Potential)
SA	Sandia National Laboratories
SP	Separations Process Research Unit (found to be low level waste)
SR	Savannah River Site
TB	Teledyne Brown Engineering — de-inventoried - shipped to RFETS, then to WIPP
VN	General Electric Vallecitos Nuclear Center — de-inventoried - RH shipped to WIPP, CH shipped to Idaho
WV	West Valley Demonstration Project (Potential)
WP	Waste Isolation Pilot Plant

1.2 Sources of Transuranic Waste Inventory Information

This report includes information taken from: 1) the ATWIR-2010 (DOE 2010a), 2) updated information provided by the TRU waste sites, 3) AK reports, and 4) the WIPP WDS (DOE 2011). For each subsequent year, the sites are asked to update their data from the previous year. As an example, the sites used the ATWIR-2010 (data cut-off 12/31/2009) information to update the data used for this report. TRU waste sites may use information obtained from site-specific AK reports that provide the most current information on waste streams being characterized and shipped to WIPP, such as chemical lists and radionuclides. All TRU waste inventory information for emplaced waste is obtained from the WDS administrator.

1.3 Uses of Transuranic Waste Inventory Information

Waste stream volumes are accounted for in both “current form” (current packaging) and “final form” (planned WIPP-compliant packaging) configurations. These configurations are useful in various waste management scenarios. DOE/CBFO management has used this strategic inventory information for decisions related to waste retrieval, treatment, repackaging, characterization, shipment, and disposal for both stored and projected waste initiatives in past years. Also, site-specific project plans and schedules, which detail approaches for moving TRU waste to WIPP, have been developed and are updated based on current TRU waste inventory information. In addition, Sandia National Laboratories-Carlsbad Program Group (SNL-CPG) uses the TRU waste inventory information as input to WIPP PA modeling calculations. When these data are needed, DOE/CBFO will request a PAIR be prepared that provides the latest inventory data available that are scaled using a defined methodology in order to model a full repository.

Besides radiological information, DOE has many reasons for obtaining and tracking non-radiological information about the TRU waste destined for WIPP. For example, DOE tracks the waste materials that go into the WIPP repository, such as cellulose, plastic, and rubber (CPR), because they may affect gas generation and emplacement of magnesium oxide (MgO) in the repository.

TRU waste inventory information has also been used to:

- Provide data for DOE/CBFO analyses that support compliance with the NEPA.
- Support the development of new containers or shipping packages and planned change requests (PCRs) for other design changes in the repository.
- Provide strategic inventory for future waste management initiatives.
- Provide data for project plans and schedules for de-inventorying TRU waste from SQSs.

- Provide data for actinide chemistry studies that involve the interactions of the emplaced TRU waste and other expected chemical components in the repository environment and the effects on actinide speciation and solubility.

Additional TRU waste inventory estimates are provided in the appendices of this report. The TRU waste inventory, as collected from the TRU waste sites, is presented by waste stream in Appendices A and B. Appendix A presents individual waste profile reports (WPRs) for all TRU waste streams that are WIPP-bound. Appendix B presents individual WPRs for all TRU waste streams that are currently designated as potential waste streams, as discussed in section 4.0 of this report. Appendix C presents comparisons of the data between the ATWIR-2010 report and the data in this report for volume, WMPs and PMs, radionuclides, and chemical components. Appendix D presents the crosswalk of waste streams between the ATWIR-2010 report and this report. Appendix E is the CBFO screening memorandum that was used to determine if a waste stream was designated as WIPP-bound or potential (Patterson 2010).

2.0 METHODOLOGY

This report was generated using documented processes and methods that are qualified under the LANL-CO QA Program (see section 1.1). The Inventory Team completed the following steps in order to generate this report:

1. Collected TRU waste stream information from the TRU waste sites and then entered and verified the updated information in the CID (see Figure 2.1).
2. Utilized the CID to generate required data tables.
3. Performed analyses, where appropriate, to supplement CID data for publication within this report.

The following sections describe the three basic process steps leading to the issuance of this report. Section 2.1 discusses collection, compilation, verification, and validation of TRU waste inventory information. Section 2.2 describes the calculations used in the CID reports, including the decay correction of radionuclides. Section 2.3 describes the transformation activities performed on the WDS emplaced waste data prior to input in the CID.

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

The process used to collect information from the TRU waste sites is captured in LANL-CO Procedure INV-SP-01, *Data Collection, Data Management and Control for the Comprehensive Inventory* (LANL-CO 2010a). On January 3, 2011, in accordance with this procedure, a letter (Patterson 2011) was sent to TRU waste sites requesting the annual TRU waste inventory update. The Inventory Team then sent each site a notification of the update that contained a Microsoft[®] Excel data template (DT) workbook with last year's

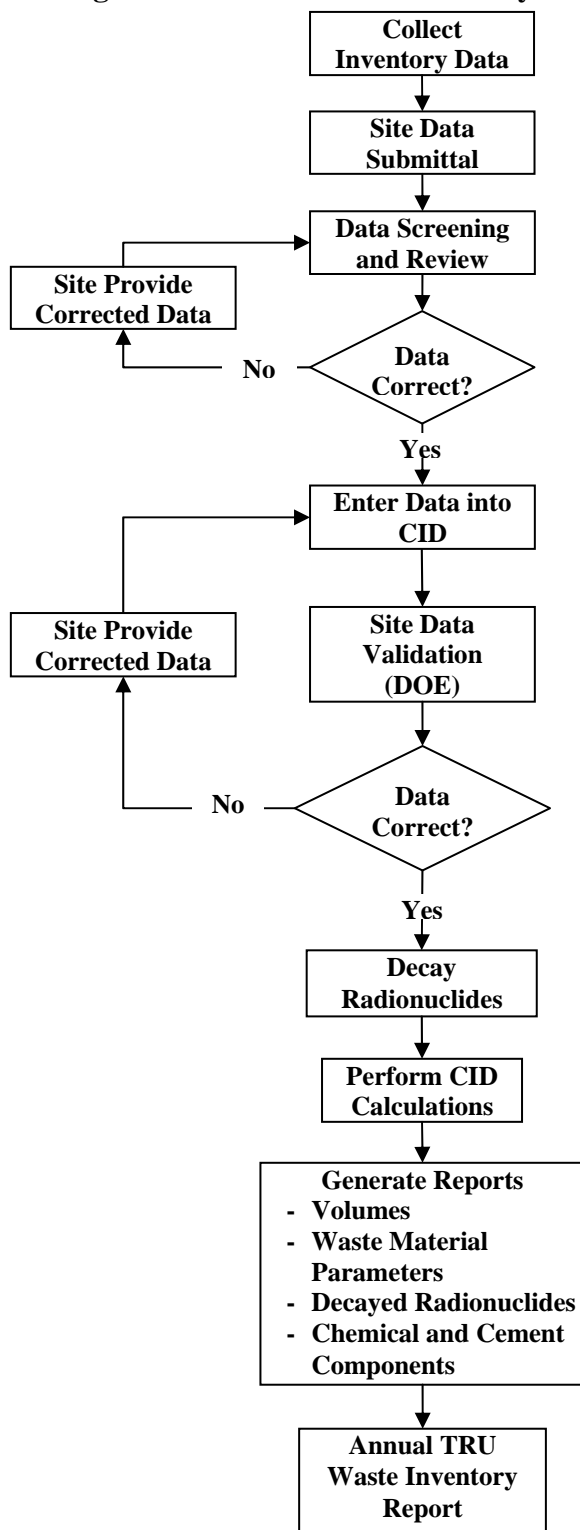
validated data, a guidance letter explaining the steps required to update the DT with their new information, and a Microsoft® PowerPoint presentation denoting changes in this year's DT. The Inventory Team visited each large quantity site as it updated its DT and worked with personnel from every site to assist in the updating process and to resolve any issues that arose.

After the DTs were complete, the team checked them for accuracy and consistency. During these data checks, the Inventory Team verified that the inventory updates included all the requested information. The Inventory Team contacted the sites if there were discrepancies in the data. Examples of the data checks were:

- Verification of radionuclide isotopic inputs (i.e., checked for presence of all fission products, radionuclides expected in secular equilibrium with those reported, and decay daughters);
- Verification of isotopic distribution for material type codes (e.g., plutonium (Pu)-52 and mixed fission products [MFPs]);
- Verification of radionuclide threshold limits to determine if the waste stream appeared to be categorized correctly as CH or RH;
- Verification that activity concentration for RH-TRU waste did not exceed the LWA limits (i.e., waste streams reported with greater than 23,000 Ci/m³ averaged over the volume of the RH-TRU canister were screened out of the WIPP-bound inventory);
- Verification that if cement was reported in a comment field, it was also reported as a WMP in kilograms (kg);
- Verification that final form hazardous waste numbers were not among those prohibited at WIPP;
- Comparison of the ATWIR-2011 waste stream data to the ATWIR-2010 waste stream data to identify any significant differences, determine the reasons for such differences if found, and identify erroneous data.

The process followed for entering TRU waste inventory information into the CID is captured in LANL-CO Procedure INV-SP-02, *Entry, Verification, and Validation of Inventory Information in the Comprehensive Inventory Database* (LANL-CO 2011d). In accordance with this procedure, the TRU waste inventory information was uploaded from the Excel DT or entered manually into the CID. Once the data were entered, Waste Stream Data (validation) Reports were prepared and sent to the DOE TRU waste managers at the sites. A validation letter signed by the DOE site representative and site contractor (contractor signature is optional) documented the correctness of the information as reported in the CID. Hard copies of the validation report and signed validation letters were then submitted to the LANL-CO Record Center (see Figure 2-1 for a flow chart of the TRU waste inventory process). The CID data were then labeled as data version D.10.01 and protected from further revision.

Figure 2-1. TRU Waste Inventory Process Flowchart



2.2 Calculations Used for CID Reports

Data tables included in this report were generated using the CID. The CID is a database developed by LANL-CO and qualified for use under the LANL-CO QA Program in accordance with the *LANL-CO Software Quality Assurance Plan* (LANL-CO 2011b), and *Software Quality Assurance* (LANL-CO 2011c).

The CID is used to manage, maintain, and perform specific qualified calculations using inventory data. The data are then used to generate qualified data reports and tables. The following sections describe how the data were prepared for this report.

2.2.1 Volume Reporting

As part of the data call for this report, the TRU waste sites were asked to update the container information for their stored (already generated and stored at the site) and projected (future generation) TRU waste. For each waste stream, the sites provided the WIPP-compliant final form container type(s) that would ultimately be used to ship waste to the WIPP and determined the respective stored and projected counts for each container type based on the volume of waste either already stored in containers resident on site or expected to be generated in the future. Emplaced container counts and volumes by waste stream were obtained from the WDS administrator (see section 2.3 of this report).

A standard final form container type list, which includes the volume that each container type occupies within the WIPP repository, is maintained in the CID. In prior years, waste stream volumes were calculated within the CID using the respective outer container volumes for the container types. However, in order to be consistent with the current RH emplacement volume reporting, CID RH volume calculations now use the inner container volume, whereas CH volume calculations will continue to use the outer container volume.

Additionally, prior ATWIR publications uniformly derived all waste stream volumes from the respective stored, projected, and emplaced container counts by applying standardized container volumes. However, the container volumes used by the CID differ slightly from those used in the WDS. This, combined with the above-mentioned practice of using the outer volume for RH waste containers, subsequently led to discrepancies with the actual emplaced volume reported by the WDS. To eliminate these discrepancies, a methodology change was implemented to no longer calculate emplaced volumes from the respective container counts reported by the WDS. Rather, the corresponding emplaced volumes are now directly imported from the WDS and used in reporting the emplaced portion of the inventory. For example, WDS generally reports a 55-gallon container as having a volume of 0.21 cubic meters (m^3), whereas the CID reports it as 0.208 m^3 . Additionally, if an RH canister is emplaced that contains two 55-gallon drums and one 30-gallon drum, the WDS would report a volume of 0.53 m^3 ($2 \times 0.21 \text{ m}^3 + 1 \times 0.11 \text{ m}^3 = 0.53 \text{ m}^3$). Previous ATWIRs would have reported this volume as 0.89 m^3 (the outer volume of the closest matching container type, RH canister containing three 55-gallon drums). Under the new methodology, the container type will report the same volume as the WDS.

Stored, projected, and anticipated (stored plus projected), volume totals presented throughout this report are summations of the individual waste stream volumes for the specified categories (site, handling designation, etc.).

2.2.2 Waste Material Parameter and Packaging Materials Reporting

As part of the data call for this report, the TRU waste sites were asked to update the information about each waste stream's WMPs, or physical materials contained in the waste. Specifically, they were asked to update, if necessary, the mass of each of the WMPs for the waste stream. See section 3.2.1 for a description of these WMPs.

In order to facilitate a more efficient data collection process for the TRU waste sites, and to be consistent with the WDS, the WMPs were collected in units of mass in kilograms (kg) rather than density in kilograms per cubic meter (kg/m^3). This change required detailed guidance with regard to stored and projected amounts. Specifically, the sites were directed to only report the mass of the stored waste at their sites. The CID then derived a projected mass using the projected-to-stored volume ratio for each waste stream. The stored and projected masses were summed to produce the anticipated mass. However, if a particular waste stream consisted only of projected waste, then the sites were requested to report their estimates of the projected mass for each WMP for that particular waste stream.

The PMs, as described in section 3.2.2, are specific to each of the individual container types, with each PM being a proportional contributor to a waste stream's overall PM makeup based upon the respective container counts reported. These PMs are standardized and defined for each container type and reported in INV-SAR-19, *Analysis of Container Material Masses* (French 2009). In order to account for various container O-rings, gaskets, and other similar materials, rubber has now been included in the list of PMs reported.

Stored, projected, and anticipated (stored plus projected) WMP and PM mass totals presented throughout this report are summations of the individual waste stream mass values for the specified categories (site, handling designation, etc.).

Appendices A and B present a list of average WMP and PM densities for each waste stream. These were calculated by dividing the total mass of each material in the waste stream by the total final form volume of the waste stream.

2.2.3 Radionuclide Reporting

The TRU waste sites were asked to update information about the radiological components in their TRU waste. For each waste stream, they were asked to assess and update, if necessary, radionuclides and their associated activity in curies (Ci). In addition, the TRU waste sites were asked to provide the generation or last assay date for each waste stream. This date was then used to determine the time basis for decay and buildup calculations.

In order to facilitate a more efficient data collection process for the TRU waste sites, and to be consistent with the WDS, the radionuclides were collected in units of activity (Ci)

rather than concentration (Ci/m^3). This change required detailed guidance with regard to stored and projected amounts. Specifically, the sites were directed to only report the activity of the waste stored at their sites. The CID then derived a projected activity using the projected-to-stored volume ratio for each waste stream. The anticipated activity was calculated by summing the stored and projected radionuclide activity values together. However, if a particular waste stream consisted only of projected waste, then the activity values reported by the site, and subsequently by the CID, were categorized as projected activity for that particular waste stream.

Since radionuclide data provided by the TRU waste sites consisted of radionuclide activities at the date of assay (generation or as calculated), they were decay-corrected to common dates for reporting purposes. All radionuclide data provided in this report in Tables 3-10, 3-11, and 3-12 and in Appendix A were decay-corrected to the end of the common base CY 2010. In order to facilitate comparison to previous TRU waste inventory reports (see Appendix C), radionuclide activities were decay-corrected to the end of the WIPP proposed closure year, CY 2033.

Prior TRU waste inventories have been decay-corrected using ORIGEN2, Version 2.2 (ORNL 2002). The Radiation Safety Information Computational Center (RSICC) at the Oak Ridge National Laboratory (ORNL) released an updated depletion and decay library, ORIGEN-S module of SCALE 6 (ORNL 2009). ORIGEN-S was qualified for use under the LANL-CO QA Program, in accordance with *LANL-CO Software Quality Assurance Plan* (LANL-CO 2011b), and *Software Quality Assurance* (LANL-CO 2011c), and was used for performing decay and buildup calculations for this report.

Before generating radionuclide tables from the CID, the radionuclide activities reported by the TRU waste sites were exported in the form of batch input files. The CID then executed ORIGEN-S in a sequential fashion for each input file, where the radionuclide decay and buildup calculations were performed and written to an output file. Finally, each output file was read and imported back into the CID.

Stored, projected, and anticipated (stored plus projected) activity totals presented throughout this report are summations of the individual waste stream activity values for the specified categories (site, handling designation, etc.).

Appendices A and B present a list of average radionuclide concentrations (Ci/m^3) for each waste stream. These were calculated by dividing the total activity of each radionuclide in the waste stream by the total final form volume of the waste stream.

2.2.4 Chemical Constituent Reporting

As part of the data call for this report, the TRU waste sites were asked to update information about the chemical constituents of their waste. In order to facilitate a more efficient data collection process for the TRU waste sites, the complexing agents (acetic acid, citric acid, oxalic acid, acetate, citrate, oxalate, ethylenediaminetetraacetic acid [EDTA]), oxyanions (nitrates, phosphates, and sulfates), and other chemical constituents were collected in units of mass (kg) rather than weight percent. For this inventory update,

the sites were requested to report stored and projected mass of their chemical constituents separately, which has resulted in more detailed estimations. Previously, the weight percent was equally applied among both stored and projected waste.

2.3 Analyses Supporting the Annual Transuranic Waste Inventory Report

In addition to collecting and processing information from the DOE TRU waste sites and securing the site information in a qualified database for future use, an analysis was performed and documented in accordance with LANL-CO QA Procedure LCO-QP9-1, *Analyses* (LANL-CO 2010b), in order to support the preparation of this report. To account for TRU waste emplaced in the WIPP repository from January 1, 2010, through December 31, 2010 (the ATWIR-2011 “reporting period”), a documented request was made of the WDS database administrator to supply data for the waste emplaced as of December 31, 2010. To update the TRU waste emplaced inventory data within the CID, the WDS data submittal was first migrated into a standardized CID Import Template (CIT) file. This migration required that the original WDS data submittal undergo various transformations, including, but not limited to, calculations, aggregations, and data mapping. These activities and calculations are documented in INV-SAR-25, *WDS Data Transformation for Insertion in the 2010 Inventory CID Import Template* (Young 2011). The CIT file was subsequently used to update the CID.

Previous ATWIR reports incorporated the emplaced inventory within the individual site totals. Per DOE guidance, the emplaced inventory is now presented as a repository-level summation under a “WIPP (Emplaced)” heading presented in Appendix C. The readers of this report who want more specific information on emplaced waste should make a request through DOE/CBFO so that the data can be obtained directly from the WDS, which is the official database of record for emplaced waste.

3.0 TRANSURANIC WASTE INVENTORY ESTIMATES

This section presents the TRU waste inventory data that were collected and entered into the CID, internally reviewed and verified, validated by the TRU waste sites, and labeled as data version D.10.01 (LANL-CO 2011a), as discussed in section 2.1. It should be noted that all table values in this report are presented to three significant figures.

This report of the TRU waste inventory consists of summaries of the inventory information collected from the TRU waste sites and data calculated from that information. Section 3.1 presents the final form TRU waste volume for CH- and RH-TRU waste. Section 3.2 presents the non-radiological properties of the TRU waste inventory as reported by the sites. This includes roll-ups of the WMPs (section 3.2.1), PMs (section 3.2.2), and complexing agents, oxyanions and cements (section 3.2.3). Section 3.3 presents the TRU waste radionuclide activities reported by the sites which have been decayed through common base CY 2010.

3.1 TRU Waste Volume Estimates

This section presents the TRU waste inventory final form volume estimates that were collected for this report.

3.1.1 TRU Waste Inventory Total Volumes by Site

TRU waste volume information requested from the TRU waste sites falls into two categories: stored waste (waste that currently exists at the site, regardless of whether it is in its final form) and projected waste (waste that will be generated in the future at the site, including decontamination and decommissioning [D&D]waste). The total waste stream volume information collected from the sites included stored and projected components as applicable for each TRU waste stream. The sites also reported both current form and final form waste container volumes for their waste streams. The current form accounts for the current packaging configuration of the waste, while the final form volume accounts for the eventual packaging configuration suitable for WIPP emplacement. The information presented in the tables of this section contains only final form data. The sites' current form container types and volumes can be found in Appendices A and B.

Table 3-1 shows the total CH-TRU waste volume stored, projected, and anticipated totals (stored plus projected). An estimated anticipated final form total of 76,561 m³ of CH-TRU waste is currently being reported at the sites and could be shipped to WIPP in the future, provided all of the WIPP requirements are met. Approximately 98% of the anticipated CH-TRU waste is stored or will be generated at LQSS: Hanford RL, INL, LANL, ORNL, and the Savannah River Site (SRS). During the inventory collection period of January through December 2010, INL, Hanford RL, LANL, SRS, and ORNL shipped CH-TRU waste to WIPP (see Appendix C for comparisons to CH-TRU waste volumes reported in ATWIR-2010).

Table 3-2 shows the total RH-TRU waste volume stored and projected, and the anticipated totals (stored plus projected). An estimated anticipated final form total of 3,459 m³ of RH-TRU waste is currently being reported by the sites and could be shipped to WIPP in the future, provided all of the WIPP requirements are met. Approximately 95% of the anticipated RH-TRU waste is stored or will be generated at LQSS: Hanford RL, INL, LANL, ORNL, and SRS. During the inventory collection period of January through December 2010, Argonne National Laboratory (ANL), GEVNC, INL, ORNL, and SRS had shipped RH-TRU waste to WIPP (see Appendix C for comparisons to RH-TRU waste volumes reported in ATWIR-2010).

Table 3-1. CH Waste Inventory Total Volumes

TRU Waste Site	Stored Volumes (m ³)	Projected Volumes (m ³)	Anticipated Volumes (m ³)
Argonne National Laboratory - East	3.76E+01	6.76E+01	1.05E+02
Hanford (Richland) Site	1.69E+04	2.49E+03	1.94E+04

Table 3-1. CH Waste Inventory Total Volumes
Continued

TRU Waste Site	Stored Volumes (m ³)	Projected Volumes (m ³)	Anticipated Volumes (m ³)
Idaho National Laboratory	3.49E+04	--	3.49E+04
Knolls Atomic Power Laboratory - Nuclear Fuel Services	6.03E+00	3.16E+02	3.22E+02
Lawrence Berkeley National Laboratory	8.32E-01	8.32E-01	1.66E+00
Lawrence Livermore National Laboratory	2.54E+02	6.97E+02	9.52E+02
Los Alamos National Laboratory	6.95E+03	3.22E+03	1.02E+04
Material and Fuels Complex	5.82E+00	3.35E+01	3.93E+01
Nevada National Security Site	3.75E+01	3.78E+01	7.53E+01
Nuclear Radiation Development Site	1.96E+01	5.41E+00	2.50E+01
Oak Ridge National Laboratory	8.89E+02	6.49E+01	9.54E+02
Paducah Gaseous Diffusion Plant	4.99E+00	--	4.99E+00
Sandia National Laboratories	7.70E+00	5.41E+00	1.31E+01
Savannah River Site	4.42E+03	5.24E+03	9.66E+03
U.S. Army Materiel Command	2.08E-01	--	2.08E-01
Grand Total	6.44E+04	1.22E+04	7.66E+04

Data Source: CID Data Version D.10.01, LANL-CO 2011a. Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

Table 3-2. RH Waste Inventory Total Volumes

TRU Waste Site	Stored Volumes (m ³)	Projected Volumes (m ³)	Anticipated Volumes (m ³)
Argonne National Laboratory - East	1.75E+01	3.35E+01	5.10E+01
Bettis Atomic Power Laboratory	3.12E+00	4.99E+00	8.11E+00
Hanford (Richland) Site	1.44E+03	8.51E+02	2.29E+03
Idaho National Laboratory	3.87E+02	--	3.87E+02
Knolls Atomic Power Laboratory - Schenectady	--	1.87E+00	1.87E+00
Los Alamos National Laboratory	7.92E+01	--	7.92E+01
Material and Fuels Complex	1.68E+01	1.00E+02	1.17E+02
Oak Ridge National Laboratory	4.47E+02	1.87E+01	4.66E+02
Sandia National Laboratories	8.74E+00	--	8.74E+00
Savannah River Site	4.06E+01	8.74E+00	4.93E+01
Grand Total	2.44E+03	1.02E+03	3.46E+03

Data Source: CID Data Version D.10.01, LANL-CO 2011a. Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

3.2 Waste and Packaging Materials Estimates

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

This section presents the non-radiological properties of the TRU waste inventory collected for this report. Section 3.2.1 presents the inventory of waste material parameters, section 3.2.2 presents packaging materials, and section 3.2.3 presents the chemical and cement components.

3.2.1 Waste Material Parameters

This year the LANL-CO Inventory Team has made two changes to the collection of WMPs. The first change is reporting final form mass (kg) instead of average density. The second change is that the projected mass is calculated based on the final form mass that the site reported. See section 2.2.2 for details on the way WMPs are reported.

The following WMP descriptions are used for this report:

- Iron-based Metal/Alloys – Includes iron and steel alloys in the waste, but does not include the waste container materials. Also includes an iron-based metallic phase associated with any vitrification process, if applicable.
- Aluminum-based Metal/Alloys – Aluminum or aluminum-based alloys in the waste materials.
- Other Metal/Alloys – All other metal/alloys (e.g., copper, zirconium, and tantalum) found in the waste materials, including the lead portion of leaded rubber gloves/aprons.
- Other Inorganic Materials – Inorganic non-metal waste materials such as concrete, glass, firebrick, ceramics, graphite, sand, and inorganic sorbents.
- Vitrified – 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-based metal/alloys WMP.)
- Cellulosics – Materials generally derived from high-polymer plant carbohydrates such as paper, cardboard, Kimwipes[®], wood, cellophane, and cloth.
- Plastics – Generally man-made, often derived from petroleum feedstock. Examples are polyethylene, polyvinyl chloride (PVC), Lucite[®], and Teflon[®].
- Rubber – Natural or manmade elastic latex materials, such as Hypalon[®], neoprene, surgical gloves, and leaded-rubber gloves (rubber part only).

- Solidified Inorganic Material (Inorganic Matrix) – Any homogeneous materials consisting of sludge or aqueous-based liquids that have been solidified. Examples are wastewater treatment sludge and inorganic particulates.
- Solidified Organic Material (Organic Matrix) – Organic resins, solidified organic liquids, and sludges.
- Cement – An agent used to solidify liquids, particulates, and sludge. Cement may be reacted, unreacted, or both.
- Soils – Generally consist of naturally occurring soils that have been contaminated with radioactive waste materials at a high enough level to be considered TRU waste.

The estimated WMP anticipated masses for CH- and RH-TRU waste are presented in Table 3-3.

3.2.2 Packaging Materials

PMs, such as steel, plastic, cellulose, lead, and rubber, are the materials used to construct the containers that hold TRU waste. Rubber is a new PM that is collected for this report. The PM masses for the WIPP-approved payload containers are fixed values in the CID. The sites report the final form container type, and the CID generates the PM mass using consistent values associated with the container type. An analysis was performed (French 2009) to calculate the PM mass to be assigned to the various WIPP-approved container types in the CID. The purpose of that analysis was to document the calculations that provided the PM mass for steel, plastic, cellulose, lead, and rubber used in the containers that package CH- and RH-TRU waste for shipment to WIPP. The PM masses for CH- and RH-TRU anticipated waste are presented in Table 3-3.

Table 3-3. Anticipated CH/RH Waste and Packaging Material Inventory

Waste Material	CH Mass (kg)	RH Mass (kg)	CH/RH Mass (kg)
Iron-based Metal/Alloys	3.62E+06	8.99E+05	4.52E+06
Aluminum-based Metal/Alloys	2.39E+05	3.09E+04	2.69E+05
Other Metal/Alloys	4.10E+05	3.74E+05	7.84E+05
Other Inorganic Materials	2.30E+06	8.70E+05	3.16E+06
Cellulosics	9.79E+05	8.73E+04	1.07E+06
Rubber	5.55E+05	6.97E+04	6.25E+05
Plastics	1.89E+06	1.98E+05	2.08E+06
Cement	3.20E+06	6.50E+05	3.85E+06
Solidified Inorganic Material	3.84E+06	7.88E+04	3.92E+06
Solidified Organic Material	1.96E+06	3.24E+03	1.96E+06
Soils	1.09E+06	1.37E+05	1.23E+06
Vitrified	--	--	--
Packaging Material, Cellulosics	2.02E+04	--	2.02E+04
Packaging Material, Plastic	1.03E+06	1.42E+05	1.18E+06

Table 3-3. Anticipated CH/RH Waste and Packaging Material Inventory

Continued

Waste Material	CH Mass (kg)	RH Mass (kg)	CH/RH Mass (kg)
Packaging Material, Rubber	3.03E+04	1.93E+03	3.22E+04
Packaging Material, Steel	1.31E+07	3.21E+06	1.63E+07
Packaging Material, Lead	--	1.20E+04	1.20E+04
Grand Total	3.42E+07	6.76E+06	4.10E+07

Data Source: CID Data Version D.10.01, LANL-CO 2011a. Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

3.2.3 Chemical and Cement Components

DOE tracks the mass (kg) of complexing agents, oxyanions, and cements as part of the non-radiological components. This report is the mechanism that DOE uses to track these components for currently stored and projected TRU waste at the sites. These masses for this report are presented in Tables 3-4 through 3-9.

Two changes were made in this year's data collection. The first change was collecting complexing agents and oxyanions in mass (kg) instead of weight percent. The second change with regard to the chemical components was that the sites reported a separate mass for stored waste and a separate mass for projected waste.

For details on the reporting methods on chemical components, see section 2.2.4, and for the cement component, see section 2.2.2.

3.2.3.1 Complexing Agents

DOE tracks the mass (kg) of complexing agents destined for emplacement in the WIPP repository because of their potential impact on solubilities of actinides in the waste. For this inventory report, the TRU waste sites were asked to update their estimates of complexing agents in the waste streams (Patterson 2011). Table 3-4 presents all WIPP-bound waste streams containing complexing agents and identifies new waste streams reporting complexing agents for the first time. Table 3-5 presents a summary of the estimated anticipated masses of complexing agents by site and the grand total of the anticipated masses.

Table 3-4. Anticipated CH/RH Complexing Agent Mass by Waste Stream

Waste Stream ID	Acetate (kg)	Acetic Acid (kg)	Citrate (kg)	Citric Acid (kg)	EDTA (kg)	Oxalate (kg)	Oxalic Acid (kg)
AE-T003*	--	--	--	--	--	--	1.04E+02
IN-AE-AGHC-02*	--	1.20E-03	--	1.20E-03	--	--	1.20E-03
IN-BN004	--	--	--	--	1.33E+02	--	--
IN-BN409	--	--	--	--	2.15E+00	--	--
IN-BNINW218	5.07E+02	6.00E+01	1.77E+02	4.15E+01	--	--	4.15E+01
IN-ID-INL-152	5.06E-04	5.06E-04	5.06E-04	--	5.06E-04	--	5.06E-04

Table 3-4. Anticipated CH/RH Complexing Agent Mass by Waste Stream
Continued

Waste Stream ID	Acetate (kg)	Acetic Acid (kg)	Citrate (kg)	Citric Acid (kg)	EDTA (kg)	Oxalate (kg)	Oxalic Acid (kg)
IN-ID-INL-152M	2.63E-02	2.63E-02	2.63E-02	--	2.63E-02	--	2.63E-02
IN-ID-MFC-SOLID*	6.35E-04	6.35E-05	6.35E-04	--	6.35E-05	--	6.35E-05
IN-ID-RF-S5300-A	--	--	--	--	6.24E+00	--	--
IN-ID-SDA-Debris	--	1.11E+02	--	1.31E+00	1.10E-01	--	2.20E-01
IN-ID-SDA-Sludge	--	2.41E+03	--	5.01E+01	2.40E+00	--	4.80E+00
IN-ID-SDA-Soil	--	4.58E+02	--	9.48E+00	4.50E-01	--	9.00E-01
IN-TRA-150	--	2.17E-03	--	2.17E-03	2.17E-03	2.17E-03	2.17E-03
LA-CIN01.001	--	1.01E+00	--	1.12E+02	--	--	1.73E+01
LA-CIN02.001	--	1.74E+00	--	1.92E+02	--	--	1.08E+03
LA-MHD01.001	--	4.28E+00	--	4.92E+01	--	--	6.14E+02
LA-MIN02-V.001	--	6.44E-02	--	7.09E+00	--	--	8.82E+01
LA-MIN03-NC.001	--	2.44E-01	--	2.68E+01	--	--	3.35E+02
LL-M001	--	4.80E+00	--	4.80E+00	4.80E+00	--	4.80E+00
LL-W018-S5100	--	1.99E+00	--	1.99E+00	1.99E+00	--	1.99E+00
LL-W019	--	4.94E-01	--	4.94E-01	4.94E-01	--	4.94E-01
RL200-01	--	--	--	2.84E+00	--	--	3.92E+00
RL216Z-02	--	--	--	--	--	--	1.54E+01
RL222S-01	8.72E+00	--	--	--	4.28E-03	--	8.72E+00
RL233S-01	--	5.50E-02	--	1.18E+00	--	--	5.50E-02
RL300-01	3.81E+01	--	1.53E+01	5.31E-02	1.53E-03	8.84E+00	1.85E+01
RL300-03	2.10E-03	--	5.24E-04	5.24E-04	1.57E-03	5.24E-04	5.24E-04
RL308-01	1.99E-01	--	8.05E-01	9.73E-02	9.03E-01	9.05E-01	9.73E-02
RL325-01	5.76E+00	4.85E-01	2.37E+01	2.88E+00	3.65E-05	9.12E+00	2.88E+00
RLBAT-01	--	3.01E+00	--	1.05E+00	--	--	--
RLBW-01	2.87E+00	7.46E-01	--	4.50E-01	--	--	--
RLBW-03	9.14E-05	3.07E-05	--	1.84E-05	2.98E-05	--	--
RLBW-08	3.46E-05	1.62E-05	--	1.04E-05	1.62E-05	--	--
RLESG-01	--	--	--	1.85E+00	--	--	1.80E+00
RLESG-08	--	--	--	6.48E-03	3.58E-04	--	6.29E-03
RLGEV-01	--	--	--	3.90E+00	--	--	--
RLGEV-03	--	--	--	5.86E-05	--	--	--
RLHAN-01	5.49E-01	8.01E-02	1.57E-01	--	1.56E+00	3.12E-01	1.26E-01
RLPFP-01	6.99E+03	3.38E+03	--	2.47E+00	1.92E+00	1.92E+00	1.33E+01
RLPFP-02	4.74E+00	2.29E+00	--	1.67E-03	1.30E-03	1.30E-03	9.03E-03
RLPFP-08	2.97E-03	1.34E-03	--	--	--	--	4.62E-06
RLSWO-01	--	6.28E-01	--	1.65E+01	--	--	2.60E-03
RLSWO-08	--	2.55E-03	--	6.71E-02	--	--	1.06E-05
RLWAR-01	--	--	--	9.84E+02	--	--	3.40E+03
RLWAR-03	6.12E-02	--	--	1.22E-01	--	--	4.10E-01

Data Source: CID Data Version D.10.01, LANL-CO 2011a. **Note:** This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams. *New waste streams containing complexing agents that are reported for the first time or consolidated under a new waste stream ID.

Table 3-5. Anticipated CH/RH Complexing Agent Mass by Site

TRU Waste Site	Acetate (kg)	Acetic Acid (kg)	Citrate (kg)	Citric Acid (kg)	EDTA (kg)	Oxalate (kg)	Oxalic Acid (kg)
Argonne National Laboratory - East	--	--	--	--	--	--	1.04E+02
Hanford (Richland) Site	7.06E+03	3.39E+03	4.00E+01	1.02E+03	4.39E+00	2.11E+01	3.47E+03
Idaho National Laboratory	5.07E+02	3.04E+03	1.78E+02	1.02E+02	1.44E+02	2.17E-03	4.74E+01
Lawrence Livermore National Laboratory	--	7.28E+00	--	7.28E+00	7.28E+00	--	7.28E+00
Los Alamos National Laboratory	--	7.35E+00	--	3.87E+02	--	--	2.13E+03
Grand Total	7.56E+03	6.44E+03	2.18E+02	1.51E+03	1.56E+02	2.11E+01	5.76E+03

Data Source: CID Data Version D.10.01, LANL-CO 2011a. Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

3.2.3.2 Oxyanions

Estimates of the masses of nitrates, phosphates, and sulfates expected in the TRU waste were also requested from the TRU waste sites. The sites reported estimates of oxyanions in their waste streams as mass (kg) for both stored and projected waste.

Table 3-6 presents all the WIPP-bound waste streams containing oxyanions, including waste streams containing oxyanions that the TRU waste sites are reporting for the first time and updated anticipated values from previously reported waste streams. Table 3-7 presents a summary of the estimated anticipated masses of oxyanions by site and the sum of the anticipated masses.

Table 3-6. Anticipated CH/RH Oxyanion Mass by Waste Stream

Waste Stream ID	Nitrate (kg)	Phosphate (kg)	Sulfate (kg)
AE-T003*	2.02E+00	5.60E-01	8.63E-01
IN-AE-AGHC-02*	1.20E-03	1.20E-03	1.20E-03
IN-BN004	--	2.76E+03	2.66E+03
IN-BN005	3.25E+04	--	--
IN-BNINW216	2.23E+05	--	3.03E+03
IN-BNINW218	3.89E+04	--	9.91E+01
IN-ID-INL-152	5.06E-04	5.06E-04	5.06E-04
IN-ID-INL-152M	2.63E-02	2.63E-02	2.63E-02
IN-ID-MFC-SOLID*	6.35E-05	6.35E-05	6.35E-05
IN-ID-RF-S3150-A	--	--	3.57E+01
IN-ID-SDA-Debris	2.29E+03	8.70E-01	2.29E+03
IN-ID-SDA-Sludge	5.23E+04	2.61E+04	7.37E+04
IN-ID-SDA-Soil	9.94E+03	4.97E+03	1.40E+04
IN-INTEC-SFS-01	4.43E-02	--	--

Table 3-6. Anticipated CH/RH Oxyanion Mass by Waste Stream
Continued

Waste Stream ID	Nitrate (kg)	Phosphate (kg)	Sulfate (kg)
IN-TRA-150	2.17E-03	2.17E-03	2.17E-03
IN-W228R	2.36E+02	--	2.36E+02
LA-CIN01.001	5.79E+02	--	1.96E+03
LA-CIN02.001	4.88E+02	--	7.76E+01
LA-CIN03.001	9.55E+02	--	1.52E+02
LA-MHD01.001	1.01E+05	--	1.96E+04
LA-MHD03.001	3.47E+02	--	3.23E+02
LA-MHD04.001	3.46E+03	--	6.67E+02
LA-MHD08.001	1.47E+02	--	2.83E+01
LA-MIN02-V.001	1.00E+02	--	1.94E+01
LA-MIN03-NC.001	1.43E+04	--	1.34E+04
LA-TA-21-13	2.01E+05	--	3.20E+04
LA-TA-21-15	1.22E+02	--	2.36E+01
LA-TA-21-16	6.98E+03	--	6.50E+03
LB-T001	9.49E-05	1.97E-02	3.66E-04
LB-T002	5.25E-03	6.20E-04	--
LL-M001	4.80E+00	4.80E+00	4.80E+00
LL-W018-S5100	1.99E+00	1.99E+00	1.99E+00
LL-W019	4.94E-01	4.94E-01	4.94E-01
RL200-01	2.74E+02	2.64E+02	--
RL200-02	1.20E+01	4.43E+01	9.23E+00
RL201-03*	--	--	2.16E+00
RL202S-01	4.68E-01	--	--
RL209E-01	2.26E+02	6.80E+01	5.39E+02
RL209E-08	8.61E-02	--	1.23E-02
RL216Z-02	1.42E+03	1.57E+03	6.33E+01
RL222S-01	1.31E+02	1.96E+02	1.84E+01
RL231Z-01	4.18E+01	3.03E+03	5.39E+03
RL231Z-03	7.17E-02	3.37E+01	7.54E-01
RL233S-01	2.57E+02	2.00E+00	5.58E-01
RL300-01	9.54E+02	2.26E+02	1.93E+00
RL300-03	1.36E-02	3.67E-03	7.85E-03
RL308-01	4.50E+00	9.88E-01	1.73E+03
RL325-01	2.31E+02	6.56E+01	1.75E+02
RL325-03	7.16E+01	--	--
RLBAT-01	--	4.97E+00	4.37E+00
RLBW-01	1.06E+00	5.99E-01	2.87E+02
RLBW-03	2.72E-05	--	1.15E-02
RLBW-08	1.50E-05	--	6.16E-03
RLESG-01	1.80E+00	1.14E+02	4.21E+03
RLESG-08	6.29E-03	--	--
RLEXX-01	6.29E-02	2.08E-02	--
RLGEV-01	3.54E+00	3.54E+00	4.00E+02
RLGEV-03	5.32E-05	5.32E-05	6.00E-03
RLHAN-01	4.12E+00	1.24E+00	2.53E+00

Table 3-6. Anticipated CH/RH Oxyanion Mass by Waste Stream
Continued

Waste Stream ID	Nitrate (kg)	Phosphate (kg)	Sulfate (kg)
RLPFP-01	1.28E+05	1.26E+05	5.47E+03
RLPFP-02	8.64E+01	8.51E+01	3.70E+00
RLPFP-03	1.73E+03	1.11E+02	--
RLPFP-04	2.53E-03	2.16E-02	--
RLPFP-08	4.92E-02	3.72E-02	1.97E-03
RLPURX-01	2.43E+01	--	--
RLSWO-01	2.67E+01	3.25E+02	5.21E+00
RLSWO-08	1.08E-01	1.32E+00	2.12E-02
RLWAR-01	2.95E+03	--	5.04E+02
RLWAR-03	3.67E-01	--	6.12E-02

Data Source: CID Data Version D.10.01, LANL-CO 2011a. *New waste streams containing oxyanions that are reported for the first time or consolidated under a new waste stream ID. Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

Table 3-7. Anticipated CH/RH Oxyanion Mass by Site

TRU Waste Site	Nitrate (kg)	Phosphate (kg)	Sulfate (kg)
Argonne National Laboratory - East	2.02E+00	5.60E-01	8.63E-01
Hanford (Richland) Site	1.36E+05	1.32E+05	1.88E+04
Idaho National Laboratory	3.59E+05	3.39E+04	9.61E+04
Lawrence Berkeley National Laboratory	5.35E-03	2.04E-02	3.66E-04
Lawrence Livermore National Laboratory	7.28E+00	7.28E+00	7.28E+00
Los Alamos National Laboratory	3.30E+05	--	7.47E+04
Grand Total	8.25E+05	1.66E+05	1.90E+05

Data Source: CID Data Version D.10.01, LANL-CO 2011a. Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

3.2.3.3 Cement

The TRU waste sites were instructed to report their cements, along with other WMPs. Two changes were made this year during collection of cements. The first change was sites were asked to report cement in mass (kg) instead of reporting density. The second change is the projected mass is calculated based on the final form mass that the site reported. See section 2.2.2 for details on the way cements are reported.

Table 3-8 presents all the WIPP-bound waste streams containing cements that are expected for WIPP disposal, including waste streams containing cements that the TRU waste sites are reporting for the first time and updated anticipated values from previously reported waste streams. Table 3-8 also reports whether the state of the cements is reacted, unreacted, or both. In this report, “reacted” means cement that is hydrated by setting up under aqueous conditions; “unreacted” means that dry cement was added as an absorbent or neutralizer to a waste stream, but under dry, non-aqueous conditions. Table 3-9

presents a summary of the estimated masses of cements by site and the sum of the anticipated mass.

Table 3-8. Anticipated CH/RH Cement Mass and State by Waste Stream

Waste Stream ID	Cement (kg)	Cement State
IN-BN004	1.54E+05	Both
IN-BN095	1.09E+04	Reacted
IN-BN222	1.72E+04	Reacted
IN-BN432	1.30E+04	Reacted
IN-BN806	2.02E+03	Reacted
IN-BN817	1.86E+03	Reacted
IN-BN823	9.91E+02	Reacted
IN-BN836	3.56E+04	Both
IN-BN976	1.00E+00	Reacted
IN-BN978	6.04E+03	Reacted
IN-BNINW216	2.89E+05	Both
IN-BNINW218	1.26E+04	Both
IN-ID-BTO-030	6.68E+01	Reacted
IN-ID-RF-S3150-A	1.71E+02	Reacted
IN-ID-SDA-Debris	2.34E+02	Both
IN-ID-SDA-Sludge	4.99E+02	Both
IN-ID-SDA-Soil	1.23E+02	Both
IN-LL-M001-S5400*	9.23E+02	Reacted
IN-W208R	4.63E+00	Reacted
IN-W216R*	2.89E+05	Both
IN-W228R	6.17E+02	Both
IN-W317R	3.17E+02	Reacted
KN-B234TRU	4.62E+05	Reacted
LA-CIN01.001	7.04E+05	Reacted
LA-CIN02.001	2.81E+05	Reacted
LA-CIN03.001	1.96E+03	Reacted
LA-TA-03-28	1.06E+03	Reacted
LA-TA-21-13	1.07E+06	Reacted
LA-TA-21-16	1.18E+04	Reacted
LA-TA-50-18	7.31E+03	Reacted
LA-TA-55-38	2.74E+01	Reacted
LL-M001	9.41E+03	Reacted
LL-W018-S5100	4.64E+02	Reacted
NT-W021	1.20E+01	Reacted
PA-W014	5.68E+03	Reacted
RL105-03	6.37E+04	Reacted
RL105-09	3.60E+05	Reacted
RL300-03	1.78E+03	Reacted
RL325-03	6.42E+03	Reacted
RLWAR-03	2.92E+03	Reacted

Table 3-8. Anticipated CH/RH Cement Mass and State by Waste Stream
Continued

Waste Stream ID	Cement (kg)	Cement State
SA-T001	3.12E+01	Both
SR-AGNS-HOM	3.92E+03	Reacted
SR-NIST-HET	3.05E+01	Reacted
SR-RH-FBL.01	1.05E+02	Reacted
SR-SDD-HET-B*	2.19E+01	Both
SR-SDD-HOM-A*	3.01E+03	Reacted
SR-SDD-HOM-B*	4.20E+03	Reacted
SR-SDD-HOM-C*	4.20E+03	Reacted
SR-W026-CIF-HOM	1.66E+03	Reacted

Data Source: CID Data Version D.10.01, LANL-CO 2011a. *New waste streams containing cements that are reported the first time or consolidated under a new waste stream ID. Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

Table 3-9. Anticipated CH/RH Cement Mass by Site

TRU Waste Site	Mass of Cement (kg)
Hanford (Richland) Site	4.35E+05
Idaho National Laboratory	8.35E+05
Knolls Atomic Power Laboratory - Nuclear Fuel Services	4.62E+05
Lawrence Livermore National Laboratory	9.88E+03
Los Alamos National Laboratory	2.08E+06
Nevada National Security Site	1.20E+01
Paducah Gaseous Diffusion Plant	5.68E+03
Sandia National Laboratories	3.12E+01
Savannah River Site	1.71E+04
Grand Total	3.85E+06

Data Source: CID Data Version D.10.01, LANL-CO 2011a. Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

3.3 TRU Waste Radionuclide Estimates

This section presents the TRU waste radionuclide activity inventory collected for this report. The sites' TRU waste stream radionuclides are decayed through the end of CY 2010, in curies. The data are aggregated and placed into tables by site for CH- and RH-TRU wastes.

3.3.1 Radionuclide Inventory by Site

Tables 3-10 and 3-11 provide the comprehensive WIPP-bound anticipated activity (Ci) inventory estimates for CH- and RH-TRU waste, respectively. The radionuclides are decayed to the end of a common base year of CY 2010 (as described in section 2.2.3) from the reported waste stream assay or generation year.

The radionuclides in the waste profile reports in Appendix A (WIPP-bound TRU Waste) are reported in activity concentration (Ci/m^3) based on the final form waste stream volume. The radionuclide activities (Ci) have been decay-corrected by the ORIGEN-S decay and buildup module of SCALE 6 (ORNL 2009) from the waste stream assay/generation year through the end of CY 2010. These concentrations are calculated by dividing the total mass of each material in the waste stream by the total volume of the waste stream as discussed in section 2.2.2 of this report. Radionuclide activity concentrations presented in Appendix B (Potential TRU Waste) are as reported by the TRU waste sites (i.e., not decay-corrected).

Table 3-10. Anticipated CH Radionuclide Activity (Ci) on a Site Basis Decayed through 2010

Radionuclide	ANLE	Army	Hanford	INL	KAPL-NFS	LANL	LBNL	LLNL	MFC	NNSS	NRD	ORNL	Paducah	SNL	SRS	Grand Total
Ac-225	--	7.24E-12	9.48E-06	2.61E-04	4.64E-04	1.22E-01	9.89E-08	1.45E-02	1.18E-11	7.05E-12	8.94E-13	7.13E-02	1.68E-07	6.38E-10	9.98E-04	2.09E-01
Ac-227	7.31E-06	1.32E-14	4.33E-09	2.27E-06	2.48E-06	6.88E-01	1.07E-04	8.05E-02	1.65E-10	7.40E-09	--	2.64E-01	5.30E-07	1.70E-08	4.25E-02	1.08E+00
Ac-228	--	--	1.38E-05	2.55E-04	2.11E-02	3.10E-04	5.06E-09	1.53E-04	4.84E-10	2.80E-15	--	7.84E-04	--	7.10E-05	2.84E-02	5.11E-02
Ag-108	5.30E-13	--	--	--	--	3.26E-07	--	--	--	--	--	--	--	--	--	3.26E-07
Ag-108m	4.52E-04	--	--	--	--	3.75E-06	--	--	--	--	--	--	--	--	--	4.56E-04
Ag-109m	--	--	--	--	--	2.17E+03	--	7.76E-03	--	--	--	--	--	8.74E-10	--	2.17E+03
Ag-110	5.20E-12	--	--	--	--	--	--	--	--	--	--	5.64E-15	--	--	--	5.21E-12
Ag-110m	3.70E-10	--	--	--	--	--	--	--	--	--	--	4.15E-13	--	--	--	3.70E-10
Am-241	5.45E+01	--	5.76E+04	3.64E+04	5.24E+01	5.66E+04	1.65E+00	1.36E+04	8.87E+01	1.32E+01	1.60E+03	2.46E+03	2.01E-01	1.21E+01	8.20E+04	2.50E+05
Am-242	1.80E-01	--	2.80E-02	--	--	--	--	7.32E+01	--	--	--	--	--	--	1.47E-01	7.35E+01
Am-242m	2.83E-04	--	2.81E-02	--	--	--	--	7.35E+01	--	--	--	--	--	--	1.47E-01	7.37E+01
Am-243	1.42E+00	--	7.56E-01	2.20E-02	--	7.37E-01	1.22E-03	2.21E+00	1.36E-01	--	--	4.64E+00	--	1.33E-04	5.24E+00	1.52E+01
Am-244	1.47E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.47E-05
Am-245	--	--	--	--	--	1.35E-08	6.34E-14	--	--	--	--	6.22E-13	--	--	--	1.35E-08
At-217	--	7.24E-12	9.48E-06	2.61E-04	4.64E-04	1.22E-01	9.89E-08	1.45E-02	1.18E-11	7.05E-12	8.94E-13	7.13E-02	1.68E-07	6.38E-10	9.98E-04	2.09E-01
Au-198	5.77E-08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.77E-08
Ba-133	1.89E-04	--	3.80E-04	--	--	2.97E-05	--	--	--	--	--	1.93E-07	--	3.62E-07	2.54E-04	8.53E-04
Ba-137m	3.82E+01	--	3.65E+03	8.64E-01	--	5.16E+00	2.33E-09	6.63E+00	3.76E-02	--	--	2.38E+00	8.97E-03	7.47E-02	7.10E+00	3.71E+03
Bi-210	--	--	1.82E-10	1.99E-06	4.05E-05	1.91E-04	3.14E-06	1.70E-08	3.48E-11	1.67E-09	--	3.01E-01	2.45E-05	2.11E-06	6.34E-03	3.07E-01
Bi-211	--	1.32E-14	4.33E-09	2.28E-06	2.48E-06	6.90E-01	1.07E-04	8.06E-02	1.65E-10	7.40E-09	--	2.33E-01	5.30E-07	1.70E-08	4.26E-02	1.05E+00
Bi-212	8.31E-06	--	5.90E-05	2.08E-03	3.45E-02	3.64E+01	4.76E-09	1.57E-02	2.12E-04	2.70E-15	--	2.26E-01	--	6.50E-05	3.84E-01	3.70E+01
Bi-213	--	7.24E-12	9.48E-06	2.61E-04	4.64E-04	1.22E-01	9.89E-08	1.45E-02	1.18E-11	7.05E-12	8.94E-13	7.13E-02	1.68E-07	6.38E-10	9.98E-04	2.09E-01
Bi-214	7.52E-06	--	1.48E-09	1.71E-05	3.53E-04	5.07E-05	1.28E-05	1.13E-06	2.31E-09	8.03E-09	--	5.54E-01	9.24E-05	2.08E-06	4.21E-02	5.97E-01
Bk-249	1.70E-03	--	--	--	--	1.93E-03	4.37E-09	--	--	--	--	4.29E-08	--	--	--	3.63E-03
Bk-250	--	--	--	--	--	--	--	--	--	--	--	5.14E-14	--	--	--	5.14E-14
C-14	2.13E-03	--	6.00E-04	--	--	--	6.98E-08	--	--	--	--	1.69E-04	--	1.72E-07	2.38E-01	2.41E-01
Ca-45	2.50E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.50E-05
Cd-109	6.79E-05	--	--	--	--	2.17E+03	--	7.76E-03	--	--	--	--	--	8.74E-10	--	2.17E+03
Cd-113m	8.64E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.64E-03
Ce-141	--	--	--	--	--	--	--	--	--	--	--	8.63E-01	--	--	--	8.63E-01
Ce-144	3.78E-01	--	--	--	--	6.62E-04	--	--	9.06E-04	--	--	2.78E-01	--	--	1.57E-09	6.58E-01
Cf-249	4.76E-01	--	2.06E-02	1.63E-03	--	1.35E-02	2.45E-03	9.89E+00	--	--	--	7.48E-01	--	--	3.35E-03	1.12E+01
Cf-250	6.51E-06	--	--	--	--	1.04E-04	2.07E-07	--	--	--	--	3.55E-02	--	--	2.49E-06	3.56E-02
Cf-251	1.96E-07	--	--	1.95E-05	--	--	--	2.43E-03	--	--	--	2.71E-04	--	--	1.73E-03	4.45E-03
Cf-252	2.48E-02	--	--	--	--	--	--	2.65E-01	--	--	--	1.01E+00	--	--	9.01E-05	1.30E+00
Cl-36	1.17E-07	--	--	--	--	3.10E-03	--	--	--	--	--	--	--	2.46E-08	--	3.10E-03
Cm-241	--	--	--	3.01E-01	--	--	--	--	--	--	--	--	--	--	--	3.01E-01
Cm-242	2.31E-04	--	1.82E-02	1.09E-13	--	8.76E-03	3.38E-21	4.77E+01	7.94E-13	--	--	3.00E-01	--	--	1.21E-01	4.81E+01
Cm-243	2.61E-02	--	8.01E-01	1.49E-02	--	7.39E-01	1.12E-04	3.07E-04	4.85E-09	--	--	6.76E+01	--	1.13E-01	4.45E-01	6.98E+01
Cm-244	1.73E+02	--	7.29E+01	1.29E+01	--	3.56E+03	6.82E-03	8.20E-02	1.01E+00	--	--	1.38E+03	--	1.59E+00	8.37E+02	6.04E+03
Cm-245	3.81E-04	--	--	3.18E-04	--	3.86E-03	1.82E-06	4.74E-02	--	--	--	1.23E-02	--	--	1.07E-01	1.71E-01
Cm-246	2.02E-05	--	--	--	--	5.88E-01	4.99E-06	--	--	--	--	6.39E-01	--	--	7.88E-02	1.31E+00
Cm-247	2.04E-11	--	--	--	--	--	--	4.08E-06	--	--	--	3.23E-07	--	--	1.07E-02	1.07E-02

Table 3-10. Anticipated CH Radionuclide Activity (Ci) on a Site Basis Decayed through 2010

Continued

Radionuclide	ANLE	Army	Hanford	INL	KAPL-NFS	LANL	LBNL	LLNL	MFC	NNSS	NRD	ORNL	Paducah	SNL	SRS	Grand Total
Cm-248	2.27E-04	--	--	--	--	--	5.61E-05	2.07E-02	--	--	--	3.73E-02	--	--	2.29E-06	5.82E-02
Cm-249	6.71E+00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.71E+00
Cm-250	1.47E-08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.47E-08
Co-60	3.57E-02	--	3.14E-01	5.53E-08	--	1.96E-03	--	1.52E-02	4.21E-04	--	--	1.76E-02	--	1.50E-05	6.85E-03	3.92E-01
Cs-134	7.56E-01	--	2.08E+00	2.21E-07	--	2.80E-05	--	--	3.88E-04	--	--	1.56E-01	--	3.49E-07	8.56E-04	3.00E+00
Cs-135	9.51E-04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.51E-04
Cs-137	4.62E+01	--	3.89E+03	1.09E+00	--	9.62E+00	2.47E-09	7.02E+00	3.98E-02	--	--	4.56E+00	9.50E-03	7.91E-02	7.52E+00	3.96E+03
Es-254	2.45E-08	--	--	--	--	--	--	--	--	--	--	5.14E-14	--	--	--	2.45E-08
Eu-152	3.07E-01	--	3.90E-03	--	--	1.43E-03	7.69E-09	3.57E-03	--	--	--	1.09E-01	--	1.03E-05	1.41E-03	4.26E-01
Eu-154	4.28E-01	--	5.85E+00	2.90E-06	--	1.04E-03	--	3.19E-02	2.69E-04	--	--	3.34E-01	--	1.51E-03	7.79E-02	6.72E+00
Eu-155	1.60E-01	--	4.14E-06	4.58E-06	--	8.48E-02	--	--	7.17E-04	--	--	2.17E-01	--	6.73E-05	1.80E-03	4.64E-01
Fe-55	7.54E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.54E-01
Fe-59	6.65E-06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.65E-06
Fr-221	--	7.24E-12	9.48E-06	2.61E-04	4.64E-04	1.22E-01	9.89E-08	1.45E-02	1.18E-11	7.05E-12	8.94E-13	7.13E-02	1.68E-07	6.38E-10	9.98E-04	2.09E-01
Fr-223	--	1.83E-16	5.97E-11	3.14E-08	3.43E-08	9.50E-03	1.48E-06	1.11E-03	2.28E-12	1.02E-10	--	3.22E-03	7.32E-09	2.35E-10	5.87E-04	1.44E-02
Gd-152	2.00E-15	--	--	--	--	2.61E-18	2.22E-22	6.57E-18	--	--	--	4.51E-15	--	3.42E-19	1.67E-17	6.54E-15
Gd-153	1.00E-04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.00E-04
H-3	8.48E-02	--	1.25E-04	--	--	8.50E+03	1.38E-04	--	--	--	--	2.93E-05	--	3.14E-03	1.94E-01	8.50E+03
Ho-166m	3.09E-07	--	--	--	--	--	--	--	--	--	--	--	--	--	2.54E-04	2.54E-04
I-129	1.54E-05	--	1.60E-06	--	--	1.20E-06	--	--	--	--	--	--	--	--	3.21E-02	3.21E-02
I-133	6.95E-08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.95E-08
In-113m	--	--	--	--	--	--	--	--	--	--	--	--	--	3.29E-19	--	3.29E-19
In-114	8.43E-04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.43E-04
In-115	2.37E-12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.37E-12
Ir-192	--	--	--	--	--	3.03E-10	--	--	--	--	--	--	--	--	--	3.03E-10
K-40	7.77E-04	--	4.54E-04	1.33E-06	--	--	--	6.26E-07	--	--	--	--	--	--	--	1.23E-03
Kr-81	9.80E-12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.80E-12
Kr-85	1.90E+00	--	2.73E+00	--	--	2.75E-01	--	--	--	--	--	--	--	--	1.25E-01	5.03E+00
Mn-54	3.15E-02	--	5.94E-04	--	--	5.16E-08	9.11E-19	--	--	--	--	1.56E-15	--	1.04E-17	--	3.21E-02
Mn-56	--	--	--	--	--	2.00E-07	--	--	--	--	--	--	--	--	--	2.00E-07
Na-22	3.81E-04	--	1.63E-02	--	--	6.28E-04	--	2.14E-07	--	--	--	1.05E-08	--	3.79E-08	6.30E-04	1.79E-02
Nb-93m	3.35E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.35E-01
Nb-94	8.45E-04	--	1.21E-03	--	--	4.40E-08	--	2.39E-07	--	--	--	--	--	--	1.63E-04	2.22E-03
Nb-95	--	--	--	1.28E-08	--	1.75E-07	--	--	2.91E-06	--	--	--	--	--	--	3.10E-06
Nb-95m	--	--	--	6.87E-11	--	9.40E-10	--	--	1.56E-08	--	--	--	--	--	--	1.66E-08
Nd-144	--	--	--	--	--	1.03E-18	--	--	4.84E-19	--	--	1.96E-16	--	--	4.40E-18	2.02E-16
Ni-59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.32E-05	1.32E-05
Ni-63	2.12E-05	--	--	--	--	--	--	--	--	--	--	1.04E-01	--	--	--	1.04E-01
Np-236	9.14E-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.14E-09
Np-237	2.91E-02	3.95E-05	8.00E-01	1.19E+00	1.33E-04	3.14E-01	3.12E-03	1.35E-01	6.14E-02	1.19E-04	1.56E-03	8.76E-01	2.20E+00	1.89E-02	1.24E+00	6.87E+00
Np-238	8.29E-06	--	1.27E-04	--	--	--	--	3.31E-01	--	--	--	--	--	--	6.63E-04	3.32E-01
Np-239	3.50E-02	--	9.87E-02	2.12E-02	--	7.31E-01	1.22E-03	2.21E+00	1.36E-01	--	--	4.67E+00	--	1.33E-04	5.24E+00	1.31E+01
Np-240	--	--	6.33E-14	--	--	3.48E-07	2.94E-08	1.97E-13	--	--	--	4.29E-09	--	--	6.18E-16	3.82E-07
Np-240m	--	--	5.27E-11	--	--	2.90E-04	2.45E-05	1.64E-10	--	--	--	3.57E-06	--	--	5.15E-13	3.18E-04

Table 3-10. Anticipated CH Radionuclide Activity (Ci) on a Site Basis Decayed through 2010

Continued

Radionuclide	ANLE	Army	Hanford	INL	KAPL-NFS	LANL	LBNL	LLNL	MFC	NNSS	NRD	ORNL	Paducah	SNL	SRS	Grand Total
P-32	4.67E-04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.67E-04
Pa-231	1.49E-05	5.06E-14	1.76E-07	8.97E-06	2.12E-05	1.12E-02	2.45E-04	5.21E-01	1.05E-08	2.47E-08	--	3.81E-01	2.02E-06	9.41E-08	1.17E-01	1.03E+00
Pa-233	2.55E+00	3.95E-05	5.61E-02	9.59E-01	1.33E-04	3.06E-01	3.12E-03	1.35E-01	6.14E-02	1.19E-04	1.56E-03	8.76E-01	2.20E+00	1.89E-02	1.24E+00	8.41E+00
Pa-234	4.93E-05	--	1.39E-04	1.56E-03	2.10E-05	1.96E-03	1.41E-08	1.38E-04	2.87E-08	3.22E-06	--	6.32E-05	1.66E-04	5.29E-07	8.91E-05	4.19E-03
Pa-234m	9.00E-05	--	1.07E-01	1.20E+00	1.61E-02	1.51E+00	1.09E-05	1.06E-01	2.21E-05	2.48E-03	--	4.87E-02	1.28E-01	4.07E-04	6.85E-02	3.18E+00
Pb-209	--	7.24E-12	9.48E-06	2.61E-04	4.64E-04	1.22E-01	9.89E-08	1.45E-02	1.18E-11	7.05E-12	8.94E-13	7.13E-02	1.68E-07	6.38E-10	9.98E-04	2.09E-01
Pb-210	1.13E-02	--	1.82E-10	1.99E-06	4.05E-05	1.91E-04	3.14E-06	1.70E-08	3.48E-11	1.67E-09	--	3.01E-01	2.45E-05	2.60E-06	6.34E-03	3.19E-01
Pb-211	--	1.32E-14	4.33E-09	2.28E-06	2.48E-06	6.90E-01	1.07E-04	8.06E-02	1.65E-10	7.40E-09	--	2.33E-01	5.30E-07	1.70E-08	4.26E-02	1.05E+00
Pb-212	1.77E+00	--	5.90E-05	2.08E-03	3.45E-02	3.64E+01	4.76E-09	1.57E-02	2.12E-04	2.70E-15	--	2.26E-01	--	6.50E-05	3.84E-01	3.88E+01
Pb-214	1.37E-06	--	1.48E-09	1.71E-05	3.53E-04	5.07E-05	1.28E-05	1.13E-06	2.31E-09	8.03E-09	--	5.54E-01	9.24E-05	2.08E-06	4.21E-02	5.97E-01
Pd-107	1.50E-05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.50E-05
Pm-147	1.85E+00	--	3.52E+01	--	--	1.06E-01	--	--	--	--	--	6.53E-03	--	1.34E-04	1.14E-02	3.72E+01
Po-210	6.45E-05	--	1.78E-10	1.99E-06	4.05E-05	1.75E-04	3.14E-06	6.84E-09	1.39E-11	1.67E-09	--	3.01E-01	2.45E-05	2.60E-06	6.34E-03	3.07E-01
Po-211	--	3.64E-17	1.19E-11	6.26E-09	6.83E-09	1.90E-03	2.94E-07	2.22E-04	4.54E-13	2.04E-11	--	6.42E-04	1.46E-09	4.69E-11	1.17E-04	2.88E-03
Po-212	--	--	3.78E-05	1.33E-03	2.21E-02	2.33E+01	3.05E-09	1.00E-02	1.36E-04	1.73E-15	--	1.45E-01	--	4.16E-05	2.46E-01	2.37E+01
Po-213	--	7.09E-12	9.28E-06	2.56E-04	4.54E-04	1.19E-01	9.69E-08	1.42E-02	1.15E-11	6.91E-12	8.75E-13	6.98E-02	1.65E-07	6.25E-10	9.77E-04	2.05E-01
Po-214	--	--	1.48E-09	1.71E-05	3.53E-04	5.07E-05	1.28E-05	1.13E-06	2.31E-09	8.03E-09	--	5.54E-01	9.23E-05	2.08E-06	4.21E-02	5.97E-01
Po-215	--	1.32E-14	4.33E-09	2.28E-06	2.48E-06	6.90E-01	1.07E-04	8.06E-02	1.65E-10	7.40E-09	--	2.33E-01	5.30E-07	1.70E-08	4.26E-02	1.05E+00
Po-216	--	--	5.90E-05	2.08E-03	3.45E-02	3.64E+01	4.76E-09	1.57E-02	2.12E-04	2.70E-15	--	2.26E-01	--	6.50E-05	3.84E-01	3.70E+01
Po-218	--	--	1.48E-09	1.71E-05	3.54E-04	5.07E-05	1.29E-05	1.13E-06	2.31E-09	8.03E-09	--	5.54E-01	9.24E-05	2.08E-06	4.21E-02	5.97E-01
Pr-142	1.90E-08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.90E-08
Pr-144	3.94E-03	--	--	--	--	6.62E-04	--	--	9.06E-04	--	--	1.18E-10	--	--	1.57E-09	5.50E-03
Pr-144m	4.80E-06	--	--	--	--	9.26E-06	--	--	1.27E-05	--	--	1.66E-12	--	--	2.20E-11	2.68E-05
Pu-236	7.04E-09	--	--	1.03E-05	--	3.79E-09	--	--	--	--	--	2.29E-13	--	--	--	1.03E-05
Pu-237	1.04E+01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.04E+01
Pu-238	1.21E+01	--	1.84E+04	2.86E+03	5.77E+00	1.24E+05	5.11E-03	1.30E+04	1.22E+00	4.11E+00	--	3.00E+03	2.82E-03	7.33E-01	1.11E+05	2.72E+05
Pu-239	4.37E+01	5.05E-03	8.62E+04	2.48E+04	1.84E+02	4.79E+04	4.69E-02	1.55E+04	2.57E+01	1.41E+02	--	6.32E+02	5.55E-01	1.07E+01	1.53E+04	1.91E+05
Pu-240	1.49E+01	--	3.31E+04	6.70E+03	1.84E+02	1.23E+04	2.66E-03	4.54E+03	6.92E+00	3.25E+01	--	8.44E+02	--	2.32E+00	4.87E+03	6.27E+04
Pu-241	2.16E+02	--	5.88E+05	5.21E+04	1.85E+02	1.96E+05	1.65E-02	5.29E+04	1.21E+03	1.67E+02	--	2.33E+04	--	1.95E+01	1.82E+04	9.32E+05
Pu-242	1.19E-02	--	1.59E+03	9.49E-01	--	2.06E+01	6.78E-05	1.31E+00	1.37E-03	2.19E-03	--	2.05E+00	--	2.20E-04	1.32E+00	1.62E+03
Pu-243	--	--	--	--	--	--	--	4.08E-06	--	--	--	3.23E-07	--	--	1.07E-02	1.07E-02
Pu-244	2.66E-06	--	5.28E-11	--	--	2.90E-04	2.45E-05	1.64E-10	--	--	--	3.58E-06	--	--	5.15E-13	3.21E-04
Ra-223	--	1.32E-14	4.33E-09	2.28E-06	2.48E-06	6.90E-01	1.07E-04	8.06E-02	1.65E-10	7.40E-09	--	2.33E-01	5.30E-07	1.70E-08	4.26E-02	1.05E+00
Ra-224	8.00E-06	--	5.90E-05	2.08E-03	3.45E-02	3.64E+01	4.76E-09	1.57E-02	2.12E-04	2.70E-15	--	2.26E-01	--	6.50E-05	3.84E-01	3.70E+01
Ra-225	--	7.24E-12	9.48E-06	2.61E-04	4.64E-04	1.22E-01	9.89E-08	1.45E-02	1.18E-11	7.05E-12	8.94E-13	7.13E-02	1.68E-07	6.38E-10	9.98E-04	2.09E-01
Ra-226	1.69E+00	--	5.29E-03	5.01E-02	3.54E-04	3.51E-04	1.28E-05	1.13E-06	2.31E-09	8.03E-09	--	5.54E-01	9.24E-05	1.18E-03	4.21E-02	2.34E+00
Ra-228	1.12E-07	--	1.38E-05	2.55E-04	2.11E-02	3.10E-04	5.06E-09	1.53E-04	4.84E-10	2.80E-15	--	7.84E-04	--	7.10E-05	2.84E-02	5.11E-02
Rb-87	1.81E-08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.81E-08
Rh-106	2.97E-03	--	--	--	--	1.25E-02	--	--	1.02E-03	--	--	9.05E-08	--	--	5.58E-05	1.66E-02
Rn-219	--	1.32E-14	4.33E-09	2.28E-06	2.48E-06	6.90E-01	1.07E-04	8.06E-02	1.65E-10	7.40E-09	--	2.33E-01	5.30E-07	1.70E-08	4.26E-02	1.05E+00
Rn-220	--	--	5.90E-05	2.08E-03	3.45E-02	3.64E+01	4.76E-09	1.57E-02	2.12E-04	2.70E-15	--	2.26E-01	--	6.50E-05	3.84E-01	3.70E+01
Rn-222	--	--	1.48E-09	1.71E-05	3.54E-04	5.07E-05	1.29E-05	1.13E-06	2.31E-09	8.03E-09	--	5.54E-01	9.24E-05	2.08E-06	4.21E-02	5.97E-01
Ru-103	5.00E-05	--	--	--	--	--	--	--	--	--	--	4.06E-01	--	--	--	4.06E-01
Ru-106	2.54E-01	--	--	--	--	1.25E-02	--	--	1.02E-03	--	--	1.83E+00	--	--	5.58E-05	2.10E+00

Table 3-10. Anticipated CH Radionuclide Activity (Ci) on a Site Basis Decayed through 2010

Continued

Radionuclide	ANLE	Army	Hanford	INL	KAPL-NFS	LANL	LBNL	LLNL	MFC	NNSS	NRD	ORNL	Paducah	SNL	SRS	Grand Total
S-35	4.62E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.62E-03
Sb-125	1.85E-01	--	2.26E+00	--	--	7.67E-02	--	3.46E-06	--	--	--	1.08E-01	--	1.43E-07	8.14E-03	2.64E+00
Sb-126	5.81E+02	--	2.04E-01	--	--	1.52E-05	--	--	--	--	--	--	--	--	6.72E-07	5.81E+02
Sb-126m	1.90E-04	--	1.46E+00	--	--	1.09E-04	--	--	--	--	--	--	--	--	4.80E-06	1.46E+00
Sc-46	--	--	--	--	--	2.92E-09	--	--	--	--	--	--	--	--	--	2.92E-09
Se-75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Se-79	2.85E-04	--	--	--	--	--	--	--	--	--	--	--	--	--	9.73E-06	2.94E-04
Sm-147	7.17E-09	--	2.63E-10	--	--	7.94E-13	--	--	--	--	--	1.19E-10	--	9.94E-14	5.47E-11	7.60E-09
Sm-148	--	--	--	--	--	1.19E-34	1.45E-37	2.90E-34	--	--	--	5.97E-30	--	2.16E-34	7.28E-33	5.98E-30
Sm-151	1.41E+00	--	3.69E+00	--	--	1.01E-03	--	--	--	--	--	2.17E-01	--	--	7.16E-02	5.39E+00
Sn-113	--	--	--	--	--	--	--	--	--	--	--	--	--	3.29E-19	--	3.29E-19
Sn-119m	1.40E-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.40E-09
Sn-121	--	--	--	--	--	4.27E-04	--	--	--	--	--	--	--	--	--	4.27E-04
Sn-121m	3.10E-05	--	--	--	--	5.51E-04	--	--	--	--	--	--	--	--	--	5.82E-04
Sn-123	4.10E-06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.10E-06
Sn-126	4.25E-04	--	1.46E+00	--	--	1.09E-04	--	--	--	--	--	--	--	--	4.80E-06	1.46E+00
Sr-85	1.87E-04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.87E-04
Sr-90	4.27E+01	--	3.93E+03	2.04E-01	--	4.99E+00	--	7.08E+00	8.90E-02	--	--	2.17E+01	--	1.50E-01	6.57E+00	4.02E+03
Tc-99	2.19E-02	--	2.92E+00	--	1.14E+00	--	--	--	--	--	--	2.02E+01	5.49E+00	1.46E-07	1.62E+00	3.14E+01
Tc-99m	2.00E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.00E-01
Te-123	7.19E-19	--	--	--	--	--	--	--	--	--	--	4.59E-17	--	3.02E-20	--	4.66E-17
Te-123m	--	--	--	--	--	--	--	--	--	--	--	--	--	1.30E-18	--	1.30E-18
Te-125m	7.70E-03	--	5.42E-01	--	--	1.89E-02	--	8.32E-07	--	--	--	3.83E-05	--	3.50E-08	1.99E-03	5.71E-01
Te-127	7.30E-16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.30E-16
Te-127m	7.50E-16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.50E-16
Th-227	2.41E-07	1.30E-14	4.27E-09	2.25E-06	2.45E-06	6.81E-01	1.06E-04	7.95E-02	1.63E-10	7.30E-09	--	2.30E-01	5.23E-07	1.68E-08	4.20E-02	1.03E+00
Th-228	1.23E-01	--	5.02E-04	2.08E-03	3.44E-02	3.64E+01	4.76E-09	1.56E-02	2.12E-04	2.70E-15	--	2.26E-01	--	3.60E-03	3.84E-01	3.71E+01
Th-229	1.64E-05	7.24E-12	9.48E-06	2.61E-04	4.64E-04	1.22E-01	9.89E-08	1.45E-02	1.18E-11	7.05E-12	8.94E-13	7.13E-02	1.68E-07	6.38E-10	9.98E-04	2.09E-01
Th-230	3.65E-03	--	1.58E-06	1.26E-05	1.02E-01	2.08E-03	2.35E-11	2.60E-03	5.40E-06	1.55E-06	--	3.30E-03	1.02E-02	1.12E-06	6.11E-03	1.30E-01
Th-231	6.26E-04	1.54E-10	6.58E-03	6.22E-02	1.25E-01	6.13E-02	5.50E-07	2.68E-02	4.95E-04	4.98E-05	--	2.98E-03	4.74E-03	3.42E-04	4.04E-03	2.95E-01
Th-232	1.64E-04	--	3.39E-03	2.82E-04	3.41E-02	2.73E-03	6.24E-09	1.35E-03	4.26E-09	5.67E-15	--	8.23E-04	--	1.03E-03	2.93E-02	7.31E-02
Th-234	4.57E-03	--	1.07E-01	1.20E+00	1.61E-02	1.51E+00	1.09E-05	1.06E-01	2.21E-05	2.48E-03	--	4.87E-02	1.28E-01	4.07E-04	6.85E-02	3.19E+00
Tl-204	1.70E-04	--	--	--	--	--	7.97E-12	--	--	--	--	5.11E-07	--	--	--	1.71E-04
Tl-207	--	1.32E-14	4.32E-09	2.27E-06	2.48E-06	6.88E-01	1.07E-04	8.04E-02	1.65E-10	7.38E-09	--	2.33E-01	5.29E-07	1.70E-08	4.24E-02	1.04E+00
Tl-208	5.53E-06	--	2.12E-05	7.48E-04	1.24E-02	1.31E+01	1.71E-09	5.63E-03	7.62E-05	9.72E-16	--	8.13E-02	--	2.33E-05	1.38E-01	1.33E+01
Tl-209	--	1.52E-13	1.99E-07	5.48E-06	9.74E-06	2.56E-03	2.08E-09	3.04E-04	2.47E-13	1.48E-13	1.88E-14	1.50E-03	3.54E-09	1.34E-11	2.10E-05	4.40E-03
Tm-171	5.25E-07	--	--	--	--	1.39E-03	--	--	--	--	--	--	--	--	--	1.39E-03
U-232	1.03E-04	--	3.57E-01	1.41E-02	--	6.99E+01	--	4.45E-02	6.88E-04	--	--	2.19E-01	--	1.06E-05	3.47E-01	7.09E+01
U-233	7.90E-03	5.32E-09	5.37E+00	1.01E+00	6.60E-01	4.26E+01	1.25E-04	5.93E+00	2.67E-07	6.80E-09	1.02E-08	5.38E+00	1.91E-04	2.46E-05	6.59E-01	6.16E+01
U-234	8.56E-03	--	3.53E+00	1.83E+00	6.60E-01	1.69E+01	2.78E-07	5.71E-01	1.67E-02	7.14E-03	--	7.40E+00	8.82E-02	9.38E-03	2.62E+01	5.72E+01
U-235	2.94E-03	1.54E-10	1.17E-01	1.39E-01	1.25E-01	6.13E-02	5.50E-07	2.68E-02	4.95E-04	4.98E-05	--	2.99E-03	4.74E-03	3.42E-04	1.26E-02	4.94E-01
U-236	8.04E-04	--	1.60E-03	4.37E-04	1.25E-01	2.83E-03	1.22E-09	1.35E-04	8.01E-05	1.26E-05	--	1.35E-01	--	2.36E-05	8.87E-03	2.74E-01
U-237	6.24E-04	--	2.41E-01	3.02E-01	4.44E-03	4.65E+00	3.94E-07	1.27E+00	2.90E-02	4.00E-03	--	5.58E-01	--	1.89E-05	7.99E-02	7.13E+00
U-238	2.37E-02	--	1.96E+00	6.53E+00	1.61E-02	1.51E+00	1.09E-05	1.06E-01	2.21E-05	2.48E-03	--	4.87E-02	1.28E-01	4.07E-04	6.86E-02	1.04E+01

Table 3-10. Anticipated CH Radionuclide Activity (Ci) on a Site Basis Decayed through 2010

Continued

Radionuclide	ANLE	Army	Hanford	INL	KAPL-NFS	LANL	LBNL	LLNL	MFC	NNSS	NRD	ORNL	Paducah	SNL	SRS	Grand Total
U-240	3.70E-15	--	5.27E-11	--	--	2.90E-04	2.45E-05	1.64E-10	--	--	--	3.57E-06	--	--	5.15E-13	3.18E-04
Y-90	3.95E+01	--	3.92E+03	7.20E-03	--	4.98E+00	--	7.08E+00	8.90E-02	--	--	6.64E+00	--	1.50E-01	6.57E+00	3.98E+03
Zn-65	1.21E-06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.21E-06
Zr-93	2.31E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.31E-03
Zr-95	1.57E-04	--	--	5.84E-09	--	7.99E-08	--	--	1.33E-06	--	--	2.19E-01	--	--	--	2.20E-01
Grand Total	1.30E+03	5.13E-03	8.00E+05	1.23E+05	6.15E+02	4.53E+05	1.74E+00	9.98E+04	1.34E+03	3.58E+02	1.60E+03	3.18E+04	1.12E+01	4.76E+01	2.32E+05	1.75E+06

Data Source: CID Data Version D.10.01, LANL-CO 2011a. Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.**Table 3-11. Anticipated RH Radionuclide Activity (Ci) on a Site Basis Decayed through 2010**

Radionuclide	ANLE	BAPL	Hanford	INL	KAPL-S	LANL	MFC	ORNL	SNL	SRS	Grand Total
Ac-225	8.08E-03	1.90E-04	1.55E-04	7.72E-04	5.86E-11	1.33E-12	2.51E-09	8.64E-01	2.31E-11	4.31E-05	8.73E-01
Ac-227	3.71E-01	1.98E-04	2.17E-02	2.43E-03	2.88E-09	1.57E-06	7.30E-06	4.41E-03	1.97E-08	8.13E-09	4.00E-01
Ac-228	3.54E-02	5.38E-06	3.86E-06	5.19E-05	1.94E-12	8.52E-15	1.48E-13	9.33E-03	2.95E-17	1.82E-13	4.47E-02
Ag-108	1.69E-03	--	--	--	--	--	--	--	--	--	1.69E-03
Ag-108m	1.94E-02	--	--	--	--	--	--	--	--	--	1.94E-02
Ag-109m	4.17E-01	--	--	--	--	--	--	1.08E-07	--	--	4.17E-01
Ag-110	6.67E-04	--	--	--	--	--	--	1.65E-14	--	--	6.67E-04
Ag-110m	4.91E-02	--	6.15E-05	--	--	--	--	1.21E-12	--	--	4.91E-02
Am-241	1.72E+02	2.33E-01	4.19E+03	3.27E+03	1.56E-03	4.59E+00	2.43E+02	9.92E+01	1.39E+01	2.94E+02	8.29E+03
Am-242	6.50E-01	3.80E-07	7.15E-03	2.56E-04	--	--	--	--	2.22E-04	1.43E-01	8.00E-01
Am-242m	6.53E-01	1.26E-05	1.42E+00	2.57E-04	--	--	--	--	2.23E-04	1.43E-01	2.22E+00
Am-243	3.70E+00	1.00E-03	4.80E+00	6.89E-04	2.49E-06	--	1.11E-08	9.82E-01	3.04E-05	3.61E+00	1.31E+01
Am-245	--	--	--	--	--	--	--	1.94E-15	--	--	1.94E-15
Ar-37	1.35E-12	--	--	--	--	--	--	--	--	--	1.35E-12
Ar-39	1.35E-02	--	--	--	--	--	--	--	--	--	1.35E-02
Ar-42	3.53E-02	--	--	--	--	--	--	--	--	--	3.53E-02
At-217	8.08E-03	1.90E-04	1.55E-04	7.72E-04	5.86E-11	1.33E-12	2.51E-09	8.64E-01	2.31E-11	4.31E-05	8.73E-01
Ba-133	2.80E+00	9.02E-10	--	--	--	--	--	--	--	--	2.80E+00
Ba-137m	3.90E+03	5.20E+02	1.91E+04	2.33E+04	2.86E+00	7.97E+02	3.17E+04	1.81E+03	3.55E+02	7.00E+02	8.23E+04
Bi-210	1.28E+00	1.63E-08	1.22E-10	1.29E-08	2.21E-10	6.48E-10	5.84E-08	6.31E+00	2.17E-10	1.45E-08	7.58E+00
Bi-211	3.72E-01	--	2.04E-06	2.43E-03	2.88E-09	1.57E-06	7.30E-06	4.41E-03	1.97E-08	8.13E-09	3.79E-01
Bi-212	4.31E+00	6.92E-02	1.34E-05	6.18E-02	1.47E-06	8.52E-15	7.50E-14	1.69E+00	3.05E-07	1.72E-13	6.14E+00
Bi-213	8.08E-03	1.90E-04	1.55E-04	7.72E-04	5.86E-11	1.33E-12	2.51E-09	8.64E-01	2.31E-11	4.31E-05	8.73E-01
Bi-214	1.39E-10	2.76E-08	4.48E-09	1.05E-07	7.07E-10	2.83E-09	8.52E-07	1.16E+01	1.78E-09	9.06E-08	1.16E+01
Bk-249	--	--	--	--	--	--	--	1.34E-10	--	--	1.34E-10
Bk-250	--	--	--	--	--	--	--	5.29E-09	--	--	5.29E-09
C-14	--	1.33E-02	6.26E-04	9.07E+01	8.76E-05	--	3.73E+01	1.09E-03	--	1.34E-04	1.28E+02
Ca-45	1.72E-03	--	--	--	--	--	--	--	--	--	1.72E-03
Cd-109	4.17E-01	--	--	--	--	--	--	1.08E-07	--	--	4.17E-01

Table 3-11. Anticipated RH Radionuclide Activity (Ci) on a Site Basis Decayed through 2010
Continued

Radionuclide	ANLE	BAPL	Hanford	INL	KAPL-S	LANL	MFC	ORNL	SNL	SRS	Grand Total
Cd-113	4.41E-19	--	4.67E-22	--	--	--	--	--	--	--	4.42E-19
Cd-113m	1.31E+00	1.02E-04	2.07E+00	--	--	--	--	--	--	--	3.38E+00
Cd-115m	5.91E-09	--	--	--	--	--	--	--	--	--	5.91E-09
Ce-139	7.66E-03	--	--	--	--	--	--	--	--	--	7.66E-03
Ce-141	4.29E-11	--	--	--	--	--	2.78E-03	--	--	--	2.78E-03
Ce-144	5.99E+00	1.70E-09	2.78E-02	3.52E-02	--	1.56E-10	8.17E+01	2.68E-10	--	4.37E-04	8.78E+01
Cf-249	2.47E-07	--	--	--	1.86E-13	--	--	2.02E-01	--	5.74E-06	2.02E-01
Cf-250	6.91E-02	--	--	--	--	--	--	5.26E-01	--	7.75E-05	5.95E-01
Cf-251	1.23E-08	--	--	--	2.36E-15	--	--	2.83E-02	--	2.24E-06	2.83E-02
Cf-252	--	--	--	--	1.08E-17	--	--	1.59E-02	--	1.49E-01	1.65E-01
Cm-242	5.38E-01	1.04E-05	2.07E+00	2.12E-04	--	--	2.44E-11	1.51E-13	1.83E-04	1.18E-01	2.72E+00
Cm-243	6.74E+00	2.17E-05	3.48E+01	6.87E-03	5.86E-07	--	--	1.94E-02	3.22E-05	7.23E-02	4.16E+01
Cm-244	4.49E+02	1.08E-03	9.76E+02	3.04E+00	5.26E-05	--	2.65E-06	2.78E+02	--	3.71E+02	2.08E+03
Cm-245	2.21E-02	1.61E-09	1.01E-01	--	2.30E-08	--	--	6.42E-04	--	4.95E-02	1.74E-01
Cm-246	4.73E-05	--	4.53E-02	--	2.99E-09	--	--	1.87E+00	--	6.13E-02	1.98E+00
Cm-247	9.57E-10	--	1.43E-10	--	7.07E-15	--	--	6.15E-08	--	1.31E-07	1.94E-07
Cm-248	--	--	2.16E-06	2.68E-16	1.40E-14	--	--	7.19E-03	--	5.77E-06	7.20E-03
Cm-250	--	--	--	--	--	--	--	3.78E-08	--	--	3.78E-08
Co-58	1.98E-05	--	--	2.81E-18	--	--	7.01E+02	--	--	--	7.01E+02
Co-60	4.27E+01	7.54E+00	1.96E+02	5.25E+02	--	5.85E-01	4.79E+04	3.83E-03	1.44E-02	2.54E-03	4.87E+04
Cr-51	1.54E-13	--	--	--	--	--	--	--	--	--	1.54E-13
Cs-134	4.83E+01	9.98E-01	1.90E+03	3.34E+00	--	--	6.30E+01	1.43E-04	8.10E-01	4.43E-01	2.01E+03
Cs-135	1.73E-07	1.64E-05	7.24E-04	4.84E-03	1.90E-05	--	1.82E+01	--	--	--	1.82E+01
Cs-137	4.14E+03	5.49E+02	2.74E+05	2.47E+04	3.03E+00	8.44E+02	3.36E+04	1.92E+03	3.76E+02	7.41E+02	3.40E+05
Dy-159	1.11E-03	--	--	--	--	--	--	--	--	--	1.11E-03
Es-254	--	--	--	--	--	--	--	1.08E-13	--	--	1.08E-13
Eu-149	4.25E-05	--	--	--	--	--	--	--	--	--	4.25E-05
Eu-152	3.09E-01	5.43E+01	3.91E-01	1.73E-06	--	--	--	9.16E+00	--	--	6.42E+01
Eu-154	1.18E+02	2.51E+01	1.10E+03	1.49E+01	--	8.94E-03	8.17E+00	2.70E+00	5.18E-01	1.10E+00	1.27E+03
Eu-155	4.93E+00	7.36E-01	7.88E+02	1.09E+01	--	1.00E-02	5.83E+01	8.57E-02	--	2.59E-02	8.63E+02
Fe-55	5.01E+01	6.42E-01	7.62E-02	9.71E+00	--	--	1.54E+04	--	--	--	1.55E+04
Fe-59	1.87E-09	--	--	--	--	--	--	--	--	--	1.87E-09
Fr-221	8.08E-03	1.90E-04	1.55E-04	7.72E-04	5.86E-11	1.33E-12	2.51E-09	8.64E-01	2.31E-11	4.31E-05	8.73E-01
Fr-223	5.12E-03	--	2.82E-08	3.35E-05	3.98E-11	2.17E-08	1.01E-07	6.09E-05	2.72E-10	1.12E-10	5.22E-03
Gd-152	1.80E-15	--	1.49E-16	6.40E-20	--	--	--	8.43E-13	--	--	8.45E-13
Gd-153	1.97E-02	--	6.44E-07	--	--	--	--	--	--	--	1.97E-02
H-3	2.25E+01	1.50E+00	2.26E+03	4.52E-01	--	--	1.01E-04	--	--	1.19E-01	2.29E+03
Hf-175	1.58E-06	--	--	--	--	--	--	--	--	--	1.58E-06
Hf-181	5.58E-11	--	--	--	--	--	--	--	--	--	5.58E-11
Ho-166m	--	3.72E-10	--	--	--	--	--	--	--	--	3.72E-10
I-125	1.34E-06	--	--	--	--	--	--	--	--	--	1.34E-06
I-129	1.40E-06	1.78E-04	2.79E-03	3.52E-02	1.74E-06	--	9.61E-02	1.71E-06	--	5.43E-02	1.89E-01
In-113m	4.05E-04	--	--	--	--	--	--	--	--	--	4.05E-04

Table 3-11. Anticipated RH Radionuclide Activity (Ci) on a Site Basis Decayed through 2010
Continued

Radionuclide	ANLE	BAPL	Hanford	INL	KAPL-S	LANL	MFC	ORNL	SNL	SRS	Grand Total
In-114	6.92E-09	--	--	--	--	--	--	--	--	--	6.92E-09
In-114m	7.24E-09	--	--	--	--	--	--	--	--	--	7.24E-09
In-115	4.09E-17	--	--	--	--	--	--	--	--	--	4.09E-17
In-115m	6.53E-13	--	--	--	--	--	--	--	--	--	6.53E-13
Ir-194	1.40E-02	--	--	--	--	--	--	--	--	--	1.40E-02
K-42	3.53E-02	--	--	--	--	--	--	--	--	--	3.53E-02
Kr-85	9.12E+01	2.70E+01	5.87E+02	1.05E+01	--	1.09E+02	--	--	--	1.60E+00	8.27E+02
Lu-177m	2.86E-05	--	--	--	--	--	--	--	--	--	2.86E-05
Mn-54	1.35E+00	--	1.25E+02	1.22E-01	--	--	1.16E+04	--	--	--	1.18E+04
Mo-93	--	--	1.36E-04	2.03E-02	--	--	--	--	--	--	2.04E-02
Na-22	2.51E-02	--	2.09E-05	2.17E-07	--	--	--	1.22E-08	--	--	2.51E-02
Nb-91	2.22E-02	--	--	--	--	--	--	--	--	--	2.22E-02
Nb-93m	6.72E-01	2.06E-02	3.92E-04	7.53E-03	3.92E-05	--	--	--	--	--	7.00E-01
Nb-94	--	3.43E-08	9.73E-02	4.95E-03	--	--	5.89E-01	--	--	--	6.92E-01
Nb-95	1.97E-04	--	--	--	--	--	--	--	--	--	1.97E-04
Nb-95m	1.05E-06	--	--	--	--	--	--	--	--	--	1.05E-06
Nd-144	2.99E-14	--	1.74E-14	3.32E-12	--	1.52E-15	9.23E-12	4.43E-16	--	8.19E-17	1.26E-11
Ni-59	1.79E-02	8.71E-01	9.31E-04	9.05E+02	8.23E-06	--	3.60E+02	--	--	2.39E-04	1.27E+03
Ni-63	4.23E+01	7.12E+01	3.60E-02	8.46E+00	8.45E-04	--	8.00E+02	--	--	--	9.22E+02
Np-235	3.20E-01	--	--	--	--	--	--	--	--	--	3.20E-01
Np-237	5.85E-03	1.43E-03	9.43E-01	2.58E-02	4.03E-05	3.33E-05	1.09E-01	1.56E-02	7.49E-04	2.11E+00	3.21E+00
Np-238	2.94E-03	--	3.23E-05	1.16E-06	--	--	--	--	1.00E-06	6.45E-04	3.62E-03
Np-239	3.70E+00	4.73E-05	5.41E-02	6.89E-04	2.49E-06	--	1.11E-08	9.82E-01	3.04E-05	3.61E+00	8.34E+00
Np-240	5.03E-14	--	2.79E-09	3.57E-26	9.71E-17	--	--	8.07E-12	--	2.41E-16	2.80E-09
Np-240m	4.20E-11	--	2.32E-06	2.98E-23	8.09E-14	--	--	6.73E-09	--	2.00E-13	2.33E-06
Os-185	1.01E-06	--	--	--	--	--	--	--	--	--	1.01E-06
Os-194	1.40E-02	--	--	--	--	--	--	--	--	--	1.40E-02
Pa-231	9.50E-08	3.17E-04	1.41E-05	1.26E-02	5.17E-09	4.78E-06	7.05E-05	7.22E-03	1.09E-07	3.81E-08	2.02E-02
Pa-233	5.85E-03	3.17E-07	6.49E-01	2.58E-02	4.03E-05	3.33E-05	1.09E-01	1.56E-02	7.49E-04	2.11E+00	2.92E+00
Pa-234	1.34E-04	1.17E-10	1.36E-04	3.09E-04	1.94E-11	5.36E-08	1.13E-02	1.54E-05	1.76E-07	3.43E-06	1.19E-02
Pa-234m	1.03E-01	1.85E-07	1.05E-01	2.38E-01	1.49E-08	4.12E-05	8.72E+00	1.18E-02	1.35E-04	2.64E-03	9.18E+00
Pb-209	8.08E-03	1.90E-04	1.55E-04	7.72E-04	5.86E-11	1.33E-12	2.51E-09	8.64E-01	2.31E-11	4.31E-05	8.73E-01
Pb-210	1.28E+00	1.63E-08	2.26E-02	1.29E-08	2.21E-10	6.48E-10	5.84E-08	6.31E+00	2.17E-10	1.45E-08	7.61E+00
Pb-211	3.72E-01	--	2.04E-06	2.43E-03	2.88E-09	1.57E-06	7.30E-06	4.41E-03	1.97E-08	8.13E-09	3.79E-01
Pb-212	4.31E+00	6.92E-02	1.34E-05	6.18E-02	1.47E-06	8.52E-15	7.50E-14	1.69E+00	3.05E-07	1.72E-13	6.14E+00
Pb-214	1.39E-10	2.76E-08	4.48E-09	1.05E-07	7.07E-10	2.83E-09	8.52E-07	1.16E+01	1.78E-09	9.06E-08	1.16E+01
Pd-107	8.52E-06	5.02E-07	9.92E-05	--	7.97E-07	--	--	--	--	--	1.09E-04
Pm-145	8.20E-01	--	--	--	--	--	--	--	--	--	8.20E-01
Pm-146	8.19E-01	--	--	--	--	--	--	--	--	--	8.19E-01
Pm-147	5.59E+01	6.73E+00	7.48E+01	1.07E+01	3.38E-04	--	--	--	6.78E-01	6.31E-01	1.49E+02
Pm-148	5.90E-12	--	--	--	--	--	--	--	--	--	5.90E-12
Pm-148m	1.12E-10	--	--	--	--	--	--	--	--	--	1.12E-10
Po-210	1.29E+00	1.63E-08	2.26E-02	1.29E-08	2.21E-10	6.48E-10	5.84E-08	6.31E+00	2.17E-10	1.45E-08	7.63E+00

Table 3-11. Anticipated RH Radionuclide Activity (Ci) on a Site Basis Decayed through 2010
Continued

Radionuclide	ANLE	BAPL	Hanford	INL	KAPL-S	LANL	MFC	ORNL	SNL	SRS	Grand Total
Po-211	1.02E-03	--	5.62E-09	6.67E-06	7.93E-12	4.32E-09	2.01E-08	1.21E-05	5.43E-11	2.24E-11	1.04E-03
Po-212	2.76E+00	4.42E-02	8.56E-06	3.96E-02	9.40E-07	5.46E-15	4.81E-14	1.09E+00	1.95E-07	1.10E-13	3.93E+00
Po-213	7.91E-03	1.86E-04	1.52E-04	7.56E-04	5.74E-11	1.30E-12	2.46E-09	8.46E-01	2.26E-11	4.22E-05	8.55E-01
Po-214	1.39E-10	2.76E-08	4.48E-09	1.05E-07	7.07E-10	2.83E-09	8.51E-07	1.16E+01	1.78E-09	9.06E-08	1.16E+01
Po-215	3.72E-01	--	2.04E-06	2.43E-03	2.88E-09	1.57E-06	7.30E-06	4.41E-03	1.97E-08	8.13E-09	3.79E-01
Po-216	4.31E+00	6.92E-02	1.34E-05	6.18E-02	1.47E-06	8.52E-15	7.50E-14	1.69E+00	3.05E-07	1.72E-13	6.14E+00
Po-218	1.39E-10	2.76E-08	4.48E-09	1.05E-07	7.08E-10	2.84E-09	8.52E-07	1.16E+01	1.78E-09	9.07E-08	1.16E+01
Pr-144	5.99E+00	1.70E-09	1.78E-09	3.52E-02	--	1.56E-10	8.17E+01	2.68E-10	--	4.37E-04	8.78E+01
Pr-144m	8.38E-02	--	2.49E-11	4.93E-04	--	2.18E-12	1.14E+00	3.75E-12	--	6.12E-06	1.23E+00
Pu-236	4.39E-01	--	1.35E-05	1.47E-02	--	--	--	--	--	--	4.53E-01
Pu-238	2.81E+02	1.16E+01	2.09E+03	8.40E+02	1.26E-01	1.27E+00	1.36E+01	9.32E+01	3.21E+00	3.63E+03	6.96E+03
Pu-239	4.00E+01	9.59E-03	1.09E+03	1.39E+03	3.57E-04	9.37E+01	9.35E+02	2.12E+01	2.91E+00	2.27E+01	3.59E+03
Pu-240	2.99E+01	1.02E-03	5.45E+03	2.54E+02	8.95E-05	2.53E+00	4.06E+02	1.90E+01	6.49E-01	7.89E+00	6.17E+03
Pu-241	2.09E+03	2.02E+00	2.45E+04	1.69E+03	8.63E-03	2.49E+01	4.32E+01	8.44E+01	4.13E-02	2.13E+03	3.06E+04
Pu-242	9.64E-02	1.63E-04	6.43E+03	2.99E-01	3.41E-07	1.52E-03	1.13E-02	8.26E-02	7.16E-05	4.63E-03	6.43E+03
Pu-243	9.57E-10	--	--	--	7.07E-15	--	--	6.15E-08	--	1.31E-07	1.93E-07
Pu-244	4.20E-11	--	2.33E-06	2.98E-23	8.10E-14	--	--	6.73E-09	--	2.01E-13	2.33E-06
Ra-223	3.72E-01	--	2.04E-06	2.43E-03	2.88E-09	1.57E-06	7.30E-06	4.41E-03	1.97E-08	8.13E-09	3.79E-01
Ra-224	4.31E+00	6.92E-02	1.34E-05	6.18E-02	1.47E-06	8.52E-15	7.50E-14	1.69E+00	3.05E-07	1.72E-13	6.14E+00
Ra-225	8.08E-03	1.90E-04	1.55E-04	7.72E-04	5.86E-11	1.33E-12	2.51E-09	8.64E-01	2.31E-11	4.31E-05	8.73E-01
Ra-226	1.39E-10	2.76E-08	4.53E-02	1.05E-07	7.08E-10	2.84E-09	8.52E-07	1.16E+01	1.78E-09	9.07E-08	1.17E+01
Ra-228	3.53E-02	5.38E-06	5.47E-06	5.19E-05	1.94E-12	8.52E-15	1.48E-13	9.33E-03	2.95E-17	1.82E-13	4.47E-02
Rb-87	--	1.76E-09	--	--	--	--	--	--	--	--	1.76E-09
Re-188	8.17E-08	--	--	--	--	--	--	--	--	--	8.17E-08
Rh-102	3.16E-02	--	--	--	--	--	--	--	--	--	3.16E-02
Rh-103m	7.58E-09	--	--	--	--	--	--	--	--	--	7.58E-09
Rh-106	1.32E+01	5.51E-08	2.96E-04	2.70E-03	--	1.81E-07	2.05E+01	2.99E-07	--	3.59E-03	3.36E+01
Rn-219	3.72E-01	--	2.04E-06	2.43E-03	2.88E-09	1.57E-06	7.30E-06	4.41E-03	1.97E-08	8.13E-09	3.79E-01
Rn-220	4.31E+00	6.92E-02	1.34E-05	6.18E-02	1.47E-06	8.52E-15	7.50E-14	1.69E+00	3.05E-07	1.72E-13	6.14E+00
Rn-222	1.39E-10	2.76E-08	4.48E-09	1.05E-07	7.08E-10	2.84E-09	8.52E-07	1.16E+01	1.78E-09	9.07E-08	1.16E+01
Ru-103	7.60E-09	--	--	--	--	--	--	--	--	--	7.60E-09
Ru-106	1.32E+01	5.51E-08	3.37E-01	2.70E-03	--	1.81E-07	2.05E+01	2.99E-07	--	3.59E-03	3.40E+01
S-35	4.21E-06	--	--	--	--	--	--	--	--	--	4.21E-06
Sb-124	1.39E-06	--	--	--	--	--	7.21E-11	--	--	--	1.39E-06
Sb-125	4.36E+01	1.32E-01	3.85E+02	1.69E+00	--	5.17E-04	1.35E+01	7.44E-04	--	--	4.44E+02
Sb-126	1.16E-05	8.40E-06	1.24E-01	--	2.22E-06	1.82E-02	--	--	--	2.02E-08	1.42E-01
Sb-126m	8.28E-05	6.01E-05	8.87E-01	--	1.59E-05	1.30E-01	--	--	--	1.44E-07	1.02E+00
Sc-46	2.13E-05	--	--	--	--	--	--	--	--	--	2.13E-05
Se-75	2.77E-04	--	--	--	--	--	--	--	--	--	2.77E-04
Se-79	1.74E-05	1.67E-04	1.59E-01	--	4.88E-06	--	--	--	--	1.78E-03	1.61E-01
Sm-145	5.31E-02	--	--	--	--	--	--	--	--	--	5.31E-02
Sm-146	6.81E-09	--	--	--	--	--	--	--	--	--	6.81E-09
Sm-147	1.67E-09	--	9.91E-10	1.05E-08	8.18E-14	--	--	--	5.04E-10	6.06E-11	1.37E-08

Table 3-11. Anticipated RH Radionuclide Activity (Ci) on a Site Basis Decayed through 2010
Continued

Radionuclide	ANLE	BAPL	Hanford	INL	KAPL-S	LANL	MFC	ORNL	SNL	SRS	Grand Total
Sm-148	1.55E-19	--	3.41E-32	4.39E-35	--	--	--	1.12E-27	--	--	1.55E-19
Sm-151	2.89E+00	1.48E+00	3.03E+01	1.19E+01	5.14E-02	1.87E-02	1.40E+00	--	--	4.34E-01	4.85E+01
Sn-113	4.05E-04	--	--	--	--	--	--	--	--	--	4.05E-04
Sn-119m	1.26E-01	--	2.32E-06	--	--	--	--	--	--	--	1.26E-01
Sn-121	5.88E-01	6.32E-05	2.46E-06	--	9.95E-05	4.35E-01	--	--	--	--	1.02E+00
Sn-121m	7.58E-01	8.14E-05	4.60E-04	--	1.28E-04	5.60E-01	--	--	--	--	1.32E+00
Sn-123	4.92E-03	--	--	--	--	--	--	--	--	--	4.92E-03
Sn-126	8.28E-05	6.01E-05	8.87E-01	--	1.59E-05	1.30E-01	--	--	--	1.44E-07	1.02E+00
Sr-85	9.25E-07	--	--	--	--	--	--	--	--	--	9.25E-07
Sr-89	1.15E-06	--	--	--	--	--	--	--	--	--	1.15E-06
Sr-90	3.22E+03	5.49E+02	1.73E+05	2.87E+04	2.85E+00	5.71E+02	4.96E+04	1.08E+03	3.14E+02	3.93E+02	2.57E+05
Ta-182	7.50E-01	--	--	1.58E-14	--	--	--	--	--	--	7.50E-01
Tb-157	6.01E-02	--	--	--	--	--	--	--	--	--	6.01E-02
Tb-160	1.41E-06	--	--	--	--	--	--	--	--	--	1.41E-06
Tc-97m	4.73E-05	--	--	--	--	--	--	--	--	--	4.73E-05
Tc-99	9.79E-03	1.18E-01	8.18E+00	2.01E+02	9.98E-04	--	2.23E+00	1.10E-02	--	4.45E-03	2.11E+02
Te-121	2.35E-03	--	--	--	--	--	--	--	--	--	2.35E-03
Te-121m	2.36E-03	--	--	--	--	--	--	--	--	--	2.36E-03
Te-123	1.05E-14	--	--	--	--	--	--	--	--	--	1.05E-14
Te-123m	6.95E-04	--	--	--	--	--	--	--	--	--	6.95E-04
Te-125m	1.07E+01	2.07E-05	2.53E+00	4.12E-01	--	1.26E-04	3.27E+00	1.82E-04	--	--	1.69E+01
Te-127	3.71E-03	--	--	--	--	--	--	--	--	--	3.71E-03
Te-127m	3.79E-03	--	--	--	--	--	--	--	--	--	3.79E-03
Te-129	1.01E-11	--	--	--	--	--	--	--	--	--	1.01E-11
Te-129m	1.58E-11	--	--	--	--	--	--	--	--	--	1.58E-11
Th-227	3.67E-01	--	2.02E-06	2.39E-03	2.84E-09	1.55E-06	7.20E-06	4.35E-03	1.95E-08	8.02E-09	3.74E-01
Th-228	4.30E+00	3.69E-02	5.74E-03	6.18E-02	1.47E-06	8.52E-15	7.50E-14	1.69E+00	3.04E-07	1.72E-13	6.10E+00
Th-229	8.08E-03	1.90E-04	1.55E-04	7.72E-04	5.86E-11	1.33E-12	2.51E-09	8.64E-01	2.31E-11	4.31E-05	8.73E-01
Th-230	2.22E-07	2.31E-06	1.25E-05	5.00E-05	8.25E-08	4.91E-07	5.63E-04	1.36E-03	6.35E-07	2.65E-05	2.02E-03
Th-231	1.48E-03	3.15E-05	5.18E-03	4.24E+01	3.41E-06	8.36E-03	4.79E-01	1.72E-03	3.96E-04	1.61E-04	4.29E+01
Th-232	3.18E-10	5.51E-06	1.19E-04	6.13E-05	1.97E-12	1.24E-14	5.16E-13	1.43E-02	8.01E-17	3.13E-13	1.45E-02
Th-234	1.03E-01	1.85E-07	1.05E-01	2.38E-01	1.49E-08	4.12E-05	8.72E+00	1.18E-02	1.35E-04	2.64E-03	9.18E+00
Tl-207	3.71E-01	--	2.04E-06	2.42E-03	2.88E-09	1.57E-06	7.28E-06	4.40E-03	1.97E-08	8.11E-09	3.78E-01
Tl-208	1.55E+00	2.49E-02	4.80E-06	2.22E-02	5.27E-07	3.06E-15	2.70E-14	6.09E-01	1.10E-07	6.18E-14	2.21E+00
Tl-209	1.70E-04	4.13E-06	3.26E-06	1.62E-05	1.23E-12	2.79E-14	5.27E-11	1.81E-02	4.86E-13	9.06E-07	1.83E-02
Tm-170	1.60E-04	--	--	--	--	--	--	--	--	--	1.60E-04
Tm-171	2.47E-01	--	--	--	--	--	--	--	--	--	2.47E-01
U-232	2.31E+00	6.81E-02	2.30E-04	6.14E-02	1.49E-06	--	--	1.70E+00	--	--	4.15E+00
U-233	8.15E-03	5.98E-02	6.69E-01	2.80E+00	1.98E-08	1.78E-09	1.94E-05	2.57E+01	4.07E-08	7.13E-02	2.93E+01
U-234	9.14E-03	3.95E-03	1.23E+00	1.23E+00	2.31E-04	2.03E-03	8.78E+00	7.03E-02	5.37E-03	2.41E-01	1.16E+01
U-235	1.48E-03	3.15E-05	7.98E-03	4.24E+01	3.41E-06	8.36E-03	4.79E-01	1.72E-03	3.96E-04	1.61E-04	4.29E+01
U-236	5.41E-05	3.67E-04	1.10E-01	1.21E-03	3.23E-05	1.03E-05	2.72E-03	1.09E-03	2.50E-07	4.54E-04	1.16E-01
U-237	5.00E-02	--	2.27E-01	4.04E-02	2.07E-07	5.95E-04	1.03E-03	2.02E-03	9.89E-07	5.08E-02	3.72E-01

Table 3-11. Anticipated RH Radionuclide Activity (Ci) on a Site Basis Decayed through 2010
Continued

Radionuclide	ANLE	BAPL	Hanford	INL	KAPL-S	LANL	MFC	ORNL	SNL	SRS	Grand Total
U-238	1.03E-01	1.85E-07	1.65E-01	2.38E-01	1.49E-08	4.12E-05	8.72E+00	1.18E-02	1.35E-04	2.64E-03	9.24E+00
U-240	4.20E-11	--	2.32E-06	2.98E-23	8.09E-14	--	--	6.73E-09	--	2.00E-13	2.33E-06
V-49	6.56E-01	--	--	--	--	--	--	--	--	--	6.56E-01
W-181	3.41E-05	--	--	--	--	--	--	--	--	--	3.41E-05
W-185	8.88E-07	--	--	--	--	--	--	--	--	--	8.88E-07
W-188	8.09E-08	--	--	--	--	--	--	--	--	--	8.09E-08
Xe-127	2.73E-11	--	--	--	--	--	--	--	--	--	2.73E-11
Y-90	3.22E+03	5.49E+02	1.75E+04	2.87E+04	2.85E+00	5.71E+02	4.96E+04	1.08E+03	3.14E+02	3.93E+02	1.02E+05
Y-91	1.84E-05	--	--	--	--	--	--	--	--	--	1.84E-05
Zn-65	5.65E-03	--	1.89E-02	--	--	--	--	1.58E-14	--	--	2.46E-02
Zr-93	7.41E-05	2.91E-02	8.30E-04	--	1.22E-04	--	--	--	--	--	3.01E-02
Zr-95	8.96E-05	--	6.47E-03	--	--	--	--	--	--	--	6.56E-03
Grand Total	1.82E+04	2.38E+03	5.35E+05	1.15E+05	1.18E+01	3.02E+03	2.43E+05	6.63E+03	1.38E+03	8.70E+03	9.33E+05

Data Source: CID Data Version D.10.01, LANL-CO 2011a. Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

3.3.2 Radionuclide Inventory

Four radionuclides, Am-241, Pu-238, Pu-239, and Pu-241, comprise approximately 95% of the total CH-TRU waste activity. Eight radionuclides, Ba-137m, Co-60, Cs-137, Fe-55, Mn-54, Pu-241, Sr-90, and Y-90, comprise approximately 95% of the total RH-TRU waste activity. Table 3-12 lists the total anticipated activity by site, decayed to the end of CY 2010.

Table 3-12. Anticipated CH/RH Activity (Ci) by Site Decayed through 2010

TRU Waste Site	CH Activity (Ci)	RH Activity (Ci)	CH/RH Activity (Ci)
Argonne National Laboratory - East	1.30E+03	1.82E+04	1.95E+04
Bettis Atomic Power Laboratory	--	2.38E+03	2.38E+03
Hanford (Richland) Site	8.00E+05	5.35E+05	1.34E+06
Idaho National Laboratory	1.23E+05	1.15E+05	2.38E+05
Knolls Atomic Power Laboratory - Nuclear Fuel Services	6.15E+02	--	6.15E+02
Knolls Atomic Power Laboratory - Schenectady	--	1.18E+01	1.18E+01
Lawrence Berkeley National Laboratory	1.74E+00	--	1.74E+00
Lawrence Livermore National Laboratory	9.98E+04	--	9.98E+04
Los Alamos National Laboratory	4.53E+05	3.02E+03	4.56E+05
Material and Fuels Complex	1.34E+03	2.43E+05	2.45E+05
Nevada National Security Site	3.58E+02	--	3.58E+02
Nuclear Radiation Development Site	1.60E+03	--	1.60E+03
Oak Ridge National Laboratory	3.18E+04	6.63E+03	3.85E+04
Paducah Gaseous Diffusion Plant	1.12E+01	--	1.12E+01
Sandia National Laboratories	4.76E+01	1.38E+03	1.43E+03
Savannah River Site	2.32E+05	8.70E+03	2.41E+05
U.S. Army Materiel Command	5.13E-03	--	5.13E-03
Grand Total	1.75E+06	9.33E+05	2.68E+06

Data Source: CID Data Version D.10.01, LANL-CO 2011a. Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

To facilitate comparing the radionuclide activities in this report to those of the ATWIR-2010 (DOE 2010a), the radionuclides have been decay-corrected to WIPP site closure (2033). The comparison is provided in Appendix C.

4.0 POTENTIAL TRU WASTE

A waste stream can be designated either “WIPP-bound” or “potential.” All TRU waste must meet all of the WIPP requirements (e.g., WIPP WAC, WIPP Hazardous Waste Facility Permit WAP) before it can be disposed of at WIPP.

Approximately 11% of the final form TRU waste volume reported by the TRU waste sites during this year’s data collection has been identified as potential TRU waste. While

a site may designate waste streams as potential for many different reasons, it is usually because of regulatory or physical constraints. Section 4.1 identifies the reasons waste streams are designated as potential waste streams.

4.1 Categories of Potential TRU Waste

DOE has listed the criteria (Patterson 2010) for categorizing waste streams as potential. Below are the categories for which TRU waste sites would consider their waste stream to be potential TRU waste.

- **TRU Determination** – Any waste that is categorized as “undetermined” will remain potential until the waste stream has been officially determined to be TRU. If the waste stream is determined to be non-TRU, it will be removed from the inventory.
- **Defense Determination** – WIPP can only accept TRU waste resulting from defense-related activities, as stated in the WIPP LWA (U.S. Congress 1992 and 1996). Any waste that has an “unknown” defense determination will remain potential until the waste stream has been officially determined to be defense waste. If the waste stream is determined to be non-defense, it will be removed from the inventory.
- **Regulatory Restrictions** – There are numerous regulatory restrictions that would prevent waste in its current form from coming to WIPP. Examples include limits on curies and dose rates on RH canisters, limits for total emplacement curies on RH waste, prohibited Resource Conservation and Recovery Act (RCRA) hazardous waste, etc. Sites must treat, repackage, or remove any restricted items before such waste can be accepted for disposal at WIPP.
- **Incomplete Data** – Waste that has missing or incomplete data, such as radionuclide activities, WMP masses, final form container data, or unknown waste stream information, is deemed potential until required data are obtained.
- **Directed by DOE to Move to Potential** – Waste will be moved to potential at the direction of DOE.

Waste streams categorized as “potential” may become eligible for disposal at WIPP if all of the requirements, as noted above, are met and the waste meets all of the WIPP requirements (e.g., WIPP WAC, WIPP Hazardous Waste Facility Permit WAP). Table 4-1 identifies the current potential CH-TRU waste streams, and Table 4-2 identifies the current potential RH-TRU waste streams. Table 4-3 identifies waste streams that were moved from potential to WIPP-bound during this reporting period.

Table 4-1. Potential CH Waste Streams

Waste Stream ID ¹	Final Form Anticipated Volume (m ³)	Categories of Potential CH-TRU Waste
BL-Parks	9.62E+00	Incomplete Data
IN-BN203	5.85E+01	Incomplete Data
IN-W269	2.41E+01	Incomplete Data
IN-W322	5.67E+00	Defense Determination
IN-W337	2.08E-01	Defense Determination
IN-W338	1.25E+00	Incomplete Data
IN-W339	8.53E+00	Incomplete Data
IN-W350	2.08E-01	Incomplete Data
LA-TA-00-04	2.08E-01	Regulatory Restrictions
LA-TA-03-17	1.89E+01	Incomplete Data
LA-TA-03-21	9.26E+01	Incomplete Data
LA-TA-03-23	6.62E+01	Incomplete Data
LA-TA-21-11	1.70E+01	Incomplete Data
LA-TA-50-15	7.56E+00	Regulatory Restrictions
RL221U-01	2.08E-01	Regulatory Restrictions
RLPRC-01	1.89E+00	Defense Determination
RP-TFC001	4.39E+02	Directed by DOE to Move to Potential
RP-W754	3.23E+02	Directed by DOE to Move to Potential
RP-W755	7.94E+02	Directed by DOE to Move to Potential
SR-T001-WSB-1	4.51E+03	Incomplete Data
SR-W027-221H-HET-B	3.40E+01	Incomplete Data
SR-W027-321-322M-HET	1.13E+01	Incomplete Data
SR-W027-773A-HET-CLAS	1.89E+01	Incomplete Data
SR-W027-UNK	2.65E+01	Incomplete Data
WV-M010a	9.45E+00	Directed by DOE to Move to Potential
WV-T004	3.33E+00	Directed by DOE to Move to Potential
WV-T006a	3.25E+02	Directed by DOE to Move to Potential
WV-W024a	2.92E+01	Directed by DOE to Move to Potential
WV-Z001	1.35E+03	Directed by DOE to Move to Potential
Grand Total	8.19E+03	

¹See Figure 1-1 for site designators; Data Source: CID Data Version D.10.01, LANL-CO 2011a.

Table 4-2. Potential RH Waste Streams

Waste Stream ID ¹	Final Form Anticipated Volume (m ³)	Categories of Potential RH-TRU Waste
AW-IN-TRA-BE-01	3.12E+01	Regulatory Restrictions
AW-W018	2.67E+00	Regulatory Restrictions
AW-W019	8.90E-01	Regulatory Restrictions
BL-Parks-A	6.24E-01	Incomplete Data
IN-ID-RTC-S5000	4.37E+00	Incomplete Data
IN-SBW-01A	5.99E+02	TRU Waste Determination

Table 4-2. Potential RH Waste Streams
Continued

Waste Stream ID ¹	Final Form Anticipated Volume (m ³)	Categories of Potential RH-TRU Waste
IN-SBW-01B	8.90E+01	TRU Waste Determination
IN-W342R	6.24E-01	Defense Determination
IN-W359R	6.24E-01	Incomplete Data
RL300-11	7.49E+00	Regulatory Restrictions
RLCH2-08	2.82E+02	TRU Waste Determination
RLPFP-10	2.31E+01	Incomplete Data
WV-T006b	3.55E+02	Directed by DOE to Move to Potential
WV-T017b	2.37E+01	Directed by DOE to Move to Potential
WV-W024b	9.48E+01	Directed by DOE to Move to Potential
Grand Total	1.52E+03	

¹See Figure 1-1 for site designators; Data Source: CID Data Version D.10.01, LANL-CO 2011a.

Table 4-3. Potential to WIPP-Bound Waste Streams

Waste Stream ID ¹	Reason
AW-W029	Regulatory restrictions were resolved (moved into three waste streams: AW-T031.1322, IN-AE-AGHC-02, IN-ID-EBR-S5000)
IN-BN050	Determined to be Defense Waste
IN-BN811	Received Complete Data
IN-W360R	Regulatory restriction was resolved
LA-TA-03-20	Received Complete Data (moved into LA-MHD03.001)
RL221U-09	Received Complete Data
RLHAN-08	Received Complete Data
SR-W026-MFFF-1	Received Complete Data
SR-W026-PDCF-1	Received Complete Data
SR-W026-WSB-2	Received Complete Data
SR-W027-HBL-Box-B	Received Complete Data (moved into SR-W027-HBL-Box)

¹See Figure 1-1 for site designators; Data Source: CID Data Version D.10.01, LANL-CO 2011a.

5.0 SUMMARY

The WIPP has been receiving TRU waste since March 26, 1999. As of December 31, 2010, WIPP had received 9,207 shipments of TRU waste (8761 CH shipments and 446 RH shipments).

This report is an update to the ATWIR-2010 (DOE 2010a). Like the ATWIR-2010, this report focuses on changes resulting from characterization, improved estimations, and continued waste generation. It also identifies the waste streams that have been moved from the designation of “potential” waste streams to the designation of “WIPP-bound” waste streams. The cut-off date for data collection for this report was December 31,

2010. This report provides current TRU waste inventory information for CBFO, the DOE complex, WIPP stakeholders, and regulators.

The information in this report was collected from the TRU waste sites, entered into the CBFO QAPD-compliant CID, and DOE TRU waste managers (or their designees) validated their respective site's data to ensure completeness and that the data best represent the site's inventory at the time of the data cut-off. The CID includes estimates for: 1) anticipated (stored plus projected) waste volumes; 2) radionuclides (decayed to the end of a common base year of CY 2010 and the WIPP proposed closure date of 2033); 3) WMPs and PMs; and 4) chemical components. This report focuses only on the TRU waste that is remaining at the sites or is projected to be generated as of December 31, 2010. In this report, emplaced waste is only discussed in Appendix C – Inventory Comparisons. For emplaced waste, an analysis was performed on the data from the WDS and reported as emplaced waste for the comparisons. If more information is needed for the emplaced waste, contact the WDS administrator.

This report's appendices include WIPP-bound and potential TRU WPRs, inventory comparisons, a historic crosswalk of TRU waste streams, and the DOE/CBFO screening memorandum (Patterson 2010). These can be found in Appendices A, B, C, D, and E, respectively.

6.0 GLOSSARY

Acceptable Knowledge – Title 40 CFR 194.2 defines acceptable knowledge as 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 Title 40 CFR 194.2)

Anticipated Inventory – As defined in this report, the sum of the total stored and total projected inventory volumes reported by the TRU waste sites.

Complexing Agents – Organic molecules that are capable of binding to metals. These organic molecules include, but are not limited to, acetate, citrate, oxalate, and EDTA.

Contact-Handled TRU Waste – Packaged TRU waste with an external surface dose rate not greater than 200 millirem (mrem) per hour.

Current Form Waste – The chemical and physical state of waste when it is generated and as it is currently being stored on site.

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 the 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.

Emplaced Inventory – Waste that has been disposed at WIPP as of the inventory date (December 31, 2010) for this report.

Final Form Waste – Form of waste in approved packaging that will be shipped to and emplaced at WIPP.

Land Withdrawal Act – The 1992 legislation passed by the U.S. Congress as Public Law 102-579, withdrawing the surface land and underlying minerals at the WIPP site from public use, transferring the property from the Bureau of Land Management to DOE, and enabling the start of the WIPP Test Phase. This act was amended in 1996 by Public Law 104-201.

Mixed TRU Waste – TRU waste that contains both radioactive and hazardous components as defined by the Atomic Energy Act (U.S. Congress 1954) and the RCRA as codified in Title 40 CFR 261.3. The RCRA test phase was removed by Public Law 104-201 in the 1996 LWA Amendments.

Oxyanions - 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. An example of payload container volume used in this context is ten-drum overpacks (TDOPs) with a volume of 4.50 m³.

Performance Assessment – Performance assessment is 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 are incorporated into an overall probability distribution of cumulative release to the extent practicable.

Performance Assessment Baseline Calculations – 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.

Potential Inventory – For this report, a designation for a waste stream that will not be included in performance assessment calculations. This designation is not intended to identify whether the waste stream may or may not be emplaced at WIPP.

Projected Inventory – That part of the inventory that has not been generated (does not physically exist) but is estimated to be generated at some time in the future by the TRU waste sites. TRU waste in projected waste streams includes waste from programs that have not come on line at this time, as well as waste from ongoing projects and D&D waste that has not yet been packaged.

Radioactive – Term used to refer to an unstable atomic nucleus that decays with the spontaneous emission of ionizing radiation (see also “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 neutrons, and the energy content.

Reacted Cement – Cement that has been hydrated by setting up under aqueous conditions.

Remote-Handled TRU Waste – Packaged TRU waste with an external surface dose rate equal to or exceeding 200 mrem per hour.

Retrievably Stored Waste – Stored waste that includes waste stored in buildings or berms with earthen cover since 1970, but does not include waste buried prior to 1970. Retrievably stored waste also includes waste that is stored in underground storage tanks or ponds.

Stored Inventory – That part of the TRU waste inventory that is currently in retrievable storage at of the data cutoff date for inventory information. Stored inventory can be “current form waste” or “final form waste.”

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 Waste – The LWA definition of transuranic waste is: “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.”

TRU Waste Sites – The five major DOE facilities and several smaller sites throughout the U.S. that generate and store TRU waste.

Unreacted Cement – Dry cement that was added as an absorbent or neutralizer to a waste stream, but under dry, non-aqueous conditions.

Waste Acceptance Criteria – The criteria used to determine if waste is acceptable for disposal at WIPP. For the purposes of this document, WAC refers to the WIPP WAC.

Waste Form – The physical form of the waste, such as sludges, combustibles, metals.

Waste Isolation Pilot Plant– The project authorized under Section 213 of the DOE National Security and Military Applications of Nuclear Energy Authorization Act of 1980 (U.S. Congress 1979) to demonstrate the safe and environmentally-sound disposal of radioactive waste materials generated by atomic energy defense activities.

WIPP-Bound Inventory – For this report, the designation for a waste stream that will be included in performance assessment calculations. This designation is not intended to identify whether or not the waste stream will be emplaced at WIPP.

Waste Material Parameter– A non-radiological material that is found in TRU waste. As an example, CPR is monitored as a contributor to the generation of gas at WIPP.

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- or RH-TRU waste stream that has been designated as WIPP-bound or potential. The waste profile is presented in tabular format and is intended to provide a summary of the important information about a particular waste stream.

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APPENDIX A: WIPP-Bound TRU Waste Profile Reports

The following waste profile reports contain information on waste streams that are placed in the WIPP-bound category as of the inventory date, December 31, 2010.

The TRU waste sites that have reported WIPP-bound waste streams are:

Argonne National Laboratory – East	AE
Material and Fuels Complex	AW
Bettis Atomic Power Laboratory	BT
Idaho National Laboratory	IN
Knolls Atomic Power Laboratory – Schenectady	KA
Knolls Atomic Power Laboratory – Nuclear Fuels Service	KN
Los Alamos National Laboratory	LA
Lawrence Berkeley National Laboratory	LB
Lawrence Livermore National Laboratory	LL
U. S. Army Materiel Command	MC
Nuclear Radiation Development Site	ND
Nevada National Security Site	NT
Oak Ridge National Laboratory	OR
Paducah Gaseous Diffusion Plant	PA
Hanford (Richland Operations) Site	RL
Sandia National Laboratories	SA
Savannah River Site	SR

Waste Stream ID: **AE-T001**

Appendix A
Waste Profile Report

Site	Argonne National Laboratory - East	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	ANL-E Contact-Handled Mixed Heterogeneous Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	15.4	67.6	83.0
Box-Misc	8.9	0.0	8.9
Current Form Total	24.3	67.6	91.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	28.5	67.6	96.1
Final Form Total	28.5	67.6	96.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	34.15
Aluminum-based Metal/Alloys	3.85
Other Metal/Alloys	10.33
Other Inorganic Materials	2.12
Cellulosics	2.66
Rubber	3.25
Plastics	28.12
Cement	0.00
Solidified Inorganic Material	0.73
Solidified Organic Material	0.19
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.43E-01
Am-243	1.48E-02
Cm-244	1.80E+00
Cs-137	3.71E-02
Np-237	2.68E-04
Pu-238	7.88E-02
Pu-239	3.92E-01
Pu-240	1.27E-01
Pu-241	1.52E+00
Pu-242	1.14E-04
Pu-244	2.27E-08
Sr-90	3.06E-02
Th-230	3.69E-05
Th-232	1.70E-06
U-233	7.10E-05
U-234	7.49E-05
U-235	4.34E-06
U-236	8.56E-08
U-238	2.41E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D027, D028, D029, D030, D037, F002, F004, F005

TRUCON Code(s)

116/216, 125/225

Waste Stream Description

The debris waste consists primarily of organic and inorganic laboratory debris. Organic debris materials includes paper, cardboard, cloth, (e.g., rags, towels, trays), plastic (e.g., bags, caps, containers, tubing, fittings, filters, sheeting, tape, vials, syringes), rubber (e.g., tubing, gloves). Inorganic debris materials include aluminum items, glass (e.g., bottles, labware, dishes, vials), tools, lead (e.g., scrap, shielding), metal cans, scrap metal (e.g., piping, valves, bolts, clamps, rings, rods, screws, tubing, wire), laboratory equipment (electric motors, pumps, and circuit boards).

Waste Stream ID: **AE-T003**

Appendix A
Waste Profile Report

Site	Argonne National Laboratory - East	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	ANL-E Contact-Handled Solidified Organic and Inorganic Homogenous Solids				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	7.3	0.0	7.3
Box-Misc	1.2	0.0	1.2
Current Form Total	8.5	0.0	8.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	9.2	0.0	9.2
Final Form Total	9.2	0.0	9.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	126.98
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	371.27
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.60E-01
Am-243	3.19E-05
Cm-244	4.19E-03
Cs-137	4.66E+00
Np-237	3.66E-04
Pu-238	4.99E-01
Pu-239	6.61E-01
Pu-240	2.86E-01
Pu-241	7.55E+00
Pu-242	9.47E-05
Pu-244	5.20E-08
Sr-90	4.34E+00
Th-229	1.79E-06
Th-230	1.18E-05
Th-232	6.39E-08
U-233	1.18E-04
U-234	1.49E-04
U-235	2.75E-04
U-236	8.69E-05
U-238	6.09E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D027, D028, D029, D030, D037, F002, F004, F005

TRUCON Code(s)

111/211, 113/213, 129/229

Waste Stream Description

Waste stream consists of mixed homogeneous solids generated during the neutralization and solidification of aqueous and inorganic liquids originating from Argonne laboratory and maintenance operations.

Waste Stream ID: **AE-T009**

Appendix A
Waste Profile Report

Site	Argonne National Laboratory - East	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	RH TRU			Activity Concentrations Decayed to CY		2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	3.5	29.2	32.7
55-gal Drum Dir Ld w/o Liner	8.9	0.0	8.9
Box-Misc	3.5	0.0	3.5
Current Form Total	15.9	29.2	45.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Fxd Lid w/ 3 - 55-gal w/o Liner	9.4	8.1	17.5
RH Can w/ Remov Lid w/ 3 - 30-gal w/o Liner	8.1	25.4	33.6
Final Form Total	17.5	33.5	51.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	84.60
Aluminum-based Metal/Alloys	25.54
Other Metal/Alloys	109.32
Other Inorganic Materials	14.83
Cellulosics	1.24
Rubber	12.36
Plastics	28.98
Cement	0.00
Solidified Inorganic Material	14.28
Solidified Organic Material	18.13
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	13.51
Packaging Material, Rubber	0.88
Packaging Material, Steel	1319.85
Packaging Material, Lead	226.60

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.36E+00
Am-243	7.25E-02
Cm-244	8.80E+00
Cs-137	8.10E+01
Np-237	1.15E-04
Pu-238	5.51E+00
Pu-239	7.83E-01
Pu-240	5.87E-01
Pu-241	4.10E+01
Pu-242	1.89E-03
Pu-244	8.23E-13
Sr-90	6.31E+01
Th-229	1.58E-04
Th-230	4.36E-09
Th-232	6.23E-12
U-233	1.60E-04
U-234	1.79E-04
U-235	2.91E-05
U-236	1.06E-06
U-238	2.02E-03

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D028, D029, F002,
F005

TRUCON Code(s)

321, 322, 325

Waste Stream Description

Waste stream consists of RH TRU debris generated by destructive and nondestructive examination of radiological materials such as fuel pins, reactor structural materials, and targets in waste cans. Some of the wastes are contaminated primarily with fissile materials, mixed fission products (MFP), and activation products. This waste stream consists predominantly of organic and inorganic debris generated during the destructive and nondestructive examinations, and contains the following materials. Cellulosic items including paper, cellophane tape, cardboard, cotton, leather, rags, cloth, towels, grinding paper, boxes, liners, High-Efficiency Particulate Air (HEPA) filter media, filter paper, tissues, string, boxes, rope, swabs, mop heads, and gloves. Wooden items including brooms, mop head and handles, HEPA filter frames, rulers, brushes, blocks, and Masonite, plywood, cork, fiber board, and chipboard items. Plastic materials including polyethylene, polypropylene, polyvinyl chloride, phthalate, Koroseal, Tygon, styrene butadiene, polyurethane, Lucite, Nylon, Teflon, Nalgene, and epoxy (hardened), metallurgical (Bakelite) sample mounts, bottles, cups, dishes, pipettes, tubing, funnels, pipe, bags, filter cartridges, sheeting, vials, tape, syringes, markers, and other miscellaneous items. Rubber items including Neoprene, Viton, butyl,

Comprehensive Inventory Database ver. 2.00

Data ver. D.10.01

NOTE: Actual numerical values have been rounded for presentation purposes

A - AE - 3

Waste Stream ID: **AE-T009****Appendix A**
Waste Profile Report

latex, and silicone O-rings, gaskets, stoppers, hose, tubing, gloves, wire/cord insulation, and other miscellaneous items. Glass items including glass, ceramic, alumina, porcelain, quartz, Pyrex, Vycor, and boron nitrite bottles, jars, tubing, caps, condensers, beakers, flasks, graduated cylinders, Petri dishes, plates, syringes, insulation (fiber glass), firebrick, insulators, light bulbs, thermometers, lenses, and other items. Metal items (ferrous materials), including carbon steel, stainless steel, and cast iron cans, buckets, dies, slings, equipment, tools, tubing, fittings, rods, rings, rounds, chain, saw blades, dustpans, motors, fixtures, heating mantles, hot plates, mortar and pestles, steel wool, manipulator parts and tape, trays, variacs, vessels, capsules, and other miscellaneous scrap items. Non-ferrous metals items including aluminum, brass, bronze, copper, lead, gold, tungsten, tantalum, tin, vanadium, zinc, zirconium, cans (including punctured aerosol cans), cladding, vials, mesh sample holders, sheeting, foils, tools, wire, shot, rods, cable, tubing, capsules, fittings, gaskets, gauges, plates, motors, pumps, samples, solenoid valves, thermocouples, variacs, light fixtures (no PCB ballasts), and other miscellaneous scrap items. In addition to the debris materials described above, waste stream will also contain lesser amounts (less than 50 percent in any container) of homogeneous organic and inorganic materials. Clay and vermiculite based absorbents are used during the neutralization and evaporation of acids, etchants, and solutions generated during the passivation of reactive metals. Solidifications agents such as Acid Bond, Aquaset, Petroset, or Petrobond may also be used to immobilize some liquids.

Waste Stream ID: **AW-N027.531**

Appendix A
Waste Profile Report

Site	Material and Fuels Complex	Summary Category	S5000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	MFC CH-MTRU Due to RCRA Metals				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.2	4.8	6.0
Current Form Total	1.2	4.8	6.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	1.2	4.8	6.0
Final Form Total	1.2	4.8	6.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	137.02
Aluminum-based Metal/Alloys	4.01
Other Metal/Alloys	11.22
Other Inorganic Materials	86.54
Cellulosics	4.01
Rubber	0.00
Plastics	6.41
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	2.40
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.80E-01
Am-243	7.33E-17
Cm-244	3.16E-10
Cs-137	5.31E-03
Np-237	3.38E-04
Pu-238	2.96E-02
Pu-239	5.07E-01
Pu-240	2.23E-01
Pu-241	1.19E+00
Pu-242	6.15E-05
Sr-90	1.07E-02
Th-229	6.48E-14
Th-230	3.69E-07
Th-232	6.58E-10
U-233	1.47E-09
U-234	1.13E-03
U-235	3.81E-05
U-236	4.09E-06
U-238	3.66E-07

Haz. Waste No(s).

D006, D007, D008

TRUCON Code(s)

125/225

Waste Stream Description

This waste stream is debris generated in the Casting Lab, Analytical Laboratory and Fuel Manufacturing Facility glove boxes. This waste stream consists of miscellaneous generated debris (lead-lined gloves, metals, cellulosics, plastics, water (dried) and/or air filters, crucibles, etc.) contaminated with RCRA-metals (typically cadmium, lead, chromium, silver). The waste is contaminated with activation and fission products and TRU radionuclides.

Waste Stream ID: **AW-T031.1322**

Appendix A
Waste Profile Report

Site	Material and Fuels Complex	Summary Category	S5000	Defense Determination	Pending Determination	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	RH TRU Hot Cell Waste			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Canister - (MFC) o/p 45-gal Drums	18.4	281.5	299.9
Liner - RSWF	1.7	0.0	1.7
Current Form Total	20.1	281.5	301.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	13.1	86.1	99.2
Final Form Total	13.1	86.1	99.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	971.43
Aluminum-based Metal/Alloys	7.52
Other Metal/Alloys	298.02
Other Inorganic Materials	10.87
Cellulosics	9.22
Rubber	0.00
Plastics	10.17
Cement	0.00
Solidified Inorganic Material	1.47
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.43E+00
Am-243	1.12E-10
Cm-244	2.67E-08
Cs-137	3.13E+02
Np-237	1.05E-03
Pu-238	3.83E-02
Pu-239	9.04E+00
Pu-240	3.97E+00
Pu-241	1.84E-01
Pu-242	1.08E-04
Sr-90	4.81E+02
Th-229	1.11E-11
Th-230	5.67E-06
Th-232	4.51E-15
U-233	3.38E-08
U-234	8.80E-02
U-235	4.80E-03
U-236	1.35E-05
U-238	8.78E-02

No Hazardous Waste Numbers Provided

TRUCON Code(s)
325

Waste Stream Description

Fuel Conditioning Facility (FCF), Hot Fuel Examination Facility (HFEF), Analytical Lab (AL) Remote-handled (RH) Radioactive Transuranic Miscellaneous waste: hot-cell laboratory waste, metals, cellulosics, plastics, solidified samples, filters, etc. Stored at Radioactive Scrap and Waste Facility (RSWF). Waste may also include analytical samples, EBR-I waste and subassembly hardware.

Waste Stream ID: **AW-T033.1325**

Appendix A
Waste Profile Report

Site	Material and Fuels Complex	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	MFC CH-TRU Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.6	28.7	33.3
Current Form Total	4.6	28.7	33.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	4.6	28.7	33.3
Final Form Total	4.6	28.7	33.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	107.74
Aluminum-based Metal/Alloys	24.69
Other Metal/Alloys	45.89
Other Inorganic Materials	88.51
Cellulosics	0.00
Rubber	0.00
Plastics	37.59
Cement	0.00
Solidified Inorganic Material	6.99
Solidified Organic Material	19.45
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.63E+00
Am-243	4.09E-03
Cm-244	3.03E-02
Cs-137	2.33E-04
Np-237	1.78E-03
Pu-238	3.12E-02
Pu-239	6.82E-01
Pu-240	1.68E-01
Pu-241	3.62E+01
Pu-242	3.02E-05
Sr-90	7.33E-04
Th-229	3.42E-13
Th-230	9.56E-08
Th-232	8.68E-12
U-233	7.77E-09
U-234	2.97E-04
U-235	7.98E-06
U-236	1.66E-06
U-238	5.97E-07

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description

Transuranic debris waste generated from Casting Laboratory (CL), formerly known as Plutonium Casting Lab (PCL) and the Experimental Fuels Lab (EFL), Fuel Manufacturing Facility (FMF) and Analytical Laboratory (AL) Hot cell operations. This waste is typically packaged in 55-gallon drums.

Waste Stream ID: **AW-W020.13**

Appendix A
Waste Profile Report

Site	Material and Fuels Complex	Summary Category	S5000	Defense Determination	Pending Determination	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	RH MTRU Hot Cell Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
45-gal Drum	1.7	11.7	13.4
Liner - RSWF	0.7	0.0	0.7
Current Form Total	2.4	11.7	14.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	3.7	14.4	18.1
Final Form Total	3.7	14.4	18.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	1338.13
Aluminum-based Metal/Alloys	9.88
Other Metal/Alloys	26.56
Other Inorganic Materials	50.15
Cellulosics	24.22
Rubber	0.00
Plastics	31.49
Cement	0.00
Solidified Inorganic Material	9.96
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.23E-01
Cs-137	1.41E+02
Np-237	2.36E-04
Pu-238	5.41E-01
Pu-239	2.10E+00
Pu-240	6.58E-01
Pu-241	1.38E+00
Pu-242	2.91E-05
Sr-90	1.00E+02
Th-229	7.80E-11
Th-230	2.41E-08
Th-232	3.77E-15
U-233	8.88E-07
U-234	2.62E-03
U-235	1.49E-04
U-236	7.65E-05
U-238	2.96E-04

Haz. Waste No(s).

D006, D007, D008

TRUCON Code(s)

325

Waste Stream Description

This waste stream consists of miscellaneous FCF, HFEF and AL generated debris (metals, cellulosics, plastics, water (dried) and/or air filters, crucibles, etc.) contaminated with RCRA-metals (typically cadmium, lead, chromium, silver). The waste is contaminated with activation and fission products and TRU radionuclides.

Waste Stream ID: **BT-T001**

Appendix A
Waste Profile Report

Site	Bettis Atomic Power Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Irradiated TRU material waste	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
HIP	0.0	0.0	0.0
Hot Cell	0.0	4.9	4.9
Current Form Total	0.0	4.9	4.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	3.1	5.0	8.1
Final Form Total	3.1	5.0	8.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	475.64
Other Inorganic Materials	0.00
Cellulosics	79.49
Rubber	0.00
Plastics	237.82
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.88E-02
Am-243	1.24E-04
Cm-244	1.33E-04
Cs-137	6.76E+01
Np-237	1.77E-04
Pu-238	1.44E+00
Pu-239	1.18E-03
Pu-240	1.26E-04
Pu-241	2.49E-01
Pu-242	2.01E-05
Sr-90	6.76E+01
Th-229	2.34E-05
Th-230	2.85E-07
Th-232	6.79E-07
U-233	7.37E-03
U-234	4.87E-04
U-235	3.88E-06
U-236	4.52E-05
U-238	2.29E-08

No Hazardous Waste Numbers Provided

TRUCON Code(s)
322

Waste Stream Description

Specimen processing fines, material, and debris.

Waste Stream ID: **IN-AE-AGHC-02**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	MFC Retrievable ANL-E RH TRU Containers - Stage 2				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Canister - (ANL-E)	2.9	0.0	2.9
Current Form Total	2.9	0.0	2.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	157.2	0.0	157.2
Final Form Total	157.2	0.0	157.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	38.25
Aluminum-based Metal/Alloys	2.60
Other Metal/Alloys	3.93
Other Inorganic Materials	2.60
Cellulosics	4.73
Rubber	0.87
Plastics	7.19
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.12
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Cs-137	5.69E+01
Pu-239	4.03E+00
Pu-240	5.08E-01
Sr-90	8.75E+01
Th-230	1.53E-13
Th-232	5.26E-08
U-234	2.38E-09
U-235	2.70E-01
U-236	2.11E-07
U-238	6.08E-05

Haz. Waste No(s).

D004, D006, D007,
D008, D009, D010,
D011, D019, D028,
D029, F002, F005

TRUCON Code(s)

321, 322, 325

Waste Stream Description

The Stage 2 waste is radioactive only and consists of 48 ANL-E inserts of combustible waste, irradiated material, and scrap from the destructive examination of irradiated experiments in the Alpha-Gamma Hot Cell at ANL-E. The contents of the ANL-E waste cans include dried sludge, table and floor sweepings, scrap, met mounts, fines, rags, tissues, pipe nipple containers, fuel granules, combustible and non-combustible scrap, recoverable and non-recoverable fissile material, bonded clad material, irradiated structural material, grinding papers, and fuel impregnated with epoxy. some of these materials are in aluminum glass, or plastic containers, one container, ANLE44 (RSWF Storage Liner V-23), noted to have a single 2R inner container, contains 39 whole elements.

Waste Stream ID: **IN-BN004**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Special Setups Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	234.4	0.0	234.4
Box - Misc	3.2	0.0	3.2
Current Form Total	237.6	0.0	237.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	10.4	0.0	10.4
SWB w/ 4 - 55-gal Drums w/ Liners	400.7	0.0	400.7
TDOP w/ 10 - 55-gal Drums w/ Liners	121.5	0.0	121.5
Final Form Total	532.6	0.0	532.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.02
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.04
Other Inorganic Materials	2.50
Cellulosics	0.03
Rubber	0.01
Plastics	0.23
Cement	289.16
Solidified Inorganic Material	185.89
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.89
Packaging Material, Rubber	0.44
Packaging Material, Steel	214.10
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.91E-01
Cm-244	1.96E-03
Cs-137	3.02E-06
Np-237	2.27E-04
Pu-238	6.45E-02
Pu-239	1.61E+00
Pu-240	3.64E-01
Pu-241	2.61E+00
Pu-242	3.31E-05
Sr-90	5.07E-06
Th-229	1.40E-07
Th-230	6.77E-10
Th-232	6.65E-18
U-233	3.19E-04
U-234	1.52E-05
U-235	3.29E-06
U-236	5.39E-08
U-238	2.55E-06

Haz. Waste No(s).

D006, D007, D008, D011, D029, F001, F002, F005, F006, F007, F009

TRUCON Code(s)

111/211

Waste Stream Description

IN-BN004 (Special Setups) waste was generated from a waste treatment process that solidified process waste (predominately laboratory waste) generated in support of plutonium operations at Rocky Flats. Resins and electrochemical milling sludges were also solidified with the liquid waste. This waste stream is comprised of solidified waste assigned IDC ID-RF-004, ID-RF-744 and ID-RF-802. ID-RF-744 is used to identify special setups retrieved from the INL Subsurface Disposal Area (SDA) Pits 11 and 12.

Waste Stream ID: **IN-BN005**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Pollution Control or Waste Treatment Process	Waste Matrix Code Group	Salt Waste	Inventory Date	12/31/2010		
Stream Name	Evaporator Salts	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	617.3	0.0	617.3
Box - Misc	3.2	0.0	3.2
Current Form Total	620.5	0.0	620.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	1479.9	0.0	1479.9
Final Form Total	1479.9	0.0	1479.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	313.54
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.10E-04
Np-237	6.80E-11
Th-229	4.34E-21
Th-230	2.04E-11
U-233	1.48E-16
U-234	2.21E-06
U-235	5.54E-07
U-238	5.20E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

"Waste is generated at Rocky Flats Plant from aqueous waste treatment in building 774. Waste consists of a salt residue generated by Building 774 evaporator system 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. Wastes may also contain < 50% by volume surgeons' gloves, paper, rags, and metal debris. Portland cement was added to damp or wet salt when necessary. The majority of salt drums in storage at the INEL should contain TRU activity concentration of <10 nCi/g TRU."

Waste Stream ID: **IN-BN050**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Solidified Solutions				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	185.10
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	2.75
Cellulosics	123.56
Rubber	0.00
Plastics	1.64
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Np-237	3.33E-04
Pu-239	1.20E-01
Th-229	2.79E-11
U-233	3.02E-08
U-235	2.48E-09

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream is from Bettis Atomic Power Laboratory. No more information is available, but the waste is thought to be solidified inorganic solutions.

Waste Stream ID: **IN-BN090**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Spill Clean-ups/Emergency Response Actions	Waste Matrix Code Group	Contaminated Soil/Debris Waste	Inventory Date	12/31/2010		
Stream Name	Dirt	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	228.6	0.0	228.6
Current Form Total	228.6	0.0	228.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	548.1	0.0	548.1
Final Form Total	548.1	0.0	548.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.84
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	6.60
Cellulosics	3.43
Rubber	0.00
Plastics	0.36
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.24
Soils	460.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.16E-03
Cs-137	3.42E-09
Np-237	6.02E-08
Pu-238	1.01E-03
Pu-239	1.84E-02
Pu-240	4.21E-03
Pu-241	2.37E-02
Pu-242	3.59E-07
Sr-90	3.76E-09
Th-229	4.47E-17
Th-230	1.92E-11
Th-232	1.23E-20
U-233	5.12E-13
U-234	1.05E-06
U-235	2.62E-07
U-236	2.49E-10
U-238	3.48E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste generated at the Rocky Flats Plant consists of dry dirt or soil generated from cleanup of spills, leaks, etc. Waste may be damp and may include evaporator pond sludge (S3000). Waste may also contain limited amounts (<50% by volume) of combustibles such as coveralls and gloves.

Waste Stream ID: **IN-BN095**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Pollution Control or Waste Treatment Process	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2010	
Stream Name	Sewer Sludge				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	93.0	0.0	93.0
Box - Misc	25.4	0.0	25.4
Current Form Total	118.3	0.0	118.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	240.0	0.0	240.0
Final Form Total	240.0	0.0	240.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.52
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	45.41
Solidified Inorganic Material	246.64
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.55E-03
Cs-137	1.81E-08
Np-237	4.41E-09
Pu-238	8.74E-05
Pu-239	3.04E-03
Pu-240	6.75E-04
Pu-241	6.21E-03
Pu-242	8.77E-08
Sr-90	1.98E-08
Th-229	2.53E-18
Th-230	7.14E-11
Th-232	4.44E-21
U-233	2.88E-14
U-234	2.59E-06
U-235	6.40E-07
U-236	6.00E-11
U-238	9.59E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

"This waste stream, generated at the Rocky Flats Plant, consists of moist to dry organic sewer sludge generated from cleaning the stabilization ponds at the Sewer Treatment Plant (Building 995). This waste also contains a limited number of drums containing sludge generated by plutonium recovery operations. The sludge may contain 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.

Waste Stream ID: **IN-BN204**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Solidified Solutions			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.5	0.0	1.5
Current Form Total	1.5	0.0	1.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	3.8	0.0	3.8
Final Form Total	3.8	0.0	3.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	196.75
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	199.14
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.35E-02
Cs-137	8.46E-08
Np-237	6.67E-06
Pu-238	1.38E+00
Pu-239	9.50E-02
Pu-240	2.67E-02
Pu-241	2.07E-01
Pu-242	1.83E-05
Sr-90	9.28E-08
Th-229	5.08E-15
Th-230	1.37E-10
Th-232	7.80E-20
U-233	5.79E-11
U-234	1.14E-05
U-235	1.06E-06
U-236	1.58E-09
U-238	5.66E-15

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

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.

Waste Stream ID: **IN-BN222**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Pollution Control or Waste Treatment Process	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Solidified Plutonium Recovery Incinerator Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	99.2	0.0	99.2
Current Form Total	99.2	0.0	99.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/o Liners	238.1	0.0	238.1
Final Form Total	238.1	0.0	238.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	3.93
Aluminum-based Metal/Alloys	0.02
Other Metal/Alloys	0.12
Other Inorganic Materials	1.58
Cellulosics	0.02
Rubber	0.04
Plastics	11.63
Cement	72.23
Solidified Inorganic Material	84.82
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.76E-01
Cs-137	3.30E-09
Np-237	4.96E-04
Pu-238	1.24E-01
Pu-239	3.10E+00
Pu-240	7.04E-01
Pu-241	5.29E+00
Pu-242	5.46E-05
Sr-90	3.69E-09
Th-229	1.10E-08
Th-230	1.61E-11
Th-232	2.06E-18
U-233	6.27E-05
U-234	1.23E-06
U-235	1.46E-07
U-236	4.17E-08
U-238	1.18E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, F001, F002, F005, F006, F007, F009

TRUCON Code(s)

111/211, 114/214

Waste Stream Description

The waste is comprised of plutonium recovery incinerator waste. This waste stream includes solidified ash from the incinerator burn chamber and solidified soot and scrubber sludge from the incinerator off-gas system of the plutonium recovery incinerator. Although individual drums may also contain small amounts of debris (PPE, plastic, metal, glass, cement bags, Ful-Flo filters, unburned feed material and broken plastic molds) each container in this waste stream will contain >50% by volume solidified homogeneous solids. The IN-BN222 waste stream includes IDCs ID-RF-292, ID-RF-807b/696, ID-RF-818, and ID-RF-820.

Waste Stream ID: **IN-BN290**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Filter Sludge	Activity Concentrations Decayed to CY				2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.5	0.0	1.5
Current Form Total	1.5	0.0	1.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
TDOP w/ 10 - 55-gal Drums w/ Liners	4.5	0.0	4.5
Final Form Total	4.5	0.0	4.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	12.20
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	22.44
Cellulosics	0.00
Rubber	0.00
Plastics	4.47
Cement	0.00
Solidified Inorganic Material	111.56
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	17.13
Packaging Material, Rubber	0.44
Packaging Material, Steel	231.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.61E-01
Np-237	3.69E-06
Pu-238	8.05E-02
Pu-239	1.92E+00
Pu-240	4.25E-01
Pu-241	1.97E+00
Pu-242	3.16E-05

Haz. Waste No(s).

D006, D008, F001, F002

**No TRUCON
Codes Provided**

Waste Stream Description

This waste stream was generated by the Rocky Flats Plant and consists of sludge generated from the incinerator off-gas system associated with the plutonium recovery operations in Building 771.

Waste Stream ID: **IN-BN311**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Process Heels				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	13.1	0.0	13.1
Box - Misc	3.2	0.0	3.2
Current Form Total	16.3	0.0	16.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
TDOP w/ 10 - 55-gal Drums w/ Liners	36.0	0.0	36.0
Final Form Total	36.0	0.0	36.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	1.02
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.33
Other Inorganic Materials	91.67
Cellulosics	0.00
Rubber	0.00
Plastics	19.67
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	17.13
Packaging Material, Rubber	0.44
Packaging Material, Steel	231.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.96E+00
Np-237	2.19E-05
Pu-238	6.24E-01
Pu-239	1.05E+01
Pu-240	2.46E+00
Pu-241	1.27E+01
Pu-242	1.93E-04
Th-229	2.25E-13
Th-230	5.40E-10
Th-232	1.15E-16
U-233	6.68E-10
U-234	1.45E-05
U-235	8.26E-08
U-236	5.83E-07
U-238	2.39E-13

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream, generated at the RFETS, consists of miscellaneous residues generated by laboratory operations, plutonium recovery, and R&D activities. This waste stream is comprised of IDCs ID-RF-311, ID-RF-361, and ID-RF-393

Waste Stream ID: **IN-BN375**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Oil-Dri-Residue From Incinerator				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.0	0.0	4.0
Current Form Total	4.0	0.0	4.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	9.5	0.0	9.5
Final Form Total	9.5	0.0	9.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	7.08
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.89
Other Inorganic Materials	137.57
Cellulosics	1.83
Rubber	0.04
Plastics	7.84
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.50E-01
Cs-137	1.12E-08
Np-237	4.10E-06
Pu-238	2.34E-02
Pu-239	6.31E-01
Pu-240	1.48E-01
Pu-241	8.13E-01
Pu-242	1.34E-05
Sr-90	1.26E-08
Th-229	1.13E-14
Th-230	9.37E-12
Th-232	1.73E-18
U-233	6.56E-11
U-234	3.89E-07
U-235	4.12E-08
U-236	1.75E-08
U-238	8.32E-15

Haz. Waste No(s).

F001, F002

TRUCON Code(s)

122/222

Waste Stream Description

This waste, from the Rocky Flats Plant, consists of spent clay absorbent materials such as oil-dri, floor dry, vermiculite, and sorbent booms. Waste may also contain <50% by volume debris (i.e., rags).

Waste Stream ID: **IN-BN409**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Salt Waste	Inventory Date	12/31/2010		
Stream Name	Chloride Salts			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	16.6	0.0	16.6
Current Form Total	16.6	0.0	16.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
TDOP w/ 10 - 55-gal Drums w/ Liners	40.5	0.0	40.5
Final Form Total	40.5	0.0	40.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	11.46
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.61
Other Inorganic Materials	105.68
Cellulosics	0.77
Rubber	0.00
Plastics	5.90
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	17.13
Packaging Material, Rubber	0.44
Packaging Material, Steel	231.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.07E+00
Cs-137	1.44E-07
Np-237	6.05E-05
Pu-238	2.92E-01
Pu-239	6.24E+00
Pu-240	1.44E+00
Pu-241	7.15E+00
Pu-242	2.00E-04
Sr-90	1.57E-07
Th-229	6.05E-13
Th-230	2.56E-10
Th-232	6.74E-17
U-233	1.81E-09
U-234	6.85E-06
U-235	6.22E-08
U-236	3.41E-07
U-238	2.48E-13

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream, generated at the RFETS, includes spent salts generated by production and experimental pyrochemical operations used to recover and purify plutonium metal. This waste stream is comprised of IDCs ID-RF-409, ID-RF-410, ID-RF-411, ID-RF-412, and ID-RF-414

Waste Stream ID: **IN-BN421**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Uncemented Ash/Soot					Activity Concentrations Decayed to CY	2010

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	35.4	0.0	35.4
Current Form Total	35.4	0.0	35.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
TDOP w/ 10 - 55-gal Drums w/ Liners	103.5	0.0	103.5
Final Form Total	103.5	0.0	103.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	6.77
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.12
Other Inorganic Materials	92.85
Cellulosics	0.00
Rubber	0.00
Plastics	13.14
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	17.13
Packaging Material, Rubber	0.44
Packaging Material, Steel	231.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.82E+00
Cs-137	4.72E-08
Np-237	3.97E-05
Pu-238	6.95E-01
Pu-239	1.09E+01
Pu-240	2.52E+00
Pu-241	1.38E+01
Pu-242	2.26E-04
Sr-90	5.19E-08
Th-229	1.72E-13
Th-230	2.73E-10
Th-232	4.60E-17
U-233	7.97E-10
U-234	1.09E-05
U-235	2.88E-07
U-236	3.73E-07
U-238	2.91E-07

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, F001,
F002, F005

TRUCON Code(s)

114/214

Waste Stream Description

This waste stream includes ash materials generated from the treatment of plutonium-containing combustible materials that were generated during plutonium production and recovery operations at Rocky Flats. The ash materials include incinerator ash (IDC RF-420), incinerator ash heels (IDC RF-421), and incinerator soot (IDC RF-422).

Waste Stream ID: **IN-BN425**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Fluid Bed Ash				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.7	0.0	1.7
Current Form Total	1.7	0.0	1.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
TDOP w/ 10 - 55-gal Drums w/ Liners	4.5	0.0	4.5
Final Form Total	4.5	0.0	4.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.49
Cellulosics	0.00
Rubber	0.00
Plastics	1.37
Cement	0.00
Solidified Inorganic Material	262.22
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	17.13
Packaging Material, Rubber	0.44
Packaging Material, Steel	231.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.14E-04
Np-237	1.17E-10
Pu-238	1.61E-04
Pu-239	5.70E-03
Pu-240	1.27E-03
Pu-241	1.02E-02
Pu-242	1.66E-07
Th-229	1.37E-19
Th-230	1.12E-10
Th-232	3.33E-20
U-233	1.02E-15
U-234	2.03E-06
U-235	2.79E-07
U-236	2.25E-10
U-238	1.91E-05

Haz. Waste No(s).

D007, F005

TRUCON Code(s)

114/214

Waste Stream Description

This waste, generated at the Rocky Flats Plant, consists of fluidized bed ash which is a fine powder generated from low-level plutonium-contaminated combustible solid and liquid wastes introduced into the fluid bed incinerator (FBI)

Waste Stream ID: **IN-BN430**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Combustible Waste	Inventory Date	12/31/2010		
Stream Name	Unleached Ion Column Resin	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	6.0	0.0	6.0
Current Form Total	6.0	0.0	6.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
TDOP w/ 10 - 55-gal Drums w/o Liners	18.0	0.0	18.0
Final Form Total	18.0	0.0	18.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	12.83
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.99
Cellulosics	0.00
Rubber	0.00
Plastics	148.89
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.44
Packaging Material, Steel	231.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.00E-01
Cs-137	9.30E-08
Np-237	6.48E-06
Pu-238	1.08E-01
Pu-239	3.18E+00
Pu-240	7.11E-01
Pu-241	3.17E+00
Pu-242	5.30E-05
Sr-90	1.02E-07
Th-229	4.73E-15
Th-230	5.68E-12
Th-232	2.08E-18
U-233	5.45E-11
U-234	6.17E-07
U-235	6.27E-09
U-236	4.21E-08
U-238	1.65E-14

No Hazardous Waste Numbers Provided

TRUCON Code(s)
126/226

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 resins were not leached with nitric acid and are uncemented. After 1972, the resins were leached, cemented and assigned IDC 432 and after August 1986 the cemented resins were assigned to IDC806.

Waste Stream ID: **IN-BN431**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Combustible Waste	Inventory Date	12/31/2010		
Stream Name	Leached Resin	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.2	0.0	1.2
Current Form Total	1.2	0.0	1.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	3.8	0.0	3.8
Final Form Total	3.8	0.0	3.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	12.62
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.98
Cellulosics	0.00
Rubber	0.00
Plastics	146.83
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.42E-01
Np-237	5.67E-07
Pu-238	5.09E-02
Pu-239	1.66E+00
Pu-240	3.66E-01
Pu-241	2.48E+00
Pu-242	9.64E-05
Th-229	9.02E-15
Th-230	3.25E-10
Th-232	1.18E-16
U-233	1.86E-11
U-234	3.28E-06
U-235	3.43E-08
U-236	2.28E-07
U-238	3.14E-13

No Hazardous Waste Numbers Provided

TRUCON Code(s)
126/226

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 resins were leached with nitric acid then rinsed and are uncemented. It is believed that these resins were contaminated with above-discard amounts of plutonium and were leached to recover the plutonium. After 1972, leached resins were cemented and assigned IDC 432.

Waste Stream ID: **IN-BN432**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2010	
Stream Name	Solidified Ion Exchange Resin from Actinide Recovery				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	80.1	0.0	80.1
Current Form Total	80.1	0.0	80.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
TDOP w/ 10 - 55-gal Drums w/ Liners	184.5	0.0	184.5
Final Form Total	184.5	0.0	184.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	7.15
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	9.11
Other Inorganic Materials	6.07
Cellulosics	0.33
Rubber	0.00
Plastics	10.46
Cement	70.46
Solidified Inorganic Material	0.00
Solidified Organic Material	82.38
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	17.13
Packaging Material, Rubber	0.44
Packaging Material, Steel	231.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.51E+00
Cs-137	2.97E-06
Np-237	4.48E-05
Pu-238	1.33E-01
Pu-239	3.01E+00
Pu-240	6.89E-01
Pu-241	4.52E+00
Pu-242	5.96E-05
Sr-90	3.25E-06
Th-229	6.40E-09
Th-230	3.96E-11
Th-232	8.05E-18
U-233	1.82E-05
U-234	1.84E-06
U-235	1.11E-07
U-236	8.16E-08
U-238	3.70E-14

Haz. Waste No(s).D007, D008, D022,
D029, F001, F002,
F005**TRUCON Code(s)**

126/226

Waste Stream Description

This waste stream consists of spent anionic and cationic exchange resins used in the actinide purification and recovery processes at the RFP. Spent ion exchange resins are polystyrene and divinylbenzene copolymers. The resins were leached with nitric acid, rinsed with water and solidified with Portland cement. This waste stream is comprised of IDCs ID-RF-432, and ID-RF-822

Waste Stream ID: **IN-BN510**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Supercompacted Debris Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
100-gal Drum Dir Ld w/o Liner	45.5	0.0	45.5
Current Form Total	45.5	0.0	45.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
100-gal Drum Dir Ld w/o Liner	45.5	0.0	45.5
Final Form Total	45.5	0.0	45.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	450.75
Aluminum-based Metal/Alloys	2.97
Other Metal/Alloys	13.39
Other Inorganic Materials	18.12
Cellulosics	186.46
Rubber	2.17
Plastics	77.40
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.01
Soils	0.08
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.31
Packaging Material, Steel	113.72
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.44E-01
Am-243	8.20E-08
Cm-244	2.78E-04
Cs-137	1.25E-07
Np-237	1.37E-05
Pu-238	2.13E-01
Pu-239	1.41E+00
Pu-240	3.06E-01
Pu-241	2.11E+00
Pu-242	2.81E-05
Sr-90	2.25E-07
Th-229	2.76E-09
Th-230	3.76E-09
Th-232	2.01E-18
U-233	1.04E-05
U-234	1.37E-04
U-235	1.27E-04
U-236	2.71E-08
U-238	4.20E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D028, D029, F001, F002, F005, F006, F007, F009

TRUCON Code(s)

121/221

Waste Stream Description

BN510 is a newly generated debris waste stream generated from supercompacted 55-gallon containers of debris waste.

Waste Stream ID: **IN-BN510.1**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Supercompacted Debris Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	6514.6	0.0	6514.6
Bin - Misc	406.0	0.0	406.0
Box - Misc	5192.5	0.0	5192.5
Current Form Total	12113.0	0.0	12113.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
100-gal Drum Dir Ld w/o Liner	5941.6	0.0	5941.6
SWB Dir Ld w/o Liner	24.6	0.0	24.6
Final Form Total	5966.2	0.0	5966.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	20.11
Aluminum-based Metal/Alloys	0.05
Other Metal/Alloys	0.05
Other Inorganic Materials	0.08
Cellulosics	3.82
Rubber	0.08
Plastics	1.73
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.31
Packaging Material, Steel	113.88
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.83E-01
Am-243	1.35E-07
Cm-244	1.02E-03
Cs-137	1.57E-06
Np-237	1.70E-05
Pu-238	1.81E-01
Pu-239	2.21E+00
Pu-240	6.39E-01
Pu-241	5.49E+00
Pu-242	8.80E-05
Sr-90	1.73E-06
U-233	2.95E-05
U-234	3.73E-06
U-235	9.98E-07
U-238	8.36E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D034, D037, D043, F001, F002, F004, F005, F006, F007, F009

TRUCON Code(s)

121/221

Waste Stream Description

BN510.1 is a newly generated debris waste stream generated from supercompacted 55-gallon containers of debris waste.

Waste Stream ID: **IN-BN806**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Solidified Process Solids			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	8.5	0.0	8.5
Current Form Total	8.5	0.0	8.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	20.8	0.0	20.8
Final Form Total	20.8	0.0	20.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.31
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.12
Cellulosics	0.02
Rubber	0.04
Plastics	3.21
Cement	97.16
Solidified Inorganic Material	114.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.20E-01
Cs-137	1.32E-08
Np-237	3.56E-06
Pu-238	6.62E-02
Pu-239	1.52E+00
Pu-240	3.47E-01
Pu-241	2.57E+00
Pu-242	2.50E-05
Sr-90	1.44E-08
Th-229	1.56E-14
Th-230	2.20E-11
Th-232	6.34E-18
U-233	7.21E-11
U-234	9.52E-07
U-235	7.48E-09
U-236	5.14E-08
U-238	1.94E-14

Haz. Waste No(s).D008, F001, F002,
F003, F005**No TRUCON
Codes Provided****Waste Stream Description**

This waste stream, generated at Rocky Flats includes all inorganic particulate and inorganic sludge that is immobilized into a solid with Portland Cement. Each waste type was preconditioned (neutralized, thickened) with Portland cement. Cemented wastes were cast into 1-gallon molds allowed to cure. The cured "pucks" were removed from the molds in the form of a solid monolith.

Waste Stream ID: **IN-BN811**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Pollution Control or Waste Treatment Process	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Evaporator and Dissolver Sludge				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.8	0.0	0.8
Current Form Total	0.8	0.0	0.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	3.8	0.0	3.8
Final Form Total	3.8	0.0	3.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	1.29
Aluminum-based Metal/Alloys	1.51
Other Metal/Alloys	0.00
Other Inorganic Materials	0.75
Cellulosics	4.60
Rubber	2.75
Plastics	4.68
Cement	0.00
Solidified Inorganic Material	48.14
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.96E-02
Np-237	3.63E-06
Pu-238	2.05E+01
Pu-239	4.40E-02
Pu-240	2.62E-02
Pu-241	8.60E-02
Pu-242	2.83E-05
Th-229	2.71E-13
Th-230	1.32E-07
Th-232	8.45E-18
U-233	3.03E-10
U-234	1.33E-03
U-235	9.10E-10
U-236	1.63E-08
U-238	5.98E-05

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

"This waste stream, generated at Mound Laboratory, consists of dry evaporator and dissolver sludge in the form of powder or sand-like particles. Waste may also contain <50% by volume debris (metal, glass, filters, graphite, rust, floor sweepings, plastic, combustibles, etc.). Waste may also contain limited amounts of mercury and beryllium-contaminated wastes. "

Waste Stream ID: **IN-BN817**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Cemented Sand, Slag, Crucible Heels				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	5.6	0.0	5.6
Current Form Total	5.6	0.0	5.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	15.1	0.0	15.1
Final Form Total	15.1	0.0	15.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.06
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.01
Cellulosics	0.00
Rubber	0.00
Plastics	3.26
Cement	123.02
Solidified Inorganic Material	144.84
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.49E-01
Np-237	2.62E-06
Pu-238	5.18E-02
Pu-239	1.15E+00
Pu-240	2.62E-01
Pu-241	1.87E+00
Pu-242	1.85E-05
Th-229	1.65E-14
Th-230	2.50E-11
Th-232	6.90E-18
U-233	6.37E-11
U-234	8.98E-07
U-235	6.78E-09
U-236	4.66E-08
U-238	1.72E-14

Haz. Waste No(s).

D007

**No TRUCON
Codes Provided**

Waste Stream Description

This waste stream, generated at Rocky Flats consists of the remaining insoluble residues general following plutonium leaching and hot nitric acid. After leaching, the insoluble solution residue (heel) was collected on a filter and dried on a hotplate. The waste was preconditioned (neutralized, thickened), and portland cement was added. Cemented wastes were cast into 1-gallon molds and allowed to cure. The cured "pucks" were removed from the molds in the form of a solid monolith.

Waste Stream ID: **IN-BN823**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Cemented Miscellaneous Sludge			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.7	0.0	3.7
Current Form Total	3.7	0.0	3.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	9.5	0.0	9.5
Final Form Total	9.5	0.0	9.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.24
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	3.16
Cement	104.87
Solidified Inorganic Material	122.75
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.09E-03
Np-237	2.87E-02
Pu-238	1.41E-03
Pu-239	2.53E-02
Pu-240	5.79E-03
Pu-241	4.38E-02
Pu-242	6.35E-07
Th-229	1.94E-10
Th-230	6.79E-13
Th-232	1.52E-19
U-233	7.36E-07
U-234	2.44E-08
U-235	1.50E-10
U-236	1.03E-09
U-238	5.91E-16

Haz. Waste No(s).

D008, F001, F002, F003

**No TRUCON
Codes Provided**

Waste Stream Description

This waste stream, generated at Rocky Flats includes all inorganic sludge that is immobilized into a solid with Portland Cement. Each waste type was preconditioned (neutralized, thickened) with Portland cement. Cemented wastes were cast into 1-gallon molds allowed to cure. The cured "pucks" were removed from the molds in the form of a solid monolith.

Waste Stream ID: **IN-BN835**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Solidified Acid/Caustic Waste			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	35.2	0.0	35.2
Current Form Total	35.2	0.0	35.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	85.1	0.0	85.1
Final Form Total	85.1	0.0	85.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.02
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.05
Cellulosics	4.89
Rubber	0.01
Plastics	0.23
Cement	0.00
Solidified Inorganic Material	212.82
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.66E-02
Cs-137	3.40E-08
Np-237	2.55E-06
Pu-238	6.67E-01
Pu-239	1.35E-03
Pu-240	8.65E-04
Pu-241	1.31E-02
Pu-242	8.75E-07
Sr-90	5.89E-08
Th-229	1.19E-14
Th-230	2.23E-10
Th-232	1.58E-20
U-233	5.40E-11
U-234	9.62E-06
U-235	5.90E-11
U-236	1.28E-10
U-238	8.39E-08

Haz. Waste No(s).D007, D008, D009,
F001, F002**TRUCON Code(s)**

111/211

Waste Stream Description

IN-BN835 waste stream consists of drums containing solidified acid (IDC 834) and caustic (IDC 835) wastes combined with nonhazardous absorbent. This waste stream was generated from pressed plutonium oxides sphere or plutonium molybdenum cermet production, isotope recovery, cleaning or leaching of items and construction of standards. Acidic and caustic waste was commingled during the wastewater treatment process. This waste stream consists of waste that is primarily inorganic particulate absorbent materials (>50% by volume) including absorbed aqueous liquids, if present.

Waste Stream ID: **IN-BN836**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Pollution Control or Waste Treatment Process	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Cemented Sludge				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	68.0	0.0	68.0
Current Form Total	68.0	0.0	68.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.7	0.0	3.7
SWB w/ 4 - 55-gal Drums w/ Liners	147.4	0.0	147.4
TDOP w/ 10 - 55-gal Drums w/ Liners	4.5	0.0	4.5
Final Form Total	155.7	0.0	155.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.01
Other Inorganic Materials	0.22
Cellulosics	0.12
Rubber	0.00
Plastics	0.05
Cement	228.70
Solidified Inorganic Material	301.29
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.82
Packaging Material, Rubber	0.44
Packaging Material, Steel	209.76
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.00E-04
Cs-137	1.13E-07
Np-237	5.59E-07
Pu-238	4.45E-01
Pu-239	7.02E-04
Pu-240	4.74E-04
Pu-241	1.99E-03
Pu-242	5.43E-07
Sr-90	1.85E-07
Th-229	1.67E-15
Th-230	9.68E-11
Th-232	5.54E-21
U-233	9.47E-12
U-234	5.17E-06
U-235	8.30E-09
U-236	5.62E-11
U-238	3.41E-09

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, F001,
F002, F005

TRUCON Code(s)

111/211

Waste Stream Description

IN-BN836 consists of drums containing Mound cemented sludge (IDC 836). The sludge was generated from the treatment of alpha-contaminated wastewaters at the Waste Disposal Building. The wastewater originated outside process gloveboxes from sources such as floor drains, laboratory sinks, and sumps, as well as the old alpha waste line. The wastewaters were generated from decontamination, laundry, research and analytical operations. IN-BN836 consists of >50% by volume sludge from a wastewater treatment process that was solidified with portland cement. Florco, a non-hazardous absorbent, may have also been added to this waste stream.

Waste Stream ID: **IN-BN842**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Contaminated Soil/Debris Waste		Inventory Date	12/31/2010	
Stream Name	Contaminated Soil				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Box - Misc	123.6	0.0	123.6
Current Form Total	123.8	0.0	123.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	75.6	0.0	75.6
Final Form Total	75.6	0.0	75.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	35.45
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.35E-04
Np-237	1.34E-09
Pu-238	2.02E+00
Pu-239	1.11E-01
Pu-240	1.76E-04
Pu-241	5.85E-03
Pu-242	1.54E-07
Th-229	2.13E-17
Th-230	1.29E-08
Th-232	5.68E-20
U-233	4.40E-14
U-234	1.30E-04
U-235	2.30E-09
U-236	1.10E-10
U-238	5.03E-16

Haz. Waste No(s).D006, D007, D008,
D009, D010, D011**No TRUCON
Codes Provided****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.

Waste Stream ID: **IN-BN976**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Bldg. 776 Process Sludge			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.5	0.0	1.5
Box - Misc	63.4	0.0	63.4
Current Form Total	64.9	0.0	64.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	43.5	0.0	43.5
Final Form Total	43.5	0.0	43.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	1.24
Cellulosics	0.00
Rubber	0.00
Plastics	0.26
Cement	0.02
Solidified Inorganic Material	322.06
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.15E+00
Cs-137	2.65E-07
Np-237	2.90E-05
Pu-238	3.34E-01
Pu-239	8.70E+00
Pu-240	2.01E+00
Pu-241	9.57E+00
Pu-242	1.65E-04
Sr-90	2.89E-07
Th-229	8.11E-14
Th-230	5.59E-10
Th-232	2.35E-17
U-233	4.69E-10
U-234	1.71E-05
U-235	2.39E-06
U-236	2.38E-07
U-238	6.83E-05

Haz. Waste No(s).

D006, D007, D008, D009, D022, D028, F001, F002, F003

**No TRUCON
Codes Provided**

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.

Waste Stream ID: **IN-BN978**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Laundry Sludge				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Misc	34.9	0.0	34.9
Current Form Total	34.9	0.0	34.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
TDOP w/ 10 - 55-gal Drums w/ Liners	22.5	0.0	22.5
Final Form Total	22.5	0.0	22.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	2.96
Other Inorganic Materials	30.25
Cellulosics	30.25
Rubber	40.10
Plastics	8.18
Cement	268.45
Solidified Inorganic Material	402.68
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	17.13
Packaging Material, Rubber	0.44
Packaging Material, Steel	231.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.87E-03
Np-237	6.19E-09
Pu-238	5.89E-04
Pu-239	2.15E-02
Pu-240	4.78E-03
Pu-241	3.22E-02
Pu-242	6.21E-07
Th-229	6.09E-18
Th-230	2.65E-10
Th-232	5.58E-20
U-233	5.21E-14
U-234	7.22E-06
U-235	1.53E-06
U-236	5.66E-10
U-238	4.01E-05

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste consists of sludge (lint, spent detergent, dirt, and other similar waste) mixed with Portland cement generated by laundry operations. The sludge was removed from two laundry tanks located north of Building 776. Both tanks collected liquid effluent from the laundry in Building 776.

Waste Stream ID: **IN-BNINW216**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Pollution Control or Waste Treatment Process	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	First/Second Stage Sludge				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2633.7	0.0	2633.7
Box - Misc	22.2	0.0	22.2
Current Form Total	2655.9	0.0	2655.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	168.5	0.0	168.5
SWB w/ 4 - 55-gal Drums w/ Liners	1419.4	0.0	1419.4
TDOP w/ 10 - 55-gal Drums w/ Liners	4374.0	0.0	4374.0
Final Form Total	5961.9	0.0	5961.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.05
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.07
Other Inorganic Materials	3.94
Cellulosics	0.03
Rubber	0.02
Plastics	0.35
Cement	48.47
Solidified Inorganic Material	358.95
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	17.50
Packaging Material, Rubber	0.45
Packaging Material, Steel	223.51
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.98E+00
Cs-137	7.72E-09
Np-237	3.80E-05
Pu-238	1.90E-02
Pu-239	1.82E-01
Pu-240	4.66E-02
Pu-241	4.56E-01
Pu-242	2.53E-05
Sr-90	1.25E-08
Th-229	1.63E-13
Th-230	7.98E-10
Th-232	8.50E-19
U-233	7.58E-10
U-234	1.75E-05
U-235	7.13E-06
U-236	6.89E-09
U-238	1.72E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, F001, F002, F003, F005, F006, F007, F009

TRUCON Code(s)

111/211, 132/232

Waste Stream Description

IN-BNINW216 (aqueous sludge wastes from Building 774) were generated from a carrier precipitation and immobilization process (sludge mixed with diatomite and Portland cement) The First/Seconde Sludge waste stream is comprised of IDCs ID-RF-001, ID-RF-002, ID-RF-741, ID-RF-742 and ID-RF-800. ID-RF-741 and ID-RF-742 are used to identify first and second stage sludge drums retrieved from the INL Subsurface Disposal Area (SDA) Pits 11 and 12 prior to 1979. The First/Seconde Sludge waste stream consists of >50% by volume secondary sludge or filter cake from wastewater treatment processes or heavy metal sludges from recovery processes. Two waste matrix codes have been assigned to this waste stream because the immobilization process for this waste stream was changed in 1986. Prior to 1986 the first/second stage sludge was placed into a drum with Portland cement. The excess liquid was immobilized but a solid monolith was not formed. Subsequent to 1986 the sludge was co-fed into a drum with a diatomite and Portland cement mixture, which formed a solid monolith after curing.

Waste Stream ID: **IN-BNINW218**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Building 374 Sludge				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	224.2	0.0	224.2
Box - Misc	6.3	0.0	6.3
Current Form Total	230.6	0.0	230.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	104.0	0.0	104.0
TDOP w/ 10 - 55-gal Drums w/ Liners	463.5	0.0	463.5
Final Form Total	567.5	0.0	567.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.02
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	21.85
Cellulosics	0.00
Rubber	0.01
Plastics	1.99
Cement	22.20
Solidified Inorganic Material	333.07
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.98
Packaging Material, Rubber	0.44
Packaging Material, Steel	227.45
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.71E-02
Cs-137	8.22E-09
Np-237	2.26E-04
Pu-238	1.95E-03
Pu-239	3.97E-02
Pu-240	8.19E-03
Pu-241	6.82E-02
Pu-242	1.20E-06
Sr-90	1.33E-08
Th-229	1.53E-12
Th-230	1.45E-09
Th-232	2.15E-19
U-233	5.80E-09
U-234	2.64E-05
U-235	2.52E-06
U-236	1.45E-09
U-238	2.39E-04

Haz. Waste No(s).

D006, D007, D008,
D009, D010, D011,
D032, F001, F002,
F005, F006, F007,
F009

TRUCON Code(s)

111/211

Waste Stream Description

The Building 374 Sludge waste stream (BNINW218) consists of drums containing Building 374 dry sludge (IDC 007), solidified direct cementation process sludge (IDC 803), or Building 374 solidified by-pass sludge (IDC 807). The aqueous sludge wastes from Building 374 were generated from a carrier precipitation and immobilization process. Two waste matrix codes have been assigned to this waste stream because the cementation immobilization process for this waste stream was changed in the 1986-1987 timeframe. The immobilization process at other times involved mixing the sludge with Portland cement or a Portland cement and diatomite mixture. The feed streams to the process did not change over time.

Waste Stream ID: **IN-ID-BTO-030**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Solidified Waste Sludge from Bettis Atomic Power Lab.				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
HFEF-5 RH Insert	0.3	0.0	0.3
Current Form Total	0.3	0.0	0.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	1.2	0.0	1.2
Final Form Total	1.2	0.0	1.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	130.96
Aluminum-based Metal/Alloys	1.50
Other Metal/Alloys	0.00
Other Inorganic Materials	0.13
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	53.51
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.28E-03
Am-243	5.52E-04
Cs-137	3.43E+01
Np-237	5.82E-04
Pu-238	4.53E+00
Pu-239	4.95E-03
Pu-240	4.99E-03
Pu-242	4.82E-05
Sr-90	3.27E+01
Th-229	2.20E-04
Th-230	3.20E-08
Th-232	1.18E-05
U-233	1.14E-01
U-234	3.07E-04
U-235	6.39E-05
U-236	3.26E-09
U-238	1.65E-13

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

The inventory reported here represents best available information on this waste stream. It consists of 2 inserts (12 in Dia x 6 ft tall). Each insert will be repackaged into 2-55 gallon drums and 3-55 gallon drums will be placed in a RH TRU Removable Lid Canister. This waste consists of two inserts that contain solidified sludge from sectioning, drilling and grinding from metallographic and dissolution process. Concrete was used as the immobilizing matrix. This waste was shipped from BETTIS in 53 small containers to ANL-W and was repackaged at ANL-W prior to transporting to RWMC for interim storage.

Waste Stream ID: **IN-ID-EBR-S5000**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Uncategorized Metal Waste	Inventory Date	12/31/2010		
Stream Name	RH-TRU Debris Waste From Experimental Breeder Reactor			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
RSWF Special Liner	0.4	0.0	0.4
Current Form Total	0.4	0.0	0.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	25.64
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	544.87
Other Inorganic Materials	0.00
Cellulosics	3.21
Rubber	0.00
Plastics	5.77
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Cs-137	3.43E-01
Pu-239	1.79E+00
Sr-90	3.71E-01
Th-230	2.20E-05
U-234	1.71E-01
U-235	7.94E-03
U-238	1.71E-01

No Hazardous Waste Numbers Provided

TRUCON Code(s)
321, 322, 325

Waste Stream Description

Waste stream consists of waste generated from decommissioning the EBR-1 reactor after 12 years of operation. The debris consists of the reactor outer blanket components composed of natural uranium clad with stainless steel

Waste Stream ID: **IN-ID-INL-152**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	RH-TRU Debris Waste From Materials and Fuels Complex Hot Fuel Examination Facility at the INL.				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
HFEF-5 RH Insert	0.1	0.0	0.1
Current Form Total	0.1	0.0	0.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	55.17
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	3.06
Other Inorganic Materials	1.23
Cellulosics	13.26
Rubber	1.02
Plastics	15.29
Cement	0.00
Solidified Inorganic Material	1.02
Solidified Organic Material	0.09
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Cs-137	2.71E+01
Np-237	1.35E-06
Pu-239	3.69E-01
Pu-240	1.43E-01
Sr-90	2.49E+01
Th-229	7.30E-06
Th-230	2.35E-13
Th-232	2.32E-06
U-233	3.77E-03
U-234	2.33E-09
U-235	1.49E-04
U-236	9.32E-08
U-238	3.76E-05

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D018,
D019, D022, D038,
F002, F005

TRUCON Code(s)

321, 322, 325

Waste Stream Description

This waste stream consists of 1 insert (12 in Dia x 6 ft tall). The insert will be repackaged into 2-55 gallon drums and 2-55-gallon drums will be placed in a RH TRU Removable Lid Canister with one dunnage drum.

Waste Stream ID: **IN-ID-INL-152M**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	RH-TRU Debris Waste From Materials and Fuels Complex Hot Fuel Examination Facility at the INL.				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum	3.7	0.0	3.7
HFEF-5 RH Insert	6.6	0.0	6.6
Current Form Total	10.4	0.0	10.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	23.7	0.0	23.7
Final Form Total	23.7	0.0	23.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	58.17
Aluminum-based Metal/Alloys	1.07
Other Metal/Alloys	3.22
Other Inorganic Materials	12.90
Cellulosics	14.00
Rubber	1.08
Plastics	16.09
Cement	0.00
Solidified Inorganic Material	1.08
Solidified Organic Material	0.10
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.31E-01
Am-243	1.30E-12
Cm-244	1.28E-01
Cs-137	1.27E+02
Np-237	6.39E-05
Pu-238	4.23E-01
Pu-239	9.93E-01
Pu-240	3.14E-01
Pu-241	1.12E+00
Pu-242	1.20E-02
Pu-244	1.26E-24
Sr-90	1.25E+02
Th-229	1.37E-06
Th-230	7.68E-07
Th-232	1.55E-06
U-233	1.11E-03
U-234	5.97E-03
U-235	4.43E-04
U-236	4.54E-05
U-238	5.10E-03

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D038, F002, F005

TRUCON Code(s)

321, 322, 325

Waste Stream Description

This waste stream consists of 47 inserts (12 in Diax6 ft tall) and 18 45-gallon drums overpacked in 55-gallon drums. Each of the 47 inserts will be repackaged into 2-55 gallon drums. Three 55-gallon will be placed in a RH TRU Removable Lid Canister for transport to WIPP. Some of the canisters in this waste stream have hazardous waste codes applied by the generator.

Waste Stream ID: **IN-ID-MFC-SOLID**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	RH-TRU Waste From Materials and Fuels Complex at the INL.				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
RSWF Liner	1.5	0.0	1.5
Current Form Total	1.5	0.0	1.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	79.42
Aluminum-based Metal/Alloys	3.77
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	6.57
Rubber	0.00
Plastics	17551.28
Cement	0.00
Solidified Inorganic Material	3.37
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Cs-137	3.20E+01
Pu-239	9.75E-02
Pu-240	1.49E-02
Sr-90	3.20E+01
Th-230	3.41E-13
Th-232	2.14E-18
U-234	5.29E-09
U-235	6.23E-04
U-236	6.20E-09
U-238	1.35E-04

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D022, D038, F002,
F005

TRUCON Code(s)

311

Waste Stream Description

This waste stream consists of 3, 16-inch diameter by 148-inch long carbon steel liners each containing three 1-litre bottles of solidified sample solution from Analytical Laboratory hot cells.

Waste Stream ID: **IN-ID-RF-S3114**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2010	
Stream Name	Organic Setups					Activity Concentrations Decayed to CY	2010

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1788.4	0.0	1788.4
Box - Misc	38.0	0.0	38.0
Current Form Total	1826.4	0.0	1826.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	516.0	0.0	516.0
TDOP w/ 10 - 55-gal Drums w/ Liners	3654.0	0.0	3654.0
Final Form Total	4170.0	0.0	4170.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.93
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.18
Other Inorganic Materials	0.85
Cellulosics	0.01
Rubber	0.11
Plastics	0.48
Cement	0.00
Solidified Inorganic Material	0.04
Solidified Organic Material	71.25
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	17.03
Packaging Material, Rubber	0.44
Packaging Material, Steel	228.64
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.53E-03
Am-243	1.06E-09
Cs-137	2.03E-09
Np-237	1.29E-07
Pu-238	6.42E-04
Pu-239	1.83E-02
Pu-240	3.71E-03
Pu-241	3.29E-02
Pu-242	4.06E-07
Sr-90	2.15E-08
Th-229	3.70E-16
Th-230	2.67E-11
Th-232	4.33E-20
U-233	2.12E-12
U-234	7.29E-07
U-235	2.09E-08
U-236	4.39E-10
U-238	1.18E-06

Haz. Waste No(s).

D022, D026, D027,
D028, D029, D030,
D032, D034, D036,
D037, F001, F002,
F005

TRUCON Code(s)

112/212, 154

Waste Stream Description

Waste Stream ID-RF-3114 consists of various organic liquids that were immobilized to form a grease or paste -like material. The organic liquids were primarily a mixture of oils and chlorinated solvents. This waste consists of > 50% by volume solidified organic liquids

Waste Stream ID: **IN-ID-RF-S3150-A****Appendix A****Waste Profile Report**

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2010	
Stream Name	Organic and Sludge Immobilization System Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	39.7	0.0	39.7
Current Form Total	39.7	0.0	39.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	26.2	0.0	26.2
SWB w/ 4 - 55-gal Drums w/ Liners	28.4	0.0	28.4
TDOP w/ 10 - 55-gal Drums w/ Liners	9.0	0.0	9.0
Final Form Total	63.6	0.0	63.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.05
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	67.18
Other Inorganic Materials	13.63
Cellulosics	0.00
Rubber	6.14
Plastics	10.24
Cement	2.69
Solidified Inorganic Material	0.00
Solidified Organic Material	2114.67
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	24.98
Packaging Material, Rubber	0.49
Packaging Material, Steel	180.81
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.03E-01
Cs-137	2.59E-07
Np-237	2.79E-05
Pu-238	1.08E-01
Pu-239	2.40E+00
Pu-240	5.27E-01
Pu-241	4.38E+00
Pu-242	4.46E-05
Sr-90	4.40E-07
Th-229	1.28E-13
Th-230	2.54E-09
Th-232	9.62E-18
U-233	5.84E-10
U-234	5.59E-05
U-235	1.55E-06
U-236	7.80E-08
U-238	2.90E-06

Haz. Waste No(s).

D022, D028, D029, D030, D032, D034, D036, D043, F001, F002, F005

TRUCON Code(s)

112/212, 154

Waste Stream Description

Waste Stream ID-RF-3150A consists of various organic liquids that were immobilized into a solid monolith by the Organic and Sludge Immobilization System (OASIS). The organic liquids were primarily a mixture of oils and chlorinated solvents. This waste consists of > 50% by volume solidified organic liquids

Waste Stream ID: **IN-ID-RF-S5100-A****Appendix A****Waste Profile Report**

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Inorganic Nonmetal Waste	Inventory Date	12/31/2010		
Stream Name	Rocky Flats Raschig Rings Stored at the INL			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	7.9	0.0	7.9
Current Form Total	7.9	0.0	7.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.5	0.0	3.5
SWB w/ 4 - 55-gal Drums w/ Liners	1.9	0.0	1.9
TDOP w/ 10 - 55-gal Drums w/ Liners	13.5	0.0	13.5
Final Form Total	18.9	0.0	18.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	1.14
Aluminum-based Metal/Alloys	0.02
Other Metal/Alloys	0.01
Other Inorganic Materials	4117.30
Cellulosics	502.15
Rubber	0.36
Plastics	289.11
Cement	0.00
Solidified Inorganic Material	32.20
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	20.77
Packaging Material, Rubber	0.47
Packaging Material, Steel	210.37
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.41E+00
Cs-137	7.23E-07
Np-237	9.19E-05
Pu-238	1.09E+00
Pu-239	3.34E+01
Pu-240	7.08E+00
Pu-241	3.87E+01
Pu-242	6.08E-04
Sr-90	1.08E-06
Th-229	5.26E-08
Th-230	4.11E-09
Th-232	8.28E-17
U-233	1.50E-04
U-234	1.18E-04
U-235	4.77E-06
U-236	8.39E-07
U-238	2.38E-07

Haz. Waste No(s).D008, D009, D022,
F001, F002, F005**TRUCON Code(s)**

125/225

Waste Stream Description

Waste stream IN-ID-RF-S5100 is comprised of Raschig ring waste assigned IDC ID-RF-441 and ID-RF-442. Raschig rings are borosilicate glass rings used to maintain subcritical conditions in fissile solution storage tanks that were not safe by dimension. This waste consists of >50% by volume Raschig Rings

Waste Stream ID: **IN-ID-RF-S5126**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Graphite Waste	Inventory Date	12/31/2010		
Stream Name	Rocky Flats Transuranic Graphite Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	25.8	0.0	25.8
Current Form Total	25.8	0.0	25.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	13.1	0.0	13.1
SWB w/ 4 - 55-gal Drums w/ Liners	1.9	0.0	1.9
TDOP w/ 10 - 55-gal Drums w/ Liners	27.0	0.0	27.0
Final Form Total	42.0	0.0	42.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	2.67
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.18
Other Inorganic Materials	1390.03
Cellulosics	32.04
Rubber	0.29
Plastics	28.19
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	23.32
Packaging Material, Rubber	0.48
Packaging Material, Steel	198.90
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.99E+00
Cs-137	2.17E-02
Np-237	6.84E-05
Pu-238	7.39E-01
Pu-239	2.08E+01
Pu-240	4.83E+00
Pu-241	3.15E+01
Pu-242	4.41E-04
Sr-90	4.47E-07
Th-229	1.83E-06
Th-230	1.48E-08
Th-232	5.65E-17
U-233	5.19E-03
U-234	4.05E-04
U-235	3.73E-07
U-236	5.72E-07
U-238	3.81E-05

Haz. Waste No(s).

D008, D029, F001, F002, F005

TRUCON Code(s)

115/215, 154

Waste Stream Description

Waste Stream IN-ID-RF-S5126 is comprised of graphite generated by production, recovery, laboratory, size reduction, and research and development activities associated with plutonium operations at Rocky Flats. .

Waste Stream ID: **IN-ID-RF-S5300-A****Appendix A****Waste Profile Report**

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Combustible Waste	Inventory Date	12/31/2010		
Stream Name	Rocky Flats Combustibles and Plastic Stored at INL			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3221.3	0.0	3221.3
Current Form Total	3221.3	0.0	3221.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	168.2	0.0	168.2
TDOP w/ 10 - 55-gal Drums w/ Liners	6831.0	0.0	6831.0
Final Form Total	6999.2	0.0	6999.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	1.70
Aluminum-based Metal/Alloys	0.08
Other Metal/Alloys	0.18
Other Inorganic Materials	2.52
Cellulosics	22.22
Rubber	1.94
Plastics	19.15
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	17.11
Packaging Material, Rubber	0.44
Packaging Material, Steel	230.63
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.27E-02
Am-243	2.45E-12
Cm-244	6.50E-05
Cs-137	3.25E-09
Np-237	5.97E-07
Pu-238	1.15E-03
Pu-239	3.55E-02
Pu-240	7.97E-03
Pu-241	4.60E-02
Pu-242	7.70E-07
Sr-90	4.28E-09
Th-229	1.50E-08
Th-230	1.20E-10
Th-232	9.31E-20
U-233	4.25E-05
U-234	3.27E-06
U-235	8.57E-08
U-236	9.44E-10
U-238	1.25E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D028, D029, F001, F002, F005, F006, F007, F009

TRUCON Code(s)

116/216, 154

Waste Stream Description

Waste stream ID-RF-S5300-A is comprised of combustible and plastic waste items assigned Item IDCs 330, 336, and 337. Contains greater than 80% (by volume), organic combustible and plastic debris

Waste Stream ID: **IN-ID-SA-T001**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	LRRR CH TRU stored at SNL shipped to AMWTP			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.9	0.0	1.9
Current Form Total	1.9	0.0	1.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	131.04
Aluminum-based Metal/Alloys	4.05
Other Metal/Alloys	7.86
Other Inorganic Materials	19.54
Cellulosics	4.05
Rubber	6.43
Plastics	6.43
Cement	0.00
Solidified Inorganic Material	52.42
Solidified Organic Material	6.43
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.39E+00
Cm-244	9.30E-02
Pu-238	1.01E-01
Pu-239	4.88E-01

Haz. Waste No(s).

D005, D007, D008, D009, D011, D019, F005

TRUCON Code(s)

125/225

Waste Stream Description

This waste stream consists of combustible and noncombustible debris waste generated from the preparation of aerosols of TRU isotopes for inhalation studies. The waste includes metals, cellulosics, rubber, plastics, organic matrices, and inorganic materials. It consists of dry, heterogeneous combustible and non-combustible debris.

Waste Stream ID: **IN-ID-SDA-Debris****Appendix A****Waste Profile Report**

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	ICP Retrieved Debris Waste (Filters/Graphite)			Activity Concentrations Decayed to CY		2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	298.9	0.0	298.9
Current Form Total	298.9	0.0	298.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	172.0	0.0	172.0
TDOP w/ 10 - 55-gal Drums w/ Liners	274.5	0.0	274.5
Final Form Total	446.5	0.0	446.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.61
Aluminum-based Metal/Alloys	0.20
Other Metal/Alloys	0.02
Other Inorganic Materials	162.31
Cellulosics	66.01
Rubber	0.35
Plastics	6.40
Cement	0.52
Solidified Inorganic Material	2.83
Solidified Organic Material	0.57
Soils	12.21
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	24.81
Packaging Material, Rubber	0.49
Packaging Material, Steel	192.46
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.88E-01
Cs-137	1.23E-06
Np-237	8.91E-06
Pu-238	5.47E-02
Pu-239	1.54E+00
Pu-240	3.45E-01
Pu-241	1.81E+00
Pu-242	3.50E-05
Sr-90	1.36E-06
U-234	1.42E-04
U-235	3.62E-06
U-238	3.66E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D032, D033, D034, D037, D038, D043, F001, F002, F004, F005, F006, F007, F009, P098, P106

TRUCON Code(s)

112/212, 119/219, 122/222, 127/227, 154

Waste Stream Description

Pre-1970 buried waste retrieved for the Idaho Completion Project

Waste Stream ID: **IN-ID-SDA-Sludge**

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	ICP Retrieved Sludge Waste (Inorganic/Organic Sludge/Roaster Oxide)				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3621.7	0.0	3621.7
Current Form Total	3621.7	0.0	3621.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2151.1	0.0	2151.1
TDOP w/ 10 - 55-gal Drums w/ Liners	3181.5	0.0	3181.5
Final Form Total	5332.6	0.0	5332.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.08
Aluminum-based Metal/Alloys	0.01
Other Metal/Alloys	0.01
Other Inorganic Materials	30.58
Cellulosics	0.29
Rubber	0.06
Plastics	0.76
Cement	0.09
Solidified Inorganic Material	138.96
Solidified Organic Material	275.49
Soils	3.91
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	25.17
Packaging Material, Rubber	0.49
Packaging Material, Steel	190.63
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.64E+00
Cs-137	2.69E-05
Np-237	2.13E-05
Pu-238	1.90E-02
Pu-239	4.29E-01
Pu-240	9.65E-02
Pu-241	8.55E-01
Pu-242	1.77E-05
Sr-90	2.96E-05
Th-232	9.68E-10
U-233	1.90E-05
U-234	2.38E-04
U-235	6.24E-06
U-238	8.29E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D032, D033, D034, D037, D038, D043, F001, F002, F004, F005, F006, F007, F009, P098, P106
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TRUCON Code(s)

111/211, 112/212, 122/222, 127/227, 154

Waste Stream Description

Pre-1970 buried waste retrieved for the Idaho Completion Project

Waste Stream ID: **IN-ID-SDA-Soil**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Contaminated Soil/Debris Waste		Inventory Date	12/31/2010	
Stream Name	ICP Retrieved Soils			Activity Concentrations Decayed to CY		2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	687.4	0.0	687.4
Current Form Total	687.4	0.0	687.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	400.4	0.0	400.4
TDOP w/ 10 - 55-gal Drums w/ Liners	621.0	0.0	621.0
Final Form Total	1021.4	0.0	1021.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.29
Aluminum-based Metal/Alloys	0.03
Other Metal/Alloys	0.11
Other Inorganic Materials	17.58
Cellulosics	9.19
Rubber	0.13
Plastics	4.15
Cement	0.12
Solidified Inorganic Material	6.35
Solidified Organic Material	2.20
Soils	400.39
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	24.95
Packaging Material, Rubber	0.49
Packaging Material, Steel	191.78
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.65E-01
Cs-137	2.51E-05
Np-237	9.80E-06
Pu-238	1.86E-02
Pu-239	4.76E-01
Pu-240	1.06E-01
Pu-241	7.46E-01
Pu-242	1.59E-05
Sr-90	2.76E-05
U-234	2.21E-04
U-235	3.52E-05
U-238	6.82E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D032, D033, D034, D037, D038, D043, F001, F002, F004, F005, F006, F007, F009, P098, P106

TRUCON Code(s)

112/212, 122/222, 127/227, 154

Waste Stream Description

Pre-1970 buried waste retrieved for the Idaho Completion Project

Waste Stream ID: **IN-ID-SNL-HCF-S5400****Appendix A****Waste Profile Report**

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Sandia National Laboratories/New Mexico Hot Cell Facility Contact Handled Transuranic Waste (Debris)				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Current Form Total	0.4	0.0	0.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	60.91
Aluminum-based Metal/Alloys	0.84
Other Metal/Alloys	0.04
Other Inorganic Materials	0.00
Cellulosics	16.25
Rubber	5.26
Plastics	35.48
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.36
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.43E-03
Cs-137	5.35E-05
Np-237	6.88E-08
Pu-238	9.62E-05
Pu-239	2.14E-02
Pu-240	2.45E-03
Pu-241	9.22E-03
Pu-242	7.07E-08
Sr-90	5.35E-05
Th-232	8.80E-08
U-234	6.72E-05
U-235	2.27E-06
U-238	3.51E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D035, D038, F002, F005

TRUCON Code(s)

125/225

Waste Stream Description

This waste stream consists of organic and inorganic debris generated during the destructive and nondestructive examinations conducted in the HCF, and includes personal protective equipment and plastic from decontamination and repackaging activities. In addition to the debris materials described above, waste stream ID-SNL-HCF-S5400 will also contain lesser amounts (less than 50 percent in any container) of homogeneous organic and inorganic materials. Clay and vermiculite based absorbents are used during the neutralization and solidification of liquids. Solidification agents such as Quik Solid and Aquaset were also used to immobilize small amounts of acid solutions.

Waste Stream ID: **IN-INTEC-SFS-01**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Stored RH TRU Debris waste from Idaho Nuclear Technology and Engineering Center at the INL			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	77.88
Aluminum-based Metal/Alloys	0.69
Other Metal/Alloys	637.55
Other Inorganic Materials	11.45
Cellulosics	8.40
Rubber	0.69
Plastics	40.08
Cement	0.00
Solidified Inorganic Material	0.69
Solidified Organic Material	11.45
Soils	0.69
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.01E-01
Cs-137	2.21E+00
Pu-238	6.09E-01
Pu-239	1.01E-01
Pu-240	2.40E-01
Pu-241	5.53E+00
Pu-242	8.33E-04
Sr-90	1.28E+00
U-234	4.71E-04
U-235	5.71E-06
U-238	1.28E-04

Haz. Waste No(s).

D008, D018, F005

TRUCON Code(s)

321, 325

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 solidified sludge of acid-dissolved fuel, absorbed into diatomaceous earth. The waste is contained in two 30-gallon lead-lined drums. 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.

Waste Stream ID: **IN-LL-M001-S5400**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Heterogeneous Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	39.5	0.0	39.5
Current Form Total	39.5	0.0	39.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	39.5	0.0	39.5
Final Form Total	39.5	0.0	39.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	120.35
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	15.16
Other Inorganic Materials	18.10
Cellulosics	17.76
Rubber	6.04
Plastics	19.39
Cement	23.36
Solidified Inorganic Material	7.24
Solidified Organic Material	0.06
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.51E+00
Am-243	3.95E-07
Cm-244	1.27E-01
Cs-137	3.12E-06
Np-237	2.93E-05
Pu-238	2.34E+00
Pu-239	3.66E+00
Pu-240	9.07E-01
Pu-241	1.41E+01
Pu-242	1.35E-04
Sr-90	3.10E-06
U-233	4.79E-04
U-234	2.52E-04
U-235	9.12E-06
U-238	3.73E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D028, D029, D035, D040, F001, F002, F005

TRUCON Code(s)

116/216, 125/225

Waste Stream Description

This waste stream was generated by R&D activities at LLNL. Specific waste items may include paper cartons, cardboard, kimwipes, tissue, neoprene and hypalon gloves, aluminum foil, tin cans, hardware (nuts, bolts etc.), metal tools, parts, equipment, copper wire, sealed sources, glass, graphite molds, crucibles, epoxy resin chunks, and small quantities of pyrochemical salts and solidified aqueous or organic liquids solidified with Portland cement, Aquaset, Envirostone, gypsum cement or Petroset.

Waste Stream ID: **IN-LL-T004-S3141**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Salt Waste		Inventory Date	12/31/2010	
Stream Name	Pyrochemical Salt Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.0	0.0	1.0
Current Form Total	1.0	0.0	1.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	3.8	0.0	3.8
Final Form Total	3.8	0.0	3.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	8.33
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	2.38
Cement	0.00
Solidified Inorganic Material	36.51
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.36E+00
Cs-137	3.43E-07
Np-237	2.77E-05
Pu-238	6.07E-02
Pu-239	1.51E+00
Pu-240	3.61E-01
Pu-241	5.73E+00
Pu-242	5.01E-05
Sr-90	1.34E-07

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste consists of salt cakes/blocks composed of calcium chloride, calcium fluoride, or potassium chloride. The salts contain entrained calcium, zinc, and magnesium metals and oxides. Any excess visible metal that appeared with the sale was removed prior to packagin. Parcels of salts are included with other debris waste; however, only drums identified as containing only salt waste are included in this waste stream.

Waste Stream ID: **IN-LL-W019-S3900**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Solidified Liquids and Sludges				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.0	0.0	4.0
Current Form Total	4.0	0.0	4.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.0	0.0	4.0
Final Form Total	4.0	0.0	4.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	129.16
Aluminum-based Metal/Alloys	255.00
Other Metal/Alloys	13.25
Other Inorganic Materials	69.55
Cellulosics	18.21
Rubber	28.15
Plastics	160.62
Cement	0.00
Solidified Inorganic Material	576.24
Solidified Organic Material	405.69
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.41E+00
Cs-137	4.44E-08
Np-237	1.53E-05
Pu-238	1.43E-01
Pu-239	1.44E+00
Pu-240	3.94E-01
Pu-241	9.31E+00
Pu-242	6.93E-05
Sr-90	3.11E-08
U-233	2.12E-03
U-234	2.99E-05
U-235	9.96E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D028, D029, D035, D040, F001, F002, F005

TRUCON Code(s)

111/211, 113/213

Waste Stream Description

This waste stream was generated by R&D activities at LLNL. It consists of drums with 50 percent or greater by volume solidified aqueous or organic liquids. The material consists of radioactively contaminated liquids that have been solidified in small containers using Portland cement, Aquaset, and Aquaset II for aqueous liquids (including water and some acids) and Envirostone, gypsum cement, Petroset, and Petroset II for organic liquids (including alcohols, some acids, solvents, and oil-based liquids). Additional waste in each container includes glovebox trash (e.g. aluminum foil, cardboard, kimwipes, bags, fittings, glovebox windows, wire, tubing, batteries, leaded gloves, fluorescent and incandescent lights).

Waste Stream ID: **IN-MFC-S5490**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	MFC CH-TRU Heterogeneous Debris Waste			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	15.4	0.0	15.4
Current Form Total	15.4	0.0	15.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
TDOP w/ 10 - 55-gal Drums w/o Liners	36.0	0.0	36.0
Final Form Total	36.0	0.0	36.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	13.69
Aluminum-based Metal/Alloys	3.14
Other Metal/Alloys	5.83
Other Inorganic Materials	11.25
Cellulosics	0.00
Rubber	0.00
Plastics	4.78
Cement	0.00
Solidified Inorganic Material	0.89
Solidified Organic Material	2.47
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.44
Packaging Material, Steel	231.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.35E-01
Am-243	5.19E-04
Cm-244	3.85E-03
Cs-137	2.96E-05
Np-237	2.27E-04
Pu-238	3.97E-03
Pu-239	8.67E-02
Pu-240	2.13E-02
Pu-241	4.61E+00
Pu-242	3.83E-06
Sr-90	9.32E-05
Th-229	4.34E-14
Th-230	1.22E-08
Th-232	1.10E-12
U-233	9.87E-10
U-234	3.78E-05
U-235	1.01E-06
U-236	2.11E-07
U-238	7.58E-08

Haz. Waste No(s).

D006, D007, D008, D011

TRUCON Code(s)

125/225

Waste Stream Description

This waste stream consists of solid heterogeneous debris such as glass, metals, ceramics, neutralized and solidified dissolved fuel samples, PPE, paper, rags, and plastic.

Waste Stream ID: **IN-NRF-153**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	INL RH-TRU Debris Waste from the Naval Reactors Facility.			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	1.8	0.0	1.8
Current Form Total	1.8	0.0	1.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	3.7	0.0	3.7
Final Form Total	3.7	0.0	3.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	13.28
Aluminum-based Metal/Alloys	0.01
Other Metal/Alloys	0.01
Other Inorganic Materials	0.13
Cellulosics	1.40
Rubber	0.01
Plastics	8.88
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.45E-04
Cs-137	1.54E+00
Pu-238	2.26E-02
Pu-239	7.08E-05
Pu-240	3.37E-05
Pu-241	2.83E-03
Pu-242	9.99E-08
Sr-90	3.50E-01
U-233	1.05E-04
U-234	2.94E-05
U-235	1.01E-06
U-238	6.50E-09

Haz. Waste No(s).D004, D005, D006,
D007, D008, D010,
D011, F002**TRUCON Code(s)**

321

Waste Stream Description

This waste stream consists of 16 debris waste drums generated during analysis of post-irradiated nuclear fuel assemblies from Naval Reactors programs using destructive examination methods.

Waste Stream ID: **IN-NRF-SPC**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	RH TRU Sludge Pan Container waste from Naval Reactor Facility at Idaho Site.				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum	14.1	0.0	14.1
Met Storage Container	0.1	0.0	0.1
Sludge Pan Container	0.5	0.0	0.5
Current Form Total	14.8	0.0	14.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	21.8	0.0	21.8
Final Form Total	21.8	0.0	21.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	165.99
Aluminum-based Metal/Alloys	14.33
Other Metal/Alloys	0.16
Other Inorganic Materials	5.84
Cellulosics	0.18
Rubber	0.13
Plastics	12.86
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.68E-03
Cs-137	1.12E+01
Np-237	6.20E-09
Pu-238	7.06E-01
Pu-239	1.91E-03
Pu-240	8.33E-04
Pu-241	7.34E-02
Pu-242	2.49E-06
Sr-90	1.05E+01
Th-229	4.06E-07
Th-230	1.57E-08
Th-232	2.43E-21
U-233	2.31E-03
U-234	8.58E-04
U-235	1.35E-06
U-236	4.93E-11
U-238	1.30E-07

Haz. Waste No(s).D004, D005, D006,
D007, D008, D010,
D011**TRUCON Code(s)**

321, 322, 325

Waste Stream Description

This waste stream was generated at the Naval Reactors Facility. A total of 95 RH TRU containers were generated by this waste stream [93 Sludge Pan Containers (SPCs) and 2 Metallurgical Storage Containers (MSCs)]. Out of the 93 SPCs, 68 have been shipped to INTEC. The remaining containers are planned to be shipped to INTEC for processing.

Waste Stream ID: **IN-NRF-SPC-103**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	RH-TRU Debris Waste from the Naval Nuclear Propulsion Program (NNPP)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Can	0.7	0.0	0.7
Current Form Total	0.7	0.0	0.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	27.5	0.0	27.5
Final Form Total	27.5	0.0	27.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	8054.46
Aluminum-based Metal/Alloys	695.56
Other Metal/Alloys	7.93
Other Inorganic Materials	283.15
Cellulosics	8.86
Rubber	6.53
Plastics	624.20
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.93E-01
Cs-137	4.53E+02
Np-237	2.52E-07
Pu-238	2.86E+01
Pu-239	7.75E-02
Pu-240	3.38E-02
Pu-241	2.98E+00
Pu-242	1.01E-04
Sr-90	4.25E+02
Th-229	1.65E-05
Th-230	6.39E-07
Th-232	9.87E-20
U-233	9.35E-02
U-234	3.48E-02
U-235	5.46E-05
U-236	2.00E-09
U-238	5.28E-06

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D010,
D011

**No TRUCON
Codes Provided**

Waste Stream Description

This waste stream was generated at NNPP facilities and consists of 103 containers in storage at the INL. Waste was generated during the same or similar process that generated the SPC waste. AK information is being collected to assure the waste stream meets WIPP requirements. Waste stream includes debris waste generated during analysis of post-irradiated nuclear fuel from Naval Reactors programs using destructive examination methods.

Waste Stream ID: **IN-TRA-150**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Stored RH TRU Sludge Waste From Reactor Technology Complex at the Idaho National Laboratory				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.8	0.0	0.8
Current Form Total	0.8	0.0	0.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	1.2	0.0	1.2
Final Form Total	1.2	0.0	1.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	10.06
Aluminum-based Metal/Alloys	0.18
Other Metal/Alloys	0.18
Other Inorganic Materials	0.18
Cellulosics	0.18
Rubber	0.18
Plastics	0.18
Cement	0.00
Solidified Inorganic Material	181.85
Solidified Organic Material	0.18
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.34E-02
Cs-137	1.13E+00
Pu-238	6.37E-03
Pu-239	6.15E-03
Pu-240	4.47E-03
Pu-241	1.08E-01
Pu-242	6.80E-06
Sr-90	4.77E-01
U-233	7.73E-03
U-234	2.23E-04
U-235	1.40E-05
U-238	3.05E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, F002, F005

TRUCON Code(s)

311

Waste Stream Description

This waste stream consists of 4-30 gallon drums overpacked in 55-gallon drum. This waste was originally contained in two 55-gallon drums and was generated from removal of sludge from wastewater storage tanks utilized in the storage and handling of Reactor Technology Complex radioactive waste water. A total of 10 RH 55-gallon sludge drums were generated from the sludge removal process, however eight of them were characterized as LLW.

Waste Stream ID: **IN-W169R**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Combustible Waste	Inventory Date	12/31/2010		
Stream Name	Dry Paper and Rags (RH)	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	15.6	0.0	15.6
Current Form Total	15.6	0.0	15.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	15.6	0.0	15.6
Final Form Total	15.6	0.0	15.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	36.80
Other Inorganic Materials	27.24
Cellulosics	135.07
Rubber	57.19
Plastics	187.98
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.28E-01
Np-237	4.03E-06
Pu-238	2.55E-02
Pu-239	8.52E-01
Pu-240	1.94E-01
Pu-241	1.87E+00
Pu-242	1.39E-05
Th-229	1.09E-13
Th-230	1.63E-10
Th-232	6.24E-17
U-233	1.79E-10
U-234	1.64E-06
U-235	3.73E-06
U-236	1.20E-07
U-238	1.21E-10

Haz. Waste No(s).

D008, D022, D029,
F001, F002, F003,
F005

**No TRUCON
Codes Provided**

Waste Stream Description

This waste stream, generated at the RFETS, primarily consists of line- and nonline generated dry combustible materials such as paper, rags, plastics, rubber, cardboard, wood, and PE bottles. Wastes are primarily from decontamination and cleanup work and maybe from plutonium areas. Drums containing wastes from the Americium Recovery Line are lead-lined.

Waste Stream ID: **IN-W170**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	D&D Waste Comp. And Comb. Solids			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Current Form Total	0.4	0.0	0.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	22.50
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	1.60
Cellulosics	130.30
Rubber	1.50
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.96E+00
Np-237	3.43E-05
Pu-239	2.06E+01
Th-229	9.69E-13
U-233	1.57E-09
U-235	4.26E-07

Haz. Waste No(s).

D004, D006, D008, F003

**No TRUCON
Codes Provided**

Waste Stream Description

This waste stream, generated at Argonne National Laboratory-East, is derived from decontamination and disposal of facilities and ancillary systems (e.g., gloveboxes). The composition of the waste is unknown.

Waste Stream ID: **IN-W171**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Research Generated Waste	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Box - Misc	3.2	0.0	3.2
Current Form Total	3.6	0.0	3.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.5	0.0	1.5
Final Form Total	1.5	0.0	1.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	2.90
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	2.90
Cellulosics	175.90
Rubber	2.00
Plastics	22.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.47E+00
Am-243	1.70E-03
Np-237	6.99E-06
Pu-239	5.12E+00
Pu-241	1.89E+01
Th-229	1.44E-13
U-233	2.64E-10
U-235	1.06E-07

Haz. Waste No(s).

D004, D006, D008, F003

**No TRUCON
Codes Provided**

Waste Stream Description

This waste stream, generated at Argonne National Laboratory-East, is derived from research activities performed in a laboratory environment. The waste includes soft plastics, cardboard, rags, paper, and cloth from various processes.

Waste Stream ID: **IN-W197R**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Combustible Waste	Inventory Date	12/31/2010		
Stream Name	Moist Paper and Rags (RH)	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	17.1	0.0	17.1
Current Form Total	17.1	0.0	17.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	15.6	0.0	15.6
Final Form Total	15.6	0.0	15.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.71
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	2.00
Other Inorganic Materials	18.26
Cellulosics	47.21
Rubber	9.13
Plastics	72.17
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.26E+00
Np-237	8.34E-06
Pu-238	2.91E-02
Pu-239	9.72E-01
Pu-240	2.21E-01
Pu-241	2.13E+00
Pu-242	1.58E-05
Th-229	2.29E-13
Th-230	1.86E-10
Th-232	7.11E-17
U-233	3.75E-10
U-234	1.88E-06
U-235	1.41E-06
U-236	1.37E-07
U-238	5.16E-14

Haz. Waste No(s).

D008, D022, F001, F002, F003, F005

**No TRUCON
Codes Provided**

Waste Stream Description

This waste stream, generated at the RFETS, consists of damp or wet line- and nonline- generated combustible materials (paper, rags, plastics, rubber, cardboard, wood, and PE bottles from decontamination and cleanup work and maybe from plutonium areas.

Waste Stream ID: **IN-W198R**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Plastics, Teflon, Wash, PVC (RH)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.5	0.0	1.5
Current Form Total	1.5	0.0	1.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.5	0.0	1.5
Final Form Total	1.5	0.0	1.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.14
Other Inorganic Materials	10.51
Cellulosics	10.30
Rubber	34.13
Plastics	27.13
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.15E+00
Np-237	2.34E-05
Pu-238	1.82E-02
Pu-239	6.09E-01
Pu-240	1.38E-01
Pu-241	1.33E+00
Pu-242	3.51E-05
Th-229	1.53E-12
Th-230	1.16E-10
Th-232	4.44E-17
U-233	1.78E-09
U-234	1.17E-06
U-235	7.44E-08
U-236	8.57E-08
U-238	1.14E-13

Haz. Waste No(s).

D008, D022, D029,
F001, F002, F003,
F005

**No TRUCON
Codes Provided**

Waste Stream Description

This waste stream, generated at the RFETS, consists of various types of plastics such as PE, PVE, teflon, and nonleaded rubber.

Waste Stream ID: **IN-W208R**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Composite Filter Waste	Inventory Date	12/31/2010		
Stream Name	Absolute 8X8 filters:(RH)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Current Form Total	0.4	0.0	0.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	23.89
Aluminum-based Metal/Alloys	20.33
Other Metal/Alloys	1.51
Other Inorganic Materials	25.34
Cellulosics	123.87
Rubber	12.24
Plastics	50.80
Cement	7.42
Solidified Inorganic Material	0.51
Solidified Organic Material	0.05
Soils	0.19
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.69E+01
Np-237	1.69E-04
Pu-238	2.03E+00
Pu-239	6.81E+01
Pu-240	1.54E+01
Pu-241	1.42E+02
Pu-242	1.11E-03
Th-229	4.74E-12
Th-230	1.43E-08
Th-232	5.44E-15
U-233	7.60E-09
U-234	1.37E-04
U-235	5.65E-05
U-236	1.00E-05
U-238	1.47E-06

Haz. Waste No(s).

D022, D028, D029,
F001, F002, F003,
F005

**No TRUCON
Codes Provided**

Waste Stream Description

This waste stream, generated at the Rocky Flats Plant, consists of absolute filters used for filtering intake and exhaust air from glovebox lines. The filters are composed of wood or particle board frames and an asbestos-type filter media. The waste may include limited amounts of combustible materials (surgical gloves, etc.). Several sizes of filters may be present. This code has not been used since 1975. Since then absolute filters were processed as Content Code 338 (insulation and CWS filter media) or 376 (cemented insulation and filter media). Some of the drums may be lead lined. There is a lack of information about the particulate on the filter media. Although there may be some organic material, it should be less than 14 lb/ft³. Significant amounts of respirable fines may be present.

Waste Stream ID: **IN-W216R**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Pollution Control or Waste Treatment Process	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	First Stage Sludge:(RH)				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	40.4	0.0	40.4
Current Form Total	40.4	0.0	40.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	40.6	0.0	40.6
Final Form Total	40.6	0.0	40.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	63.61
Cellulosics	0.00
Rubber	0.00
Plastics	5.90
Cement	7125.26
Solidified Inorganic Material	1061.15
Solidified Organic Material	21.25
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.19E+01
Np-237	5.20E-04
Pu-238	9.76E-02
Pu-239	3.28E+00
Pu-240	7.44E-01
Pu-241	6.85E+00
Pu-242	5.36E-05
Th-229	1.61E-11
Th-230	6.88E-10
Th-232	2.63E-16
U-233	2.49E-08
U-234	6.61E-06
U-235	7.11E-08
U-236	4.85E-07
U-238	1.83E-13

Haz. Waste No(s).

D005, D006, D007, D008, D009, D011, D022, D028, F001, F002, F003

No TRUCON Codes Provided

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 percent water. Liquid wastes were analyzed for fissile content prior to release from Buildings 771 and 774, and were retained at Building 771 for further treatment if contaminated with above-discard amounts of plutonium.

Waste Stream ID: **IN-W228R**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Pollution Control or Waste Treatment Process	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Second Stage Sludge (RH)				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	20.6	0.0	20.6
Current Form Total	20.6	0.0	20.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	20.6	0.0	20.6
Final Form Total	20.6	0.0	20.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	2.42
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	29.95
Cellulosics	0.00
Rubber	0.01
Plastics	2.71
Cement	29.95
Solidified Inorganic Material	442.15
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.27E-01
Np-237	3.60E-06
Pu-238	3.90E-03
Pu-239	1.30E-01
Pu-240	2.95E-02
Pu-241	2.85E-01
Pu-242	2.13E-06
Th-229	1.01E-13
Th-230	2.50E-11
Th-232	9.50E-18
U-233	1.64E-10
U-234	2.51E-07
U-235	2.70E-09
U-236	1.83E-08
U-238	6.92E-15

Haz. Waste No(s).

D005, D006, D007,
D008, D009, D011,
D022, D028, F001,
F002, F003

**No TRUCON
Codes Provided**

Waste Stream Description

Waste consists of a wet sludge produced from treatment of 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, 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 percent water. Liquid wastes were analyzed for fissile content prior to release from Buildings 771 and 774, and were retained at Building 771 for further treatment if contaminated with above-discard amounts of plutonium.

Waste Stream ID: **IN-W243R**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group	Inorganic Nonmetal Waste	Inventory Date	12/31/2010		
Stream Name	Glass (RH)	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.3	0.0	3.3
Current Form Total	3.3	0.0	3.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	3.7	0.0	3.7
Final Form Total	3.7	0.0	3.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	1.64
Other Inorganic Materials	297.42
Cellulosics	0.00
Rubber	1.09
Plastics	32.23
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.91E-01
Np-237	2.98E-06
Pu-238	9.11E-02
Pu-239	3.05E+00
Pu-240	6.90E-01
Pu-241	6.67E+00
Pu-242	4.98E-05
Th-229	6.52E-14
Th-230	5.82E-10
Th-232	2.23E-16
U-233	1.16E-10
U-234	5.87E-06
U-235	9.43E-07
U-236	4.29E-07
U-238	6.08E-08

Haz. Waste No(s).

D008, D029, F001, F002, F003, F005

No TRUCON Codes Provided**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 ports, 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 non-combustibles 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. 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 the 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.

Comprehensive Inventory Database ver. 2.00

Data ver. D.10.01

NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: **IN-W245R**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Inorganic Nonmetal Waste	Inventory Date	12/31/2010		
Stream Name	Unleached Raschig Rings (RH)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.3	0.0	2.3
Current Form Total	2.3	0.0	2.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	1.2	0.0	1.2
Final Form Total	1.2	0.0	1.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	351.15
Cellulosics	22.54
Rubber	0.00
Plastics	7.84
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.83E-01
Np-237	3.18E-06
Pu-238	1.84E-01
Pu-239	6.12E+00
Pu-240	1.39E+00
Pu-241	1.34E+01
Pu-242	9.98E-05
Th-229	5.20E-14
Th-230	1.17E-09
Th-232	4.47E-16
U-233	1.06E-10
U-234	1.18E-05
U-235	1.27E-07
U-236	8.63E-07
U-238	3.25E-13

Haz. Waste No(s).

D008, F001

**No TRUCON
Codes Provided**

Waste Stream Description

This waste stream, generated at the RFETS, consists of boronated glass rings used to minimize neutron multiplication in liquid storage tanks. Unleached Raschig Rings were used from 1971-1979 as a separate stream and then combined with IDC 442. The rings are heat and chemical resistant borosilicate glass. Some of the rings were leached with nitric acid to recover the plutonium and then rinsed with water and dried.

Waste Stream ID: **IN-W247R**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Inorganic Nonmetal Waste	Inventory Date	12/31/2010		
Stream Name	Leached Raschig Rings (RH)				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.0	0.0	1.0
Current Form Total	1.0	0.0	1.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	1.2	0.0	1.2
Final Form Total	1.2	0.0	1.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	195.97
Cellulosics	23.53
Rubber	0.00
Plastics	10.27
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.77E-01
Np-237	1.53E-06
Pu-238	8.83E-02
Pu-239	2.95E+00
Pu-240	6.69E-01
Pu-241	6.46E+00
Pu-242	4.82E-05
Th-229	2.49E-14
Th-230	5.65E-10
Th-232	2.16E-16
U-233	5.08E-11
U-234	5.69E-06
U-235	6.49E-07
U-236	4.16E-07
U-238	1.57E-13

Haz. Waste No(s).

D008, D028, D029,
F001, F002, F003,
F005

**No TRUCON
Codes Provided**

Waste Stream Description

This waste stream, generated at the RFETS, consists of boronated glass rings used to minimize neutron multiplication in liquid storage tanks. Unleached Raschig Rings were used from 1971-1979 as a separate stream and then combined with IDC 442. The rings are heat and chemical resistant borosilicate glass. Some of the rings were leached with nitric acid to recover the plutonium and then rinsed with water and dried.

Waste Stream ID: **IN-W252R**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Combustible Waste	Inventory Date	12/31/2010		
Stream Name	Leaded Rubber Gloves and Aprons (RH)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	11.9	0.0	11.9
Current Form Total	11.9	0.0	11.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	11.9	0.0	11.9
Final Form Total	11.9	0.0	11.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	20.12
Cellulosics	3.90
Rubber	429.39
Plastics	12.61
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.73E+00
Np-237	8.04E-06
Pu-238	3.26E-01
Pu-239	1.09E+01
Pu-240	2.46E+00
Pu-241	2.38E+01
Pu-242	1.77E-04
Th-229	1.60E-13
Th-230	2.08E-09
Th-232	7.92E-16
U-233	2.97E-10
U-234	2.10E-05
U-235	2.25E-07
U-236	1.53E-06
U-238	5.77E-13

Haz. Waste No(s).

D008, D022, D028,
D029, F001, F002,
F003, F005

**No TRUCON
Codes Provided**

Waste Stream Description

This waste comes from the Rocky Flats Plant and consists of leaded rubber gloves and aprons. A limited amount of unleaded gloves, lead bricks, and lead sheeting may also be present. Content Code 463 was replaced by Content Code 339 in 1973. Waste is packaged in standard RFP fashion. Lead linings are present on some drums.

Waste Stream ID: **IN-W254R**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Combustible Waste	Inventory Date	12/31/2010		
Stream Name	Leaded Rubber Gloves and Aprons (RH)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.8	0.0	0.8
Current Form Total	0.8	0.0	0.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	1.2	0.0	1.2
Final Form Total	1.2	0.0	1.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	254.02
Other Inorganic Materials	28.67
Cellulosics	5.42
Rubber	264.86
Plastics	16.26
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.75E-01
Np-237	3.10E-06
Pu-238	1.85E-01
Pu-239	6.17E+00
Pu-240	1.40E+00
Pu-241	1.35E+01
Pu-242	1.01E-04
Th-229	4.93E-14
Th-230	1.18E-09
Th-232	4.51E-16
U-233	1.02E-10
U-234	1.19E-05
U-235	1.28E-07
U-236	8.70E-07
U-238	3.29E-13

Haz. Waste No(s).

D008, F001, F002

**No TRUCON
Codes Provided**

Waste Stream Description

This waste comes from the Rocky Flats Plant and consists of leaded rubber gloves and aprons. A limited amount of unleaded gloves, lead bricks, and lead sheeting may also be present. Content Code 463 was replaced by Content Code 339 in 1973. Waste is packaged in standard RFP fashion. Lead linings are present on some drums.

Waste Stream ID: **IN-W259**

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Alpha Hot Cell Waste	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	54.1	0.0	54.1
Bin - Misc	21.0	0.0	21.0
Current Form Total	75.1	0.0	75.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.5	0.0	1.5
TDOP w/ 10 - 55-gal Drums w/ Liners	117.0	0.0	117.0
Final Form Total	118.5	0.0	118.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	83.60
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.10
Other Inorganic Materials	2.10
Cellulosics	70.30
Rubber	6.30
Plastics	56.40
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	17.38
Packaging Material, Rubber	0.45
Packaging Material, Steel	229.88
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-239	2.45E-01
Pu-240	2.70E-02
Th-232	8.72E-18
U-235	6.09E-05
U-236	1.68E-08

Haz. Waste No(s).

D008

No TRUCON Codes Provided

Waste Stream Description

This waste stream, generated at Argonne National Laboratory-East, contains alpha hot cell waste. Noncombustible and combustible waste are segregated. 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.

Waste Stream ID: **IN-W283**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Americium Process Residues:			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	24.3	0.0	24.3
Current Form Total	24.3	0.0	24.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	24.3	0.0	24.3
Final Form Total	24.3	0.0	24.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	159.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	129.00
Cellulosics	13.50
Rubber	0.00
Plastics	81.90
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.31E+00
Np-237	1.02E-05
Pu-238	2.14E-01
Pu-239	8.13E+00
Pu-240	1.84E+00
Pu-241	8.22E+00
Pu-242	1.33E-04
Th-229	5.46E-13
Th-230	4.63E-09
Th-232	1.85E-15
U-233	6.22E-10
U-234	2.60E-05
U-235	2.96E-07
U-236	2.02E-06
U-238	7.63E-13

Haz. Waste No(s).

D008, F002, F003

**No TRUCON
Codes Provided**

Waste Stream Description

This waste stream, generated at the Rocky Flats Plant, consists of piping, flanges, valves, tools, equipment, PVC piping, glassware (flasks ion exchange columns), glass filters, PE bottles, leaded glovebox gloves, paper, and plastics. Some of the containers are lead-lined.

Waste Stream ID: **IN-W283R**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Pending Determination	Handling	RH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Americium Process Residues: (RH)			Activity Concentrations Decayed to CY		2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Current Form Total	0.4	0.0	0.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	128.94
Cellulosics	0.00
Rubber	0.00
Plastics	81.87
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.45E+00
Np-237	5.81E-06
Pu-238	3.47E-01
Pu-239	1.16E+01
Pu-240	2.63E+00
Pu-241	2.54E+01
Pu-242	1.90E-04
Th-229	9.24E-14
Th-230	2.22E-09
Th-232	8.49E-16
U-233	1.91E-10
U-234	2.23E-05
U-235	2.40E-07
U-236	1.64E-06
U-238	6.18E-13

Haz. Waste No(s).

D008, F002, F003

**No TRUCON
Codes Provided**

Waste Stream Description

This waste stream, generated at the RFETS, was shipped in 1972 and 1973 from renovation of the americium process recovery line. It consists of piping, flanges, valves, tools, equipment, PVC piping, glassware, glass filters, PE bottles, leaded glovebox gloves, paper and plastics. Some of these containers were lead-lined.

Waste Stream ID: **IN-W287**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Cut-Up Gloveboxes			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Bin - Misc	234.5	0.0	234.5
Box - Misc	15.9	0.0	15.9
Current Form Total	250.4	0.0	250.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	69.7	0.0	69.7
Final Form Total	69.7	0.0	69.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	213.20
Aluminum-based Metal/Alloys	34.20
Other Metal/Alloys	15.80
Other Inorganic Materials	38.90
Cellulosics	56.80
Rubber	0.60
Plastics	5.70
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.85E-03
Np-237	7.88E-04
Pu-239	2.58E-01
Pu-240	3.06E+00
Pu-241	1.04E-01
Th-229	6.62E-11
Th-230	3.37E-13
Th-232	9.88E-16
U-233	7.17E-08
U-234	3.49E-09
U-235	1.77E-08
U-236	1.91E-06
U-238	5.91E-05

Haz. Waste No(s).

D008

**No TRUCON
Codes Provided**

Waste Stream Description

This waste stream, generated at Argonne National Laboratory-East, contains glovebox sections and associated equipment from decontamination and decommissioning operations. This waste is predominantly noncombustible

Waste Stream ID: **IN-W294R**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Uncategorized Metal Waste	Inventory Date	12/31/2010		
Stream Name	Leached Non-special Source Metal (RH)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	5.8	0.0	5.8
Current Form Total	5.8	0.0	5.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	6.2	0.0	6.2
Final Form Total	6.2	0.0	6.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	161.17
Aluminum-based Metal/Alloys	9.56
Other Metal/Alloys	121.38
Other Inorganic Materials	31.52
Cellulosics	0.00
Rubber	0.00
Plastics	16.26
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.65E-01
Np-237	2.97E-06
Pu-238	1.34E-01
Pu-239	4.49E+00
Pu-240	1.02E+00
Pu-241	9.83E+00
Pu-242	7.33E-05
Th-229	5.60E-14
Th-230	8.57E-10
Th-232	3.28E-16
U-233	1.07E-10
U-234	8.64E-06
U-235	2.97E-06
U-236	6.32E-07
U-238	2.39E-13

Haz. Waste No(s).D008, D022, F001,
F002, F005**No TRUCON
Codes Provided****Waste Stream Description**

The waste comes from Rocky Flats Plant. It consists of the smaller pieces of the waste described under Content Code 480 that have been washed with hot water to recover plutonium. The waste is packaged in standard RFP fashion. Sharp metal edges are taped before packaging. Some lead-lined containers are included.

Waste Stream ID: **IN-W296R**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Uncategorized Metal Waste	Inventory Date	12/31/2010		
Stream Name	Non-special Source Metal:(RH)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	23.3	0.0	23.3
Current Form Total	23.3	0.0	23.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	17.5	0.0	17.5
Final Form Total	17.5	0.0	17.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	329.17
Aluminum-based Metal/Alloys	1.81
Other Metal/Alloys	14.97
Other Inorganic Materials	0.70
Cellulosics	10.25
Rubber	0.29
Plastics	6.91
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.01
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.53E-01
Np-237	1.71E-05
Pu-238	1.04E-01
Pu-239	3.46E+00
Pu-240	7.84E-01
Pu-241	7.60E+00
Pu-242	5.66E-05
Th-229	1.27E-12
Th-230	6.63E-10
Th-232	2.53E-16
U-233	1.42E-09
U-234	6.68E-06
U-235	6.02E-07
U-236	4.88E-07
U-238	1.84E-13

Haz. Waste No(s).

D008, D028, D029,
F001, F002, F003,
F005

**No TRUCON
Codes Provided**

Waste Stream Description

The waste comes from Rocky Flats Plant. It consists of the nonline- and line-generated wastes. The waste may be in the form of gloveboxes, glovebox windows, furnaces, lathes, drill presses, ducting, piping, angle iron, tanks, downdraft tables, respirator filters, ultrasonic cleaners, control panels, electronic instrumentation, vacuum sweepers, pumps, motors, railing, stairs, metal racks and trays, hotplates, empty metal produce and paint cans, carts, power tools (saws, drills, etc.) hand tools (wrenches hammers, saws, chisels, gauges, etc.), chairs desks, tables, typewriters, filing cabinets, crushed 55-gallon drums, etc. The waste may also include limited amounts of combustible wastes. The waste is packaged in standard RFP fashion. Sharp metal edges are taped before packaging. Some lead lined containers are included.

Waste Stream ID: **IN-W298R**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Uncategorized Metal Waste	Inventory Date	12/31/2010		
Stream Name	Heavy Non-special Source Metal (RH)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	5.4	0.0	5.4
Current Form Total	5.4	0.0	5.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	5.6	0.0	5.6
Final Form Total	5.6	0.0	5.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	183.99
Aluminum-based Metal/Alloys	6.28
Other Metal/Alloys	40.51
Other Inorganic Materials	20.82
Cellulosics	13.69
Rubber	1.43
Plastics	13.55
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.81E+00
Np-237	2.01E-05
Pu-238	5.13E-01
Pu-239	1.71E+01
Pu-240	3.89E+00
Pu-241	3.76E+01
Pu-242	2.81E-04
Th-229	4.60E-13
Th-230	3.28E-09
Th-232	1.25E-15
U-233	8.07E-10
U-234	3.31E-05
U-235	3.54E-07
U-236	2.42E-06
U-238	9.15E-13

Haz. Waste No(s).

D008, F001, F002

**No TRUCON
Codes Provided**

Waste Stream Description

This waste comes from the Rocky Flats Plant. It consists of used tantalum crucibles, funnels, funnel inserts, and pour-rods. This waste is packaged in standard RFP fashion. Sharp metal edges are taped before packaging. Other metals may include tungsten, platinum, and lead. Some lead-lined containers are included.

Waste Stream ID: **IN-W317R**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2010	
Stream Name	Leached and Cemented Resin (RH)				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.1	0.0	2.1
Current Form Total	2.1	0.0	2.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	2.5	0.0	2.5
Final Form Total	2.5	0.0	2.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	2.71
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	4.14
Other Inorganic Materials	4.85
Cellulosics	0.24
Rubber	0.00
Plastics	18.54
Cement	126.94
Solidified Inorganic Material	0.00
Solidified Organic Material	108.40
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.62E+00
Np-237	3.35E-05
Pu-238	4.43E-01
Pu-239	1.48E+01
Pu-240	3.36E+00
Pu-241	3.25E+01
Pu-242	2.42E-04
Th-229	8.54E-13
Th-230	2.84E-09
Th-232	1.08E-15
U-233	1.44E-09
U-234	2.86E-05
U-235	3.07E-07
U-236	2.09E-06
U-238	7.90E-13

Haz. Waste No(s).

D008, F001, F002

**No TRUCON
Codes Provided**

Waste Stream Description

This waste stream, generated at the RFETS, consists of anion and cation exchange resins used in the purification and recovery of plutonium and americium, respectively. The resins are leached and cemented before disposal.

Waste Stream ID: **IN-W323**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Combustible Lab Waste			Activity Concentrations Decayed to CY		2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	6.2	0.0	6.2
Current Form Total	6.2	0.0	6.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	15.1	0.0	15.1
Final Form Total	15.1	0.0	15.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	12.15
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.86
Cellulosics	70.39
Rubber	0.79
Plastics	7.03
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.19E-02
Np-237	1.28E-07
Pu-238	6.08E-01
Pu-239	1.32E-01
Pu-241	5.58E-01
Th-229	2.03E-15
Th-230	3.89E-09
U-233	4.20E-12
U-234	3.92E-05
U-235	5.07E-05

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

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. The waste stream is non-mixed, because the lead is shielding only and not considered part of waste stream.

Waste Stream ID: **IN-W345**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	TRU Scrap					Activity Concentrations Decayed to CY	2010

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.1	0.0	3.1
Box - Misc	15.9	0.0	15.9
Current Form Total	19.0	0.0	19.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	7.1	0.0	7.1
Final Form Total	7.1	0.0	7.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	96.20
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.10
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.30
Plastics	64.90
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.76E+00
Np-237	3.99E-05
Pu-238	1.41E+00
Pu-239	1.35E+00
Pu-240	8.57E-01
Th-229	1.13E-12
Th-230	9.04E-09
Th-232	3.91E-05
U-233	1.82E-09
U-234	9.12E-05
U-235	1.79E-05
U-236	5.33E-07

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream, generated at the Idaho Engineering Laboratory, consists of a plastic glovebox, hydraulic pump containing oil, vacuum pumps, centrifuges, tools and experimental fuel capsules.

Waste Stream ID: **IN-W347**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Absorbed Liquids			Activity Concentrations Decayed to CY		2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	21.8	0.0	21.8
Bin - Misc	45.5	0.0	45.5
Current Form Total	67.3	0.0	67.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	38.1	0.0	38.1
Final Form Total	38.1	0.0	38.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	54.88
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	117.54
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.60E+00
Cs-137	4.67E-06
Np-237	3.31E-05
Pu-238	2.08E-01
Pu-239	3.05E+00
Pu-240	9.77E-01
Pu-241	7.82E+00
Pu-242	1.08E-04
Sr-90	5.13E-06
Th-229	6.28E-15
Th-230	3.59E-10
Th-232	7.13E-19
U-233	1.43E-10
U-234	3.94E-05
U-235	9.33E-06
U-236	2.89E-08
U-238	1.59E-04

Haz. Waste No(s).

F003

**No TRUCON
Codes Provided**

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.

Waste Stream ID: **IN-W351**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Empty Bottles and Absorbent			Activity Concentrations Decayed to CY		2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.5	0.0	1.5
Current Form Total	1.5	0.0	1.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.5	0.0	1.5
Final Form Total	1.5	0.0	1.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	3.40
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	3.40
Cellulosics	202.10
Rubber	2.30
Plastics	25.30
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.40E+00
Np-237	1.36E-05
Pu-238	1.76E-01
Pu-239	1.66E+00
Pu-240	8.69E-01
Pu-241	8.63E+00
Pu-242	2.90E-04
Th-229	2.54E-15
Th-230	2.29E-12
Th-232	6.35E-19
U-233	5.82E-11
U-234	4.97E-07
U-235	1.64E-09
U-236	2.57E-08
U-238	4.50E-14

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream, generated at Argonne National Laboratory-East, consists of polyethylene and glass bottles used to collect liquid waste are emptied and filled with vermiculite to absorb any remaining liquid. The tops were replaced to contain the liquid. No free liquids should be present, except for small quantities of wet vermiculite.

Waste Stream ID: **IN-W358**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Uncategorized Metal Waste	Inventory Date	12/31/2010		
Stream Name	PU Neutron Sources	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.2	0.0	1.2
Bin - Misc	3.5	0.0	3.5
Current Form Total	4.7	0.0	4.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.5	0.0	2.5
Final Form Total	2.5	0.0	2.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	48.10
Aluminum-based Metal/Alloys	0.40
Other Metal/Alloys	0.05
Other Inorganic Materials	1.20
Cellulosics	40.45
Rubber	3.65
Plastics	32.45
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	2.95E+02
Pu-239	1.51E+00
Pu-240	2.90E+00
Th-230	9.33E-07
Th-232	4.77E-16
U-234	1.33E-02
U-235	2.23E-08
U-236	1.29E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream was generated at the INEL [NTEC (formerly CPP), NRF, and TAN]. This wastes includes Pu-Be sources, Pu standard, Pu foil, tools, and non-combustible waste..

Waste Stream ID: **IN-W360R**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Pending Determination	Handling	RH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Uncategorized Metal Waste	Inventory Date	12/31/2010		
Stream Name	Miscellaneous Sources	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	159.03
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.45E+00
Np-237	5.81E-06
Pu-238	3.47E-01
Pu-239	1.16E+01
Pu-240	2.63E+00
Pu-241	2.54E+01
Pu-242	1.90E-04
Th-229	9.24E-14
Th-230	2.22E-09
Th-232	8.49E-16
U-233	1.91E-10
U-234	2.23E-05
U-235	2.40E-07
U-236	1.64E-06
U-238	6.18E-13

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

The waste stream generated by Bettis Atomic Laboratory consists of two Ra-226 sources.

Waste Stream ID: **IN-W364R**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Inorganic Nonmetal Waste	Inventory Date	12/31/2010		
Stream Name	Sand, Slag, and Crucibles (RH)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	208.24
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.73E+01
Np-237	6.91E-05
Pu-238	4.13E+00
Pu-239	1.38E+02
Pu-240	3.12E+01
Pu-241	3.02E+02
Pu-242	2.25E-03
Th-229	1.10E-12
Th-230	2.64E-08
Th-232	1.01E-14
U-233	2.27E-09
U-234	2.66E-04
U-235	2.85E-06
U-236	1.94E-05
U-238	7.34E-12

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

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, waste packaging and handling procedures which generated the waste is unknown.

Waste Stream ID: **IN-W365R**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Inorganic Nonmetal Waste	Inventory Date	12/31/2010		
Stream Name	Crucibles and Sand (RH)	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	250.41
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.14E+02
Np-237	2.15E-03
Pu-238	1.90E+00
Pu-239	6.31E+01
Pu-240	1.44E+01
Pu-241	1.39E+02
Pu-242	1.03E-03
Th-229	6.03E-11
Th-230	1.21E-08
Th-232	4.63E-15
U-233	9.79E-08
U-234	1.22E-04
U-235	1.31E-06
U-236	8.94E-06
U-238	3.36E-12

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

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.

Waste Stream ID: **KA-T001**

Appendix A
Waste Profile Report

Site	Knolls Atomic Power Laboratory - Schenectady	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Transuranic Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
5-gal Can	0.0	0.1	0.1
Current Form Total	0.0	0.1	0.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.0	1.2	1.2
Final Form Total	0.0	1.2	1.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	18.73
Aluminum-based Metal/Alloys	0.11
Other Metal/Alloys	0.02
Other Inorganic Materials	0.46
Cellulosics	15.43
Rubber	1.39
Plastics	12.38
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.34E-04
Am-243	1.33E-06
Cm-244	2.82E-05
Cs-137	1.62E+00
Np-237	2.16E-05
Pu-238	6.74E-02
Pu-239	1.92E-04
Pu-240	4.79E-05
Pu-241	4.63E-03
Pu-242	1.83E-07
Pu-244	4.34E-14
Sr-90	1.53E+00
Th-229	3.14E-11
Th-230	4.42E-08
Th-232	1.05E-12
U-233	1.06E-08
U-234	1.24E-04
U-235	1.82E-06
U-236	1.73E-05
U-238	8.01E-09

No Hazardous Waste Numbers Provided

TRUCON Code(s)

325

Waste Stream Description

Organic and inorganic particulate and debris.

Waste Stream ID: **KA-W016**

Appendix A
Waste Profile Report

Site	Knolls Atomic Power Laboratory - Schenectady	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Transuranic Debris	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
5-gal Can	0.0	0.0	0.0
Current Form Total	0.0	0.0	0.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.0	0.6	0.6
Final Form Total	0.0	0.6	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	18.73
Aluminum-based Metal/Alloys	0.11
Other Metal/Alloys	0.02
Other Inorganic Materials	0.46
Cellulosics	15.43
Rubber	1.39
Plastics	12.38
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.27E-04
Am-243	1.32E-06
Cm-244	2.79E-05
Cs-137	1.61E+00
Np-237	2.14E-05
Pu-238	6.68E-02
Pu-239	1.90E-04
Pu-240	4.75E-05
Pu-241	4.58E-03
Pu-242	1.81E-07
Pu-244	4.30E-14
Sr-90	1.51E+00
Th-229	3.11E-11
Th-230	4.38E-08
Th-232	1.04E-12
U-233	1.05E-08
U-234	1.22E-04
U-235	1.81E-06
U-236	1.72E-05
U-238	7.94E-09

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D035, D039, D040, F001, F002, F003, F005

TRUCON Code(s)

325

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.

Waste Stream ID: **KN-B234TRU**

Appendix A
Waste Profile Report

Site	Knolls Atomic Power Laboratory - Nuclear Fuel Services	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Contaminated Soil/Debris Waste		Inventory Date	12/31/2010	
Stream Name	Building 234 TRU Waste					Activity Concentrations Decayed to CY	2010

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	3.1	0.0	3.1
Box - Crate	2.8	0.0	2.8
Uncontained	0.0	197.6	197.6
Current Form Total	5.9	197.6	203.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	6.0	197.6	203.6
Final Form Total	6.0	197.6	203.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	35.64
Aluminum-based Metal/Alloys	2.60
Other Metal/Alloys	0.00
Other Inorganic Materials	33.65
Cellulosics	5.11
Rubber	0.30
Plastics	31.50
Cement	2271.22
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	1601.46
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.30E-01
Np-237	5.85E-07
Pu-238	2.54E-02
Pu-239	8.10E-01
Pu-240	8.10E-01
Pu-241	8.15E-01
Th-229	2.04E-06
Th-230	4.49E-04
Th-232	1.50E-04
U-233	2.90E-03
U-234	2.90E-03
U-235	5.50E-04
U-236	5.51E-04
U-238	7.10E-05

No Hazardous Waste Numbers Provided

TRUCON Code(s)
111/211, 125/225

Waste Stream Description

This waste is non-hazardous soil and debris from Building 234 decommissioning. The majority of the waste to be generated, estimated 90%, will be soil. All process equipment and glove boxes were removed in the early 1990s and are not part of this waste stream. The remaining debris consists of concrete block, metal, PPE, plywood, plexiglass, plastic, HEPA filters, piping, duct work, glass, cheese cloth, paper, rubber and small tools.

Waste Stream ID: **KN-B234TRU_SS**

Appendix A
Waste Profile Report

Site	Knolls Atomic Power Laboratory - Nuclear Fuel Services	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Pollution Control or Waste Treatment Process	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Building 234 TRU Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Uncontained	0.0	118.5	118.5
Current Form Total	0.0	118.5	118.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.0	118.6	118.6
Final Form Total	0.0	118.6	118.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	1281.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.60E-02
Np-237	1.17E-07
Pu-238	5.07E-03
Pu-239	1.62E-01
Pu-240	1.62E-01
Pu-241	1.63E-01
Th-229	4.08E-07
Th-230	9.00E-05
Th-232	3.00E-05
U-233	5.80E-04
U-234	5.80E-04
U-235	1.10E-04
U-236	1.10E-04
U-238	1.42E-05

No Hazardous Waste Numbers Provided

TRUCON Code(s)
111/211

Waste Stream Description

This waste is non hazardous solidified sludge/residue from ground water management processing system.

Waste Stream ID: **LA-CIN01.001**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Cemented TRU Waste	Activity Concentrations Decayed to CY				2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum w/ 1 - 55-gal Drum w/ Liner	4.2	0.0	4.2
55-gal Drum Dir Ld w/ Liner	384.0	95.7	479.6
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	246.7	0.0	246.7
Cask - Misc w/ 1 - 30-gal Drum	4.4	0.0	4.4
Cask - Misc w/ 2 - 30-gal Drums	0.8	0.0	0.8
Current Form Total	640.0	95.7	735.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	557.9	95.7	653.5
Final Form Total	557.9	95.7	653.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	38.49
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	6.84
Cement	1076.79
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.71E+01
Am-243	7.27E-04
Cs-137	1.06E-03
Np-237	2.42E-05
Pu-238	4.54E+00
Pu-239	1.64E+01
Pu-240	4.39E+00
Pu-241	8.25E+01
Pu-242	5.53E-03
Pu-244	1.32E-09
Sr-90	1.06E-03
Th-229	2.44E-08
Th-230	7.95E-09
Th-232	4.18E-06
U-233	1.75E-04
U-234	8.71E-04
U-235	1.71E-05
U-236	8.42E-07
U-238	5.67E-04

Haz. Waste No(s).

D006, D007, D008,
D011, D019, D021,
D039, F001, F002,
F003

TRUCON Code(s)

114/214, 126/226

Waste Stream Description

Cemented TRU waste is generated by or originated from materials used during recovery, fabrication, R&D, and associated maintenance operations.

Waste Stream ID: **LA-CIN02.001**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Radioactive Aqueous Liquid Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum w/ 1 - 55-gal Drum w/ Liner	5.4	0.0	5.4
55-gal Drum Dir Ld w/ Liner	21.4	71.8	93.2
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	56.0	0.0	56.0
SWB w/ 4 - 55-gal Drums w/ Liners	69.9	0.0	69.9
Current Form Total	152.8	71.8	224.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	60.3	71.8	132.1
SWB w/ 4 - 55-gal Drums w/ Liners	69.9	0.0	69.9
Final Form Total	130.3	71.8	202.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	1.39
Cement	1392.31
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	29.88
Packaging Material, Rubber	0.52
Packaging Material, Steel	158.58
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.38E+00
Am-243	3.04E-06
Cs-137	1.46E-03
Np-237	1.22E-05
Pu-238	4.60E-01
Pu-239	4.90E+00
Pu-240	1.25E-01
Pu-241	1.31E+00
Pu-242	1.98E-05
Sr-90	3.99E-05
Th-229	4.05E-08
Th-230	3.37E-09
Th-232	1.11E-18
U-233	1.54E-04
U-234	1.24E-04
U-235	2.17E-05
U-236	1.31E-08
U-238	5.04E-08

Haz. Waste No(s).

D004, D006, D007, D008, D009, D010, D011, F001, F002, F005

TRUCON Code(s)

111/211, 114/214

Waste Stream Description

Generation during the pretreatment of radioactive aqueous liquid waste that was piped to TA-50 from TA-55

Waste Stream ID: **LA-CIN03.001**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Cemented TRU Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.3	0.0	2.3
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	1.6	0.0	1.6
Current Form Total	3.9	0.0	3.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.3	0.0	3.3
Final Form Total	3.3	0.0	3.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.05
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	1.77
Cement	588.45
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.71E-01
Cs-137	5.25E-05
Np-237	2.88E-06
Pu-238	5.57E-02
Pu-239	1.09E+00
Pu-240	2.36E-01
Pu-241	1.25E+00
Pu-242	3.23E-05
Sr-90	5.03E-05
Th-229	1.79E-07
Th-230	2.03E-08
Th-232	1.26E-16
U-233	2.09E-10
U-234	8.42E-05
U-235	1.83E-06
U-236	1.89E-07
U-238	3.17E-05

Haz. Waste No(s).

D007, D019, F001, F002

TRUCON Code(s)

114/214, 126/226

Waste Stream Description

Cemented TRU waste generated in the CMR during facility and equipment operations and maintenance processes.

Waste Stream ID: **LA-LAMIN04S****Appendix A****Waste Profile Report**

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Salt Waste	Inventory Date	12/31/2010		
Stream Name	INORGANIC HOMOGENEOUS WASTE			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
55-gal POC - 12" w/ Liner	0.2	0.0	0.2
Current Form Total	0.4	0.0	0.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
55-gal POC - 12" w/ Liner	0.2	0.0	0.2
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	13.53
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.84
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	7.09
Cement	0.00
Solidified Inorganic Material	42.98
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	67.55
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	329.81
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.58E+01
Pu-238	9.71E+00
Pu-239	1.59E+01
Pu-240	4.95E+00
Pu-241	2.27E+02
Pu-242	1.76E-01
Pu-244	1.94E-07
U-234	1.02E-03
U-235	5.90E-07

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D018,
D019, D021, D022,
D035, D038, D039,
D040, F001, F002,
F003, F005

TRUCON Code(s)

124/224

Waste Stream Description

INORGANIC HOMOGENEOUS WASTE

Waste Stream ID: **LA-LANHD01**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Heterogeneous Debris				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Current Form Total	1.9	0.0	1.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	277.53
Aluminum-based Metal/Alloys	1.12
Other Metal/Alloys	33.26
Other Inorganic Materials	179.98
Cellulosics	22.97
Rubber	34.45
Plastics	106.26
Cement	0.00
Solidified Inorganic Material	4.42
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.20
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.69E-02
Pu-238	1.22E-02
Pu-239	1.76E-01
Pu-240	4.02E-02
Pu-241	3.21E-01
Pu-242	4.86E-06

No Hazardous Waste Numbers Provided

TRUCON Code(s)
117/217

Waste Stream Description

Heterogeneous debris waste generated during plutonium recovery, fabrication, R&D, facility and equipment operations, and maintenance processes.

Waste Stream ID: **LA-LANHD02238****Appendix A****Waste Profile Report**

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	NON-MIXED HETEROGENEOUS DEBRIS WASTE, PU238			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.8	0.0	0.8
Current Form Total	0.8	0.0	0.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.8	0.0	0.8
Final Form Total	0.8	0.0	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	14.19
Aluminum-based Metal/Alloys	0.06
Other Metal/Alloys	1.70
Other Inorganic Materials	9.20
Cellulosics	1.17
Rubber	1.76
Plastics	5.43
Cement	0.00
Solidified Inorganic Material	0.23
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.49E-02
Pu-238	4.87E+01
Pu-239	2.90E-02
Pu-240	1.46E-02
Pu-241	1.12E+00
Pu-242	1.20E-05
U-234	5.49E-03
U-235	1.47E-09

No Hazardous Waste Numbers Provided

TRUCON Code(s)

125/225

Waste Stream Description

NON-MIXED HETEROGENEOUS DEBRIS WASTE, PU238

Waste Stream ID: **LA-LANIN03NC**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Salt Waste	Inventory Date	12/31/2010		
Stream Name	NON-CEMENTED SOLID INORGANIC (HOMOGENEOUS)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.08
Cement	0.00
Solidified Inorganic Material	15.62
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.33E+00
Pu-238	8.32E-01
Pu-239	2.82E+01
Pu-240	6.61E+00
Pu-241	1.00E+02
Pu-242	3.83E-04
U-234	6.04E-05
U-235	1.05E-06

No Hazardous Waste Numbers Provided

TRUCON Code(s)
124/224

Waste Stream Description

NON-CEMENTED SOLID INORGANIC (HOMOGENEOUS)

Waste Stream ID: **LA-MHD01.001**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Debris waste includes paper, rags, plastic, rubber, wood-based HEPA filters			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum w/ 1 - 55-gal Drum w/ Liner	1.2	0.0	1.2
55-gal Drum Dir Ld w/ Liner	386.9	2774.7	3161.6
55-gal POC - 12" w/ Liner	23.5	0.0	23.5
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	264.0	0.0	264.0
Box - Crate	220.2	0.0	220.2
Box - FRP	167.2	0.0	167.2
Cask - Misc w/ 1 - 30-gal Drum	65.6	0.0	65.6
Cask - Misc w/ 2 - 30-gal Drums	4.0	0.0	4.0
Other	574.4	0.0	574.4
SWB Dir Ld w/ Liner	217.4	130.4	347.8
SWB w/ 4 - 55-gal Drums w/ Liners	45.4	0.0	45.4
Current Form Total	1969.9	2905.1	4875.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	711.2	2774.7	3485.9
55-gal POC - 12" w/ Liner	23.5	0.0	23.5
SWB Dir Ld w/ Liner	1179.4	130.4	1309.8
SWB w/ 4 - 55-gal Drums w/ Liners	45.4	0.0	45.4
Final Form Total	1959.4	2905.1	4864.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	238.73
Aluminum-based Metal/Alloys	0.97
Other Metal/Alloys	28.61
Other Inorganic Materials	154.82
Cellulosics	19.76
Rubber	29.64
Plastics	91.40
Cement	0.00
Solidified Inorganic Material	3.80
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.65
Packaging Material, Plastic	27.22
Packaging Material, Rubber	0.47
Packaging Material, Steel	139.55
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.68E+00
Am-243	3.73E-05
Cm-244	2.72E-02
Cs-137	1.75E-04
Np-237	1.72E-05
Pu-238	1.03E+01
Pu-239	6.76E+00
Pu-240	1.77E+00
Pu-241	2.77E+01
Pu-242	3.39E-03
Pu-244	1.71E-09
Sr-90	1.74E-04
Th-229	2.16E-08
Th-230	2.22E-08
Th-232	5.65E-11
U-233	9.43E-05
U-234	1.23E-03
U-235	1.45E-06
U-236	1.74E-07
U-238	2.39E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005

TRUCON Code(s)

112/212, 115/215, 116/216, 117/217, 118/218, 119/219, 122/222, 124/224, 125/225, 154

Waste Stream Description

Debris waste includes paper, rags, plastic, rubber, wood-based HEPA filters

Waste Stream ID: **LA-MHD02-PTX.001****Appendix A****Waste Profile Report**

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Spill Clean-ups/Emergency Response Actions	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Heterogeneous Debris Waste			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Current Form Total	0.6	0.0	0.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	45.61
Aluminum-based Metal/Alloys	6.45
Other Metal/Alloys	12.15
Other Inorganic Materials	11.55
Cellulosics	40.81
Rubber	0.00
Plastics	33.46
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.20E-02
Np-237	7.50E-07
Pu-238	9.92E-03
Pu-239	1.90E-01
Pu-240	3.71E-02
Pu-241	2.44E-01
Pu-242	3.12E-06

Haz. Waste No(s).

D008

TRUCON Code(s)

116/216, 125/225

Waste Stream Description

Mixed heterogeneous debris waste resulting from the clean-up of a single off-normal event when a sealed pit cracked during a dismantlement operation.

Waste Stream ID: LA-MHD03.001

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	MIXED HETEROGENEOUS DEBRIS WASTE, D&D, COMBUSTIBLE/NON COMBUSTIBLE				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum w/ 1 - 55-gal Drum w/ Liner	1.2	0.0	1.2
30-gal Drum	4.5	0.0	4.5
55-gal Drum Dir Ld w/ Liner	123.1	143.5	266.7
55-gal POC - 12" w/ Liner	1.0	0.0	1.0
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	25.8	0.0	25.8
Cask - Misc w/ 1 - 30-gal Drum	0.8	0.0	0.8
Other	18.3	0.0	18.3
SWB Dir Ld w/ Liner	75.6	0.0	75.6
Current Form Total	250.4	143.5	393.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	146.6	143.5	290.2
55-gal POC - 12" w/ Liner	1.0	0.0	1.0
SWB Dir Ld w/ Liner	94.5	0.0	94.5
Final Form Total	242.2	143.5	385.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	45.50
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	14.88
Other Inorganic Materials	72.17
Cellulosics	58.13
Rubber	5.89
Plastics	170.68
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	1.14
Vitrified	0.00
Packaging Material, Cellulosics	0.36
Packaging Material, Plastic	28.28
Packaging Material, Rubber	0.48
Packaging Material, Steel	137.40
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.04E-01
Am-243	1.43E-04
Cm-244	6.55E-01
Cs-137	8.28E-03
Np-237	2.53E-04
Pu-238	2.26E+00
Pu-239	9.25E-01
Pu-240	2.51E-01
Pu-241	4.06E+00
Pu-242	1.38E-04
Pu-244	1.03E-10
Sr-90	8.10E-03
Th-229	4.25E-10
Th-230	2.45E-09
Th-232	9.37E-19
U-233	1.10E-09
U-234	2.69E-04
U-235	9.52E-06
U-236	2.27E-08
U-238	5.28E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D026, D027, D028, D029, D030, D035, D036, D037, D038, D039, D040, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

116/216, 117/217, 118/218, 119/219, 125/225, 154

Waste Stream Description

MIXED HETEROGENEOUS DEBRIS WASTE, D&D, COMBUSTIBLE/NON COMBUSTIBLE

Waste Stream ID: **LA-MHD04.001**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Mixed heterogeneous combustible and noncombustible debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.4	0.0	0.4
30-gal Drum	0.1	0.0	0.1
55-gal Drum Dir Ld w/ Liner	2.3	0.0	2.3
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	2.3	0.0	2.3
Box - Crate	742.4	0.0	742.4
Box - FRP	394.1	0.0	394.1
Other	145.3	0.0	145.3
SWB Dir Ld w/ Liner	17.0	0.0	17.0
Current Form Total	1303.9	0.0	1303.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.2	0.0	4.2
SWB Dir Ld w/ Liner	1300.3	0.0	1300.3
Final Form Total	1304.5	0.0	1304.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	24.96
Aluminum-based Metal/Alloys	9.52
Other Metal/Alloys	19.13
Other Inorganic Materials	5.44
Cellulosics	16.22
Rubber	12.53
Plastics	9.32
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.32
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.37
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.03E-03
Am-243	1.03E-06
Cs-137	2.11E-06
Np-237	2.09E-07
Pu-238	2.26E+00
Pu-239	3.30E-01
Pu-240	6.99E-03
Pu-241	1.35E-01
Pu-242	5.32E-07
Sr-90	2.11E-06
Th-229	3.96E-17
Th-230	5.51E-10
Th-232	5.10E-21
U-233	9.02E-13
U-234	6.32E-05
U-235	3.36E-08
U-236	2.07E-10
U-238	8.25E-17

Haz. Waste No(s).D004, D006, D007,
D008, D009, F001,
F002**TRUCON Code(s)**117/217, 125/225,
154**Waste Stream Description**

Mixed heterogeneous combustible and noncombustible debris

Waste Stream ID: LA-MHD05-ITRI.001

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Heterogeneous Debris Waste			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	10.6	0.0	10.6
55-gal POC - 12" w/ Liner	0.2	0.0	0.2
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.6	0.0	0.6
Current Form Total	11.5	0.0	11.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	11.0	0.0	11.0
55-gal POC - 12" w/ Liner	0.2	0.0	0.2
Final Form Total	11.2	0.0	11.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	128.62
Aluminum-based Metal/Alloys	3.98
Other Metal/Alloys	7.72
Other Inorganic Materials	19.18
Cellulosics	3.98
Rubber	6.31
Plastics	6.31
Cement	0.00
Solidified Inorganic Material	51.45
Solidified Organic Material	6.31
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	2.50
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	138.14
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.90E+00
Am-243	4.86E-04
Cm-244	1.36E+00
Cs-137	1.65E-07
Np-237	6.54E-06
Pu-238	4.82E+00
Pu-239	5.24E-01
Pu-240	6.61E-02
Pu-241	3.97E-01
Pu-242	3.81E-06
Sr-90	1.65E-07
U-234	2.47E-04
U-235	1.57E-08

Haz. Waste No(s).

D008, F001, F002

TRUCON Code(s)

125/225, 154

Waste Stream Description

Mixed CH-TRU waste stored at LANL resulting from the preparation of aerosols of TRU isotopes for inhalation studies.

Waste Stream ID: **LA-MHD08.001**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Heterogeneous Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.1	0.0	2.1
Current Form Total	2.1	0.0	2.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.1	0.0	2.1
Final Form Total	2.1	0.0	2.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	8.37
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	2.79
Other Inorganic Materials	13.49
Cellulosics	10.83
Rubber	1.10
Plastics	31.86
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.85E-02
Am-243	3.73E-03
Cm-244	1.76E-05
Cs-137	1.50E-04
Np-237	1.43E-03
Pu-238	3.08E-02
Pu-239	8.46E-02
Pu-240	8.83E-03
Pu-241	7.26E-02
Pu-242	4.81E-02
Pu-244	5.10E-05
Th-229	2.74E-13
Th-230	4.02E-13
Th-232	5.29E-08
U-233	6.24E-09
U-234	8.73E-08
U-235	8.33E-11
U-236	2.61E-10
U-238	7.46E-12

Haz. Waste No(s).

D008, D011

TRUCON Code(s)111/211, 116/216,
125/225, 154**Waste Stream Description**

Consists of mixed heterogeneous combustible and non-combustible debris generated during plutonium and uranium R&D processes in the Alpha Facility

Waste Stream ID: **LA-MHD09.001**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Heterogeneous Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	6.0	0.0	6.0
55-gal POC - 12" w/ Liner	0.2	0.0	0.2
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	1.6	0.0	1.6
Box - Crate	0.6	0.0	0.6
Other	26.7	0.0	26.7
SWB Dir Ld w/ Liner	22.7	0.0	22.7
Current Form Total	57.8	0.0	57.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	7.1	0.0	7.1
55-gal POC - 12" w/ Liner	0.2	0.0	0.2
SWB Dir Ld w/ Liner	51.0	0.0	51.0
Final Form Total	58.3	0.0	58.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	160.86
Aluminum-based Metal/Alloys	58.56
Other Metal/Alloys	59.43
Other Inorganic Materials	6.53
Cellulosics	12.03
Rubber	11.09
Plastics	12.16
Cement	0.00
Solidified Inorganic Material	2.68
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.48
Packaging Material, Plastic	5.68
Packaging Material, Rubber	0.24
Packaging Material, Steel	152.03
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.59E+00
Am-243	1.44E-04
Cs-137	1.25E-03
Np-237	1.04E-04
Pu-238	2.18E+00
Pu-239	2.98E-01
Pu-240	7.62E-02
Pu-241	2.11E+00
Pu-242	4.63E-05
Sr-90	1.82E-05
U-234	3.19E-04
U-235	4.83E-07
U-238	1.70E-06

Haz. Waste No(s).

D004, D006, D007, D008, D009, D010, F001

TRUCON Code(s)

116/216, 117/217, 125/225, 154

Waste Stream Description

Mixed heterogeneous combustible and non-combustible debris from the TA-50-01 RLWTF, TA-50-37 CAI, and TA-50-69 WCRR Facility generated during facility and equipment maintenance, decontamination and decommissioning (D&D), and waste repackaging activities.

Waste Stream ID: **LA-MIN02-V.001**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2010	
Stream Name	Mixed Inorganic Homogeneous Waste, Organics on Vermiculite.				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	7.5	0.0	7.5
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	1.3	0.0	1.3
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Current Form Total	10.7	0.0	10.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	8.3	0.0	8.3
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Final Form Total	10.2	0.0	10.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	11.65
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	4.28
Cellulosics	0.00
Rubber	0.00
Plastics	18.26
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	92.86
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	30.43
Packaging Material, Rubber	0.50
Packaging Material, Steel	134.97
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.20E-01
Am-243	1.35E-05
Cs-137	5.17E-06
Np-237	4.75E-05
Pu-238	4.09E+00
Pu-239	2.80E+00
Pu-240	7.07E-01
Pu-241	8.60E+00
Pu-242	6.23E-05
Sr-90	5.15E-06
Th-229	3.62E-14
Th-230	2.47E-09
Th-232	2.07E-18
U-233	4.12E-10
U-234	1.46E-04
U-235	3.45E-06
U-236	4.19E-08
U-238	1.29E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005
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TRUCON Code(s)

112/212

Waste Stream Description

Inorganic particulate waste generated during plutonium recovery, fabrication, R&D, facility and equipment operations, and maintenance processes.

Waste Stream ID: **LA-MIN03-NC.001**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	MIXED INORGANIC HOMOGENEOUS WASTE, NONCEMENTED				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum w/ 1 - 55-gal Drum w/ Liner	2.1	0.0	2.1
55-gal Drum Dir Ld w/ Liner	115.4	0.0	115.4
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	65.0	0.0	65.0
Current Form Total	182.6	0.0	182.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	158.5	0.0	158.5
Final Form Total	158.5	0.0	158.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.08
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.08
Cellulosics	0.00
Rubber	0.00
Plastics	4.43
Cement	0.00
Solidified Inorganic Material	831.87
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.74E-01
Am-243	4.80E-06
Cs-137	2.06E-05
Np-237	1.89E-06
Pu-238	1.04E+00
Pu-239	2.56E-01
Pu-240	8.13E-03
Pu-241	1.43E-01
Pu-242	1.96E-06
Sr-90	2.05E-05
Th-229	2.35E-08
Th-230	3.67E-10
Th-232	6.54E-20
U-233	7.60E-12
U-234	4.14E-05
U-235	1.07E-06
U-236	1.45E-09
U-238	1.87E-06

Haz. Waste No(s).D007, D008, D009,
F001, F002**TRUCON Code(s)**

111/211, 125/225

Waste Stream Description

MIXED INORGANIC HOMOGENEOUS WASTE, NONCEMENTED

Waste Stream ID: **LA-MIN04-S.001**

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Salt Waste	Inventory Date	12/31/2010		
Stream Name	Salt Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	11.9	0.0	11.9
55-gal POC - 12" w/ Liner	0.4	0.0	0.4
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
Current Form Total	12.6	0.0	12.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	12.1	0.0	12.1
55-gal POC - 12" w/ Liner	0.4	0.0	0.4
Final Form Total	12.5	0.0	12.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	14.66
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.91
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	7.68
Cement	0.00
Solidified Inorganic Material	46.57
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	4.50
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	144.04
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.79E+00
Am-243	3.81E-05
Cm-244	4.38E-02
Cs-137	2.05E-04
Np-237	1.50E-04
Pu-238	2.05E+00
Pu-239	3.68E+01
Pu-240	9.18E+00
Pu-241	9.46E+01
Pu-242	7.60E-04
Sr-90	2.05E-04
U-233	3.55E-04
U-234	9.54E-05
U-235	2.32E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005

TRUCON Code(s)

124/224, 125/225

Waste Stream Description

Inorganic homogeneous solid waste generated during plutonium recovery, fabrication, R&D, facility and equipment operations, and maintenance processes.

Waste Stream ID: **LA-MSG04.001**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Spill Clean-ups/Emergency Response Actions	Waste Matrix Code Group	Contaminated Soil/Debris Waste		Inventory Date	12/31/2010	
Stream Name	Contaminated Soil			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	8.1	0.0	8.1
Box - Crate	40.0	0.0	40.0
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Current Form Total	50.0	0.0	50.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	8.1	0.0	8.1
SWB Dir Ld w/ Liner	41.6	0.0	41.6
Final Form Total	49.7	0.0	49.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.05
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.05
Cement	0.00
Solidified Inorganic Material	0.18
Solidified Organic Material	0.00
Soils	600.37
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	7.06
Packaging Material, Rubber	0.25
Packaging Material, Steel	149.74
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.71E-04
Cs-137	2.52E-08
Np-237	2.79E-07
Pu-238	3.31E-06
Pu-239	3.56E-01
Pu-240	4.88E-04
Pu-241	1.74E-04
Pu-242	6.02E-07
Pu-244	3.52E-06
Sr-90	7.71E-08
Th-229	2.84E-10
Th-230	1.28E-10
Th-232	3.43E-19
U-233	1.04E-07
U-234	4.48E-07
U-235	1.94E-08
U-236	4.49E-10
U-238	1.01E-07

No Hazardous Waste Numbers Provided

TRUCON Code(s)
111/211

Waste Stream Description

Mixed contaminated soil generated during D&D, sampling activities, and nonstandard events such as the cleanup of spills.

Waste Stream ID: **LA-OS-00-01.001**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Uncategorized Metal Waste	Inventory Date	12/31/2010		
Stream Name	Metal debris from Off-Site Source Recovery (OSR) project			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal POC - 12" w/ Liner	8.3	0.0	8.3
55-gal POC - 6" w/ Liner	47.8	0.0	47.8
Current Form Total	56.2	0.0	56.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal POC - 12" w/ Liner	8.3	0.0	8.3
55-gal POC - 6" w/ Liner	47.8	0.0	47.8
Final Form Total	56.2	0.0	56.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	21.33
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	3.76
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	203.08
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	351.51
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.18E+01
Cm-244	5.62E+01
Cs-137	7.26E-02
Pu-238	1.40E+01
Pu-240	2.69E-01

No Hazardous Waste Numbers Provided

TRUCON Code(s)
120/220

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.

Waste Stream ID: **LA-OS-00-03**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Uncategorized Metal Waste	Inventory Date	12/31/2010		
Stream Name	Metal debris from Off-Site Source Recovery (OSR) project (non-mixed)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	14.6	0.0	14.6
Current Form Total	14.6	0.0	14.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	14.6	0.0	14.6
Final Form Total	14.6	0.0	14.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	971.88
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.97
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.97
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.76E+00
Np-237	1.71E-06
Th-229	9.86E-16
U-233	1.12E-11

No Hazardous Waste Numbers Provided

TRUCON Code(s)
120/220

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.

Waste Stream ID: **LA-TA-00-01**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Containers waiting assignment to waste streams				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	8.5	0.0	8.5
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	1.0	0.0	1.0
Box - Crate	101.2	0.0	101.2
Other	5.7	0.0	5.7
Current Form Total	116.4	0.0	116.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	9.2	0.0	9.2
SWB Dir Ld w/ Liner	107.7	0.0	107.7
Final Form Total	116.9	0.0	116.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	109.48
Aluminum-based Metal/Alloys	0.44
Other Metal/Alloys	13.12
Other Inorganic Materials	71.00
Cellulosics	9.06
Rubber	13.59
Plastics	41.92
Cement	0.00
Solidified Inorganic Material	1.74
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	4.01
Packaging Material, Rubber	0.22
Packaging Material, Steel	151.66
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.33E-02
Am-243	4.56E-10
Cs-137	1.04E-05
Np-237	1.89E-05
Pu-238	1.73E-02
Pu-239	4.33E-01
Pu-240	6.66E-02
Pu-241	2.26E-01
Pu-242	3.84E-06
Sr-90	9.88E-06
Th-229	3.38E-12
Th-230	4.27E-10
Th-232	4.68E-17
U-233	2.50E-09
U-234	2.32E-06
U-235	2.38E-08
U-236	6.12E-08
U-238	1.85E-14

Haz. Waste No(s).

D008, F001

**No TRUCON
Codes Provided**

Waste Stream Description

Miscellaneous Containers waiting assignment to waste streams

Waste Stream ID: **LA-TA-00-03**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	NON-PN EQUIPMENT			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Canister - (LANL-RH)	2.1	0.0	2.1
Current Form Total	2.1	0.0	2.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	1.8	0.0	1.8
Final Form Total	1.8	0.0	1.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.37
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.33
Cellulosics	0.00
Rubber	0.00
Plastics	19.45
Cement	0.00
Solidified Inorganic Material	3650.35
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.00
Packaging Material, Steel	560.67
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-239	7.06E+00
U-235	2.09E-07

Haz. Waste No(s).

D008

**No TRUCON
Codes Provided**

Waste Stream Description

LAMPRE REACTOR VESSEL SEALED IN CASK VESSEL

Waste Stream ID: **LA-TA-03-01**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2010	
Stream Name	Solidified Organics				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	33.80
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	12.42
Cellulosics	0.00
Rubber	0.00
Plastics	52.96
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	269.37
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.94E-01
Np-237	3.27E-05
Pu-238	2.47E-02
Pu-239	9.04E-01
Pu-240	2.11E-01
Pu-241	2.06E+00
Pu-242	1.22E-05
Th-229	4.95E-13
Th-230	2.72E-11
Th-232	1.25E-17
U-233	1.25E-09
U-234	6.50E-07
U-235	8.01E-09
U-236	5.63E-08
U-238	1.70E-14

Haz. Waste No(s).D006, D008, D009,
D011, D019, D021,
F001, F002, F005**TRUCON Code(s)**

112/212

Waste Stream Description

Solidified Organics

Waste Stream ID: **LA-TA-03-10**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Combined Combustible and NonCombustible			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Other	64.0	0.0	64.0
Current Form Total	64.0	0.0	64.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	64.3	0.0	64.3
Final Form Total	64.3	0.0	64.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.04
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.01
Other Inorganic Materials	0.07
Cellulosics	0.06
Rubber	0.01
Plastics	0.16
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.20
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.04E-03
Np-237	1.11E-08
Pu-238	4.53E-04
Pu-239	1.61E-02
Pu-240	3.76E-03
Pu-241	4.45E-02
Pu-242	2.16E-07
Th-229	1.72E-17
Th-230	1.51E-13
Th-232	6.86E-20
U-233	1.18E-13
U-234	6.52E-09
U-235	9.16E-08
U-236	5.56E-10
U-238	1.24E-09

No Hazardous
Waste Numbers
Provided

No TRUCON
Codes Provided

Waste Stream Description

Combined Combustible and NonCombustible

Waste Stream ID: LA-TA-03-12

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Combustible debris waste from chemistry operations in wings 3, 5, and 7 of the CMR facility			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	15.62
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	5.11
Other Inorganic Materials	24.78
Cellulosics	19.96
Rubber	2.02
Plastics	58.60
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.39
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.67E-01
Cs-137	4.53E-05
Np-237	8.29E-07
Pu-238	2.34E-02
Pu-239	9.20E-01
Pu-240	2.15E-01
Pu-241	1.36E+00
Pu-242	1.24E-05
Sr-90	4.41E-05
Th-229	1.53E-14
Th-230	4.35E-10
Th-232	5.09E-17
U-233	3.01E-11
U-234	3.25E-06
U-235	5.05E-08
U-236	1.15E-07
U-238	3.46E-14

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

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.

Waste Stream ID: **LA-TA-03-14**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Metals and Miscellaneous Equipment Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Crate	8.8	0.0	8.8
Current Form Total	8.8	0.0	8.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	9.5	0.0	9.5
Final Form Total	9.5	0.0	9.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	56.34
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	18.43
Other Inorganic Materials	89.36
Cellulosics	71.98
Rubber	7.30
Plastics	211.34
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	1.41
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.20
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	2.96E-01
Pu-239	6.65E-04
Th-230	6.03E-09
U-234	3.48E-05
U-235	2.36E-11

Haz. Waste No(s).

D008

**No TRUCON
Codes Provided**

Waste Stream Description

Metals and Miscellaneous Equipment Debris

Waste Stream ID: **LA-TA-03-27**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Combined combustible and noncombustible debris waste (RH-TRU) of the CMR facility			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Canister - (LANL-RH)	76.4	0.0	76.4
RH Can w/ Fxd Lid - Dir Ld	0.9	0.0	0.9
Current Form Total	77.3	0.0	77.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Fxd Lid - Dir Ld	0.9	0.0	0.9
RH Can w/ Remov Lid - Dir Ld	76.5	0.0	76.5
Final Form Total	77.4	0.0	77.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	233.37
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	76.34
Other Inorganic Materials	370.19
Cellulosics	298.19
Rubber	30.23
Plastics	875.48
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	5.86
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.00
Packaging Material, Steel	559.21
Packaging Material, Lead	5.33

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.92E-02
Cs-137	1.09E+01
Np-237	4.30E-07
Pu-238	1.64E-02
Pu-239	1.05E+00
Pu-240	3.26E-02
Pu-241	3.21E-01
Pu-242	1.96E-05
Sr-90	7.37E+00
Th-229	1.72E-14
Th-230	6.34E-09
Th-232	1.60E-16
U-233	2.30E-11
U-234	2.62E-05
U-235	1.08E-04
U-236	1.33E-07
U-238	5.32E-07

No Hazardous Waste Numbers Provided

TRUCON Code(s)
117/217

Waste Stream Description

Combined combustible and noncombustible debris waste (RH-TRU) from wing 9 of the CMR facility (mixed). Combined 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.

Waste Stream ID: **LA-TA-03-28**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Cement paste from CMR building (mixed)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.0	0.0	1.0
Current Form Total	1.0	0.0	1.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.0	0.0	1.0
Final Form Total	1.0	0.0	1.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.09
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	3.05
Cement	1015.09
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	2.58E+00
Th-230	5.57E-08
U-234	3.12E-04

Haz. Waste No(s).

D007, F001, F002

**No TRUCON
Codes Provided**

Waste Stream Description

Cement Past 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.

Waste Stream ID: **LA-TA-03-30**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2010	
Stream Name	Absorbed Organics on vermiculite (mixed)				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.1	0.0	0.1
Current Form Total	0.1	0.0	0.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	49.48
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	18.18
Cellulosics	0.00
Rubber	0.00
Plastics	77.53
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	394.36
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	2.50E-01
Th-230	5.10E-09
U-234	2.94E-05

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Absorbed Organics on Vermiculite Organic liquids (solvents and oils) generated from facility and equipment operations and maintenance and absorbed on vermiculite.

Waste Stream ID: **LA-TA-03-33**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Combustibles and noncombustibles			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.1	0.0	0.1
Current Form Total	0.1	0.0	0.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	16.16
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	5.29
Other Inorganic Materials	25.63
Cellulosics	20.65
Rubber	2.09
Plastics	60.62
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.41
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Np-237	8.91E-04
Th-229	2.33E-10
U-233	1.43E-07

No Hazardous
Waste Numbers
Provided

No TRUCON
Codes Provided

Waste Stream Description

Special items (precious metals) requiring tracking by CST-7

Waste Stream ID: **LA-TA-03-34**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Inorganic Solid (Miscellaneous Glovebox Debris)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - FRP	14.8	0.0	14.8
Other	15.6	0.0	15.6
Current Form Total	30.5	0.0	30.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	30.2	0.0	30.2
Final Form Total	30.2	0.0	30.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	8.77
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	2.87
Other Inorganic Materials	13.91
Cellulosics	11.21
Rubber	1.14
Plastics	32.90
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.22
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.20
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.13E-04
Cs-137	4.16E-09
Np-237	9.79E-10
Pu-238	9.61E-02
Pu-239	6.61E-04
Th-229	1.22E-17
Th-230	2.63E-10
U-233	2.97E-14
U-234	4.01E-06
U-235	8.80E-08

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Inorganic Solid (Miscellaneous Glovebox Debris)

Waste Stream ID: **LA-TA-03-40**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Metals debris generated from D&D activities in CMR Building			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Crate	27.9	0.0	27.9
Current Form Total	27.9	0.0	27.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	28.4	0.0	28.4
Final Form Total	28.4	0.0	28.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	35.33
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	11.56
Other Inorganic Materials	56.04
Cellulosics	45.14
Rubber	4.58
Plastics	132.53
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.89
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.20
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Cs-137	8.53E-03
Pu-238	1.96E-02
Pu-239	2.71E-01
Sr-90	5.75E-03
Th-230	2.50E-10
U-234	1.81E-06
U-235	1.09E-06

Haz. Waste No(s).

D008

**No TRUCON
Codes Provided**

Waste Stream Description

Metals debris generated from decontamination and decommissioning activities in Wings 2, 3, 4, and 7 of CMR Building (mix). 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

Waste Stream ID: **LA-TA-03-42**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	HEPA filter debris waste from wings 2, 3, 4, 5, and 7 of CMR Building			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Crate	6.8	0.0	6.8
Box - FRP	6.4	0.0	6.4
SWB Dir Ld w/ Liner	9.5	0.0	9.5
Current Form Total	22.6	0.0	22.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	22.7	0.0	22.7
Final Form Total	22.7	0.0	22.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	17.78
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	5.82
Other Inorganic Materials	28.21
Cellulosics	22.72
Rubber	2.30
Plastics	66.72
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.45
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.20
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.08E-04
Am-243	3.93E-07
Cs-137	9.93E-07
Np-237	5.86E-08
Pu-238	1.75E-02
Pu-239	1.21E-02
Pu-240	2.90E-04
Pu-241	1.94E-03
Pu-242	1.67E-08
Th-229	3.08E-15
Th-230	7.19E-11
Th-232	6.12E-20
U-233	4.17E-12
U-234	9.00E-07
U-235	2.09E-08
U-236	1.46E-10
U-238	4.41E-17

No Hazardous Waste Numbers Provided

TRUCON Code(s)
119/219

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.

Waste Stream ID: LA-TA-21-05

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Graphite	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.1	0.0	0.1
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.3	0.0	0.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	49.00
Aluminum-based Metal/Alloys	18.68
Other Metal/Alloys	37.56
Other Inorganic Materials	10.68
Cellulosics	31.84
Rubber	24.59
Plastics	18.30
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.47E-01
Cs-137	8.31E-05
Np-237	5.45E-06
Pu-238	5.96E-02
Pu-239	2.55E+00
Pu-240	6.08E-01
Pu-241	1.67E+00
Pu-242	4.08E-05
Sr-90	7.87E-05
Th-229	3.93E-13
Th-230	3.21E-09
Th-232	5.76E-16
U-233	3.93E-10
U-234	1.30E-05
U-235	4.76E-05
U-236	6.49E-07
U-238	2.28E-13

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Graphite

Waste Stream ID: LA-TA-21-06

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Combustible debris waste (mixed)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	16.5	0.0	16.5
55-gal Drum Dir Ld w/ Liner	184.7	0.0	184.7
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
Cask - Misc w/ 1 - 30-gal Drum	7.9	0.0	7.9
Cask - Misc w/ 2 - 30-gal Drums	73.5	0.0	73.5
Current Form Total	282.9	0.0	282.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	327.8	0.0	327.8
Final Form Total	327.8	0.0	327.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	26.23
Aluminum-based Metal/Alloys	10.00
Other Metal/Alloys	20.11
Other Inorganic Materials	5.72
Cellulosics	17.05
Rubber	13.17
Plastics	9.80
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.34E-01
Cs-137	2.24E-05
Np-237	2.19E-06
Pu-238	4.08E+01
Pu-239	6.26E-01
Pu-240	1.90E-01
Pu-241	8.07E-01
Pu-242	3.56E-05
Sr-90	2.13E-05
Th-229	1.40E-13
Th-230	1.03E-06
Th-232	1.61E-16
U-233	1.48E-10
U-234	5.43E-03
U-235	2.87E-06
U-236	1.91E-07
U-238	1.88E-13

Haz. Waste No(s).

F001, F002

**No TRUCON
Codes Provided**

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.

Waste Stream ID: LA-TA-21-07

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Metal	Activity Concentrations Decayed to CY				2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	6.3	0.0	6.3
55-gal Drum Dir Ld w/ Liner	66.6	0.0	66.6
Box - Crate	482.3	0.0	482.3
Cask - Misc w/ 1 - 30-gal Drum	3.1	0.0	3.1
Cask - Misc w/ 2 - 30-gal Drums	43.9	0.0	43.9
Other	7.8	0.0	7.8
Current Form Total	610.0	0.0	610.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	142.7	0.0	142.7
SWB Dir Ld w/ Liner	489.5	0.0	489.5
Final Form Total	632.2	0.0	632.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	38.82
Aluminum-based Metal/Alloys	14.80
Other Metal/Alloys	29.76
Other Inorganic Materials	8.46
Cellulosics	25.23
Rubber	19.49
Plastics	14.50
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	9.30
Packaging Material, Rubber	0.28
Packaging Material, Steel	148.32
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.74E-02
Cs-137	8.30E-06
Np-237	5.38E-07
Pu-238	1.68E+01
Pu-239	2.85E-01
Pu-240	5.99E-02
Pu-241	1.95E-01
Pu-242	5.33E-06
Sr-90	7.89E-06
Th-229	3.46E-14
Th-230	3.17E-07
Th-232	5.07E-17
U-233	3.66E-11
U-234	1.90E-03
U-235	1.85E-08
U-236	6.04E-08
U-238	2.81E-14

Haz. Waste No(s).

D008

**No TRUCON
Codes Provided**

Waste Stream Description

Metal

Waste Stream ID: **LA-TA-21-08**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH	
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010			
Stream Name	Glass	Activity Concentrations Decayed to CY				2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.3	0.0	0.3
55-gal Drum Dir Ld w/ Liner	2.1	0.0	2.1
Cask - Misc w/ 2 - 30-gal Drums	1.1	0.0	1.1
Current Form Total	3.6	0.0	3.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.2	0.0	4.2
Final Form Total	4.2	0.0	4.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	32.11
Aluminum-based Metal/Alloys	12.24
Other Metal/Alloys	24.61
Other Inorganic Materials	7.00
Cellulosics	20.86
Rubber	16.12
Plastics	11.99
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.09E-01
Cs-137	2.18E-05
Np-237	2.01E-06
Pu-238	2.18E+01
Pu-239	6.47E-01
Pu-240	1.82E-01
Pu-241	6.95E-01
Pu-242	2.70E-05
Sr-90	2.07E-05
Th-229	1.36E-13
Th-230	4.18E-07
Th-232	1.63E-16
U-233	1.40E-10
U-234	2.48E-03
U-235	4.62E-08
U-236	1.89E-07
U-238	1.47E-13

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Glass

Waste Stream ID: **LA-TA-21-09**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH	
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010			
Stream Name	Hepa Filters	Activity Concentrations Decayed to CY				2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.1	0.0	0.1
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Cask - Misc w/ 2 - 30-gal Drums	7.4	0.0	7.4
Current Form Total	8.1	0.0	8.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	14.1	0.0	14.1
Final Form Total	14.1	0.0	14.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	29.88
Aluminum-based Metal/Alloys	11.39
Other Metal/Alloys	22.90
Other Inorganic Materials	6.51
Cellulosics	19.42
Rubber	15.00
Plastics	11.16
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.23E-03
Cs-137	8.33E-07
Np-237	5.22E-08
Pu-238	1.04E+02
Pu-239	2.56E-02
Pu-240	5.98E-03
Pu-241	1.59E-02
Pu-242	3.45E-07
Sr-90	7.89E-07
Th-229	3.77E-15
Th-230	2.13E-06
Th-232	5.67E-18
U-233	3.76E-12
U-234	1.23E-02
U-235	1.86E-09
U-236	6.38E-09
U-238	1.93E-15

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Hepa Filters

Waste Stream ID: **LA-TA-21-12**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Non-combustible and combustible debris waste			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	3.6	0.0	3.6
55-gal Drum Dir Ld w/ Liner	113.4	0.0	113.4
Box - Crate	6.3	0.0	6.3
Cask - Misc w/ 1 - 30-gal Drum	32.4	0.0	32.4
Cask - Misc w/ 2 - 30-gal Drums	89.5	0.0	89.5
Current Form Total	245.2	0.0	245.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	335.7	0.0	335.7
SWB Dir Ld w/ Liner	5.7	0.0	5.7
Final Form Total	341.4	0.0	341.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	25.88
Aluminum-based Metal/Alloys	9.87
Other Metal/Alloys	19.84
Other Inorganic Materials	5.64
Cellulosics	16.82
Rubber	12.99
Plastics	9.67
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	36.47
Packaging Material, Rubber	0.56
Packaging Material, Steel	131.15
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.00E-01
Cs-137	3.33E-05
Np-237	3.71E-06
Pu-238	1.16E+02
Pu-239	8.05E-01
Pu-240	2.71E-01
Pu-241	1.30E+00
Pu-242	7.63E-05
Sr-90	3.16E-05
Th-229	3.56E-04
Th-230	3.85E-06
Th-232	2.16E-16
U-233	1.23E-01
U-234	1.86E-02
U-235	5.80E-06
U-236	2.65E-07
U-238	3.91E-13

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

COMBINED COMBUSTIBLE/NON-COMBUSTIBLE LAB TRASH

Waste Stream ID: **LA-TA-21-13**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Cemented wastewater treatment sludge (mixed)				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	15.0	0.0	15.0
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
Other	489.1	0.0	489.1
Current Form Total	504.4	0.0	504.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	15.2	0.0	15.2
SWB Dir Ld w/ Liner	489.5	0.0	489.5
Final Form Total	504.7	0.0	504.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	76.12
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	13.54
Cement	2129.71
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	2.28
Packaging Material, Rubber	0.20
Packaging Material, Steel	152.76
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.00E+01
Cs-137	2.39E-04
Np-237	1.79E-04
Pu-238	5.12E-02
Pu-239	1.25E-01
Sr-90	1.62E-04
Th-229	8.38E-12
Th-230	3.68E-09
U-233	1.05E-08
U-234	1.69E-05
U-235	4.28E-05
U-238	2.17E-05

Haz. Waste No(s).

D007, F001, F002

**No TRUCON
Codes Provided**

Waste Stream Description

Cemented Wastewater Treatment Sludge 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.

Waste Stream ID: LA-TA-21-15

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2010	
Stream Name	Solidified organics				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.2	0.0	0.2
55-gal Drum Dir Ld w/ Liner	3.3	0.0	3.3
Current Form Total	3.6	0.0	3.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.5	0.0	3.5
Final Form Total	3.5	0.0	3.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	52.10
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	19.15
Cellulosics	0.00
Rubber	0.00
Plastics	81.64
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	415.27
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.02E-01
Cs-137	3.40E-05
Np-237	1.90E-06
Pu-238	2.24E-02
Pu-239	1.35E+00
Pu-240	2.33E-01
Pu-241	6.82E-01
Pu-242	1.34E-05
Sr-90	3.23E-05
Th-229	1.23E-13
Th-230	1.07E-09
Th-232	1.97E-16
U-233	1.29E-10
U-234	4.61E-06
U-235	8.24E-08
U-236	2.35E-07
U-238	7.09E-14

No Hazardous
Waste Numbers
Provided

No TRUCON
Codes Provided

Waste Stream Description

Solidified organics

Waste Stream ID: LA-TA-21-16

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	SOLIDIFIED INORGANIC PROCESS SOLID				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	26.2	0.0	26.2
55-gal Drum Dir Ld w/ Liner	31.4	0.0	31.4
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
Current Form Total	57.9	0.0	57.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	57.8	0.0	57.8
Final Form Total	57.8	0.0	57.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	7.29
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	1.30
Cement	203.88
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.47E+00
Cs-137	3.52E-04
Np-237	2.46E-05
Pu-238	3.36E-01
Pu-239	1.11E+01
Pu-240	2.64E+00
Pu-241	7.56E+00
Pu-242	2.16E-04
Sr-90	3.34E-04
Th-229	1.77E-12
Th-230	1.89E-08
Th-232	2.50E-15
U-233	1.77E-09
U-234	7.58E-05
U-235	5.75E-05
U-236	2.81E-06
U-238	1.20E-12

Haz. Waste No(s).

D008

**No TRUCON
Codes Provided**

Waste Stream Description

LEACHED PROCESS RESIDUES

Waste Stream ID: **LA-TA-21-17**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Process solids	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.1	0.0	0.1
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Current Form Total	0.5	0.0	0.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	29.57
Aluminum-based Metal/Alloys	11.28
Other Metal/Alloys	22.67
Other Inorganic Materials	6.44
Cellulosics	19.22
Rubber	14.84
Plastics	11.05
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.65E-03
Cs-137	1.38E-06
Np-237	8.63E-08
Pu-238	9.36E-04
Pu-239	4.24E-02
Pu-240	9.88E-03
Pu-241	2.63E-02
Pu-242	5.71E-07
Sr-90	1.30E-06
Th-229	6.23E-15
Th-230	4.91E-11
Th-232	9.38E-18
U-233	6.22E-12
U-234	2.01E-07
U-235	3.08E-09
U-236	1.06E-08
U-238	3.19E-15

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Special items (precious metals) requiring tracking by CST-7

Waste Stream ID: **LA-TA-50-12**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Metal	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Box - Crate	8.1	0.0	8.1
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Current Form Total	10.2	0.0	10.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
SWB Dir Ld w/ Liner	9.5	0.0	9.5
Final Form Total	9.7	0.0	9.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	119.93
Aluminum-based Metal/Alloys	43.66
Other Metal/Alloys	44.31
Other Inorganic Materials	4.87
Cellulosics	8.97
Rubber	8.27
Plastics	9.06
Cement	0.00
Solidified Inorganic Material	2.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.97
Packaging Material, Rubber	0.20
Packaging Material, Steel	152.95
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-239	3.82E-04
Th-230	1.13E-09
U-234	8.44E-06
U-235	1.09E-11
U-238	1.04E-01

Haz. Waste No(s).

D008

**No TRUCON
Codes Provided**

Waste Stream Description

Metal

Waste Stream ID: **LA-TA-50-18**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Cemented caustic liquid waste (mixed)				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	8.1	0.0	8.1
Current Form Total	8.1	0.0	8.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	8.1	0.0	8.1
Final Form Total	8.1	0.0	8.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.90
Cement	900.85
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.06E+00
Np-237	1.34E-06
Pu-238	9.85E-01
Pu-239	1.08E+00
Th-229	3.42E-16
Th-230	5.64E-07
Th-232	6.89E-08
U-233	5.84E-12
U-234	3.06E-02
U-235	1.71E-05
U-238	1.73E-06

Haz. Waste No(s).

D006, D007, F001, F002

TRUCON Code(s)

111/211

Waste Stream Description

Cemented Caustic Liquid Waste 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.

Waste Stream ID: **LA-TA-50-19**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Homogeneous Inorganic Solids				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	62.6	0.0	62.6
Current Form Total	62.6	0.0	62.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	62.6	0.0	62.6
Final Form Total	62.6	0.0	62.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.09
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.08
Cellulosics	0.00
Rubber	0.00
Plastics	4.54
Cement	0.00
Solidified Inorganic Material	851.40
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.49E-01
Np-237	3.72E-06
Pu-238	2.51E-02
Pu-239	2.52E-02
Th-229	2.45E-13
Th-230	3.95E-10
U-233	2.60E-10
U-234	2.58E-06
U-235	7.94E-10

Haz. Waste No(s).

F001

**No TRUCON
Codes Provided**

Waste Stream Description

Consists of homogeneous dewatered sludge generated in the TA-50-01 RLWTF at LANL. This sludge was further treated by rotary drum vacuum filtration in a filter precoated with perlite or diatomaceous earth.

Waste Stream ID: **LA-TA-50-20**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Contaminated Soil/Debris Waste		Inventory Date	12/31/2010	
Stream Name	Plutonium contaminated soil (non-mixed)				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
Current Form Total	0.5	0.0	0.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.07
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.07
Cement	0.00
Solidified Inorganic Material	0.22
Solidified Organic Material	0.00
Soils	741.39
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.87E-03
Np-237	6.84E-08
Pu-239	7.21E-03
Th-229	3.96E-15
U-233	4.49E-12
U-235	2.13E-10

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Plutonium Contaminated Soils contaminated with transuranic material as a result of facility and equipment operations and maintenance.

Waste Stream ID: LA-TA-55-19

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Combustible debris waste (mixed)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	41.2	0.0	41.2
Cask - Misc w/ 1 - 30-gal Drum	0.4	0.0	0.4
Current Form Total	41.6	0.0	41.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	42.0	0.0	42.0
Final Form Total	42.0	0.0	42.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	65.87
Aluminum-based Metal/Alloys	0.27
Other Metal/Alloys	7.90
Other Inorganic Materials	42.72
Cellulosics	5.45
Rubber	8.18
Plastics	25.22
Cement	0.00
Solidified Inorganic Material	1.05
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.52E+00
Cs-137	2.32E-04
Np-237	8.02E-05
Pu-238	2.78E+00
Pu-239	6.03E+00
Pu-240	2.96E+00
Pu-241	2.39E+01
Pu-242	2.30E-03
Pu-244	7.06E-10
Sr-90	2.21E-04
Th-229	8.65E-12
Th-230	1.47E-06
Th-232	3.20E-14
U-233	7.40E-09
U-234	5.29E-03
U-235	1.44E-04
U-236	2.23E-05
U-238	3.36E-05

Haz. Waste No(s).D005, D006, D007,
D008, D009, D010,
D011**TRUCON Code(s)**

125/225

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.

Waste Stream ID: **LA-TA-55-21**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Metal debris waste (mixed)	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.3	0.0	2.3
Current Form Total	2.3	0.0	2.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.3	0.0	2.3
Final Form Total	2.3	0.0	2.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	121.06
Aluminum-based Metal/Alloys	0.49
Other Metal/Alloys	14.51
Other Inorganic Materials	78.51
Cellulosics	10.02
Rubber	15.03
Plastics	46.35
Cement	0.00
Solidified Inorganic Material	1.93
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.32E-01
Cs-137	1.09E-05
Np-237	1.13E-06
Pu-238	7.71E+00
Pu-239	2.56E-01
Pu-240	9.12E-02
Pu-241	5.19E-01
Pu-242	2.50E-05
Sr-90	1.04E-05
Th-229	6.08E-14
Th-230	5.43E-07
Th-232	6.42E-17
U-233	7.03E-11
U-234	2.27E-03
U-235	1.72E-08
U-236	8.39E-08
U-238	8.92E-07

Haz. Waste No(s).

D008

**No TRUCON
Codes Provided**

Waste Stream Description

Metal 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).

Waste Stream ID: **LA-TA-55-30**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Non-combustible and combustible debris waste (mixed)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	66.8	0.0	66.8
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
Current Form Total	67.1	0.0	67.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	67.0	0.0	67.0
Final Form Total	67.0	0.0	67.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	81.38
Aluminum-based Metal/Alloys	0.33
Other Metal/Alloys	9.75
Other Inorganic Materials	52.78
Cellulosics	6.73
Rubber	10.10
Plastics	31.16
Cement	0.00
Solidified Inorganic Material	1.30
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.78E+00
Cs-137	1.02E-04
Np-237	3.21E-05
Pu-238	2.22E+00
Pu-239	2.48E+00
Pu-240	1.53E+00
Pu-241	1.54E+01
Pu-242	1.79E-03
Sr-90	9.69E-05
Th-229	1.71E-12
Th-230	1.87E-07
Th-232	1.65E-15
U-233	1.98E-09
U-234	7.61E-04
U-235	8.78E-06
U-236	1.78E-06
U-238	1.27E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005

TRUCON Code(s)

125/225

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, 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).

Waste Stream ID: LA-TA-55-32

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Non-combustible and combustible debris waste (mixed)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Current Form Total	1.9	0.0	1.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	59.24
Aluminum-based Metal/Alloys	0.24
Other Metal/Alloys	7.10
Other Inorganic Materials	38.42
Cellulosics	4.90
Rubber	7.35
Plastics	22.68
Cement	0.00
Solidified Inorganic Material	0.94
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.20
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.32E-03
Np-237	2.16E-07
Pu-238	6.26E-02
Pu-239	1.34E-02
Pu-240	3.13E-03
Pu-241	2.94E-02
Pu-242	1.80E-07
Th-229	1.92E-15
Th-230	4.13E-11
Th-232	1.12E-19
U-233	6.30E-12
U-234	1.27E-06
U-235	9.23E-11
U-236	6.49E-10
U-238	1.96E-16

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description

MIXED COMBUSTIBLE/NONCOMBUSTIBLE WASTE

Waste Stream ID: **LA-TA-55-38**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Cemented inorganics (mixed)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Cask - Misc w/ 1 - 30-gal Drum	0.4	0.0	0.4
Current Form Total	0.6	0.0	0.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.0	0.0	1.0
Final Form Total	1.0	0.0	1.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.94
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.17
Cement	26.38
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.42E-02
Cs-137	3.65E-06
Np-237	2.17E-07
Pu-238	1.73E+01
Pu-239	1.83E-02
Pu-240	9.08E-03
Pu-241	2.34E-02
Pu-242	9.43E-06
Sr-90	3.50E-06
Th-229	1.07E-14
Th-230	1.06E-06
Th-232	5.21E-18
U-233	1.31E-11
U-234	4.85E-03
U-235	1.20E-09
U-236	7.54E-09
U-238	4.10E-14

Haz. Waste No(s).

D008

**No TRUCON
Codes Provided**

Waste Stream Description

Cemented Inorganics and Spent Samples 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.

Waste Stream ID: **LA-TRU-Empty**

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Empty containers				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner (LANL)	0.4	0.0	0.4
85-gal Drum w/ 1 - 55-gal Drum w/ Liner (LANL)	70.8	0.0	70.8
Current Form Total	71.3	0.0	71.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	22.7	0.0	22.7
Final Form Total	22.7	0.0	22.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	127.31
Aluminum-based Metal/Alloys	0.51
Other Metal/Alloys	15.26
Other Inorganic Materials	82.56
Cellulosics	10.54
Rubber	15.80
Plastics	48.74
Cement	0.00
Solidified Inorganic Material	2.03
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.20
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.25E-01
Am-243	2.76E-05
Cs-137	6.72E-09
Np-237	2.52E-06
Pu-238	3.40E-01
Pu-239	6.58E-01
Pu-240	1.54E-01
Pu-241	2.09E+00
Pu-242	7.03E-06
Pu-244	1.08E-13
Sr-90	6.71E-09
Th-229	1.14E-07
Th-230	4.85E-10
Th-232	1.12E-19
U-233	1.09E-11
U-234	5.32E-05
U-235	2.95E-08
U-236	4.56E-09
U-238	6.15E-10

No Hazardous Waste Numbers Provided

TRUCON Code(s)

116/216, 117/217,
123/223, 125/225

Waste Stream Description

Empty containers identified as TRU resulting from repackaging/remediation of debris waste streams

Waste Stream ID: **LB-T001**

Appendix A
Waste Profile Report

Site	Lawrence Berkeley Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	LBL-Non Mixed Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
12.2-gal Drum	0.1	0.0	0.2
30-gal Drum	0.1	0.0	0.1
55-gal Drum Dir Ld w/o Liner	0.2	0.0	0.2
5-gal Drum	0.1	0.0	0.1
Current Form Total	0.6	0.0	0.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.2	0.4
Final Form Total	0.2	0.2	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	11.30
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	2.75
Other Inorganic Materials	1.71
Cellulosics	9.98
Rubber	0.00
Plastics	6.84
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.07E-02
Am-243	2.40E-03
Cm-244	2.69E-08
Np-237	1.70E-04
Pu-238	1.12E-04
Pu-239	2.70E-03
Pu-240	4.80E-04
Pu-241	1.36E-02
Pu-242	4.30E-05
Pu-244	3.43E-13
Th-229	2.37E-07
Th-230	1.23E-13
Th-232	5.00E-09
U-233	3.00E-04
U-234	2.95E-09
U-235	1.20E-07
U-236	1.28E-10
U-238	1.60E-07

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description

Heterogeneous transuranic, non mixed waste

Waste Stream ID: **LB-T002**

Appendix A
Waste Profile Report

Site	Lawrence Berkeley Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	LBL - Mixed Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
12.2-gal Drum	0.1	0.0	0.2
5-gal Drum	0.2	0.1	0.3
Current Form Total	0.4	0.1	0.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.2	0.4
Final Form Total	0.2	0.2	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	25.50
Other Inorganic Materials	48.50
Cellulosics	11.90
Rubber	0.00
Plastics	13.50
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.47E-01
Am-243	5.29E-04
Cs-137	5.94E-09
Np-237	7.30E-03
Pu-238	1.21E-02
Pu-239	1.10E-01
Pu-240	1.60E-04
Pu-241	2.60E-02
Pu-242	1.20E-04
Pu-244	5.90E-05
Th-229	4.50E-10
Th-230	5.62E-11
Th-232	1.00E-08
U-233	5.69E-07
U-234	6.64E-07
U-235	1.20E-06
U-236	8.52E-11
U-238	2.60E-05

Haz. Waste No(s).

D005, D006, D007,
D008, D009, D010,
D011, D018, D022,
D028, D035, D039,
F003, F005

TRUCON Code(s)

125/225

Waste Stream Description

Heterogeneous transuranic mixed waste

Waste Stream ID: **LB-T003**

Appendix A
Waste Profile Report

Site	Lawrence Berkeley Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	TRU Mixed waste sources	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
5-gal Drum	0.0	0.0	0.0
Current Form Total	0.0	0.0	0.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal S100 POC - 6" w/ Liner	0.2	0.2	0.4
Final Form Total	0.2	0.2	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	2.77
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	7.26
Other Inorganic Materials	0.00
Cellulosics	0.79
Rubber	0.00
Plastics	0.07
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	65.87
Packaging Material, Plastic	716.35
Packaging Material, Rubber	0.57
Packaging Material, Steel	320.67
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.61E+00
Cm-244	1.19E-03
Np-237	1.89E-05
Pu-240	5.69E-03
Th-229	3.09E-13
Th-232	1.07E-18
U-233	6.58E-10
U-236	2.70E-09

Haz. Waste No(s).

D008

TRUCON Code(s)

125/225

Waste Stream Description

Mixed waste sources

Waste Stream ID: **LB-T004**

Appendix A
Waste Profile Report

Site	Lawrence Berkeley Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	TRU Non mixed sources			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
12.2-gal Drum	0.1	0.0	0.1
5-gal Drum	0.0	0.0	0.1
Current Form Total	0.1	0.1	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal S100 POC - 6" w/ Liner	0.2	0.2	0.4
Final Form Total	0.2	0.2	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	1.86
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.01
Plastics	0.07
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	65.87
Packaging Material, Plastic	716.35
Packaging Material, Rubber	0.57
Packaging Material, Steel	320.67
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.66E-01
Cm-244	1.52E-02
Np-237	7.09E-07
Pu-238	3.88E-05
Pu-239	1.80E-06
Pu-240	5.40E-05
Th-229	7.62E-15
Th-230	9.11E-14
Th-232	4.58E-21
U-233	2.00E-11
U-234	1.50E-09
U-235	2.30E-14
U-236	1.60E-11

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description

Non mixed sources

Waste Stream ID: **LL-M001**

Appendix A
Waste Profile Report

Site	Lawrence Livermore National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	R&D Glovebox Waste (Form 1)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	14.1	2.5	16.6
55-gal Drum Dir Ld w/o Liner	32.9	375.2	408.1
55-gal POC - 12" w/ Liner	2.9	18.7	21.6
Current Form Total	49.9	396.4	446.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	39.9	375.2	415.2
55-gal POC - 12" w/ Liner	2.9	18.7	21.6
Final Form Total	42.8	394.0	436.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	82.37
Aluminum-based Metal/Alloys	9.66
Other Metal/Alloys	19.75
Other Inorganic Materials	12.63
Cellulosics	40.90
Rubber	19.03
Plastics	42.60
Cement	21.55
Solidified Inorganic Material	6.74
Solidified Organic Material	0.19
Soils	0.13
Vitrified	0.00
Packaging Material, Cellulosics	6.69
Packaging Material, Plastic	1.84
Packaging Material, Rubber	0.57
Packaging Material, Steel	150.48
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.05E+01
Am-243	5.05E-03
Cm-244	7.72E-06
Cs-137	1.60E-02
Np-237	3.00E-04
Pu-238	2.96E+01
Pu-239	3.49E+01
Pu-240	1.03E+01
Pu-241	1.19E+02
Pu-242	2.97E-03
Pu-244	3.77E-13
Sr-90	1.60E-02
Th-229	3.27E-05
Th-230	5.96E-06
Th-232	3.09E-06
U-233	8.54E-03
U-234	1.30E-03
U-235	5.94E-05
U-236	3.04E-07
U-238	2.33E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D028, D029, D035, D040, F001, F002, F005

TRUCON Code(s)

116/216

Waste Stream Description

Specific waste items in this waste stream may include paper cartons, cardboard, Kimwipes, cotton swabs, tissues, cheesecloth, grinding paper, plastic (e.g., bags, sheet, tape, containers, pipette tips, and glovebox windows), Neoprene and Hypalon gloves (leaded and non-leaded), aluminum foil, tin cans, hardware (e.g., nuts, bolts, washers, fittings, gauges, fixtures, thermocouples), metal tools (e.g., screwdrivers and pliers), metal parts, equipment (with or without circuit boards), copper (wire, tubing, flanges, rods, and molds), sealed sources, aerosol cans, glass (e.g., beakers, vials, and ion exchange columns with resin), graphite molds, crucibles (magnesium oxide, tantalum), epoxy resin chunks, lead metal (e.g., bricks, foil), Kaufman cans (lead seams), lead-lined and cadmium-lined steel cans, mercury batteries, fluorescent and incandescent light bulbs, and small quantities of pyrochemical salts and solidified aqueous or organic liquids (individual drums contain less than 50 percent, by volume, solidified liquids, and/or salts).

Comprehensive Inventory Database ver. 2.00

Data ver. D.10.01

NOTE: Actual numerical values have been rounded for presentation purposes

A - LL - 1

Waste Stream ID: **LL-T004**

Appendix A
Waste Profile Report

Site	Lawrence Livermore National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Salt Waste	Inventory Date	12/31/2010		
Stream Name	Pyrochemical salt waste (Form 4)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	1.2	0.0	1.2
Final Form Total	1.2	0.0	1.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	20.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	290.00
Cellulosics	2.00
Rubber	0.00
Plastics	20.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.25E-01
Cm-244	9.09E-03
Np-237	9.29E-07
Pu-238	4.99E-02
Pu-239	2.38E-01
Pu-240	1.15E-01
Pu-241	1.29E+00
Pu-242	3.74E-05
Th-229	1.73E-16
Th-230	6.50E-13
Th-232	8.42E-20
U-233	3.96E-12
U-234	1.41E-07
U-235	2.35E-10
U-236	3.41E-09
U-238	5.80E-15

No Hazardous Waste Numbers Provided

TRUCON Code(s)
124/224

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.

Waste Stream ID: **LL-W018-S5100**

Appendix A
Waste Profile Report

Site	Lawrence Livermore National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Combined metal scrap & incidental combust.(Form 3)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Misc	120.6	0.0	120.6
SLB2 (5' x 5' x 8) Dir Ld	0.0	141.5	141.5
SWB Dir Ld w/o Liner	20.8	138.0	158.8
Current Form Total	141.4	279.5	420.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
SLB2 (5' x 5' x 8) Dir Ld	164.1	141.5	305.6
SWB Dir Ld w/o Liner	20.8	138.0	158.8
Final Form Total	184.9	279.5	464.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	62.80
Aluminum-based Metal/Alloys	1.96
Other Metal/Alloys	10.00
Other Inorganic Materials	0.66
Cellulosics	2.49
Rubber	3.27
Plastics	1.51
Cement	1.00
Solidified Inorganic Material	0.00
Solidified Organic Material	2.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.16
Packaging Material, Steel	194.32
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.04E-01
Cm-244	6.69E-05
Np-237	1.04E-07
Pu-238	8.50E-03
Pu-239	7.25E-02
Pu-240	2.17E-02
Pu-241	5.56E-01
Pu-242	4.69E-06
Th-229	6.46E-17
Th-230	1.01E-12
Th-232	1.43E-19
U-233	7.07E-13
U-234	7.28E-08
U-235	2.14E-10
U-236	1.93E-09
U-238	2.18E-15

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D028, D029, D035, D040, F001, F002, F005

TRUCON Code(s)

125/225

Waste Stream Description

This waste stream is composed primarily of objects which, because of physical size, cannot be packaged in a 55-gallon drum. Typical objects include decommissioned gloveboxes, hoods, and large pieces of equipment (lathes, mills, etc.). This waste stream may contain lead metal (e.g., bricks, foil), Kaufman cans (lead seams), lead-lined and cadmium-lined steel cans, mercury batteries, fluorescent and incandescent light bulbs. The void space in boxes may be filled with other TRU waste items or with foam in plastic bags.

Waste Stream ID: **LL-W018-SS**

Appendix A
Waste Profile Report

Site	Lawrence Livermore National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Sealed Sources			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	4.2	0.0	4.2
55-gal POC - 12" w/ Liner	0.0	4.2	4.2
Current Form Total	4.2	4.2	8.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal POC - 12" w/ Liner	4.2	4.2	8.3
Final Form Total	4.2	4.2	8.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	7.69
Aluminum-based Metal/Alloys	1.65
Other Metal/Alloys	4.67
Other Inorganic Materials	4.09
Cellulosics	1.67
Rubber	0.00
Plastics	0.04
Cement	0.00
Solidified Inorganic Material	10.10
Solidified Organic Material	5.32
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	135.10
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	528.85
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.90E+01
Am-243	2.50E-06
Cm-244	1.95E-04
Cs-137	3.59E-03
Np-237	2.01E-05
Pu-238	3.08E+00
Pu-239	1.44E-01
Pu-240	4.61E-04
Pu-241	9.04E-02
Pu-244	1.73E-23
Sr-90	1.12E-02
Th-229	1.35E-14
Th-230	3.65E-10
Th-232	3.03E-21
U-233	1.43E-10
U-234	2.64E-05
U-235	1.03E-07
U-236	4.10E-11

No Hazardous Waste Numbers Provided

TRUCON Code(s)
117/217

Waste Stream Description

Specific waste items in this waste stream include sealed sources composed primarily of metal or metal encapsulated in a plastic or resin disk. Other waste items consist of packaging including cans, ice cream cartons, and plastic bags, sheet, and tape, bentonite clay or other inorganic absorbents such as Floor Dry

Waste Stream ID: **LL-W019**

Appendix A
Waste Profile Report

Site	Lawrence Livermore National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2010	
Stream Name	Solidified Waste (Form 2)				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	15.4	0.0	15.4
55-gal Drum Dir Ld w/o Liner	5.6	19.8	25.4
Current Form Total	21.0	19.8	40.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	21.0	19.8	40.8
Final Form Total	21.0	19.8	40.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	23.19
Aluminum-based Metal/Alloys	45.07
Other Metal/Alloys	2.12
Other Inorganic Materials	4.51
Cellulosics	4.04
Rubber	5.86
Plastics	33.67
Cement	0.00
Solidified Inorganic Material	103.30
Solidified Organic Material	39.41
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.74E+00
Am-243	1.02E-07
Cm-244	8.49E-04
Cs-137	1.84E-06
Np-237	8.30E-05
Pu-238	1.24E+00
Pu-239	4.77E+00
Pu-240	1.29E+00
Pu-241	1.59E+01
Pu-242	2.19E-04
Sr-90	3.88E-07
Th-229	4.76E-06
Th-230	1.67E-10
Th-232	9.40E-19
U-233	5.41E-02
U-234	1.99E-05
U-235	2.05E-05
U-236	3.81E-08
U-238	1.06E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D028, D029, D035, D040, F001, F002, F005

TRUCON Code(s)

113/213

Waste Stream Description

This waste stream consists of drums with 50 percent or greater by volume solidified aqueous or organic liquids. Additional waste in each container includes glovebox trash.

Waste Stream ID: **MC-W001**

Appendix A
Waste Profile Report

Site	U.S. Army Materiel Command	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	USAMC TRU Waste	Activity Concentrations Decayed to CY				2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.1	0.0	0.1
Current Form Total	0.1	0.0	0.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal S300 POC - 12" w/ Liner	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	190.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	135.10
Packaging Material, Plastic	226.92
Packaging Material, Rubber	0.57
Packaging Material, Steel	528.85
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Np-237	1.90E-04
Pu-239	2.43E-02
Th-229	3.48E-11
U-233	2.56E-08
U-235	7.42E-10

No Hazardous Waste Numbers Provided

TRUCON Code(s)
120/220

Waste Stream Description

Army sealed sources

Waste Stream ID: **ND-T001**

Appendix A
Waste Profile Report

Site	Nuclear Radiation Development Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	AmO2 Bagout/ Silver Bagout			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	18.1	4.6	22.7
Current Form Total	18.1	4.6	22.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	18.1	4.6	22.7
Final Form Total	18.1	4.6	22.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	134.63
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	6.72
Other Inorganic Materials	3.44
Cellulosics	134.63
Rubber	20.17
Plastics	33.62
Cement	0.00
Solidified Inorganic Material	336.66
Solidified Organic Material	6.72
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.03E+01
Np-237	6.85E-05
Th-229	3.94E-14
U-233	4.48E-10

Haz. Waste No(s).D008, D011, D035,
D040, F001, F002,
F005**TRUCON Code(s)**

125/225

Waste Stream Description

AmO2 Bagout- Material generated from the production of ionization sources containing Am-241. Material consists mainly of consumable items used in the production gloveboxes (e.g. tissues paper towels, graphite blocks) but also includes equipment and tools that have exceeded their useful life. Most material is contained in one gallon cans that are placed into fifty five gallon drums. Silver Bagout- Material is mainly a vitrified slag that is created during the recovery of precious metals from scrap Am-241 foil. Also contained are items used in the glovebox during the recovery process (e.g. plastic bags, Carbon/Graphite crucibles, paper towels, induction furnaces).

Waste Stream ID: **ND-T002**

Appendix A
Waste Profile Report

Site	Nuclear Radiation Development Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Returned Smoke Detector Sources	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	1.5	0.8	2.3
Current Form Total	1.5	0.8	2.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	1.5	0.8	2.3
Final Form Total	1.5	0.8	2.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	1000.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	100.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.25E+00
Np-237	7.28E-07
Th-229	4.65E-17
U-233	1.59E-12

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description

Sealed sources returned from smoke detector manufacturers or other end users.

Waste Stream ID: **NT-JAS-01**

Appendix A
Waste Profile Report

Site	Nevada National Security Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Combined metal scrap and incidental combustibles				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	32.1	37.8	69.9
Current Form Total	32.1	37.8	69.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	32.1	37.8	69.9
Final Form Total	32.1	37.8	69.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	722.07
Aluminum-based Metal/Alloys	3.67
Other Metal/Alloys	0.00
Other Inorganic Materials	3.67
Cellulosics	0.00
Rubber	3.67
Plastics	3.67
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.20
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.95E-02
Np-237	8.32E-07
Pu-238	4.27E-02
Pu-239	1.29E+00
Pu-240	2.97E-01
Pu-241	2.08E+00
Pu-242	1.65E-05
Th-229	6.85E-15
Th-230	2.82E-11
Th-232	1.06E-17
U-233	2.29E-11
U-234	8.67E-07
U-235	8.90E-09
U-236	6.16E-08
U-238	1.79E-14

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

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.

Waste Stream ID: **NT-W021**

Appendix A
Waste Profile Report

Site	Nevada National Security Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	V3XA Spheres			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Sphere - 3-ft. dia HY80 Carbon Steel	5.1	0.0	5.1
Current Form Total	5.1	0.0	5.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	5.4	0.0	5.4
Final Form Total	5.4	0.0	5.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	464.11
Aluminum-based Metal/Alloys	0.98
Other Metal/Alloys	1.56
Other Inorganic Materials	0.00
Cellulosics	1.50
Rubber	0.00
Plastics	0.00
Cement	2.22
Solidified Inorganic Material	81.08
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.54E+00
Np-237	1.13E-05
Pu-238	2.09E-01
Pu-239	9.43E+00
Pu-240	2.16E+00
Pu-241	3.95E+00
Pu-242	1.92E-04
Th-229	1.22E-12
Th-230	2.87E-07
Th-232	9.10E-16
U-233	9.62E-10
U-234	1.31E-03
U-235	9.10E-06
U-236	1.54E-06
U-238	4.59E-04

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description

The two steel vessels are 1-inch thick by 3-foot diameter, weighing about 3300 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.

Waste Stream ID: **OR-CHEM-CH-HET**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	ORNL Analytical Chemistry CH-TRU Debris Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum Dir Ld	0.4	0.0	0.4
55-gal Drum Dir Ld w/o Liner	10.6	0.0	10.6
79-gal Drum Dir Ld	1.5	0.0	1.5
Box - Misc	1.8	0.0	1.8
Current Form Total	14.4	0.0	14.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	14.4	0.0	14.4
Final Form Total	14.4	0.0	14.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	30.61
Aluminum-based Metal/Alloys	3.67
Other Metal/Alloys	4.95
Other Inorganic Materials	7.15
Cellulosics	56.26
Rubber	35.92
Plastics	44.35
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.37
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.54E-01
Am-243	5.01E-06
Cm-244	4.58E-03
Cs-137	1.38E-02
Np-237	1.61E-05
Pu-238	1.44E+01
Pu-239	3.27E-01
Pu-240	2.60E-02
Pu-241	7.95E-02
Pu-242	2.36E-05
Pu-244	9.14E-21
Sr-90	1.33E-02
Th-229	6.46E-05
Th-230	1.56E-07
Th-232	1.33E-06
U-233	2.80E-02
U-234	1.22E-03
U-235	6.88E-06
U-236	2.88E-08
U-238	8.77E-05

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D011, D019, D022,
F002, F005

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from analytical chemistry operations at ORNL

Waste Stream ID: **OR-GENR-CH-HET**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	ORNL General Research & Development CH-TRU Debris Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum Dir Ld	1.2	0.0	1.2
55-gal Drum Dir Ld w/o Liner	20.2	0.0	20.2
79-gal Drum Dir Ld	13.8	0.0	13.8
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Current Form Total	35.5	0.0	35.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	35.6	0.0	35.6
Final Form Total	35.6	0.0	35.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	27.18
Aluminum-based Metal/Alloys	6.75
Other Metal/Alloys	6.75
Other Inorganic Materials	27.18
Cellulosics	50.08
Rubber	32.95
Plastics	13.67
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.16
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.59E-02
Am-243	2.07E-02
Cm-244	2.98E-01
Cs-137	4.57E-07
Np-237	6.39E-04
Pu-238	4.75E-01
Pu-239	1.45E-01
Pu-240	3.93E-03
Pu-241	4.41E-04
Pu-242	5.33E-03
Pu-244	5.86E-11
Sr-90	7.68E-07
Th-229	4.77E-08
Th-230	1.57E-05
Th-232	1.01E-07
U-233	2.90E-07
U-234	7.58E-05
U-235	9.92E-07
U-236	2.52E-09
U-238	2.66E-05

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D022, D028, F002,
F005

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from general R&D at ORNL

Waste Stream ID: **OR-GENR-RH-HET**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	ORNL General Research & Development RH-TRU Debris Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	2.7	0.0	2.7
79-gal Drum Dir Ld	0.3	0.0	0.3
Current Form Total	3.0	0.0	3.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	3.1	0.0	3.1
Final Form Total	3.1	0.0	3.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	25.77
Aluminum-based Metal/Alloys	6.40
Other Metal/Alloys	6.40
Other Inorganic Materials	25.77
Cellulosics	47.48
Rubber	31.23
Plastics	12.96
Cement	0.00
Solidified Inorganic Material	0.16
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.82E-03
Am-243	4.74E-02
Cm-244	1.11E-01
Np-237	2.22E-03
Pu-239	3.35E-01
Pu-240	7.82E-04
Pu-241	2.27E-05
Pu-242	1.70E-02
Pu-244	8.96E-12
Th-229	7.04E-04
Th-230	5.35E-13
Th-232	2.26E-19
U-233	3.20E-01
U-234	4.59E-09
U-235	8.26E-09
U-236	4.25E-10
U-238	6.43E-05

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D022, D028, F002,
F005

TRUCON Code(s)

325

Waste Stream Description

Waste consists of RH-TRU debris from general R&D at ORNL

Waste Stream ID: **OR-ISTP-CH-HET**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	ORNL Isotopes Facilities CH-TRU Debris Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum Dir Ld	4.6	0.0	4.6
55-gal Drum Dir Ld w/o Liner	101.1	0.0	101.1
79-gal Drum Dir Ld	50.5	0.0	50.5
85-gal Drum Dir Ld w/ Liner	1.0	0.0	1.0
Box - Misc	14.1	0.0	14.1
Current Form Total	171.2	0.0	171.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	166.0	0.0	166.0
55-gal POC - 6" w/ Liner	5.4	0.0	5.4
Final Form Total	171.4	0.0	171.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	58.55
Aluminum-based Metal/Alloys	3.07
Other Metal/Alloys	16.81
Other Inorganic Materials	3.61
Cellulosics	29.27
Rubber	16.08
Plastics	52.95
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.36
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	6.78
Packaging Material, Plastic	1.17
Packaging Material, Rubber	0.57
Packaging Material, Steel	136.76
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.09E+01
Am-243	1.11E-02
Cm-244	6.73E+00
Cs-137	1.59E-06
Np-237	3.57E-03
Pu-238	1.29E+01
Pu-239	5.20E-01
Pu-240	2.78E+00
Pu-241	1.18E+02
Pu-242	9.51E-04
Pu-244	4.55E-11
Sr-90	2.93E-07
Th-229	6.10E-06
Th-230	6.08E-06
Th-232	1.43E-06
U-233	2.75E-03
U-234	1.01E-03
U-235	2.00E-06
U-236	2.49E-06
U-238	2.74E-06

Haz. Waste No(s).

D005, D006, D007,
D008, D009, D011,
D019, D022, F002,
F005

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from isotopes production at ORNL

Waste Stream ID: **OR-ISTP-RH-HET**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	ORNL Isotopes Facilities RH-TRU Debris Waste			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	8.3	0.0	8.3
Cask - Misc	3.3	0.0	3.3
Current Form Total	11.6	0.0	11.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	11.9	0.0	11.9
Final Form Total	11.9	0.0	11.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	112.52
Aluminum-based Metal/Alloys	5.90
Other Metal/Alloys	32.30
Other Inorganic Materials	6.95
Cellulosics	56.26
Rubber	30.91
Plastics	101.75
Cement	0.00
Solidified Inorganic Material	0.69
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.82E+00
Am-243	1.56E-05
Cm-244	1.09E+01
Np-237	5.21E-04
Pu-238	5.27E+00
Pu-239	4.13E-01
Pu-240	8.45E-01
Pu-241	6.06E+00
Pu-242	1.36E-03
Pu-244	4.48E-10
Th-229	1.88E-06
Th-230	4.88E-08
Th-232	8.83E-05
U-233	8.57E-04
U-234	4.11E-04
U-235	4.20E-06
U-236	6.11E-07
U-238	5.28E-12

Haz. Waste No(s).

D005, D006, D007,
D008, D009, D011,
D019, D022, F002,
F005

TRUCON Code(s)

325

Waste Stream Description

Waste consists of RH-TRU debris from isotopes production at ORNL

Waste Stream ID: **OR-NBL-CH-HET**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	New Brunswick Laboratory CH-TRU Debris Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum Dir Ld	0.8	0.0	0.8
55-gal Drum Dir Ld w/o Liner	8.1	0.0	8.1
79-gal Drum Dir Ld	13.2	0.0	13.2
85-gal Drum Dir Ld w/o Liner	0.3	0.0	0.3
Current Form Total	22.4	0.0	22.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	22.5	0.0	22.5
Final Form Total	22.5	0.0	22.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	32.15
Aluminum-based Metal/Alloys	2.10
Other Metal/Alloys	41.60
Other Inorganic Materials	86.15
Cellulosics	12.61
Rubber	22.48
Plastics	12.61
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.42
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.44E-03
Am-243	2.87E-06
Cs-137	3.61E-06
Np-237	1.98E-08
Pu-238	6.25E-02
Pu-239	9.67E-02
Pu-240	3.71E-02
Pu-241	4.33E-03
Pu-242	4.15E-08
Sr-90	3.48E-06
Th-229	2.82E-06
Th-230	2.47E-08
Th-232	1.70E-17
U-233	1.29E-03
U-234	1.10E-04
U-235	1.44E-05
U-236	2.75E-08
U-238	8.92E-05

Haz. Waste No(s).

D004, D005, D007, D008, D009, D011, D022, F002, F005

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from NBL

Waste Stream ID: **OR-NFS-CH-HET**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Nuclear Fuel Services CH-TRU Waste			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	121.1	0.0	121.1
Box - Misc	10.2	0.0	10.2
Current Form Total	131.3	0.0	131.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	128.8	0.0	128.8
Final Form Total	128.8	0.0	128.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	59.52
Aluminum-based Metal/Alloys	5.25
Other Metal/Alloys	4.81
Other Inorganic Materials	319.06
Cellulosics	12.25
Rubber	2.63
Plastics	33.70
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.44
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.35E-01
Am-243	1.01E-07
Cm-244	1.27E-05
Cs-137	3.22E-06
Np-237	5.35E-06
Pu-238	1.44E-01
Pu-239	1.19E+00
Pu-240	6.77E-01
Pu-241	3.64E+00
Pu-242	6.38E-05
Sr-90	3.10E-06
Th-229	6.69E-07
Th-230	9.22E-06
Th-232	1.15E-06
U-233	2.23E-04
U-234	4.01E-02
U-235	2.77E-06
U-236	5.64E-07
U-238	4.56E-05

Haz. Waste No(s).D006, D008, D009,
D011, F002**TRUCON Code(s)**

125/225

Waste Stream Description

Waste consists of non-mixed CH-TRU debris from NFS

Waste Stream ID: **OR-NFS-CH-HOM**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Nuclear Fuel Services CH-TRU Homogeneous Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	10.6	0.0	10.6
Current Form Total	10.6	0.0	10.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	10.6	0.0	10.6
Final Form Total	10.6	0.0	10.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	7.84
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	92.45
Cellulosics	0.00
Rubber	0.00
Plastics	15.69
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	12.60
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.22E+00
Cs-137	4.28E-07
Np-237	9.22E-05
Pu-238	2.45E+00
Pu-239	1.36E+01
Pu-240	6.02E+00
Pu-241	3.64E+01
Pu-242	8.48E-04
Sr-90	4.12E-07
Th-229	7.38E-06
Th-230	3.74E-05
Th-232	2.75E-15
U-233	3.36E-03
U-234	1.63E-01
U-235	1.29E-05
U-236	4.46E-06
U-238	2.79E-04

Haz. Waste No(s).

D006, D009

TRUCON Code(s)

111/211

Waste Stream Description

Waste consists of homogeneous waste from NFS

Waste Stream ID: **OR-NFS-CH-SOIL**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Contaminated Soil/Debris Waste		Inventory Date	12/31/2010	
Stream Name	Nuclear Fuel Services CH-TRU Soil Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	8.1	0.0	8.1
Current Form Total	8.1	0.0	8.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	8.1	0.0	8.1
Final Form Total	8.1	0.0	8.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	2.30
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	15.35
Soils	750.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.76E-01
Am-243	6.49E-07
Cs-137	5.62E-06
Np-237	5.75E-06
Pu-238	1.03E-01
Pu-239	1.36E+00
Pu-240	5.59E-01
Pu-241	1.86E+00
Pu-242	5.75E-05
Sr-90	5.41E-06
Th-229	4.03E-06
Th-230	4.66E-06
Th-232	2.55E-16
U-233	1.83E-03
U-234	2.03E-02
U-235	1.91E-06
U-236	4.14E-07
U-238	2.65E-05

Haz. Waste No(s).

F002

TRUCON Code(s)

111/211

Waste Stream Description

Waste consists of non-mixed soils from NFS

Waste Stream ID: **OR-PGDP-CH-HET**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Paducah Gaseous Diffusion Plant CH-TRU Debris Waste			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	7.7	0.0	7.7
Current Form Total	7.7	0.0	7.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	7.7	0.0	7.7
Final Form Total	7.7	0.0	7.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	54.03
Aluminum-based Metal/Alloys	9.82
Other Metal/Alloys	24.56
Other Inorganic Materials	4.91
Cellulosics	41.75
Rubber	34.38
Plastics	63.85
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	12.28
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Np-237	2.24E-02
Pu-239	7.24E-02
Th-229	2.67E-09
Th-230	6.17E-07
U-233	2.43E-06
U-234	2.68E-03
U-235	1.08E-04
U-238	2.67E-03

Haz. Waste No(s).

D008

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from PGDP

Waste Stream ID: **OR-RADP-CH-HET**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	ORNL Radiochemical Processing Research & Development CH-TRU Debris Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum Dir Ld	0.4	0.0	0.4
55-gal Drum Dir Ld w/o Liner	25.4	0.0	25.4
79-gal Drum Dir Ld	14.7	0.0	14.7
85-gal Drum Dir Ld w/o Liner	0.6	0.0	0.6
Box - Misc	2.6	0.0	2.6
Current Form Total	43.6	0.0	43.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	43.7	0.0	43.7
Final Form Total	43.7	0.0	43.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	61.45
Aluminum-based Metal/Alloys	2.29
Other Metal/Alloys	8.52
Other Inorganic Materials	7.05
Cellulosics	35.40
Rubber	8.68
Plastics	39.16
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	1.31
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.87E-01
Am-243	2.73E-03
Cm-244	8.45E-01
Cs-137	1.62E-07
Np-237	3.28E-05
Pu-238	5.07E-02
Pu-239	3.14E-01
Pu-240	6.13E-02
Pu-241	4.14E-01
Pu-242	4.39E-05
Pu-244	4.05E-10
Sr-90	9.29E-06
Th-229	1.74E-06
Th-230	3.88E-09
Th-232	2.70E-17
U-233	7.72E-04
U-234	1.88E-05
U-235	5.40E-06
U-236	4.43E-08
U-238	1.69E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D028, F002, F005

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from radiochemical processing R&D at ORNL

Waste Stream ID: **OR-RADP-CH-SOILS**

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Contaminated Soil/Debris Waste		Inventory Date	12/31/2010	
Stream Name	Oak Ridge CH-TRU Soils Waste from TRU Trenches				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	1.2	0.0	1.2
Current Form Total	1.2	0.0	1.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	1.2	0.0	1.2
Final Form Total	1.2	0.0	1.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	4.78
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	9.57
Soils	464.11
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Cm-244	1.85E-05
Pu-238	3.95E-05
Pu-239	5.28E-02
Pu-240	1.56E-02
Sr-90	2.60E-05
Th-230	3.65E-13
Th-232	7.12E-18
U-234	3.08E-09
U-235	1.30E-09
U-236	1.15E-08
U-238	2.69E-09

Haz. Waste No(s).

F002

TRUCON Code(s)

111/211

Waste Stream Description

Waste consists of CH-TRU soils from the TRU Trench Waste Retrieval activities.

Waste Stream ID: **OR-RADP-RH-HET**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	ORNL Radiochemical Processing Research & Development RH-TRU Debris Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	1.2	0.0	1.2
Current Form Total	1.2	0.0	1.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	1.2	0.0	1.2
Final Form Total	1.2	0.0	1.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	70.09
Aluminum-based Metal/Alloys	2.62
Other Metal/Alloys	9.72
Other Inorganic Materials	8.04
Cellulosics	40.37
Rubber	9.91
Plastics	44.67
Cement	0.00
Solidified Inorganic Material	1.50
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.48E-03
Am-243	5.41E-01
Cm-244	2.51E+00
Np-237	1.13E-04
Pu-239	4.16E-01
Pu-240	1.65E-02
Pu-244	6.00E-15
Th-229	1.66E-08
Th-232	4.58E-18
U-233	7.57E-06
U-235	1.39E-05
U-236	8.78E-09

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D028,
F002, F005

TRUCON Code(s)

325

Waste Stream Description

Waste consists of RH-TRU debris from radiochemical processing R&D at ORNL

Waste Stream ID: **OR-REDC-CH-HET**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Radiochemical Engineering Development Center CH-TRU Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum Dir Ld	0.4	0.0	0.4
55-gal Drum Dir Ld w/o Liner	209.5	15.0	224.4
79-gal Drum Dir Ld	7.8	0.0	7.8
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Box - Misc	31.9	0.0	31.9
Current Form Total	249.9	15.0	264.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	254.2	15.0	269.2
Final Form Total	254.2	15.0	269.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	42.36
Aluminum-based Metal/Alloys	2.05
Other Metal/Alloys	1.28
Other Inorganic Materials	16.43
Cellulosics	6.16
Rubber	1.67
Plastics	58.40
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.74E-01
Am-243	7.90E-04
Cm-244	1.86E-01
Cs-137	4.83E-03
Np-237	1.32E-05
Pu-238	5.39E-01
Pu-239	8.88E-02
Pu-240	1.52E-01
Pu-241	4.86E+00
Pu-242	2.75E-05
Pu-244	8.50E-10
Sr-90	2.30E-02
Th-229	3.80E-07
Th-230	6.32E-08
Th-232	3.97E-09
U-233	1.73E-04
U-234	2.95E-04
U-235	1.26E-07
U-236	4.97E-04
U-238	3.34E-06

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
F002, F005

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from REDC at ORNL

Waste Stream ID: **OR-REDC-RH-HET**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Radiochemical Engineering Development Center RH-TRU Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	5.0	0.0	5.0
Cask - Misc	312.7	18.3	331.0
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	4.5	0.0	4.5
Current Form Total	322.1	18.3	340.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	322.0	10.0	332.0
Final Form Total	322.0	10.0	332.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	223.34
Aluminum-based Metal/Alloys	0.04
Other Metal/Alloys	22.32
Other Inorganic Materials	63.38
Cellulosics	25.23
Rubber	6.27
Plastics	32.56
Cement	0.00
Solidified Inorganic Material	4.57
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.16E-03
Am-243	4.76E-04
Cm-244	4.26E-01
Cs-137	1.52E-02
Np-237	1.93E-06
Pu-238	4.04E-03
Pu-239	1.08E-03
Pu-240	5.21E-03
Pu-241	1.75E-02
Pu-242	3.97E-05
Pu-244	3.02E-12
Sr-90	9.83E-02
Th-229	2.25E-13
Th-230	3.93E-11
Th-232	1.93E-18
U-233	2.06E-10
U-234	3.24E-07
U-235	3.94E-10
U-236	3.32E-09
U-238	2.96E-09

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
F002, F005

TRUCON Code(s)

325

Waste Stream Description

Waste consists of RH-TRU debris from REDC at ORNL

Waste Stream ID: **OR-RF-CH-HET**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	ORNL Reactor Fuels Research & Development CH-TRU Debris Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	73.4	0.0	73.4
79-gal Drum Dir Ld	4.5	0.0	4.5
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Box - Misc	48.7	0.0	48.7
Current Form Total	126.9	0.0	126.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	126.9	0.0	126.9
Final Form Total	126.9	0.0	126.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	55.35
Aluminum-based Metal/Alloys	10.06
Other Metal/Alloys	25.16
Other Inorganic Materials	5.03
Cellulosics	42.77
Rubber	35.22
Plastics	65.41
Cement	0.00
Solidified Inorganic Material	12.58
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.54E-01
Am-243	2.66E-04
Cm-244	9.89E-01
Cs-137	6.63E-03
Np-237	6.83E-06
Pu-238	1.20E+00
Pu-239	1.01E+00
Pu-240	3.83E-01
Pu-241	6.51E+00
Pu-242	1.30E-02
Pu-244	5.90E-19
Sr-90	1.59E-03
Th-229	5.26E-04
Th-230	3.65E-07
Th-232	2.94E-06
U-233	2.62E-02
U-234	1.30E-04
U-235	1.61E-06
U-236	3.07E-07
U-238	6.70E-06

Haz. Waste No(s).

D006, D007, D008, D009, D011, D019, F001, F002, F005

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from reactor fuels R&D at ORNL

Waste Stream ID: **OR-RF-CH-HOM**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	ORNL Reactor Fuels Research & Development CH-TRU Homogeneous Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	2.5	0.0	2.5
Current Form Total	2.5	0.0	2.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	2.5	0.0	2.5
Final Form Total	2.5	0.0	2.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	31.49
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	377.93
Cellulosics	0.00
Rubber	0.00
Plastics	62.99
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	52.49
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.92E-02
Cs-137	1.05E-03
Np-237	1.58E-07
Pu-238	6.74E-03
Pu-239	1.70E-02
Pu-240	1.67E-02
Sr-90	1.04E-02
Th-229	6.36E-15
Th-230	4.65E-09
Th-232	7.64E-18
U-233	8.65E-12
U-234	2.05E-05
U-235	9.18E-07
U-236	1.24E-08
U-238	3.31E-05

Haz. Waste No(s).D006, D007, D008,
D009, D010**TRUCON Code(s)**

111/211

Waste Stream Description

Waste consists of homogeneous waste from reactor fuels R&D at ORNL

Waste Stream ID: **OR-RF-RH-HET**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	ORNL Reactor Fuels Research & Development RH-TRU Debris Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	13.1	0.0	13.1
79-gal Drum Dir Ld	1.5	0.0	1.5
Cask - Misc	36.5	14.9	51.5
Current Form Total	51.1	14.9	66.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	36.2	5.0	41.2
Final Form Total	36.2	5.0	41.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	284.54
Aluminum-based Metal/Alloys	64.67
Other Metal/Alloys	58.20
Other Inorganic Materials	64.67
Cellulosics	90.54
Rubber	19.40
Plastics	51.73
Cement	0.00
Solidified Inorganic Material	12.93
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.11E-01
Cm-244	1.46E-02
Cs-137	2.96E+00
Np-237	2.75E-06
Pu-238	1.18E-02
Pu-239	1.76E-01
Pu-240	7.99E-02
Pu-241	4.01E-02
Pu-242	2.12E-07
Pu-244	3.38E-16
Sr-90	3.22E-01
Th-229	1.16E-03
Th-230	1.68E-08
Th-232	6.89E-06
U-233	5.29E-01
U-234	7.35E-05
U-235	7.18E-06
U-236	3.20E-06
U-238	5.36E-06

Haz. Waste No(s).

D008, D009, D011

TRUCON Code(s)

325

Waste Stream Description

Waste consists of RH-TRU debris from reactor fuels R&D at ORNL

Waste Stream ID: **OR-TBD-CH-HET**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	TBD CH-TRU Debris Waste			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum Dir Ld	0.4	0.0	0.4
55-gal Drum Dir Ld w/o Liner	27.2	0.0	27.2
79-gal Drum Dir Ld	1.5	0.0	1.5
Box - Misc	25.8	0.0	25.8
Current Form Total	55.0	0.0	55.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	54.9	0.0	54.9
Final Form Total	54.9	0.0	54.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	116.20
Aluminum-based Metal/Alloys	21.13
Other Metal/Alloys	52.82
Other Inorganic Materials	10.56
Cellulosics	89.79
Rubber	73.95
Plastics	137.33
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	26.41
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.63E+00
Am-243	2.91E-02
Cm-244	1.40E-01
Cs-137	3.27E-03
Np-237	9.84E-04
Pu-238	4.11E+00
Pu-239	9.99E-01
Pu-240	2.14E+00
Pu-241	8.09E-01
Pu-242	2.19E-04
Pu-244	6.05E-08
Sr-90	5.79E-04
Th-229	3.98E-05
Th-230	1.53E-07
Th-232	6.06E-07
U-233	1.81E-02
U-234	5.65E-04
U-235	4.11E-06
U-236	1.59E-06
U-238	2.16E-04

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D022,
F001, F002, F004,
F005

TRUCON Code(s)

125/225

Waste Stream Description

CH-TRU Debris Waste Needing Further Evaluation

Waste Stream ID: **OR-TBD-RH-HET**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	TBD RH-TRU Debris Waste			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	2.5	0.0	2.5
Cask - Misc	61.0	6.6	67.7
Current Form Total	63.5	6.6	70.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	63.6	3.7	67.4
Final Form Total	63.6	3.7	67.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	203.43
Aluminum-based Metal/Alloys	46.23
Other Metal/Alloys	41.61
Other Inorganic Materials	46.23
Cellulosics	64.73
Rubber	13.87
Plastics	36.99
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	9.25
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.74E-01
Am-243	1.60E-12
Cm-244	5.82E-02
Cs-137	2.65E+01
Np-237	6.87E-06
Pu-238	4.26E-01
Pu-239	9.80E-02
Pu-240	5.84E-02
Pu-241	4.23E-02
Pu-242	1.59E-08
Pu-244	5.89E-12
Sr-90	1.53E+01
Th-229	5.84E-05
Th-230	4.44E-09
Th-232	3.58E-07
U-233	2.66E-02
U-234	3.54E-05
U-235	6.87E-06
U-236	4.32E-08
U-238	1.83E-06

Haz. Waste No(s).D005, D006, D007,
D008, D009, D011**TRUCON Code(s)**

325

Waste Stream Description

RH-TRU Debris Waste Needing Further Evaluation

Waste Stream ID: **OR-W203**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	ORNL Newly Generated Debris - Post 2013				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	49.9	49.9
Current Form Total	0.0	49.9	49.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	49.9	49.9
Final Form Total	0.0	49.9	49.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	79.33
Aluminum-based Metal/Alloys	3.85
Other Metal/Alloys	2.40
Other Inorganic Materials	30.77
Cellulosics	11.54
Rubber	3.13
Plastics	109.38
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.10E-02
Am-243	7.83E-04
Cm-244	9.43E-03
Cs-137	4.09E-02
Pu-238	8.25E-03
Pu-239	1.50E-04
Pu-240	7.10E-03
Pu-241	9.85E-02
Pu-242	1.03E-04
Sr-90	3.02E-01
U-234	1.39E-07
U-235	6.11E-09
U-236	6.98E-10
U-238	4.93E-08

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description

Hot Cell Debris Waste

Waste Stream ID: **OR-W213-RH-SOILS**

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S4000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Contaminated Soil/Debris Waste		Inventory Date	12/31/2010	
Stream Name	ER RH TRU Soils			Activity Concentrations Decayed to CY		2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
10-gal Drum Dir Ld w/o Liner	1.4	0.0	1.4
55-gal Drum Dir Ld w/o Liner	0.2	0.0	0.2
5-gal Drum Dir Ld w/o Liner	0.0	0.0	0.0
Box - Misc	32.3	0.0	32.3
Current Form Total	34.0	0.0	34.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	9.4	0.0	9.4
Final Form Total	9.4	0.0	9.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	26.14
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	52.27
Soils	2535.20
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.20E-01
Am-243	3.70E-05
Cm-244	3.23E-04
Cs-137	1.16E+00
Np-237	1.23E-04
Pu-238	2.18E-02
Pu-239	5.87E-02
Pu-240	5.59E-04
Pu-241	2.30E-01
Pu-242	3.24E-05
Sr-90	9.56E-03
Th-229	8.65E-02
Th-230	1.46E-04
Th-232	1.39E-03
U-233	1.12E-01
U-234	6.41E-03
U-235	9.54E-05
U-236	1.01E-04
U-238	1.21E-03

No Hazardous Waste Numbers Provided

TRUCON Code(s)

311

Waste Stream Description

This waste is made up of soils.

Waste Stream ID: **OR-WSTR-CH-HET**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	ORNL-Liquid Waste Treatment CH-TRU Debris Waste			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	5.6	0.0	5.6
79-gal Drum Dir Ld	0.3	0.0	0.3
Current Form Total	5.9	0.0	5.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	5.8	0.0	5.8
Final Form Total	5.8	0.0	5.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	24.05
Aluminum-based Metal/Alloys	4.37
Other Metal/Alloys	10.93
Other Inorganic Materials	2.19
Cellulosics	18.58
Rubber	15.30
Plastics	28.42
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	5.47
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Cm-244	1.78E-03
Pu-238	7.61E-03
Pu-239	8.58E-02
Pu-240	7.87E-06
Th-230	7.05E-11
Th-232	1.49E-21
U-234	5.93E-07
U-235	2.11E-09
U-236	3.37E-12

Haz. Waste No(s).

D008

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from ORNL liquids waste system.

Waste Stream ID: **OR-Y12-CH-HET**

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Oak Ridge Y-12 CH-TRU Debris Waste			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.6	0.0	0.6
79-gal Drum w/ 1 - 55-gal Drum	0.6	0.0	0.6
Current Form Total	1.2	0.0	1.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	1.0	0.0	1.0
Final Form Total	1.0	0.0	1.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	63.04
Aluminum-based Metal/Alloys	11.46
Other Metal/Alloys	28.65
Other Inorganic Materials	5.73
Cellulosics	48.71
Rubber	40.11
Plastics	74.50
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	14.33
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Np-237	6.09E-03
Pu-238	2.09E-04
Pu-239	5.96E-02
Pu-240	1.25E-05
Th-229	7.26E-10
Th-230	2.06E-07
Th-232	5.70E-21
U-233	6.60E-07
U-234	8.94E-04
U-235	1.36E-04
U-236	9.24E-12
U-238	6.01E-04

Haz. Waste No(s).

D008

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from Y-12

Waste Stream ID: **PA-A015**

Appendix A

Waste Profile Report

Site	Paducah Gaseous Diffusion Plant	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Inorganic Nonmetal Waste	Inventory Date	12/31/2010		
Stream Name	Transuranic - Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum w/ 1 - 85-gal Drum w/ 1 55-gal Drum	0.8	0.0	0.8
30-gal Drum	0.3	0.0	0.3
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	1.9	0.0	1.9
Current Form Total	3.3	0.0	3.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.1	0.0	2.1
Final Form Total	2.1	0.0	2.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	96.00
Cement	0.00
Solidified Inorganic Material	1950.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.93E-02
Np-237	6.28E-02
Pu-238	1.36E-03
Pu-239	1.90E-01
Th-229	5.28E-09
Th-230	4.90E-03
U-233	5.72E-06
U-234	8.03E-03
U-235	4.02E-04
U-238	8.74E-03

Haz. Waste No(s).

D007, D008

TRUCON Code(s)

125/225

Waste Stream Description

Transuranic Debris

Waste Stream ID: PA-W014

Appendix A
Waste Profile Report

Site	Paducah Gaseous Diffusion Plant	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Transuranic Waste Liquid/Solids			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.2	0.0	0.2
5-gal Drum	0.0	0.0	0.0
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	3.2	0.0	3.2
Current Form Total	3.5	0.0	3.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.9	0.0	2.9
Final Form Total	2.9	0.0	2.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	1950.00
Solidified Inorganic Material	575.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.52E-02
Cs-137	3.26E-03
Np-237	7.10E-01
Pu-239	5.50E-02
Th-229	5.41E-08
Th-230	4.51E-06
U-233	6.15E-05
U-234	2.45E-02
U-235	1.34E-03
U-238	3.76E-02

Haz. Waste No(s).

D007, D008

TRUCON Code(s)

114/214

Waste Stream Description

Transuranic Aqueous Liquids and Sludges

Waste Stream ID: **RL105-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	105-C, 105KE, and 105-N Bldg TRU CH Non-mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	29.7	0.0	29.7
Box - Misc	74.7	0.0	74.7
Uncontained	0.0	29.3	29.3
Current Form Total	104.4	29.3	133.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	37.2	0.0	37.2
SWB Dir Ld w/ Liner	94.5	30.2	124.7
Final Form Total	131.7	30.2	162.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	74.93
Aluminum-based Metal/Alloys	3.82
Other Metal/Alloys	0.00
Other Inorganic Materials	24.82
Cellulosics	15.27
Rubber	13.36
Plastics	28.25
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	9.45
Packaging Material, Rubber	0.28
Packaging Material, Steel	148.23
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.67E-01
Am-243	6.09E-04
Cm-244	1.11E-02
Cs-137	1.50E+00
Np-237	2.68E-04
Pu-238	4.64E-02
Pu-239	1.46E-01
Pu-240	5.52E-02
Pu-241	6.30E+00
Pu-242	1.96E-05
Sr-90	5.34E-01
Th-229	5.12E-14
Th-230	3.92E-10
Th-232	4.18E-16
U-233	1.17E-09
U-234	4.27E-05
U-235	2.39E-05
U-236	8.48E-06
U-238	3.90E-04

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description

CH TRU Combustible and noncombustible debris from Hanford production reactor storage basin operations. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, cartridge-type water filters from the Primary Recirculation System, and absorbed liquids.

Waste Stream ID: **RL105-03**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	NLOP sludge				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	68.4	0.0	68.4
Current Form Total	68.4	0.0	68.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	68.4	0.0	68.4
Final Form Total	68.4	0.0	68.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	36.09
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	12.59
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	930.62
Solidified Inorganic Material	620.41
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.08E-01
Cs-137	1.65E+00
Np-237	8.83E-06
Pu-238	6.81E-02
Pu-239	3.38E-01
Pu-240	1.86E-01
Pu-241	8.07E+00
Pu-242	8.86E-05
Sr-90	8.28E+00
Th-229	6.60E-15
Th-230	1.10E-08
Th-232	5.43E-19
U-233	7.55E-11
U-234	5.98E-04
U-235	2.25E-05
U-236	1.10E-08
U-238	4.82E-04

No Hazardous Waste Numbers Provided

TRUCON Code(s)
111/211

Waste Stream Description

Solidified inorganic CH TRU waste generated from Facility/Equipment Operation and Maintenance activities at the Reactor facility.

Waste Stream ID: **RL105-08**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	105-C, 105KE, and 105-N Bldg RH-TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	5.0	0.0	5.0
Box - Misc	124.5	0.0	124.5
SWB Dir Ld w/ Liner	3.8	0.0	3.8
Current Form Total	133.3	0.0	133.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	167.9	0.0	167.9
Final Form Total	167.9	0.0	167.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	106.82
Aluminum-based Metal/Alloys	5.44
Other Metal/Alloys	0.00
Other Inorganic Materials	35.38
Cellulosics	21.77
Rubber	19.05
Plastics	38.10
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.13E-02
Am-243	3.86E-08
Cm-244	1.07E-03
Cs-137	1.73E+00
Np-237	8.84E-07
Pu-238	1.53E-02
Pu-239	3.89E-02
Pu-240	2.03E-02
Pu-241	4.00E-01
Pu-242	8.49E-07
Sr-90	7.99E-01
Th-229	2.37E-14
Th-230	1.51E-09
Th-232	5.08E-08
U-233	6.31E-11
U-234	3.29E-05
U-235	1.66E-06
U-236	5.77E-06
U-238	4.00E-05

Haz. Waste No(s).

D006, D008, D011

TRUCON Code(s)

325

Waste Stream Description

The 105-KE RH waste stream is composed solely of cartridge-type water filters from the Primary Recirculation System. The water filters, accumulated waste and associated packaging. Other 100 area drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters. The waste stream ranges from contaminated clothing to process equipment. The waste is generated from Reactor Facility/Equipment Operation and Maintenance Waste activities.

Waste Stream ID: **RL105-09**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	105KE TRU RH Non-mixed solidified inorganics				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
85-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Sludge Transport and Storage Container	0.0	151.8	151.8
Current Form Total	0.6	151.8	152.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	1.2	624.0	625.2
Final Form Total	1.2	624.0	625.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	156.95
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	5.86
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	576.13
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.80E-02
Cs-137	2.56E-01
Np-237	1.38E-05
Pu-238	1.07E-02
Pu-239	5.27E-02
Pu-240	2.90E-02
Pu-241	1.28E+00
Pu-242	1.39E-05
Sr-90	9.58E-02
Th-229	4.10E-14
Th-230	3.41E-09
Th-232	2.79E-14
U-233	2.33E-10
U-234	9.27E-05
U-235	3.49E-06
U-236	1.41E-04
U-238	7.55E-05

No Hazardous Waste Numbers Provided

TRUCON Code(s)
311

Waste Stream Description

Solidified inorganic RH TRU waste generated from Facility/Equipment Operation and Maintenance activities at the Reactor facility.

Waste Stream ID: **RL200-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Misc 200 Area TRU Mixed Debris				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	72.2	0.0	72.2
85-gal Drum Dir Ld w/ Liner	2.6	0.0	2.6
Box - Misc	52.7	0.0	52.7
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Current Form Total	129.3	0.0	129.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	92.1	0.0	92.1
SWB Dir Ld w/ Liner	68.0	0.0	68.0
Final Form Total	160.2	0.0	160.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	571.32
Aluminum-based Metal/Alloys	129.26
Other Metal/Alloys	0.00
Other Inorganic Materials	33.83
Cellulosics	24.79
Rubber	8.55
Plastics	33.85
Cement	0.00
Solidified Inorganic Material	5.43
Solidified Organic Material	0.00
Soils	2.92
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	21.83
Packaging Material, Rubber	0.41
Packaging Material, Steel	140.40
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.83E-01
Cs-137	8.60E-04
Np-237	2.35E-07
Pu-238	1.13E-02
Pu-239	4.49E-02
Pu-240	2.51E-02
Pu-241	7.86E-01
Pu-242	1.04E-06
Sr-90	1.00E-04
Th-229	2.32E-16
Th-230	2.39E-12
Th-232	2.93E-19
U-233	1.98E-12
U-234	1.29E-07
U-235	1.77E-10
U-236	2.97E-09
U-238	6.46E-16

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D032, D033, D034, D035, D037, D038, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

Containers with both combustible and noncombustible waste items from various general operations/maintenance/evaporator in 200 area. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RL200-02**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Contaminated Soil/Debris Waste		Inventory Date	12/31/2010	
Stream Name	Soil from Groundwater projects. And contaminated soil from PFP				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	8.7	0.0	8.7
85-gal Drum Dir Ld w/ Liner	2.9	0.0	2.9
Current Form Total	11.6	0.0	11.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	11.6	0.0	11.6
Final Form Total	11.6	0.0	11.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	3.55
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	507.98
Cellulosics	4.68
Rubber	2.17
Plastics	9.15
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	554.87
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.64E-01
Cs-137	3.20E-04
Np-237	1.17E-05
Pu-238	7.63E-02
Pu-239	1.65E+00
Pu-240	4.33E-01
Pu-241	3.06E+00
Pu-242	3.27E-05
Sr-90	2.91E-04

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D018,
D019, D021, D022,
D027, D028, D030,
D039, D040, D043,
F001, F002, F003,
F005

TRUCON Code(s)

125/225

Waste Stream Description

Crib and soil characterization and remediation wastes

Waste Stream ID: **RL201-03**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	201C TRU Mixed Solid Inorganic			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	11.6	0.0	11.6
Current Form Total	11.6	0.0	11.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	13.3	0.0	13.3
Final Form Total	13.3	0.0	13.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	28.57
Other Inorganic Materials	9.47
Cellulosics	66.67
Rubber	123.40
Plastics	33.33
Cement	0.00
Solidified Inorganic Material	0.96
Solidified Organic Material	0.00
Soils	325.10
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.13E+00
Cs-137	1.93E-01
Np-237	1.38E-06
Pu-238	7.05E-05
Pu-239	1.41E-01
Pu-240	3.48E-02
Pu-241	3.32E-03
Pu-242	5.23E-08
Sr-90	5.00E+00
Th-229	3.53E-16
Th-230	2.97E-14
Th-232	1.02E-19
U-233	6.01E-12
U-234	3.23E-09
U-235	2.79E-10
U-236	2.06E-09
U-238	5.26E-04

Haz. Waste No(s).

D007, D010

TRUCON Code(s)

122/222

Waste Stream Description

Generated from tank CX-70 sludge cleanout/remediation. A vacuuming process loaded sludge waste into cloth lined 16 gal drums. A 16 gal drum was placed into each 55 gal drum. Diatomaceous earth was added to ensure no free liquid process waste.

Waste Stream ID: **RL202S-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	202S TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.8	0.0	0.8
Current Form Total	0.8	0.0	0.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.0	0.0	1.0
Final Form Total	1.0	0.0	1.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	2.74
Aluminum-based Metal/Alloys	0.91
Other Metal/Alloys	0.77
Other Inorganic Materials	0.00
Cellulosics	3.34
Rubber	0.77
Plastics	53.09
Cement	0.00
Solidified Inorganic Material	3.59
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.68E-02
Cs-137	1.13E-07
Np-237	1.84E-06
Pu-238	1.09E-02
Pu-239	6.29E-02
Pu-240	2.35E-02
Pu-241	1.60E-01
Pu-242	2.70E-06
Sr-90	1.03E-07

Haz. Waste No(s).D006, D007, D008,
D009**TRUCON Code(s)**

125/225

Waste Stream Description

Generated from investigations at the North Sample Gallery of the 202-S Canyon (REDOX CANYON AND SERVICE FACILITY). Debris waste of personal protective equipment, sharp metal objects, and cleanup material generated in S canyon investigation, waste characterization samples. Predominant debris waste consists of over 80% plastic.

Waste Stream ID: **RL209E-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	209E TRU Mixed Debris			Activity Concentrations Decayed to CY		2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	15.2	0.0	15.2
85-gal Drum Dir Ld w/ Liner	1.6	0.0	1.6
Box - Misc	44.0	0.0	44.0
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Uncontained	0.0	100.3	100.3
Current Form Total	62.7	100.3	163.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	19.1	0.0	19.1
SWB Dir Ld w/ Liner	58.6	102.1	160.7
Final Form Total	77.7	102.1	179.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	38.76
Aluminum-based Metal/Alloys	0.03
Other Metal/Alloys	0.57
Other Inorganic Materials	6.55
Cellulosics	31.19
Rubber	11.92
Plastics	26.34
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	5.02
Packaging Material, Rubber	0.23
Packaging Material, Steel	151.03
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.26E+00
Cs-137	1.07E-08
Np-237	4.53E-05
Pu-238	1.09E+00
Pu-239	7.79E+00
Pu-240	2.84E+00
Pu-241	3.15E+01
Pu-242	4.16E-04
Sr-90	9.74E-09
Th-229	8.46E-15
Th-230	1.46E-09
Th-232	2.08E-18
U-233	1.94E-10
U-234	1.60E-04
U-235	5.76E-06
U-236	8.42E-08
U-238	1.47E-05

Haz. Waste No(s).

D006, D007, D008, D018, D019, D043, F002, F003, F005

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated during operations, cleanup, and D&D of the 209-E Critical Mass Laboratory (CML) at Hanford. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RL209E-08**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	209E TRU RH Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	2.40
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.80
Cellulosics	24.04
Rubber	3.21
Plastics	23.08
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.39E+00
Np-237	5.93E-05
Pu-238	7.29E-01
Pu-239	5.59E+00
Pu-240	1.96E+00
Pu-241	8.33E+00
Pu-242	2.44E-04
Th-229	3.59E-12
Th-230	5.14E-09
Th-232	6.92E-16
U-233	4.19E-09
U-234	4.94E-05
U-235	1.21E-07
U-236	1.27E-06
U-238	8.33E-13

Haz. Waste No(s).

D006, D007, D018, D019, F002, F003, F005
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TRUCON Code(s)

325

Waste Stream Description

Combustible and noncombustible debris waste generated during operations, cleanup, and D&D of the 209-E CML. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RL216Z-02**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Contaminated Soil/Debris Waste		Inventory Date	12/31/2010	
Stream Name	216-Z-9 TRU Mixed Soil			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	87.4	0.0	87.4
85-gal Drum Dir Ld w/ Liner	104.0	0.0	104.0
Box - Misc	12.7	0.0	12.7
Current Form Total	204.1	0.0	204.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	292.0	0.0	292.0
SWB Dir Ld w/ Liner	17.0	0.0	17.0
Final Form Total	309.0	0.0	309.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	1.91
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	15.47
Cellulosics	0.32
Rubber	0.00
Plastics	0.96
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	16.98
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	35.09
Packaging Material, Rubber	0.55
Packaging Material, Steel	132.02
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.30E+00
Np-237	1.45E-06
Pu-238	9.58E-01
Pu-239	1.16E+01
Pu-240	2.72E+00
Pu-241	4.24E+01
Pu-242	1.64E-04

Haz. Waste No(s).

D005, D006, D007,
D008, D009, D011,
D039, F001, F002,
F003, F005

TRUCON Code(s)

125/225

Waste Stream Description

Soil contaminated with large quantities of plutonium, americium, organics, and neutralized acid waste solutions that were removed from the 216-Z-9 Crib. Original packaging material (e.g., 10-L stainless steel slip-lid cans, plastic bags, and vermiculite) now waste due to deterioration and TRU contamination.

Waste Stream ID: **RL221T-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	221-T TRU Mixed Debris				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	6.9	0.0	6.9
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Current Form Total	7.2	0.0	7.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	9.2	0.0	9.2
Final Form Total	9.2	0.0	9.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	435.40
Aluminum-based Metal/Alloys	68.62
Other Metal/Alloys	0.00
Other Inorganic Materials	33.92
Cellulosics	82.82
Rubber	35.49
Plastics	84.40
Cement	0.00
Solidified Inorganic Material	11.83
Solidified Organic Material	0.00
Soils	14.20
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.77E-03
Cs-137	1.44E-05
Np-237	2.98E-08
Pu-238	3.18E-04
Pu-239	1.66E-03
Pu-240	9.36E-04
Pu-241	5.27E-03
Pu-242	3.74E-08
Sr-90	1.24E-05
Th-229	2.29E-15
Th-230	6.49E-12
Th-232	8.88E-19
U-233	2.23E-12
U-234	3.74E-08
U-235	5.90E-11
U-236	1.00E-09
U-238	2.09E-16

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D034, D037, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

Materials contaminated with TRU radionuclides during characterization and certification activities (visual exam, repackaging, and removal and remediation of prohibited items) and generated as waste during maintenance and cleanup operations at 221-T. Include glovebox gloves, rags and other decontamination materials, and plastics contaminated during glovebox operations. Debris items such as equipment and room contamination materials: combustibles include plastic, shoe covers, rags, paper

Waste Stream ID: **RL221U-09**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	U Plant Tank 10 Projected Waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Uncontained	0.0	67.0	67.0
Current Form Total	0.0	67.0	67.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.0	67.4	67.4
Final Form Total	0.0	67.4	67.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	52.68
Solidified Organic Material	0.53
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.09E+00
Cs-137	8.01E+01
Np-237	9.41E-03
Pu-238	3.61E-01
Pu-239	4.17E+00
Pu-240	2.28E+00
Pu-241	7.13E+01
Pu-242	9.92E-04
Sr-90	6.17E+01
Th-229	1.23E-09
Th-230	1.45E-07
Th-232	1.66E-18
U-233	1.40E-05
U-234	1.58E-02
U-235	3.94E-05
U-236	6.73E-08
U-238	7.38E-04

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

RH-TRU Nitrate Salts in the heel of U Plant Tank 10. Waste is under a CERCLA ROD to dispose of TRU constituents at WIPP.

Waste Stream ID: **RL222S-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	222S TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	56.6	0.0	56.6
85-gal Drum Dir Ld w/ Liner	1.9	0.0	1.9
Box - Misc	44.0	0.0	44.0
Current Form Total	102.5	0.0	102.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	69.3	0.0	69.3
SWB Dir Ld w/ Liner	56.7	0.0	56.7
Final Form Total	126.0	0.0	126.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	520.79
Aluminum-based Metal/Alloys	103.32
Other Metal/Alloys	0.01
Other Inorganic Materials	34.67
Cellulosics	52.68
Rubber	20.80
Plastics	58.46
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	8.69
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	20.92
Packaging Material, Rubber	0.40
Packaging Material, Steel	140.97
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.81E-01
Am-243	1.59E-08
Cs-137	1.37E-03
Np-237	2.46E-05
Pu-238	1.26E-02
Pu-239	6.71E-02
Pu-240	3.04E-02
Pu-241	8.52E-01
Pu-242	2.05E-06
Sr-90	1.23E-03
U-233	2.30E-04
U-234	8.96E-09
U-235	5.57E-10
U-238	1.12E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D030, D039, F001, F002, F003, F005

TRUCON Code(s)

125/225

Waste Stream Description

Combustible waste and Noncombustible waste - TRU wastes were generated from multiple operations, primarily from the hot cells, the hoods, or from within the gloveboxes (for standards laboratory tasks) located in the Analytical laboratory.

Waste Stream ID: **RL222S-08**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	222S TRU RH Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.8	0.0	0.8
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Box - Misc	0.1	0.0	0.1
Current Form Total	1.3	0.0	1.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	2.5	0.0	2.5
Final Form Total	2.5	0.0	2.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	379.68
Aluminum-based Metal/Alloys	59.95
Other Metal/Alloys	0.00
Other Inorganic Materials	29.31
Cellulosics	72.03
Rubber	30.74
Plastics	73.76
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	10.55
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.02E-01
Am-243	1.02E-02
Cs-137	1.11E-01
Np-237	1.12E-03
Pu-238	2.34E-02
Pu-239	2.52E+00
Pu-240	6.45E-02
Pu-241	6.45E+00
Pu-242	2.24E-04
Pu-244	9.32E-07
Sr-90	1.83E-01
Th-229	6.18E-05
Th-230	4.99E-12
Th-232	7.53E-19
U-233	1.76E-01
U-234	2.70E-07
U-235	4.25E-06
U-236	7.64E-09
U-238	1.57E-04

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D039, F001,
F002, F003, F004,
F005

TRUCON Code(s)

325

Waste Stream Description

Combustible waste and Noncombustible waste- TRU wastes were generated from multiple operations, primarily from the hot cells, the hoods, or from within the gloveboxes (for standards laboratory tasks) located in the Analytical laboratory.

Waste Stream ID: **RL231Z-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	231-Z TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	174.7	0.0	174.7
85-gal Drum Dir Ld w/ Liner	17.7	0.0	17.7
Box - Misc	1185.6	0.0	1185.6
SWB Dir Ld w/ Liner	3.8	0.0	3.8
Current Form Total	1381.8	0.0	1381.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	226.5	0.0	226.5
SWB Dir Ld w/ Liner	1487.4	0.0	1487.4
Final Form Total	1713.9	0.0	1713.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	87.99
Aluminum-based Metal/Alloys	0.51
Other Metal/Alloys	0.92
Other Inorganic Materials	17.67
Cellulosics	18.65
Rubber	4.27
Plastics	29.54
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	5.94
Packaging Material, Rubber	0.24
Packaging Material, Steel	150.44
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.69E-01
Am-243	3.20E-06
Cs-137	3.96E-05
Np-237	1.46E-05
Pu-238	4.57E-02
Pu-239	3.88E-01
Pu-240	1.03E-01
Pu-241	1.33E+00
Pu-242	1.24E-05
Sr-90	3.60E-05
U-234	5.50E-05
U-235	1.46E-06
U-238	9.12E-06

Haz. Waste No(s).D006, D007, D008,
D009, D019, F001,
F002, F003, F005**TRUCON Code(s)**

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated during operations, cleanup, and D&D activities of the 231-Z Building at Hanford. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. The 231-Z Building has also been called the 231-W Building, the Concentration Building, the Isolation Building, the Plutonium Metallurgical Laboratory, and the 231-Z Materials Engineering Laboratory.

Waste Stream ID: **RL231Z-03**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	231Z TRU Mixed Solid Inorganic			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Current Form Total	0.3	0.0	0.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	78.74
Other Inorganic Materials	0.14
Cellulosics	4.93
Rubber	1.17
Plastics	15.44
Cement	0.00
Solidified Inorganic Material	70.03
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.05E-04
Np-237	1.84E-09
Pu-238	2.58E-05
Pu-239	1.25E-04
Pu-240	7.05E-05
Pu-241	6.09E-04
Pu-242	2.85E-09
Th-229	1.03E-16
Th-230	3.79E-13
Th-232	4.96E-20
U-233	1.17E-13
U-234	2.55E-09
U-235	3.82E-12
U-236	6.48E-11
U-238	1.37E-17

Haz. Waste No(s).D006, D007, D009,
F001, F002, F003,
F005**TRUCON Code(s)**

122/222

Waste Stream Description

Solidified inorganic waste generated during operations, cleanout, and D&D activities of the 231-Z Building, which has also been called the 231-W Building, the Concentration Building, the Isolation Building, the Plutonium Metallurgical Laboratory, and the 231-Z Materials Engineering Laboratory.

Waste Stream ID: **RL233S-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	233S TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	6.9	0.0	6.9
85-gal Drum Dir Ld w/ Liner	3.5	0.0	3.5
SWB Dir Ld w/ Liner	28.4	0.0	28.4
Current Form Total	38.8	0.0	38.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	10.0	0.0	10.0
SWB Dir Ld w/ Liner	28.4	0.0	28.4
Final Form Total	38.3	0.0	38.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	226.33
Aluminum-based Metal/Alloys	0.95
Other Metal/Alloys	2.05
Other Inorganic Materials	5.16
Cellulosics	15.48
Rubber	3.35
Plastics	18.37
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.60
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	10.54
Packaging Material, Rubber	0.29
Packaging Material, Steel	147.53
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.74E-01
Cs-137	4.52E-05
Np-237	2.03E-04
Pu-238	9.82E-02
Pu-239	7.24E-01
Pu-240	2.36E-01
Pu-241	2.43E+00
Pu-242	7.11E-05
Sr-90	4.12E-05
U-234	3.79E-06
U-235	1.27E-07
U-238	1.90E-06

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, F002,
F003

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated during cleanout, stabilization, and D&D activities of the 233-S Building (Plutonium Concentration Facility) at Hanford. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RL233S-03**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	233S solidified inorganic waste				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.2	0.0	4.2
Current Form Total	4.2	0.0	4.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	5.2	0.0	5.2
Final Form Total	5.2	0.0	5.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.04
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	513.33
Cellulosics	0.00
Rubber	0.04
Plastics	0.65
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.37E-02
Cs-137	1.19E-06
Np-237	5.99E-05
Pu-238	1.78E-02
Pu-239	7.02E-02
Pu-240	2.83E-02
Pu-241	1.62E-01
Pu-242	1.79E-05
Sr-90	9.90E-07
Th-229	1.15E-14
Th-230	2.33E-13
Th-232	2.07E-20
U-233	2.61E-10
U-234	5.05E-08
U-235	6.92E-11
U-236	8.38E-10
U-238	2.78E-15

Haz. Waste No(s).

D007

TRUCON Code(s)

122/222

Waste Stream Description

Solidified inorganic CH TRU waste generated from 233 Facility/Equipment Operation and Maintenance activities

Waste Stream ID: **RL300-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	300 Area TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	35.4	0.0	35.4
85-gal Drum Dir Ld w/ Liner	10.3	0.0	10.3
Box - Misc	89.5	0.0	89.5
SWB Dir Ld w/ Liner	5.7	0.0	5.7
Current Form Total	140.9	0.0	140.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	44.3	0.0	44.3
SWB Dir Ld w/ Liner	119.1	0.0	119.1
Final Form Total	163.4	0.0	163.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	68.78
Aluminum-based Metal/Alloys	0.10
Other Metal/Alloys	13.97
Other Inorganic Materials	35.82
Cellulosics	12.82
Rubber	3.14
Plastics	21.43
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	10.93
Packaging Material, Rubber	0.29
Packaging Material, Steel	147.29
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.71E+00
Am-243	3.22E-05
Cs-137	1.68E-04
Np-237	3.99E-05
Pu-238	5.01E-01
Pu-239	2.47E+00
Pu-240	1.14E+00
Pu-241	1.78E+01
Pu-242	2.21E-04
Sr-90	1.53E-04
Th-232	2.16E-06
U-234	5.30E-04
U-235	2.38E-05
U-238	5.58E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D034, D037, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated from operations, including fuel fabrication, reactor studies, research and development, maintenance, and laboratory operations in the Hanford 300 Area. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RL300-03**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	300 Area Mixed Solidified Inorganics				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.5	0.0	2.5
85-gal Drum Dir Ld w/ Liner	1.3	0.0	1.3
Current Form Total	3.8	0.0	3.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.7	0.0	3.7
Final Form Total	3.7	0.0	3.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	2.89
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	30.55
Cement	474.33
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.68E+00
Cs-137	5.80E-04
Np-237	1.18E-05
Pu-238	8.92E-01
Pu-239	4.11E+00
Pu-240	2.20E+00
Pu-241	5.03E+01
Pu-242	2.88E-04
Sr-90	7.21E-04
U-234	3.83E-05
U-235	1.29E-06
U-238	1.92E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D034, D037, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

122/222

Waste Stream Description

Solidified inorganic CH TRU waste generated from operations, including fuel fabrication, reactor studies, research and development, maintenance, and laboratory operations in the Hanford 300 Area.

Waste Stream ID: **RL300-08**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	300 Area TRU RH Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	28.7	0.0	28.7
85-gal Drum Dir Ld w/ Liner	1.3	0.0	1.3
Box - Misc	202.7	0.0	202.7
SWB Dir Ld w/ Liner	3.8	0.0	3.8
Uncontained	0.0	43.7	43.7
Current Form Total	236.4	43.7	280.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	295.8	44.3	340.1
Final Form Total	295.8	44.3	340.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	79.50
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	608.64
Cellulosics	19.87
Rubber	0.00
Plastics	4.97
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.55E+00
Am-243	1.28E-02
Cm-244	2.57E+00
Cs-137	7.42E+02
Np-237	8.73E-05
Pu-238	1.02E+00
Pu-239	2.54E-01
Pu-240	2.91E-01
Pu-241	2.69E+01
Pu-242	9.98E-04
Pu-244	1.11E-13
Sr-90	4.41E+02
U-233	6.66E-04
U-234	2.64E-04
U-235	5.39E-06
U-236	5.90E-05
U-238	1.68E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D027, D028, D029, D030, D033, D034, D036, D039, D040, D043, F001, F002, F003, F005

TRUCON Code(s)

325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RL308-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	308 TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	14.6	0.0	14.6
85-gal Drum Dir Ld w/ Liner	5.5	0.0	5.5
Box - Misc	308.8	0.0	308.8
SWB Dir Ld w/ Liner	124.7	0.0	124.7
Current Form Total	453.5	0.0	453.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	22.3	0.0	22.3
SWB Dir Ld w/ Liner	512.2	0.0	512.2
Final Form Total	534.4	0.0	534.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	110.24
Aluminum-based Metal/Alloys	0.26
Other Metal/Alloys	16.87
Other Inorganic Materials	15.14
Cellulosics	19.42
Rubber	6.19
Plastics	42.20
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	2.69
Packaging Material, Rubber	0.21
Packaging Material, Steel	152.50
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.48E+01
Am-243	3.29E-06
Cs-137	3.38E-04
Np-237	5.98E-06
Pu-238	1.06E+01
Pu-239	1.68E+01
Pu-240	1.09E+01
Pu-241	2.37E+02
Pu-242	1.03E-02
Sr-90	3.06E-04
Th-232	9.40E-07
U-233	1.33E-04
U-234	2.51E-04
U-235	2.49E-05
U-238	3.60E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D030, D034, D037, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

Debris waste stream associated with the 308 Bldg. fuel development laboratory, fuel fabrication capabilities, and deactivation. Waste items include plutonium alloys, casting skulls, clad plates, plastic mounts, plutonium-aluminum scrap, metal mounts, Pu pellets, rags, wipes, HEPA filters, batteries, stainless steel tubing, tape, thermometers, electrical wire, and a variety of other solid debris items.

Waste Stream ID: **RL308-08**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	308 Building TRU RH Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	43.30
Aluminum-based Metal/Alloys	0.10
Other Metal/Alloys	6.63
Other Inorganic Materials	5.94
Cellulosics	7.63
Rubber	2.43
Plastics	16.58
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.32E-03
Cs-137	2.02E-01
Np-237	7.52E-10
Pu-238	3.04E-03
Pu-239	4.28E-04
Pu-240	7.21E-04
Sr-90	1.06E+01
Th-229	4.80E-20
Th-230	3.96E-14
Th-232	5.27E-22
U-233	1.64E-15
U-234	8.60E-09
U-235	4.21E-13
U-236	2.13E-11

No Hazardous Waste Numbers Provided

TRUCON Code(s)

325

Waste Stream Description

Debris waste stream associated with the 308 Bldg. fuel development laboratory, fuel fabrication capabilities, and deactivation. Examples of waste items in this waste stream include plutonium alloys, casting skulls, clad plates, plastic mounts, plutonium-aluminum scrap, metal mounts, Pu pellets, rags, wipes, HEPA filters, batteries, stainless steel tubing, tape, thermometers, electrical wire, and a variety of other solid debris items.

Waste Stream ID: **RL325-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	325 TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	669.6	0.0	669.6
85-gal Drum Dir Ld w/ Liner	48.3	0.0	48.3
Box - Misc	319.5	0.0	319.5
SWB Dir Ld w/ Liner	22.7	0.0	22.7
Uncontained	0.0	43.2	43.2
Current Form Total	1060.0	43.2	1103.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	839.1	0.0	839.1
SWB Dir Ld w/ Liner	421.5	45.4	466.8
Final Form Total	1260.5	45.4	1305.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	68.38
Aluminum-based Metal/Alloys	0.19
Other Metal/Alloys	3.42
Other Inorganic Materials	25.04
Cellulosics	13.45
Rubber	3.58
Plastics	23.71
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.26
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	24.25
Packaging Material, Rubber	0.43
Packaging Material, Steel	138.87
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.58E+00
Am-243	3.96E-04
Cm-244	6.86E-03
Cs-137	8.60E-04
Np-237	1.76E-04
Pu-238	7.66E-01
Pu-239	1.53E+00
Pu-240	6.24E-01
Pu-241	1.16E+01
Pu-242	1.79E-04
Sr-90	8.59E-04
Th-232	1.62E-06
U-233	4.73E-05
U-234	2.74E-04
U-235	9.51E-06
U-238	9.39E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

Debris waste stream containing waste materials associated with the 325 Bldg. laboratory operations, sample analysis, facility cleanout, and facility waste treatment. Operations waste includes any discarded item used in laboratory analysis (e.g., glass beakers, tweezers, latex gloves, plastic tape, glass pipettes) and facility cleanout (e.g., glassware, wipes, and equipment). Maintenance waste may include filters, wipes, and various types of gloves. Small amounts of solid sample residues (unused samples) generated during lab operations are present in the waste.

Waste Stream ID: **RL325-02**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Contaminated Soil/Debris Waste		Inventory Date	12/31/2010	
Stream Name	325 TRU Soils/Absorbents			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Current Form Total	0.4	0.0	0.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	2.56
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	381.41
Cellulosics	0.00
Rubber	3.21
Plastics	81.41
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.05E-04
Np-237	7.32E-10
Pu-238	2.72E-05
Pu-239	5.69E-02
Pu-240	1.85E-03
Pu-241	4.18E-03
Pu-242	1.82E-07
Pu-244	8.46E-11
Th-229	9.43E-18
Th-230	1.41E-13
Th-232	4.87E-19
U-233	2.16E-14
U-234	1.57E-09
U-235	1.06E-09
U-236	1.04E-09
U-238	5.36E-16

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description

Currently 2 drums of soils from the 6652H building.

Waste Stream ID: **RL325-03**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	325 TRU Mixed Solid Inorganic			Activity Concentrations Decayed to CY		2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	5.4	0.0	5.4
85-gal Drum Dir Ld w/ Liner	8.4	0.0	8.4
Current Form Total	13.8	0.0	13.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	13.1	0.0	13.1
Final Form Total	13.1	0.0	13.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	78.37
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.01
Other Inorganic Materials	0.00
Cellulosics	2.07
Rubber	1.76
Plastics	16.94
Cement	489.83
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	76.87
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.90E+00
Am-243	9.25E-03
Cm-244	4.74E+00
Cs-137	1.32E-02
Np-237	3.34E-04
Pu-238	1.22E+00
Pu-239	3.29E+00
Pu-240	1.50E+00
Pu-241	4.61E+01
Pu-242	4.32E-04
Sr-90	1.04E-01
U-233	6.66E-03
U-234	7.28E-05
U-235	2.84E-06
U-238	3.99E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D033, D034, D036, D037, D038, D039, D040, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

122/222

Waste Stream Description

The mixed solid inorganic portion of the 325 waste stream from liquid laboratory samples neutralized and solidified using nonhazardous absorbents. Small amounts of neutralized and solidified liquids from hazardous waste treatment may also be present in the waste. Corrosive liquids, such as hydrochloric acid and sodium hydroxide were neutralized and solidified in cement before being packaged as waste.

Waste Stream ID: **RL325-08**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	325 TRU RH Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	27.9	0.0	27.9
85-gal Drum Dir Ld w/ Liner	2.6	0.0	2.6
Box - Misc	103.8	0.0	103.8
SWB Dir Ld w/ Liner	28.4	0.0	28.4
Uncontained	0.0	39.6	39.6
Current Form Total	162.6	39.6	202.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	202.8	39.9	242.7
Final Form Total	202.8	39.9	242.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	114.38
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	970.92
Cellulosics	0.00
Rubber	0.00
Plastics	24.40
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.06E+00
Am-243	1.55E-03
Cm-244	3.57E-01
Cs-137	3.14E+00
Np-237	1.09E-03
Pu-238	1.82E+00
Pu-239	2.28E-01
Pu-240	2.48E-01
Pu-241	2.14E+01
Pu-242	3.50E-04
Sr-90	2.17E+01
Th-229	1.54E-10
Th-232	4.54E-07
U-233	9.78E-08
U-234	1.00E-07
U-235	3.95E-06
U-236	2.40E-09
U-238	1.21E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D033, D034, D035, D036, D037, D038, D039, D040, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters. The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Waste Stream ID: **RL618-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	618 - 10&11 Burial Grounds TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Uncontained	158.2	0.0	158.2
Current Form Total	158.2	0.0	158.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	158.8	0.0	158.8
Final Form Total	158.8	0.0	158.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	13.39
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	24.10
Other Inorganic Materials	23.22
Cellulosics	1.79
Rubber	3.57
Plastics	3.57
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	8.93
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.20
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.80E+00
Cs-137	2.21E+01
Np-237	4.92E-06
Pu-238	1.93E+00
Pu-239	8.27E-01
Pu-240	7.87E+00
Pu-241	5.75E+00
Pu-242	9.97E+00
Sr-90	2.00E+01
Th-229	4.89E-15
Th-230	4.09E-10
Th-232	9.20E-17
U-233	4.17E-11
U-234	2.21E-05
U-235	3.26E-09
U-236	9.32E-07
U-238	6.18E-09

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description

Retrieved containerized debris waste from Burial Grounds 618 - 10 and 11

Waste Stream ID: **RL618-08**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	618 - 10&11 Burial Grounds TRU RH Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Uncontained	643.3	0.0	643.3
Current Form Total	643.3	0.0	643.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	643.3	0.0	643.3
Final Form Total	643.3	0.0	643.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	262.60
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	473.53
Other Inorganic Materials	507.76
Cellulosics	35.01
Rubber	70.03
Plastics	70.03
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	175.07
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.82E+00
Cs-137	2.22E+01
Np-237	4.94E-06
Pu-238	1.94E+00
Pu-239	8.30E-01
Pu-240	7.90E+00
Pu-241	5.77E+00
Pu-242	1.00E+01
Sr-90	2.01E+01
Th-229	4.90E-15
Th-230	4.11E-10
Th-232	9.23E-17
U-233	4.18E-11
U-234	2.22E-05
U-235	3.27E-09
U-236	9.35E-07
U-238	6.21E-09

No Hazardous Waste Numbers Provided

TRUCON Code(s)
325

Waste Stream Description

Retrieved containerized debris waste from Burial Grounds 618 - 10 and 11.

Waste Stream ID: **RLARG-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Argonne Nat Lab TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	17.1	0.0	17.1
Current Form Total	17.1	0.0	17.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	21.4	0.0	21.4
Final Form Total	21.4	0.0	21.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	478.23
Aluminum-based Metal/Alloys	64.88
Other Metal/Alloys	7.99
Other Inorganic Materials	32.07
Cellulosics	78.30
Rubber	33.56
Plastics	79.80
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	21.13
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.66E+00
Np-237	4.81E-05
Pu-238	8.99E-01
Pu-239	4.16E+00
Pu-240	2.35E+00
Pu-241	2.71E+01
Pu-242	9.48E-05
Th-229	1.76E-12
Th-230	8.32E-09
Th-232	6.78E-07
U-233	2.47E-09
U-234	7.01E-05
U-235	1.02E-07
U-236	1.74E-06
U-238	3.68E-13

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters. The waste is generated from R&D/R&D Laboratory Waste activities at the Argonne National Laboratory - East (IL).

Waste Stream ID: **RLBART-08**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Bartlesville RH-TRU Mixed Debris	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	253.04
Aluminum-based Metal/Alloys	39.95
Other Metal/Alloys	0.00
Other Inorganic Materials	19.54
Cellulosics	48.01
Rubber	20.49
Plastics	49.16
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	7.03
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.16E-01
Np-237	6.89E-06
Pu-238	6.91E-07
Pu-239	5.41E-06
Pu-240	2.62E-06
Pu-241	7.41E-06
Pu-242	7.57E-10
Th-229	3.73E-13
Th-230	8.79E-15
Th-232	1.61E-21
U-233	4.37E-10
U-234	6.35E-11
U-235	1.55E-13
U-236	2.25E-12
U-238	3.41E-18

No Hazardous Waste Numbers Provided

TRUCON Code(s)
325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RLBAT-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Battelle Columbus TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	13.3	0.0	13.3
85-gal Drum Dir Ld w/ Liner	3.9	0.0	3.9
Box - Misc	20.4	0.0	20.4
Current Form Total	37.6	0.0	37.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	18.7	0.0	18.7
SWB Dir Ld w/ Liner	26.5	0.0	26.5
Final Form Total	45.2	0.0	45.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	561.11
Aluminum-based Metal/Alloys	118.24
Other Metal/Alloys	0.00
Other Inorganic Materials	35.60
Cellulosics	42.97
Rubber	16.03
Plastics	50.31
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	7.58
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.06
Packaging Material, Rubber	0.35
Packaging Material, Steel	144.05
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.67E-01
Np-237	3.08E-05
Pu-238	2.61E+00
Pu-239	2.43E-01
Pu-240	9.22E-02
Pu-241	2.19E+00
Pu-242	5.22E-06
Th-232	1.16E-07
U-234	3.86E-04
U-235	1.46E-05
U-238	1.24E-05

Haz. Waste No(s).

D005, D006, D007,
D008, D009, D011,
F001, F002, F003,
F005

TRUCON Code(s)

125/225

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RLBAT-08**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	BATCO TRU RH Mixed Debris				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.2	0.0	4.2
Box - Misc	0.6	0.0	0.6
Current Form Total	4.7	0.0	4.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	6.9	0.0	6.9
Final Form Total	6.9	0.0	6.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	1492.62
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	13.33
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.54E-01
Am-243	4.18E-03
Cm-244	3.35E-01
Cs-137	9.37E+00
Np-237	1.59E-06
Pu-238	5.11E-01
Pu-239	6.98E-02
Pu-240	1.14E-01
Pu-241	6.22E+00
Pu-242	3.04E-04
Sr-90	6.07E+00
Th-229	1.31E-12
Th-230	4.82E-09
Th-232	4.55E-15
U-233	1.88E-09
U-234	7.14E-05
U-235	2.75E-06
U-236	1.15E-05
U-238	5.34E-05

Haz. Waste No(s).

D006, D008, P015

TRUCON Code(s)

325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RLBET-08**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Bettis TRU Mixed Debris	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	397.44
Aluminum-based Metal/Alloys	62.64
Other Metal/Alloys	0.00
Other Inorganic Materials	30.96
Cellulosics	75.60
Rubber	32.40
Plastics	77.04
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	10.80
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.09E-03
Cs-137	1.23E-04
Np-237	4.15E-08
Pu-238	3.44E-03
Pu-239	1.61E-02
Pu-240	9.09E-03
Pu-241	9.95E-02
Pu-242	3.64E-07
Th-229	1.04E-15
Th-230	3.47E-11
Th-232	4.49E-18
U-233	1.71E-12
U-234	2.80E-07
U-235	1.28E-05
U-236	7.00E-09
U-238	1.47E-15

No Hazardous Waste Numbers Provided

TRUCON Code(s)
325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. Drums may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RLBW-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Babcock and Wilcox TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	109.2	0.0	109.2
85-gal Drum Dir Ld w/ Liner	31.2	0.0	31.2
Box - Misc	127.5	0.0	127.5
Current Form Total	267.9	0.0	267.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	136.2	0.0	136.2
SWB Dir Ld w/ Liner	160.7	0.0	160.7
Final Form Total	296.9	0.0	296.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	50.47
Aluminum-based Metal/Alloys	0.22
Other Metal/Alloys	6.41
Other Inorganic Materials	33.68
Cellulosics	24.29
Rubber	5.27
Plastics	26.78
Cement	0.00
Solidified Inorganic Material	0.87
Solidified Organic Material	0.15
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	17.66
Packaging Material, Rubber	0.36
Packaging Material, Steel	143.04
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.58E+00
Am-243	9.29E-08
Cs-137	3.82E-04
Np-237	9.41E-06
Pu-238	3.79E-01
Pu-239	2.12E+00
Pu-240	1.01E+00
Pu-241	1.49E+01
Pu-242	1.81E-04
Sr-90	3.47E-04
U-233	1.65E-04
U-234	4.45E-05
U-235	1.18E-06
U-238	2.56E-05

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D030, D035, F001,
F002, F003, F005

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated from operations and decontamination and decommissioning of the Babcock and Wilcox Parks Township Site Plutonium Facility. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLBW-03**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Babcock & Wilcox solidified inorganics				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.5	0.0	1.5
85-gal Drum Dir Ld w/ Liner	1.3	0.0	1.3
Current Form Total	2.7	0.0	2.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.7	0.0	2.7
Final Form Total	2.7	0.0	2.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	4.90
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	698.80
Cellulosics	0.00
Rubber	0.00
Plastics	19.59
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.83E+00
Cs-137	2.71E-07
Np-237	9.38E-06
Pu-238	1.12E+00
Pu-239	5.06E+00
Pu-240	2.68E+00
Pu-241	6.14E+01
Pu-242	3.46E-04
Sr-90	2.52E-07
U-234	8.74E-05
U-235	2.92E-06
U-238	4.38E-05

Haz. Waste No(s).

D005, D006, D007,
D008, D009, D011,
D035, F001, F002,
F003, F005

TRUCON Code(s)

122/222

Waste Stream Description

Solidified inorganic CH TRU waste generated from operations and decontamination and decommissioning of the Babcock and Wilcox Parks Township Site Plutonium Facility.

Waste Stream ID: **RLBW-08**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Babcock and Wilcox TRU RH Mixed Debris				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Current Form Total	0.5	0.0	0.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	1.2	0.0	1.2
Final Form Total	1.2	0.0	1.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	4.08
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.20
Other Inorganic Materials	2.04
Cellulosics	27.35
Rubber	0.31
Plastics	18.37
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.57E-01
Np-237	7.10E-07
Pu-238	1.56E-01
Pu-239	6.09E-01
Pu-240	3.44E-01
Pu-241	1.15E+01
Pu-242	1.39E-05
Th-229	4.00E-16
Th-230	1.85E-11
Th-232	2.26E-18
U-233	4.58E-12
U-234	1.34E-06
U-235	1.80E-09
U-236	3.05E-08
U-238	6.45E-15

Haz. Waste No(s).

D005, D006, D007, D008, D009, D011, F001, F002, F003, F005

TRUCON Code(s)

325

Waste Stream Description

Combustible and noncombustible debris waste generated from operations and decontamination and decommissioning of the Babcock and Wilcox Parks Township Site Plutonium Facility. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLCFF-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Kerr McGee TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.2	0.0	1.2
85-gal Drum Dir Ld w/ Liner	2.6	0.0	2.6
Current Form Total	3.8	0.0	3.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.3	0.0	3.3
Final Form Total	3.3	0.0	3.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	478.22
Aluminum-based Metal/Alloys	2.23
Other Metal/Alloys	0.90
Other Inorganic Materials	48.06
Cellulosics	53.78
Rubber	11.64
Plastics	76.17
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.12
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.80E+00
Cs-137	9.10E-08
Np-237	3.87E-07
Pu-238	3.70E-01
Pu-239	2.23E+00
Pu-240	1.13E+00
Pu-241	1.64E+01
Pu-242	1.84E-04
Sr-90	8.27E-08
Th-232	4.85E-09
U-234	1.44E-05
U-235	5.04E-07
U-238	1.35E-05

Haz. Waste No(s).D007, D008, D009,
D040, F001, F002,
F003**TRUCON Code(s)**

125/225

Waste Stream Description

The CFFD (KM) waste stream consists of heterogeneous debris waste generated at the Cimarron Plutonium Fuel Fabrication Facility, operated by the Kerr-McGee Nuclear Corporation. This facility was a MOX fuel fabrication facility. The waste was generated during D&D activities at the facility. The waste includes typical D&D waste, e.g., paper, plastic, leaded rubber gloves, rags, glass, equipment, disassembled gloveboxes, and HEPA filters.

Waste Stream ID: **RLCFF-03**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Kerr McGee TRU Mixed Solid Inorganic				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.8	0.0	4.8
Current Form Total	4.8	0.0	4.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	5.0	0.0	5.0
Final Form Total	5.0	0.0	5.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	31.04
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.08
Other Inorganic Materials	456.10
Cellulosics	8.21
Rubber	0.99
Plastics	34.11
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.13E+00
Pu-238	3.61E+00
Pu-239	1.44E+00
Pu-240	7.05E-01
Pu-241	1.01E+01
Pu-242	8.91E-05
U-234	1.04E-05
U-235	4.58E-07
U-238	9.82E-06

Haz. Waste No(s).D007, D008, D009,
F001, F002, F003**TRUCON Code(s)**

122/222

Waste Stream Description

Waste generated from R&D/R&D Laboratory Waste activities at the Kerr McGee.

Waste Stream ID: **RLCH2-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Tank Farms TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Current Form Total	2.1	0.0	2.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Final Form Total	2.1	0.0	2.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	203.85
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	180.22
Other Inorganic Materials	104.91
Cellulosics	15.24
Rubber	0.08
Plastics	18.02
Cement	0.00
Solidified Inorganic Material	0.04
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	4.76
Packaging Material, Rubber	0.23
Packaging Material, Steel	151.19
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.67E-02
Am-243	1.67E-05
Cs-137	1.08E+00
Np-237	5.31E-05
Pu-238	6.80E-03
Pu-239	5.35E-02
Pu-240	1.38E-02
Pu-241	8.88E-02
Sr-90	5.32E+00
Th-229	4.52E-06
Th-230	7.66E-12
Th-232	8.14E-19
U-233	5.71E-03
U-234	1.83E-07
U-235	7.46E-06
U-236	3.67E-09
U-238	1.62E-04

Haz. Waste No(s).

D004, D006, D007,
D008, D009, D010,
F001, F002, F003,
F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

CH waste- Equipment removed from waste tanks (instrument trees, pumps, circulators, agitators, heaters, sluicers, steam coils, air lances, cameras). The waste stream ranges from contaminated clothing to process equipment contaminated with RCRA constituents.

Waste Stream ID: RLESG-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Energy Systems Group TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	14.1	0.0	14.1
85-gal Drum Dir Ld w/ Liner	3.2	0.0	3.2
Box - Misc	14.9	0.0	14.9
Current Form Total	32.3	0.0	32.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	17.7	0.0	17.7
SWB Dir Ld w/ Liner	18.9	0.0	18.9
Final Form Total	36.6	0.0	36.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	233.19
Aluminum-based Metal/Alloys	0.69
Other Metal/Alloys	8.28
Other Inorganic Materials	30.57
Cellulosics	28.74
Rubber	19.16
Plastics	39.13
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	18.54
Packaging Material, Rubber	0.37
Packaging Material, Steel	142.48
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.31E-01
Cs-137	3.05E-03
Np-237	6.16E-06
Pu-238	1.11E-01
Pu-239	6.67E-01
Pu-240	3.04E-01
Pu-241	4.96E+00
Pu-242	5.67E-05
Sr-90	2.47E-03
Th-232	2.56E-07
U-234	1.06E-03
U-235	2.70E-05
U-238	2.64E-05

Haz. Waste No(s).D006, D007, D008,
F001, F002, F003**TRUCON Code(s)**

125/225

Waste Stream Description

RLETECD waste is composed of heterogeneous debris consisting of organic and inorganic debris material generated from glove box operations at the Energy Technology Engineering Center. Examples of waste items in this waste stream include cardboard tubes, cladding material, plastic, paper, glove port flanges, rubber air hoses, electrical connectors, wooden broom handles, plexiglass windows, steel plates, glove box ventilation piping and valves, lead, stainless steel, nickel-cadmium batteries, paint brushes and rollers, full-face respirators, sphincter cans, tools, copper, poly bottles, shoe covers, aluminum, vermiculite, soda ash, mixer components, glass, rags, molybdenum plates, drying ovens, MOX ash, gloves, fittings, gas line hookups, balance weights, cloth, pumps, castings, small quantities of neutralized/solidified liquids, and concrete.

Waste Stream ID: RLESG-08

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Energy Systems Group RH TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	13.1	0.0	13.1
85-gal Drum Dir Ld w/ Liner	9.0	0.0	9.0
Current Form Total	22.1	0.0	22.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	24.3	0.0	24.3
Final Form Total	24.3	0.0	24.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	6.85
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	32.86
Other Inorganic Materials	3.09
Cellulosics	81.69
Rubber	9.68
Plastics	44.01
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.87E-01
Cs-137	7.60E-02
Pu-238	3.53E-02
Pu-239	1.55E-01
Pu-240	8.27E-02
Pu-241	2.75E+00
Pu-242	3.13E-06
Sr-90	1.97E-02

Haz. Waste No(s).

D006, D007, D008,
F001, F002, F003

TRUCON Code(s)

325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters. The waste is generated from R&D/R&D Laboratory Waste activities at the Rockwell International, Energy Systems Group (CA).

Waste Stream ID: **RLEXX-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Exxon TRU Mixed Debris	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	42.8	0.0	42.8
85-gal Drum Dir Ld w/ Liner	1.3	0.0	1.3
Current Form Total	44.1	0.0	44.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	54.5	0.0	54.5
Final Form Total	54.5	0.0	54.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	95.27
Aluminum-based Metal/Alloys	0.39
Other Metal/Alloys	23.06
Other Inorganic Materials	61.76
Cellulosics	11.31
Rubber	2.61
Plastics	12.10
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.33E+00
Np-237	1.58E-05
Pu-238	2.26E+00
Pu-239	1.41E+00
Pu-240	1.21E+00
Pu-241	3.74E+01
Pu-242	1.47E-03
U-234	1.37E-04
U-235	1.81E-06
U-238	7.23E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D030

TRUCON Code(s)

125/225

Waste Stream Description

RLEXXOD waste is comprised of heterogeneous debris consisting of organic and inorganic debris material generated from processing, cleanout, and D&D of the Mixed Oxide Fuel Fabrication Plant. Examples of waste items in this waste stream include unirradiated MOX fuel pellets, MOX powder and scrap, cladding material, MOX standards, plastic, paper, gloves and glove rings, filters, cans, HEPA filters, cardboard, electrical components, tools, scales and scale parts, screens, paint brushes, bags, floor sweepings, pots and pans, tool boxes, steel plates and racks, grinder parts, pellet trays, conduit pipe, motors, filter and vacuum hoses, and rags.

Waste Stream ID: **RLFFTF-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	FFTF TRU Non-Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.8	0.0	0.8
Current Form Total	0.8	0.0	0.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.0	0.0	1.0
Final Form Total	1.0	0.0	1.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	116.67
Aluminum-based Metal/Alloys	0.47
Other Metal/Alloys	23.06
Other Inorganic Materials	75.63
Cellulosics	13.85
Rubber	3.19
Plastics	1.54
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.17E-02
Cs-137	1.07E-02
Np-237	7.51E-09
Pu-238	3.43E-03
Pu-239	1.06E-02
Pu-240	9.15E-03
Pu-241	8.50E-02
Sr-90	7.20E-03
Th-229	1.91E-18
Th-230	1.80E-13
Th-232	2.67E-20
U-233	3.26E-14
U-234	1.95E-08
U-235	2.09E-11
U-236	5.42E-10

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description

Combustible and noncombustible debris from Fast Flux Test Reactor operations, maintenance, and clean out. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLFFTF-08**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	FFTF RH-TRU Non-Mixed Debris				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Current Form Total	0.3	0.0	0.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	166.41
Aluminum-based Metal/Alloys	0.67
Other Metal/Alloys	32.89
Other Inorganic Materials	107.88
Cellulosics	19.76
Rubber	4.55
Plastics	20.95
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.10E-03
Am-243	4.72E-12
Cs-137	8.72E-01
Np-237	1.31E-09
Pu-238	1.26E-03
Pu-239	3.77E-03
Pu-240	3.24E-03
Pu-241	6.31E-02
Sr-90	9.41E-04
Th-229	8.34E-20
Th-230	1.64E-14
Th-232	2.36E-21
U-233	2.85E-15
U-234	3.56E-09
U-235	3.71E-12
U-236	9.58E-11

No Hazardous Waste Numbers Provided

TRUCON Code(s)

325

Waste Stream Description

Combustible and noncombustible debris from Fast Flux Test Reactor operations, maintenance, and clean out. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLGEV-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	GE San Jose and Vallecitos TRU Mixed Debris				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	14.6	0.0	14.6
85-gal Drum Dir Ld w/ Liner	9.7	0.0	9.7
Box - Misc	251.2	0.0	251.2
Current Form Total	275.4	0.0	275.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	23.1	0.0	23.1
SWB Dir Ld w/ Liner	315.6	0.0	315.6
Final Form Total	338.7	0.0	338.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	234.00
Aluminum-based Metal/Alloys	0.25
Other Metal/Alloys	5.57
Other Inorganic Materials	23.30
Cellulosics	19.64
Rubber	4.87
Plastics	50.59
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	3.65
Packaging Material, Rubber	0.22
Packaging Material, Steel	151.89
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.56E-01
Cs-137	1.30E-07
Np-237	1.94E-06
Pu-238	1.14E-01
Pu-239	6.01E-01
Pu-240	2.62E-01
Pu-241	4.45E+00
Pu-242	4.13E-05
Sr-90	1.18E-07
U-234	2.84E-04
U-235	6.08E-06
U-238	2.05E-04

Haz. Waste No(s).D006, D007, D008,
D011, D035**TRUCON Code(s)**

125/225

Waste Stream Description

Combustible and noncombustible debris waste from decontamination and decommissioning of Building 102 at the GE-Vallecitos Nuclear Center. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLGEV-03**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	GE Vallecitos TRU Homogeneous Solids				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.5	0.0	1.5
Current Form Total	1.5	0.0	1.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	4.72
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.24
Cellulosics	5.42
Rubber	0.04
Plastics	9.41
Cement	0.00
Solidified Inorganic Material	427.04
Solidified Organic Material	6.56
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.27E+00
Cs-137	4.05E-08
Np-237	6.41E-08
Pu-238	9.76E-01
Pu-239	3.71E+00
Pu-240	2.10E+00
Pu-241	8.06E+01
Pu-242	8.45E-05
Sr-90	3.77E-08
U-234	1.27E-06
U-235	4.29E-08
U-238	6.41E-07

Haz. Waste No(s).D006, D007, D008,
D011, D035**TRUCON Code(s)**

122/222

Waste Stream Description

Homogeneous solids from decontamination and decommissioning of Building 102 at the GE-Vallecitos Nuclear Center.

Waste Stream ID: **RLGEV-08**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	GE San Jose and Vallecitos TRU RH Mixed Debris				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Misc	5.3	0.0	5.3
Current Form Total	5.3	0.0	5.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	6.9	0.0	6.9
Final Form Total	6.9	0.0	6.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	1062.29
Aluminum-based Metal/Alloys	167.73
Other Metal/Alloys	0.00
Other Inorganic Materials	82.01
Cellulosics	201.53
Rubber	86.00
Plastics	206.38
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	29.52
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Cs-137	1.40E+00
Sr-90	1.06E+00

No Hazardous Waste Numbers Provided

TRUCON Code(s)

325

Waste Stream Description

Combustible and noncombustible debris waste from decontamination and decommissioning of Building 102 at the GE-Vallecitos Nuclear Center. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLHAN-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Trench Designation waste stream			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	75.5	0.0	75.5
85-gal Drum Dir Ld w/ Liner	13.8	0.0	13.8
Box - Misc	272.2	0.0	272.2
Current Form Total	361.5	0.0	361.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	87.2	0.0	87.2
SWB Dir Ld w/ Liner	342.1	0.0	342.1
Final Form Total	429.2	0.0	429.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	20.72
Aluminum-based Metal/Alloys	0.07
Other Metal/Alloys	4.98
Other Inorganic Materials	6.83
Cellulosics	17.89
Rubber	6.17
Plastics	21.48
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.48
Packaging Material, Rubber	0.27
Packaging Material, Steel	148.84
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.80E-01
Cs-137	7.67E-08
Np-237	7.37E-07
Pu-238	6.05E-02
Pu-239	6.19E-01
Pu-240	2.16E-01
Pu-241	2.30E+00
Pu-242	3.25E-05
Sr-90	6.98E-08

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D034, D035, D037, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible TRU debris waste retrieved from the Hanford low-level burial grounds that cannot be identified or assigned to an original generator. Combustible waste may include wood, plastics, paper, absorbents, rubber, and rags. Noncombustible waste may include failed machinery, tools, glass, concrete, plumbing, and fixtures.

Waste Stream ID: **RLHAN-08****Appendix A****Waste Profile Report**

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Trench Designation waste stream				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Box - Misc	9.3	0.0	9.3
Current Form Total	9.6	0.0	9.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	12.5	0.0	12.5
Final Form Total	12.5	0.0	12.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	30.47
Aluminum-based Metal/Alloys	0.11
Other Metal/Alloys	7.10
Other Inorganic Materials	10.05
Cellulosics	26.51
Rubber	8.97
Plastics	32.02
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.87E-01
Cs-137	1.18E-02
Pu-238	1.11E-01
Pu-239	4.23E-01
Pu-240	2.39E-01
Pu-241	9.19E+00
Pu-242	9.62E-06
Sr-90	1.10E-02

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D034, D035, D037, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

325

Waste Stream Description

Combustible and noncombustible RH-TRU debris waste retrieved from the Hanford low-level burial grounds that cannot be identified or assigned to an original generator. Combustible waste may include wood, plastics, paper, absorbents, rubber, and rags. Noncombustible waste may include failed machinery, tools, glass, concrete, plumbing, and fixtures.

Waste Stream ID: **RLIAEA-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	International Atomic Energy Agency TRU Mixed Debris				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	552.00
Aluminum-based Metal/Alloys	87.00
Other Metal/Alloys	0.00
Other Inorganic Materials	43.00
Cellulosics	105.00
Rubber	45.00
Plastics	107.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	15.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.92E+00
Cs-137	9.55E-05
Np-237	3.05E-05
Pu-238	1.05E+00
Pu-239	5.42E-01
Pu-240	7.00E-01
Pu-241	4.73E+00
Pu-242	1.03E-03
Th-229	2.29E-12
Th-230	8.92E-09
Th-232	2.95E-16
U-233	2.42E-09
U-234	7.83E-05
U-235	1.28E-08
U-236	4.98E-07
U-238	3.83E-12

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RLMLB-08**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Lawrence Berkeley Nat Lab TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	401.22
Aluminum-based Metal/Alloys	63.24
Other Metal/Alloys	0.00
Other Inorganic Materials	31.25
Cellulosics	76.32
Rubber	32.71
Plastics	77.77
Cement	0.00
Solidified Inorganic Material	10.90
Solidified Organic Material	0.00
Soils	13.08
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.35E-01
Cm-244	2.20E+01
Np-237	1.10E-06
Pu-238	1.76E-02
Pu-239	8.34E-02
Pu-240	1.63E-01
Pu-241	4.69E-01
Pu-242	1.90E-06
Th-229	5.01E-14
Th-230	2.08E-10
Th-232	5.53E-17
U-233	6.31E-11
U-234	1.56E-06
U-235	2.30E-09
U-236	9.58E-08
U-238	8.26E-15

Haz. Waste No(s).

D005, D007, D008, D009, D011, D019, F002, F003, F005

TRUCON Code(s)

325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. Drums may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RLMLL-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Lawrence Livermore TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Current Form Total	0.7	0.0	0.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.0	0.0	1.0
Final Form Total	1.0	0.0	1.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	393.83
Aluminum-based Metal/Alloys	62.07
Other Metal/Alloys	0.00
Other Inorganic Materials	30.68
Cellulosics	74.91
Rubber	32.11
Plastics	76.34
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	10.70
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.33E-02
Np-237	8.98E-07
Pu-238	9.83E-03
Pu-239	5.00E-02
Pu-240	2.82E-02
Pu-241	1.82E-01
Pu-242	1.14E-06
Th-229	7.14E-14
Th-230	2.13E-10
Th-232	2.82E-17
U-233	6.82E-11
U-234	1.19E-06
U-235	1.82E-09
U-236	3.09E-08
U-238	6.55E-15

Haz. Waste No(s).D006, D007, D008,
D011**TRUCON Code(s)**

125/225

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RLPFP-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	2345Z TRU Mixed Debris	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1844.3	0.0	1844.3
85-gal Drum Dir Ld w/ Liner	229.3	0.0	229.3
Box - Misc	4994.0	0.0	4994.0
SWB Dir Ld w/ Liner	104.0	0.0	104.0
Uncontained	0.0	2290.8	2290.8
Current Form Total	7171.6	2290.8	9462.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2384.7	0.0	2384.7
SWB Dir Ld w/ Liner	6346.6	2292.6	8639.2
Final Form Total	8731.3	2292.6	11023.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	52.65
Aluminum-based Metal/Alloys	0.33
Other Metal/Alloys	1.56
Other Inorganic Materials	11.34
Cellulosics	17.07
Rubber	9.84
Plastics	27.28
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.03
Soils	0.02
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.96
Packaging Material, Rubber	0.27
Packaging Material, Steel	148.54
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.48E+00
Am-243	4.69E-07
Cs-137	1.24E-05
Np-237	4.03E-05
Pu-238	7.19E-01
Pu-239	5.07E+00
Pu-240	1.67E+00
Pu-241	2.42E+01
Pu-242	3.18E-04
Sr-90	1.13E-05
Th-232	3.56E-08
U-233	2.26E-04
U-234	2.28E-04
U-235	6.51E-06
U-236	2.34E-10
U-238	1.19E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D032, D034, D035, D036, D037, D043, F001, F002, F003, F004, F005
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TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated from operations, maintenance, and D&D activities at the Plutonium Finishing Plant (PFP), which includes the 234-5Z, 232-Z, 236-Z, 2736-ZB, 242-Z, and 291-Z Buildings. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLPFP-02**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Contaminated Soil/Debris Waste		Inventory Date	12/31/2010	
Stream Name	PFP Contaminated Soil			Activity Concentrations Decayed to CY		2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	9.6	0.0	9.6
85-gal Drum Dir Ld w/ Liner	1.9	0.0	1.9
Current Form Total	11.5	0.0	11.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	12.5	0.0	12.5
Final Form Total	12.5	0.0	12.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	57.79
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	10.42
Rubber	0.36
Plastics	12.26
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	278.42
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.85E+00
Cs-137	3.35E-09
Np-237	8.96E-06
Pu-238	1.06E+00
Pu-239	1.13E+01
Pu-240	3.20E+00
Pu-241	6.03E+01
Pu-242	2.70E-04
Sr-90	3.04E-09

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D022, D030, F001,
F002, F003, F005

TRUCON Code(s)

125/225

Waste Stream Description

Soil characterization and remediation wastes.

Waste Stream ID: **RLPFP-03****Appendix A****Waste Profile Report**

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	PFP Absorbed Plutonium Nitrate Solutions			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	14.1	0.0	14.1
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Current Form Total	14.5	0.0	14.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	14.8	0.0	14.8
Final Form Total	14.8	0.0	14.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	3.42
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.01
Other Inorganic Materials	0.24
Cellulosics	4.05
Rubber	0.04
Plastics	11.47
Cement	0.00
Solidified Inorganic Material	407.15
Solidified Organic Material	19.78
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.38E+00
Cs-137	4.00E-06
Np-237	3.96E-05
Pu-238	1.93E+00
Pu-239	1.48E+01
Pu-240	4.61E+00
Pu-241	6.30E+01
Pu-242	8.54E-04
Sr-90	3.63E-06
Th-229	7.28E-15
Th-230	1.02E-08
Th-232	3.37E-18
U-233	1.67E-10
U-234	1.11E-03
U-235	5.52E-06
U-236	1.36E-07
U-238	4.51E-05

Haz. Waste No(s).D004, D006, D007,
D008, D010, D011**TRUCON Code(s)**

114/214

Waste Stream Description

Solidified inorganic waste generated from operations, maintenance, and D&D activities at the 325 Laboratory, the 209-E Critical Mass Laboratory, and the Plutonium Reclamation Facility (Bldg 236-Z) at the Plutonium Finishing Plant (PFP).

Waste Stream ID: **RLPFP-04**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2010	
Stream Name	PFP Comprehensive Homogenous Solids				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.3	0.0	2.3
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Current Form Total	2.6	0.0	2.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.1	0.0	3.1
Final Form Total	3.1	0.0	3.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.64
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.66
Cellulosics	27.96
Rubber	0.15
Plastics	33.84
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.49E-02
Np-237	1.89E-08
Pu-238	3.67E-03
Pu-239	2.23E-02
Pu-240	7.24E-03
Pu-241	8.54E-02
Pu-242	1.02E-06
Th-229	1.87E-17
Th-230	7.77E-13
Th-232	8.46E-20
U-233	1.60E-13
U-234	4.20E-08
U-235	8.79E-11
U-236	8.57E-10
U-238	6.35E-16

Haz. Waste No(s).

D006, D008, D010, D011, D030, D032, D033

TRUCON Code(s)

112/212

Waste Stream Description

Homogenous solids generated from operations, maintenance, and D&D activities at the Plutonium Finishing Plant (PFP), which includes the 234-5Z, 232-Z, 236-Z, 2736-ZB, 242-Z, and 291-Z Buildings.

Waste Stream ID: **RLPFP-08****Appendix A****Waste Profile Report**

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	2345Z RH-TRU Mixed Debris	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	15.8	0.0	15.8
85-gal Drum Dir Ld w/ Liner	7.4	0.0	7.4
Current Form Total	23.2	0.0	23.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	29.3	0.0	29.3
Final Form Total	29.3	0.0	29.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	30.45
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	17.61
Other Inorganic Materials	15.23
Cellulosics	4.27
Rubber	11.79
Plastics	23.53
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.44E+00
Cs-137	4.89E-06
Np-237	8.10E-06
Pu-238	3.71E-01
Pu-239	2.10E+00
Pu-240	7.68E-01
Pu-241	1.65E+01
Pu-242	1.40E-04
Sr-90	4.45E-06
U-234	7.91E-06
U-235	2.65E-07
U-236	6.73E-10
U-238	5.22E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D030, F001, F002, F003, F005

TRUCON Code(s)

325

Waste Stream Description

Combustible and noncombustible debris waste generated from operations, maintenance, and D&D activities at the Plutonium Finishing Plant (PFP), which includes the 234-Z, 232-Z, 236-Z, 2736-ZB, 242-Z, and 291-Z Buildings. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLPURX-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	202A and 202AL TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	620.9	0.0	620.9
85-gal Drum Dir Ld w/ Liner	5.2	0.0	5.2
Box - Misc	271.8	0.0	271.8
Current Form Total	897.8	0.0	897.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	778.1	0.0	778.1
SWB Dir Ld w/ Liner	340.2	0.0	340.2
Final Form Total	1118.3	0.0	1118.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	37.36
Aluminum-based Metal/Alloys	0.14
Other Metal/Alloys	0.44
Other Inorganic Materials	10.20
Cellulosics	15.02
Rubber	14.34
Plastics	25.38
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.01
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	26.16
Packaging Material, Rubber	0.45
Packaging Material, Steel	137.67
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.74E+00
Am-243	6.25E-07
Cs-137	1.54E-02
Np-237	8.81E-06
Pu-238	1.89E+00
Pu-239	9.71E+00
Pu-240	3.70E+00
Pu-241	1.21E+02
Pu-242	8.70E-04
Sr-90	1.40E-02
U-233	2.30E-03
U-234	5.36E-06
U-235	1.77E-07
U-238	2.91E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D027, D028, D029, D030, D034, D035, D037, D039, D040, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated from facility/equipment operation and maintenance, and analytical laboratory waste activities at the Plutonium Uranium Extraction Facility. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLPURX-08**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	202A & 202AL TRU RH Non-mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	20.0	0.0	20.0
Box - Misc	11.5	0.0	11.5
Current Form Total	31.5	0.0	31.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	40.6	0.0	40.6
Final Form Total	40.6	0.0	40.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	21.17
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.53
Other Inorganic Materials	15.88
Cellulosics	10.59
Rubber	35.99
Plastics	26.46
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.56E-02
Np-237	4.30E-07
Pu-238	2.90E-03
Pu-239	9.15E-03
Pu-240	2.18E-03
Pu-241	5.53E-01
Pu-242	1.19E-07
Th-229	1.68E-14
Th-230	4.56E-11
Th-232	1.64E-18
U-233	2.23E-11
U-234	2.98E-07
U-235	2.89E-10
U-236	2.07E-09
U-238	5.91E-16

Haz. Waste No(s).D004, D005, D006,
D007, D008, D009,
D010, D011**TRUCON Code(s)**

325

Waste Stream Description

Combustible and noncombustible debris waste generated from facility/equipment operation and maintenance, and analytical laboratory waste activities at the Plutonium Uranium Extraction Facility. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLRFET-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Rocky Flats TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	198.0	0.0	198.0
85-gal Drum Dir Ld w/ Liner	6.8	0.0	6.8
Current Form Total	204.8	0.0	204.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	253.1	0.0	253.1
Final Form Total	253.1	0.0	253.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	362.70
Aluminum-based Metal/Alloys	50.51
Other Metal/Alloys	15.18
Other Inorganic Materials	67.36
Cellulosics	38.72
Rubber	9.19
Plastics	34.16
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.01
Soils	6.41
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.13E-01
Np-237	2.66E-06
Pu-238	3.46E-03
Pu-239	1.61E-02
Pu-240	9.10E-03
Pu-241	1.00E-01
Pu-242	3.68E-07
Th-229	1.15E-13
Th-230	3.48E-11
Th-232	4.50E-18
U-233	1.51E-10
U-234	2.82E-07
U-235	4.14E-10
U-236	7.02E-09
U-238	1.48E-15

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RLSAN-01**

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	GE San Jose TRU Mixed Debris				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.3	0.0	3.3
Current Form Total	3.3	0.0	3.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.2	0.0	4.2
Final Form Total	4.2	0.0	4.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	233.45
Aluminum-based Metal/Alloys	0.23
Other Metal/Alloys	5.58
Other Inorganic Materials	21.84
Cellulosics	18.96
Rubber	4.64
Plastics	49.67
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.28E+01
Np-237	1.00E-04
Pu-238	1.69E+00
Pu-239	7.93E+00
Pu-240	4.47E+00
Pu-241	4.69E+01
Pu-242	1.79E-04
Th-229	4.26E-12
Th-230	1.84E-08
Th-232	2.39E-15
U-233	5.55E-09
U-234	1.43E-04
U-235	2.11E-07
U-236	3.58E-06
U-238	7.51E-13

No Hazardous Waste Numbers Provided

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste from decontamination and decommissioning at the GE-San Jose Nuclear Center. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLSWO-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	SWOC TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	27.2	0.0	27.2
85-gal Drum Dir Ld w/ Liner	12.9	0.0	12.9
Box - Misc	144.4	0.0	144.4
SWB Dir Ld w/ Liner	18.9	0.0	18.9
Uncontained	0.0	21.1	21.1
Current Form Total	203.4	21.1	224.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	36.2	0.0	36.2
SWB Dir Ld w/ Liner	200.3	22.7	223.0
Final Form Total	236.5	22.7	259.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	22.36
Aluminum-based Metal/Alloys	0.35
Other Metal/Alloys	0.62
Other Inorganic Materials	4.48
Cellulosics	13.34
Rubber	46.12
Plastics	49.12
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.11
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	6.21
Packaging Material, Rubber	0.24
Packaging Material, Steel	150.27
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.03E-01
Am-243	6.46E-08
Cs-137	3.49E-05
Np-237	4.94E-06
Pu-238	1.21E-01
Pu-239	9.08E-01
Pu-240	3.00E-01
Pu-241	4.60E+00
Pu-242	4.57E-05
Sr-90	3.17E-05
U-234	6.93E-06
U-235	2.54E-07
U-238	1.86E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D034, D035, D037, D039, D043, F001, F002, F003, F004, F005
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TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated from operations, maintenance, and clean up at the Hanford Solid Waste Operations Complex facilities. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLSWO-08**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	SWOC RH-TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	33.92
Aluminum-based Metal/Alloys	0.56
Other Metal/Alloys	0.99
Other Inorganic Materials	7.61
Cellulosics	20.89
Rubber	74.36
Plastics	78.10
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.12E+00
Np-237	6.87E-06
Pu-238	7.25E-01
Pu-239	1.08E+01
Pu-240	4.13E+00
Pu-241	2.68E+01
Pu-242	4.58E-04
Th-229	3.93E-15
Th-230	8.59E-11
Th-232	2.72E-17
U-233	4.48E-11
U-234	6.21E-06
U-235	3.20E-08
U-236	3.67E-07
U-238	2.13E-13

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D030, F001, F002, F003, F004, F005

TRUCON Code(s)

325

Waste Stream Description

Combustible and noncombustible debris waste generated from operations, maintenance, and clean up at the Hanford Solid Waste Operations Complex facilities. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLWAR-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Ward TRU Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	29.1	0.0	29.1
85-gal Drum Dir Ld w/ Liner	11.6	0.0	11.6
Box - Misc	328.3	0.0	328.3
Current Form Total	369.1	0.0	369.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	39.5	0.0	39.5
SWB Dir Ld w/ Liner	412.0	0.0	412.0
Final Form Total	451.5	0.0	451.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	88.84
Aluminum-based Metal/Alloys	0.10
Other Metal/Alloys	2.03
Other Inorganic Materials	14.67
Cellulosics	19.98
Rubber	5.80
Plastics	29.14
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	4.34
Packaging Material, Rubber	0.22
Packaging Material, Steel	151.46
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.10E-01
Cs-137	4.23E-08
Np-237	3.75E-06
Pu-238	2.66E-01
Pu-239	3.29E-01
Pu-240	2.09E-01
Pu-241	5.64E+00
Pu-242	1.64E-04
Sr-90	3.85E-08
Th-232	1.31E-08
U-234	1.51E-04
U-235	5.66E-06
U-238	3.13E-05

Haz. Waste No(s).D007, D008, D009,
D035, F001, F002,
F003, F005**TRUCON Code(s)**

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated during decontamination and decommissioning of the Westinghouse Advanced Reactors Division facility in Cheswick, PA. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLWAR-03**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	WARD solidified inorganics			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.8	0.0	4.8
85-gal Drum Dir Ld w/ Liner	1.6	0.0	1.6
Current Form Total	6.4	0.0	6.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	7.3	0.0	7.3
Final Form Total	7.3	0.0	7.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.80
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.11
Other Inorganic Materials	0.00
Cellulosics	3.20
Rubber	0.00
Plastics	41.39
Cement	401.34
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.15E-01
Cs-137	1.06E-07
Np-237	1.96E-06
Pu-238	1.66E-01
Pu-239	5.44E-01
Pu-240	2.64E-01
Pu-241	5.63E+00
Pu-242	1.04E-04
Th-229	1.30E-15
Th-230	1.97E-09
Th-232	7.72E-19
U-233	1.53E-11
U-234	1.07E-04
U-235	5.22E-06
U-236	1.56E-08
U-238	5.00E-06

Haz. Waste No(s).D007, D008, D009,
D035, F001, F002,
F003, F005**TRUCON Code(s)**

122/222

Waste Stream Description

Solidified inorganic waste generated during decontamination and decommissioning of the Westinghouse Advanced Reactors Division facility in Cheswick, PA.

Waste Stream ID: **RLWTP-08**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Waste Treatment Plant TRU RH Mixed Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Uncontained	0.0	74.5	74.5
Current Form Total	0.0	74.5	74.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.0	74.9	74.9
Final Form Total	0.0	74.9	74.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	449.40
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	119.17
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.26E-03
Cs-137	1.36E+00
Np-237	4.48E-06
Pu-238	3.08E-03
Pu-239	1.49E-03
Pu-240	3.18E-04
Pu-241	8.20E-04
Sr-90	1.53E+00
Th-229	1.47E-08
Th-230	2.60E-10
Th-232	2.75E-17
U-233	4.18E-05
U-234	7.10E-06
U-235	2.79E-07
U-236	1.39E-07
U-238	6.27E-06

No Hazardous Waste Numbers Provided

TRUCON Code(s)
325

Waste Stream Description

RH debris waste generated from future WTP operations

Waste Stream ID: SA-T001

Appendix A
Waste Profile Report

Site	Sandia National Laboratory - Albuquerque	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	CH Lovelace ITRI Debris Waste Stream	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.2	0.0	4.2
Current Form Total	4.2	0.0	4.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	4.2	0.0	4.2
Final Form Total	4.2	0.0	4.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	50.00
Aluminum-based Metal/Alloys	1.50
Other Metal/Alloys	3.00
Other Inorganic Materials	7.50
Cellulosics	1.50
Rubber	2.50
Plastics	2.50
Cement	7.50
Solidified Inorganic Material	20.02
Solidified Organic Material	2.40
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.00E-02
Cm-244	3.82E-01
Np-237	9.16E-07
Pu-238	2.11E-02
Pu-239	1.24E-01
Th-232	2.26E-04
U-233	5.65E-06
U-236	5.65E-06

No Hazardous Waste Numbers Provided

TRUCON Code(s)

125/225

Waste Stream Description

Heterogeneous CH debris laboratory waste from Pu aerosol preparation experiments

Waste Stream ID: SA-W134

Appendix A
Waste Profile Report

Site	Sandia National Laboratory - Albuquerque	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	CH Transuranic Debris Waste from Hot Cell Facility				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
1.2-gal can	0.0	0.0	0.0
15-gal Drum	0.1	0.0	0.1
20-gal Drum	0.1	0.0	0.1
55-gal Drum Dir Ld w/o Liner	2.1	0.0	2.1
5-gal Drum	0.1	0.0	0.1
Current Form Total	2.3	0.0	2.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	2.5	0.0	2.5
Final Form Total	2.5	0.0	2.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	126.67
Aluminum-based Metal/Alloys	7.92
Other Metal/Alloys	15.83
Other Inorganic Materials	1.58
Cellulosics	3.17
Rubber	3.17
Plastics	7.92
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.68E+00
Am-243	5.31E-05
Cm-244	6.66E-04
Cs-137	3.00E-02
Np-237	7.56E-03
Pu-238	1.39E-01
Pu-239	2.50E-01
Pu-240	5.39E-02
Pu-241	3.16E-01
Pu-242	8.82E-05
Sr-90	5.86E-02
Th-229	2.56E-10
Th-230	4.49E-07
Th-232	3.40E-05
U-233	4.36E-07
U-234	3.76E-03
U-235	1.37E-04
U-236	2.08E-08
U-238	1.63E-04

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description

Heterogeneous CH Debris from SNL/NM Hot Cell Facility D&D project and other miscellaneous waste generators.

Waste Stream ID: **SA-W134M**

Appendix A
Waste Profile Report

Site	Sandia National Laboratory - Albuquerque	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Mixed-TRU Debris Waste from SNL/NM - Contact Handled			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
1.2-gal can	0.0	0.0	0.0
2.5-gal Drum	0.0	0.0	0.0
2-gallon can	0.0	0.0	0.0
30-gal Drum	0.1	0.0	0.1
55-gal Drum Dir Ld w/o Liner	0.2	0.0	0.2
5-gal Drum	0.1	0.0	0.1
Current Form Total	0.5	0.0	0.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.8	0.0	0.8
Final Form Total	0.8	0.0	0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	25.24
Aluminum-based Metal/Alloys	1.50
Other Metal/Alloys	3.25
Other Inorganic Materials	0.30
Cellulosics	0.60
Rubber	0.60
Plastics	1.56
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.41E-01
Cs-137	5.03E-03
Np-237	1.03E-06
Pu-238	2.20E-05
Pu-239	4.43E-06
Pu-240	3.88E-06
Pu-242	3.00E-08
Sr-90	4.93E-03
Th-229	1.10E-14
Th-230	4.07E-12
Th-232	4.79E-22
U-233	2.89E-11
U-234	3.45E-08
U-235	1.71E-10
U-236	1.49E-12
U-238	8.16E-10

Haz. Waste No(s).

D006, D009, D011

TRUCON Code(s)

125/225

Waste Stream Description

Heterogeneous CH mixed debris from SNL/NM Hot Cell Facility D&D project and other Miscellaneous waste generators.

Waste Stream ID: SA-W135

Appendix A
Waste Profile Report

Site	Sandia National Laboratory - Albuquerque	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	TRU Waste from SNL/NM - Remote Handled			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gallon lever lock drum	0.2	0.0	0.2
55-gal Drum Dir Ld w/o Liner	1.5	0.0	1.5
Cask - Lead Lined	6.8	0.0	6.8
Current Form Total	8.5	0.0	8.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	8.7	0.0	8.7
Final Form Total	8.7	0.0	8.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	40.75
Aluminum-based Metal/Alloys	2.55
Other Metal/Alloys	5.09
Other Inorganic Materials	0.51
Cellulosics	1.02
Rubber	1.02
Plastics	2.55
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.60E+00
Am-243	3.48E-06
Cs-137	4.30E+01
Np-237	8.57E-05
Pu-238	3.68E-01
Pu-239	3.34E-01
Pu-240	7.43E-02
Pu-241	4.73E-03
Pu-242	8.20E-06
Sr-90	3.59E+01
Th-229	2.65E-12
Th-230	7.27E-08
Th-232	9.17E-18
U-233	4.66E-09
U-234	6.15E-04
U-235	4.53E-05
U-236	2.86E-08
U-238	1.55E-05

No Hazardous Waste Numbers Provided

TRUCON Code(s)
325

Waste Stream Description

Heterogeneous RH debris from SNL/NM Hot Cell Facility D&D Project and other miscellaneous waste generators.

Waste Stream ID: **SA-W136**

Appendix A
Waste Profile Report

Site	Sandia National Laboratory - Albuquerque	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Uncategorized Metal Waste	Inventory Date	12/31/2010		
Stream Name	CH TRU Debris waste from Z-machine			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.2	5.4	5.6
Current Form Total	0.2	5.4	5.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.2	5.4	5.6
Final Form Total	0.2	5.4	5.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	1870.19
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	37.69
Other Inorganic Materials	0.19
Cellulosics	0.00
Rubber	1.99
Plastics	0.15
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	1.86
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.32E-04
Pu-238	5.29E-02
Pu-239	1.70E+00
Pu-240	3.89E-01
Pu-241	3.34E+00

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description

CH debris waste from the Z-machine, Pu ICE experiments. Waste generated at SNL/NM, but is LANL waste

Waste Stream ID: **SR-AGNS-HET**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	SR-AGNS-HET Debris					Activity Concentrations Decayed to CY	2010

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.2	0.0	1.2
Current Form Total	1.2	0.0	1.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	3.8	0.0	3.8
Final Form Total	3.8	0.0	3.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	21.33
Aluminum-based Metal/Alloys	0.69
Other Metal/Alloys	45.68
Other Inorganic Materials	8.94
Cellulosics	3.88
Rubber	2.99
Plastics	15.92
Cement	0.00
Solidified Inorganic Material	2.29
Solidified Organic Material	0.16
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.69E-02
Am-243	1.91E-07
Cs-137	8.90E-07
Np-237	1.84E-05
Pu-238	8.45E-02
Pu-239	2.49E-02
Pu-240	1.51E-02
Pu-241	8.31E-02
Pu-242	6.87E-06
Sr-90	8.50E-07
Th-229	8.78E-09
Th-230	5.91E-09
Th-232	2.96E-08
U-233	3.33E-06
U-234	2.53E-05
U-235	1.85E-07
U-236	1.35E-08
U-238	3.72E-06

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D011, D019, D022,
D029, F002, F005

TRUCON Code(s)

125/225

Waste Stream Description

This waste is comprised of numerous organic and inorganic debris waste and generally consists of paper, cloth, wood, plastic, rubber, glass, and metal.

Waste Stream ID: **SR-AGNS-HOM**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	SR-AGNS-HOM					Activity Concentrations Decayed to CY	2010

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.3	0.0	3.3
Current Form Total	3.3	0.0	3.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	7.6	0.0	7.6
Final Form Total	7.6	0.0	7.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	39.08
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	518.35
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.75E-01
Np-237	2.24E-04
Pu-238	2.09E-01
Pu-239	4.44E-01
Pu-240	1.05E-01
Pu-241	1.13E+00
Pu-242	1.83E-05
Th-229	3.82E-11
Th-230	1.08E-08
Th-232	6.89E-17
U-233	2.90E-08
U-234	4.88E-05
U-235	1.44E-06
U-236	9.30E-08
U-238	3.07E-05

Haz. Waste No(s).D004, D005, D006,
D007, D008, D009,
D011, F005**TRUCON Code(s)**

111/211

Waste Stream Description

This waste is comprised of aqueous liquids solidified with lime and cement in a 55-gallon drum and aqueous liquid that had been absorbed using Florco-X and then later solidified with cement and water inside a 55-gallon drum.

Waste Stream ID: SR-BCLDP-HET

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	N/A				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
55-gal Drum Dir Ld w/o Liner	0.6	0.0	0.6
SWB Dir Ld w/ Liner	11.3	0.0	11.3
Current Form Total	12.2	0.0	12.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
55-gal Drum Dir Ld w/o Liner	0.6	0.0	0.6
SWB Dir Ld w/ Liner	11.3	0.0	11.3
Final Form Total	12.2	0.0	12.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	182.82
Aluminum-based Metal/Alloys	1.87
Other Metal/Alloys	0.94
Other Inorganic Materials	3.74
Cellulosics	48.63
Rubber	10.75
Plastics	74.81
Cement	0.00
Solidified Inorganic Material	144.48
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.75
Packaging Material, Rubber	0.22
Packaging Material, Steel	151.89
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.79E-02
Am-243	5.59E-06
Cm-244	2.74E-03
Cs-137	1.25E-02
Np-237	1.29E-07
Pu-238	6.84E+00
Pu-239	2.46E-02
Pu-240	1.16E-02
Pu-241	1.95E-01
Pu-242	3.94E-06
Sr-90	1.51E-01
Th-229	2.36E-14
Th-230	4.61E-09
Th-232	8.16E-17
U-233	4.00E-11
U-234	1.40E-04
U-235	3.30E-08
U-236	2.37E-07
U-238	3.80E-07

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **SR-HBL-235F-HET****Appendix A****Waste Profile Report**

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Commingled waste from HBL and 235F.			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
SLB2 (5' x 5' x 8) Dir Ld	28.3	0.0	28.3
SWB Dir Ld w/o Liner	17.0	0.0	17.0
Current Form Total	45.3	0.0	45.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
SLB2 (5' x 5' x 8) Dir Ld	28.3	0.0	28.3
SWB Dir Ld w/o Liner	17.0	0.0	17.0
Final Form Total	45.3	0.0	45.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	3289.89
Aluminum-based Metal/Alloys	225.06
Other Metal/Alloys	360.51
Other Inorganic Materials	360.51
Cellulosics	539.20
Rubber	33.86
Plastics	400.62
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.16
Packaging Material, Steel	192.23
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.21E-04
Np-237	6.69E-05
Pu-238	4.52E-01
Pu-239	3.66E-04
Pu-240	2.00E-04
Pu-241	4.17E-03
Pu-242	2.38E-07
Th-229	5.09E-12
Th-230	2.61E-09
Th-232	5.84E-20
U-233	5.79E-09
U-234	2.76E-05
U-235	7.20E-12
U-236	1.18E-10
U-238	7.39E-16

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste will consist of repackaged waste from a large steel box that was originally loaded from two separate SRS generator facilities (i.e. H-B line and 235F)

Waste Stream ID: **SR-KAC-HET**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	CH TRU Heterogeneous debris from the K Area Plutonium surveillance program			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.8	100.9	101.7
Current Form Total	0.8	100.9	101.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.8	100.9	101.7
Final Form Total	0.8	100.9	101.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	5.54
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.27
Rubber	2.73
Plastics	58.17
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.46E-01
Np-237	5.71E-06
Pu-238	3.19E-01
Pu-239	1.79E+00
Pu-240	5.06E-01
Pu-241	6.11E+00
Pu-242	2.29E-04
Th-229	4.06E-15
Th-230	1.67E-11
Th-232	1.48E-18
U-233	4.70E-11
U-234	1.81E-06
U-235	5.38E-06
U-236	2.99E-08
U-238	1.93E-07

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description

This waste stream consists of plutonium contaminated debris resulting from destructive and non-destructive containers used to store plutonium material

Waste Stream ID: **SR-LA-PAD1**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	CH TRU Heterogeneous debris from the Los Alamos Scientific Laboratory (LASL)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	27.2	0.0	27.2
55-gal Drum Dir Ld w/o Liner	0.4	0.0	0.4
Current Form Total	27.6	0.0	27.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/o Liners	105.8	0.0	105.8
Final Form Total	105.8	0.0	105.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	89.25
Aluminum-based Metal/Alloys	0.11
Other Metal/Alloys	0.68
Other Inorganic Materials	3.88
Cellulosics	13.79
Rubber	6.04
Plastics	0.23
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.23E-01
Np-237	4.36E-06
Pu-238	3.48E+02
Pu-239	3.29E-01
Pu-240	2.02E-01
Pu-241	2.94E+00
Pu-242	2.35E-04
Th-229	2.61E-13
Th-230	8.46E-06
Th-232	2.24E-16
U-233	2.81E-10
U-234	4.49E-02
U-235	1.27E-08
U-236	2.33E-07
U-238	1.42E-12

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D022,
F001, F002, F005

TRUCON Code(s)

125/225, 154

Waste Stream Description

This CH TRU waste stream consists of debris and Impure Oxide shipped to the SRS from the LASL in 1971 and 1972.

Waste Stream ID: **SR-MD-HET**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from offsite				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.3	0.0	3.3
55-gal Drum Dir Ld w/o Liner	0.8	0.0	0.8
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Box - Steel	128.0	0.0	128.0
SWB Dir Ld w/o Liner	28.4	0.0	28.4
Current Form Total	160.8	0.0	160.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	158.8	0.0	158.8
SWB w/ 4 - 55-gal Drums w/ Liners	7.6	0.0	7.6
SWB w/ 4 - 55-gal Drums w/o Liners	1.9	0.0	1.9
Final Form Total	168.2	0.0	168.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	5.56
Aluminum-based Metal/Alloys	0.79
Other Metal/Alloys	6.28
Other Inorganic Materials	3.11
Cellulosics	2.33
Rubber	2.27
Plastics	3.47
Cement	0.00
Solidified Inorganic Material	0.81
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.73
Packaging Material, Rubber	0.21
Packaging Material, Steel	156.68
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.23E-02
Am-243	1.11E-08
Cm-244	6.48E-05
Cs-137	8.99E-07
Np-237	2.40E-06
Pu-238	1.09E+00
Pu-239	2.77E-02
Pu-240	1.79E-03
Pu-241	2.17E-02
Pu-242	6.63E-07
Sr-90	8.49E-07
Th-229	2.17E-06
Th-230	1.15E-07
Th-232	1.67E-04
U-233	6.50E-04
U-234	3.93E-04
U-235	1.35E-07
U-236	2.02E-09
U-238	3.67E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D030, D032, D034, D037, D043, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste.

Waste Stream ID: **SR-MD-HOM-A**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	CH Mixed TRU Solids (S3000)				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.3	0.0	2.3
Current Form Total	2.3	0.0	2.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	5.7	0.0	5.7
Final Form Total	5.7	0.0	5.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.10
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.40
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	98.93
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.37E-02
Np-237	1.79E-05
Pu-238	1.90E+01
Pu-239	1.60E-02
Pu-240	1.09E-03
Pu-241	1.35E-02
Th-229	3.46E-12
Th-230	4.21E-07
Th-232	8.15E-19
U-233	2.47E-09
U-234	2.37E-03
U-235	2.74E-07
U-236	1.03E-09

Haz. Waste No(s).

D006, D007, D008

TRUCON Code(s)

111/211

Waste Stream Description

Aqueous liquids absorbed in polyethylene bottles.

Waste Stream ID: **SR-MD-HOM-C**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	CH Mixed TRU Solids (S3000)				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.6	0.0	0.6
Current Form Total	0.6	0.0	0.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/o Liners	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.33
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.33
Rubber	0.33
Plastics	1.73
Cement	0.00
Solidified Inorganic Material	63.49
Solidified Organic Material	0.33
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.04E-04
Np-237	1.15E-09
Pu-238	1.69E-01
Pu-242	8.72E-10
Th-229	3.55E-18
Th-230	1.11E-10
U-233	1.73E-14
U-234	3.43E-06
U-238	4.76E-19

Haz. Waste No(s).D004, D006, D007,
D008, D009, D011,
F002, F003**TRUCON Code(s)**

111/211

Waste Stream Description

Not yet incorporated into an AK Report

Waste Stream ID: **SR-MD-PAD1**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	CH TRU Heterogeneous debris from the Mound Plant			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	112.7	0.0	112.7
83-gal Drum	18.8	0.0	18.8
85-gal Drum	0.3	0.0	0.3
Box - Plywood	135.7	0.0	135.7
SWB Dir Ld w/o Liner	28.4	0.0	28.4
Current Form Total	296.0	0.0	296.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	28.3	0.0	28.3
SWB Dir Ld w/o Liner	183.3	0.0	183.3
SWB w/ 4 - 55-gal Drums w/ Liners	192.8	0.0	192.8
Final Form Total	404.4	0.0	404.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	28.12
Aluminum-based Metal/Alloys	0.78
Other Metal/Alloys	5.15
Other Inorganic Materials	6.05
Cellulosics	1.30
Rubber	2.77
Plastics	2.70
Cement	0.00
Solidified Inorganic Material	32.28
Solidified Organic Material	6.33
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	10.36
Packaging Material, Rubber	0.34
Packaging Material, Steel	179.35
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.76E-01
Am-243	4.21E-06
Cm-244	6.16E-02
Cs-137	4.26E-07
Np-237	2.97E-05
Pu-238	1.10E+02
Pu-239	1.53E-01
Pu-240	8.07E-02
Pu-241	5.07E-01
Pu-242	3.62E-04
Sr-90	4.01E-07
Th-229	7.72E-12
Th-230	1.22E-05
Th-232	8.95E-17
U-233	4.64E-09
U-234	4.08E-02
U-235	5.89E-09
U-236	9.31E-08
U-238	6.55E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D030, D032, D034, D037, D043, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

This CH TRU waste stream consists of debris shipped to the SRS from the Mound Plant in 1971 and 1972.

Waste Stream ID: **SR-MD-SOIL**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Contaminated Soil/Debris Waste		Inventory Date	12/31/2010	
Stream Name	CH Mixed TRU Soil / Gravel (S4000)				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.7	0.0	2.7
55-gal Drum Dir Ld w/o Liner	10.4	0.0	10.4
Box - Steel	14.3	0.0	14.3
SWB Dir Ld w/o Liner	1.9	0.0	1.9
Current Form Total	29.3	0.0	29.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.8	0.0	0.8
55-gal Drum Dir Ld w/o Liner	2.7	0.0	2.7
SWB Dir Ld w/o Liner	17.0	0.0	17.0
SWB w/ 4 - 55-gal Drums w/ Liners	5.7	0.0	5.7
SWB w/ 4 - 55-gal Drums w/o Liners	18.9	0.0	18.9
Final Form Total	45.1	0.0	45.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	82.90
Cellulosics	0.15
Rubber	0.00
Plastics	0.15
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	356.86
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	2.73
Packaging Material, Rubber	0.36
Packaging Material, Steel	183.07
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.00E-05
Np-237	8.51E-10
Pu-238	5.57E-02
Pu-242	4.12E-08
Th-229	5.61E-17
Th-230	4.27E-09
U-233	5.96E-14
U-234	1.72E-05
U-238	2.05E-16

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, F002,
F003, F004, F005,
F007, F009

TRUCON Code(s)

111/211

Waste Stream Description

Soil mixed with absorbent and some commingled debris.

Waste Stream ID: **SR-NIST-HET**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	DOE Owned Plutonium & Uranium waste items.				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	11.75
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	1.47
Cement	16.15
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.48E+00
Np-237	1.88E-05
Pu-238	3.88E+00
Pu-239	1.36E+00
Pu-240	3.22E-01
Pu-241	6.51E+00
Pu-242	5.76E-05
Th-229	3.39E-13
Th-230	5.16E-08
Th-232	3.50E-14
U-233	6.85E-10
U-234	4.27E-04
U-235	3.34E-06
U-236	4.18E-05
U-238	1.32E-07

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This material consist of a combination of unirradiated PuO/Uo fuel pellets, Pacemaker source and solidified Pu solutions

Waste Stream ID: **SR-RH-221H.01**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	RH TRU Heterogeneous debris from the HB-Line			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.5	0.0	3.5
Box - SRS Poly Box	0.2	0.0	0.2
Cask - Steel	5.7	0.0	5.7
Current Form Total	9.4	0.0	9.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	10.0	0.0	10.0
Final Form Total	10.0	0.0	10.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	50.80
Aluminum-based Metal/Alloys	2.94
Other Metal/Alloys	3.82
Other Inorganic Materials	20.55
Cellulosics	17.32
Rubber	43.46
Plastics	153.56
Cement	0.00
Solidified Inorganic Material	0.88
Solidified Organic Material	0.29
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.09E-02
Np-237	2.06E-01
Pu-238	1.30E+02
Pu-239	1.18E-01
Pu-240	6.11E-02
Pu-241	1.24E+00
Pu-242	7.10E-05
Th-229	1.57E-08
Th-230	1.02E-06
Th-232	1.41E-15
U-233	1.78E-05
U-234	9.40E-03
U-235	5.12E-06
U-236	1.45E-06
U-238	4.49E-09

Haz. Waste No(s).

D006, D008, D009,
D022, D029, D039,
D040, D043, F001,
F002, F003, F005,
U133

TRUCON Code(s)

322, 325

Waste Stream Description

This waste stream is defense related, remote handled TRU waste and is composed of metal equipment and debris

Waste Stream ID: **SR-RH-221H.02**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Composite Filter Waste	Inventory Date	12/31/2010		
Stream Name	RH TRU HEPA Filter from the HB-Line			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - SRS Poly Box	6.4	0.0	6.4
Current Form Total	6.4	0.0	6.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	6.9	0.0	6.9
Final Form Total	6.9	0.0	6.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.31
Aluminum-based Metal/Alloys	1.70
Other Metal/Alloys	0.00
Other Inorganic Materials	0.73
Cellulosics	0.48
Rubber	0.01
Plastics	0.99
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.42E-01
Cs-137	4.20E-01
Np-237	4.06E-04
Pu-238	2.17E+02
Pu-239	2.32E-01
Pu-240	1.39E-01
Pu-241	1.88E+00
Pu-242	1.17E-04
Th-229	1.08E-06
Th-230	1.69E-06
Th-232	3.40E-14
U-233	5.34E-04
U-234	1.55E-02
U-235	1.73E-06
U-236	3.01E-05
U-238	1.50E-06

Haz. Waste No(s).

D006, D007, D008,
D009, D011, D019,
D022, D029, D035,
D039, D040, D043

TRUCON Code(s)

322, 325

Waste Stream Description

This waste stream is defense related, remote handled TRU waste and is composed of 24"X24"X12" HEPA Filter

Waste Stream ID: **SR-RH-235F.01**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	RH TRU Heterogeneous debris from the 235F facility.			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.5	0.0	1.5
Box - SRS Poly Box	0.9	0.0	0.9
Current Form Total	2.4	0.0	2.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	2.5	0.0	2.5
Final Form Total	2.5	0.0	2.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	34.54
Aluminum-based Metal/Alloys	1.88
Other Metal/Alloys	0.92
Other Inorganic Materials	10.03
Cellulosics	5.87
Rubber	35.27
Plastics	44.40
Cement	0.00
Solidified Inorganic Material	0.41
Solidified Organic Material	0.08
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.08E+02
Np-237	1.77E-02
Pu-238	1.67E+02
Pu-239	1.45E+00
Pu-240	3.86E-01
Pu-241	7.75E+02
Pu-242	1.46E-04
Th-229	2.38E-09
Th-230	1.82E-06
Th-232	2.06E-16
U-233	2.02E-06
U-234	1.42E-02
U-235	3.86E-08
U-236	3.09E-07
U-238	6.14E-13

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D018,
D019, D035, F002

TRUCON Code(s)

322, 325

Waste Stream Description

This waste stream is defense related, remote handled TRU waste and is composed of metal equipment and debris

Waste Stream ID: **SR-RH-772F.01**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	RH TRU Heterogeneous debris from the 772F and 772-1F laboratories.				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Current Form Total	0.4	0.0	0.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	58.17
Aluminum-based Metal/Alloys	4.27
Other Metal/Alloys	11.74
Other Inorganic Materials	117.40
Cellulosics	29.35
Rubber	21.88
Plastics	290.84
Cement	0.00
Solidified Inorganic Material	0.53
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.28E-03
Cs-137	1.97E-01
Np-237	1.06E-06
Pu-238	9.21E-03
Pu-239	7.16E-03
Pu-240	2.18E-03
Pu-241	1.59E-02
Pu-242	3.56E-07
Sr-90	1.95E-01
Th-229	1.28E-14
Th-230	4.96E-11
Th-232	1.72E-17
U-233	3.63E-11
U-234	7.80E-07
U-235	4.91E-09
U-236	4.39E-08
U-238	4.42E-16

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D022, D028, D029,
F002, F003, F005

**No TRUCON
Codes Provided**

Waste Stream Description

This waste stream is defense related remote handled mixed TRU waste. This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, other job control waste, small HEPAs liquids, sludges and resins may also be found in this waste.

Waste Stream ID: **SR-RH-773A.01**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	RH TRU Heterogeneous debris from the SRNL				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	6.9	8.1	15.0
Box - Concrete	1.6	0.0	1.6
Box - Fiberglass	0.9	0.0	0.9
Cask - SRS CMISC	3.8	0.0	3.8
Current Form Total	13.1	8.1	21.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	6.9	0.0	6.9
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	6.9	8.7	15.6
Final Form Total	13.7	8.7	22.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	213.27
Aluminum-based Metal/Alloys	2.34
Other Metal/Alloys	14.28
Other Inorganic Materials	140.41
Cellulosics	76.42
Rubber	115.71
Plastics	239.66
Cement	0.00
Solidified Inorganic Material	4.84
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	20.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.15E-01
Am-243	1.53E-01
Cm-244	1.61E+01
Cs-137	1.39E+00
Np-237	3.69E-05
Pu-238	4.03E+00
Pu-239	2.65E-02
Pu-240	4.54E-02
Pu-241	2.93E-01
Pu-242	2.69E-05
Pu-244	8.78E-15
Sr-90	9.25E-01
Th-229	1.58E-06
Th-230	4.03E-09
Th-232	2.05E-15
U-233	3.00E-03
U-234	1.08E-04
U-235	5.51E-07
U-236	6.92E-06
U-238	2.20E-08

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D043, F002, F004, F005

TRUCON Code(s)

321, 322, 325

Waste Stream Description

This waste stream is defense related remote handled mixed TRU waste. This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, other job control waste, small HEPAs liquids, sludges and resins may also be found in this waste.

Waste Stream ID: **SR-RH-FBL.01**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	RH TRU Heterogeneous debris from the FB-Line			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.7	0.0	1.7
55-gal Drum Dir Ld w/o Liner	1.0	0.0	1.0
Current Form Total	2.7	0.0	2.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	1.9	0.0	1.9
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	1.2	0.0	1.2
Final Form Total	3.1	0.0	3.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	73.59
Aluminum-based Metal/Alloys	0.85
Other Metal/Alloys	1.89
Other Inorganic Materials	0.00
Cellulosics	16.26
Rubber	24.75
Plastics	96.73
Cement	33.52
Solidified Inorganic Material	0.22
Solidified Organic Material	1.22
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	30.88
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.59E-01
Cs-137	5.65E+00
Np-237	6.14E-04
Pu-238	2.43E+00
Pu-239	4.40E+00
Pu-240	1.04E+00
Pu-241	3.62E+01
Pu-242	1.76E-04
Sr-90	5.33E-01
Th-229	2.87E-12
Th-230	3.69E-08
Th-232	5.98E-15
U-233	1.31E-08
U-234	8.20E-04
U-235	2.75E-05
U-236	2.43E-05
U-238	8.42E-04

Haz. Waste No(s).

D005, D006, D007, D008, D009, D011, D018, D019, D022, D029, D039, D040, D043, F002, F005, U002, U151

TRUCON Code(s)

322, 325

Waste Stream Description

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, rags, and other job control waste and silver coated ceramics (burl saddles)

Waste Stream ID: **SR-RH-FTF.01**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Composite Filter Waste	Inventory Date	12/31/2010		
Stream Name	RH TRU 24"X24"X12" HEPA Filter from the SRS F-Area Tank Farm			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - SRS Poly Box	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	26.11
Aluminum-based Metal/Alloys	0.11
Other Metal/Alloys	0.00
Other Inorganic Materials	3.47
Cellulosics	1.09
Rubber	0.00
Plastics	15.42
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.41E-03
Am-243	8.02E-06
Cm-244	1.21E-01
Cs-137	8.69E-03
Np-237	1.99E-08
Pu-238	4.47E-02
Pu-239	7.50E-04
Pu-240	1.06E-03
Pu-241	2.69E-03
Pu-242	1.58E-07
Sr-90	1.03E-02
Th-229	1.61E-16
Th-230	7.44E-11
Th-232	8.99E-20
U-233	4.85E-13
U-234	1.45E-06
U-235	2.01E-11
U-236	3.29E-10
U-238	1.10E-09

No Hazardous Waste Numbers Provided

TRUCON Code(s)
322, 325

Waste Stream Description

This waste stream consists of one HEPA Filter.

Waste Stream ID: **SR-RH-MNDPAD1.01**

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	RH Debris from Mound Laboratories				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.4	0.0	0.4
Current Form Total	0.4	0.0	0.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	18220.88
Aluminum-based Metal/Alloys	504.62
Other Metal/Alloys	3337.82
Other Inorganic Materials	3921.53
Cellulosics	840.02
Rubber	1793.75
Plastics	1747.86
Cement	0.00
Solidified Inorganic Material	20920.51
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	3.76E+02
Pu-239	2.60E-01
Pu-240	1.42E-01
Pu-241	7.79E+00
Pu-242	1.69E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D030, D032, D034, D037, D043, F002, F003, F004, F005

TRUCON Code(s)

322, 325

Waste Stream Description

Process equipment and exchange resin

Waste Stream ID: **SR-RH-SDD.01**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Remote Handled PuBe Sources	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	5.7	0.0	5.7
Current Form Total	5.7	0.0	5.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	3044.56
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	761.14
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.09E+00
Np-237	8.69E-06
Pu-238	1.49E+02
Pu-239	2.28E+00
Pu-240	1.37E+00
Pu-241	6.83E+01
Pu-242	2.29E-03
Th-229	4.95E-15
Th-230	1.77E-08
Th-232	9.03E-18
U-233	5.64E-11
U-234	1.28E-03
U-235	6.73E-09
U-236	1.22E-07
U-238	1.07E-12

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream consists of three PuBe sources individually packaged in SWB with polyethylene shielding.

Waste Stream ID: **SR-RH-SWD.01**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Remote Handled (RH) Mixed TRU Debris (S5000)				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.0	0.0	1.0
Current Form Total	1.0	0.0	1.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	1.2	0.0	1.2
Final Form Total	1.2	0.0	1.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	1797.12
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	141.49
Cement	0.00
Solidified Inorganic Material	29.52
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.22E-01
Am-243	7.40E-02
Cm-244	4.16E+00
Cs-137	1.53E-02
Np-237	5.37E-04
Pu-238	2.71E-01
Pu-239	3.45E-01
Pu-240	1.16E-01
Pu-241	1.84E+00
Pu-242	3.76E-05
Pu-244	2.68E-15
Sr-90	1.06E-02
Th-229	2.29E-11
Th-230	8.57E-10
Th-232	1.81E-17
U-233	3.48E-08
U-234	1.22E-05
U-235	5.10E-09
U-236	4.96E-08
U-238	8.75E-14

No Hazardous Waste Numbers Provided

TRUCON Code(s)
322, 325

Waste Stream Description

RH Mixed TRU waste resulting from solvent tank emptying and closure in the E-Area of SRS.

Waste Stream ID: **SR-RL-BCLDP.002****Appendix A****Waste Profile Report**

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Inorganic Debris - Sabotage			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	184.28
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	20.82
Rubber	0.00
Plastics	20.82
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.30E+00
Am-243	1.26E-01
Cm-244	5.21E+00
Cs-137	1.10E+03
Np-237	8.25E-03
Pu-238	2.89E-02
Pu-239	2.39E-03
Pu-240	3.31E-02
Pu-241	2.26E-01
Pu-242	1.80E-05
Sr-90	5.93E+02
Th-229	5.77E-10
Th-230	6.63E-10
Th-232	6.67E-16
U-233	1.06E-06
U-234	1.06E-05
U-235	9.02E-08
U-236	1.93E-06
U-238	2.40E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D011, D019, F002, F005

TRUCON Code(s)

321, 325

Waste Stream Description

Liner includes, 135 kg. shield, pipe 56.8 kg, dunage 2.3 kgs.

Waste Stream ID: **SR-SDD-HET-A**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Contact Handled PuBe Sources				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum	0.4	0.0	0.4
55-gal Drum Dir Ld w/ Liner	1.2	0.0	1.2
Current Form Total	1.7	0.0	1.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	1.9	0.0	1.9
SWB w/ 4 - 55-gal Drums w/ Liners	3.8	0.0	3.8
Final Form Total	5.7	0.0	5.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	39.15
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	8.32
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	1.47
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	10.86
Packaging Material, Rubber	0.36
Packaging Material, Steel	191.89
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.19E-01
Np-237	2.24E-06
Pu-238	1.67E+01
Pu-239	4.52E-01
Pu-240	1.11E-01
Pu-241	1.54E+00
Pu-242	2.70E-05
Sr-90	3.04E-09
Th-229	8.02E-14
Th-230	1.54E-07
Th-232	5.07E-17
U-233	1.14E-10
U-234	1.30E-03
U-235	1.11E-08
U-236	8.21E-08
U-238	1.60E-10

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream consists PuBe and Americium sources from various facilities at the SRS

Waste Stream ID: **SR-SDD-HET-B**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	CH TRU - Heterogeneous debris from the D&D of the 211-F-Area				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.1	0.0	2.1
SWB Dir Ld w/o Liner	5.7	0.0	5.7
Current Form Total	7.8	0.0	7.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	5.7	0.0	5.7
SWB w/ 4 - 55-gal Drums w/ Liners	5.7	0.0	5.7
Final Form Total	11.3	0.0	11.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	145.50
Aluminum-based Metal/Alloys	4.21
Other Metal/Alloys	0.00
Other Inorganic Materials	1.93
Cellulosics	7.36
Rubber	0.00
Plastics	62.17
Cement	1.93
Solidified Inorganic Material	0.78
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.15
Packaging Material, Rubber	0.32
Packaging Material, Steel	182.28
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.28E-03
Am-243	3.53E-07
Cm-244	3.14E-05
Cs-137	1.46E-05
Np-237	4.97E-06
Pu-238	3.96E-01
Pu-239	2.24E-02
Pu-240	3.14E-03
Pu-241	4.99E-02
Pu-242	2.78E-06
Sr-90	3.55E-03
Th-229	1.23E-10
Th-230	1.78E-10
Th-232	7.72E-18
U-233	3.50E-07
U-234	7.10E-06
U-235	5.33E-09
U-236	3.93E-08
U-238	1.12E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011

No TRUCON Codes Provided**Waste Stream Description**

This waste stream is defense related, contact handled TRU waste and is composed of metal equipment, tools and debris

Waste Stream ID: **SR-SDD-HOM-A**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2010	
Stream Name	Organic Sludge from D&D of the SRS F-Area 800 Series Underground Tanks				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	5.0	0.0	5.0
Current Form Total	5.0	0.0	5.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	5.0	0.0	5.0
Final Form Total	5.0	0.0	5.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	8.55
Cement	602.03
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.13E-02
Am-243	1.55E-04
Np-237	2.21E-02
Pu-238	2.59E+00
Pu-239	2.37E-01
Pu-240	4.50E-02
Pu-241	5.58E-01
Pu-242	1.03E-01
Th-229	3.54E-05
Th-230	8.35E-06
Th-232	1.33E-13
U-233	1.01E-01
U-234	2.27E-01
U-235	1.80E-04
U-236	6.75E-04
U-238	1.09E-02

No Hazardous Waste Numbers Provided

TRUCON Code(s)
112/212

Waste Stream Description

Absorbed organic sludge packaged in 55-gallon drums

Waste Stream ID: **SR-SDD-HOM-B**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Sludge from D&D of the SRS F-Area 800 Series Underground Tanks				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	10.4	0.0	10.4
Current Form Total	10.4	0.0	10.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	10.4	0.0	10.4
Final Form Total	10.4	0.0	10.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	92.81
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	6.72
Cellulosics	35.41
Rubber	0.00
Plastics	72.66
Cement	403.59
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.29E-01
Am-243	7.49E-05
Cm-244	6.39E-03
Np-237	1.37E-03
Pu-238	1.10E+02
Pu-239	6.18E+00
Pu-240	8.37E-01
Pu-241	1.34E+01
Pu-242	6.34E-04
Th-229	4.09E-12
Th-230	4.91E-08
Th-232	2.22E-15
U-233	2.33E-08
U-234	1.96E-03
U-235	1.49E-06
U-236	1.13E-05
U-238	3.22E-05

No Hazardous Waste Numbers Provided

TRUCON Code(s)
111/211

Waste Stream Description

Absorbed sludge packaged in 55-gallon drums

Waste Stream ID: **SR-SDD-HOM-C****Appendix A****Waste Profile Report**

Site	Savannah River Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Sludge from D&D of the SRS 211-F Sump				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.3	0.0	3.3
SWB Dir Ld w/o Liner	11.3	0.0	11.3
Current Form Total	14.7	0.0	14.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.3	0.0	3.3
SWB Dir Ld w/o Liner	11.3	0.0	11.3
Final Form Total	14.7	0.0	14.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	39.21
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	4.76
Cellulosics	0.00
Rubber	0.00
Plastics	18.45
Cement	286.16
Solidified Inorganic Material	0.00
Solidified Organic Material	1.92
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.41
Packaging Material, Rubber	0.28
Packaging Material, Steel	148.30
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.06E-03
Am-243	4.92E-05
Cs-137	8.13E-04
Np-237	4.56E-06
Pu-238	6.41E-03
Pu-239	2.51E-02
Pu-240	2.51E-02
Pu-241	5.21E-02
Pu-242	1.88E-03
Sr-90	3.14E-04
Th-229	1.36E-14
Th-230	7.06E-10
Th-232	2.93E-19
U-233	7.72E-11
U-234	1.92E-05
U-235	3.61E-06
U-236	2.97E-09
U-238	1.03E-04

No Hazardous Waste Numbers Provided

TRUCON Code(s)

111/211

Waste Stream Description

Absorbed sludge packaged in 55-gallon drums

Waste Stream ID: SR-SWMF-HET-A

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	CH Mixed TRU Debris (S5000)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	11.0	0.0	11.0
55-gal Drum Dir Ld w/o Liner	23.7	90.7	114.4
85-gal Drum Dir Ld w/o Liner	0.6	0.0	0.6
SLB2 (5' x 5' x 8) Dir Ld	5.7	0.0	5.7
SWB Dir Ld w/o Liner	117.2	0.0	117.2
Current Form Total	158.2	90.7	248.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.9	0.0	2.9
55-gal Drum Dir Ld w/o Liner	6.0	90.7	96.7
SLB2 (5' x 5' x 8) Dir Ld	5.7	0.0	5.7
SWB Dir Ld w/o Liner	119.1	0.0	119.1
SWB w/ 4 - 55-gal Drums w/ Liners	18.9	0.0	18.9
SWB w/ 4 - 55-gal Drums w/o Liners	41.6	0.0	41.6
Final Form Total	194.2	90.7	284.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	16.74
Aluminum-based Metal/Alloys	2.55
Other Metal/Alloys	1.91
Other Inorganic Materials	1.36
Cellulosics	2.72
Rubber	6.52
Plastics	12.25
Cement	0.00
Solidified Inorganic Material	0.24
Solidified Organic Material	0.00
Soils	0.24
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.46
Packaging Material, Rubber	0.38
Packaging Material, Steel	158.99
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.23E-02
Am-243	5.70E-06
Cs-137	3.49E-05
Np-237	4.93E-05
Pu-238	4.25E+00
Pu-239	1.02E-01
Pu-240	2.62E-02
Pu-241	4.20E-01
Pu-242	6.70E-05
Sr-90	3.48E-05
Th-229	1.14E-09
Th-230	9.85E-09
Th-232	2.82E-08
U-233	6.49E-06
U-234	5.48E-04
U-235	1.02E-07
U-236	1.55E-09
U-238	5.35E-06

Haz. Waste No(s).

D008, F001, F002, F004, F005, F007, F009, U133, U151

TRUCON Code(s)

125/225

Waste Stream Description

CH Mixed TRU waste resulting from remediation and re-packaging of Mixed "defense related" TRU waste.

Waste Stream ID: **SR-SWMF-SOIL**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Spill Clean-ups/Emergency Response Actions	Waste Matrix Code Group	Contaminated Soil/Debris Waste		Inventory Date	12/31/2010	
Stream Name	CH Mixed TRU Waste Soil & Gravel				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.1	0.0	3.1
Current Form Total	3.1	0.0	3.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	9.5	0.0	9.5
Final Form Total	9.5	0.0	9.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.09
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	1.86
Soils	84.30
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.10E-01
Am-243	5.19E-01
Cm-244	1.58E+01
Np-237	4.19E-06
Pu-238	6.60E-01
Pu-239	1.52E-03
Pu-240	2.78E-01
Pu-241	8.41E-02
Pu-242	1.65E-04
Pu-244	4.52E-14
Th-229	2.58E-13
Th-230	9.68E-09
Th-232	1.56E-16
U-233	2.83E-10
U-234	6.53E-05
U-235	3.93E-11
U-236	2.18E-07
U-238	7.91E-13

No Hazardous Waste Numbers Provided

TRUCON Code(s)
111/211

Waste Stream Description

Burial Ground Soil and Gravel from spill cleanup / remediation activities.

Waste Stream ID: **SR-W026-221F-HEPA****Appendix A****Waste Profile Report**

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Composite Filter Waste	Inventory Date	12/31/2010		
Stream Name	CH Mixed TRU HEPA Filters (S5000)			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	35.9	0.0	35.9
Current Form Total	35.9	0.0	35.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	35.9	0.0	35.9
Final Form Total	35.9	0.0	35.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	33.62
Aluminum-based Metal/Alloys	2.86
Other Metal/Alloys	0.00
Other Inorganic Materials	1.87
Cellulosics	16.92
Rubber	0.00
Plastics	18.63
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.33E-01
Am-243	8.03E-12
Cs-137	9.88E-08
Np-237	2.55E-06
Pu-238	4.36E-02
Pu-239	6.74E-01
Pu-240	1.78E-01
Pu-241	8.72E-01
Pu-242	2.17E-05
Sr-90	9.59E-08
Th-229	2.15E-07
Th-230	5.62E-09
Th-232	5.21E-17
U-233	1.22E-04
U-234	3.19E-05
U-235	6.46E-07
U-236	1.05E-07
U-238	5.62E-08

Haz. Waste No(s).D022, D028, D029,
F001, F002, F003,
F005**TRUCON Code(s)**

119/219

Waste Stream Description

HEPA Filters in Filtered Polyethylene Boxes

Waste Stream ID: **SR-W026-221F-HET**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	CH Mixed TRU/Thirds Heterogeneous debris from 221F			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	5.0	0.0	5.0
Box - SRS B-25 OP	43.2	0.0	43.2
Box - SRS Black Box	125.6	0.0	125.6
SLB2 (5' x 5' x 8) Dir Ld	339.6	0.0	339.6
SWB Dir Ld w/o Liner	255.2	0.0	255.2
TDOP Dir Ld	22.5	0.0	22.5
Current Form Total	791.0	0.0	791.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
SLB2 (5' x 5' x 8) Dir Ld	339.6	0.0	339.6
SWB Dir Ld w/o Liner	425.3	0.0	425.3
SWB w/ 4 - 55-gal Drums w/ Liners	11.3	0.0	11.3
TDOP Dir Ld	22.5	0.0	22.5
Final Form Total	798.7	0.0	798.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	5.25
Aluminum-based Metal/Alloys	0.35
Other Metal/Alloys	0.96
Other Inorganic Materials	1.75
Cellulosics	1.47
Rubber	1.75
Plastics	3.70
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	2.77
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.23
Packaging Material, Rubber	0.17
Packaging Material, Steel	181.17
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.37E-02
Am-243	1.46E-08
Cm-244	6.62E-03
Cs-137	6.21E-08
Np-237	8.78E-07
Pu-238	5.96E-02
Pu-239	2.33E-01
Pu-240	6.42E-02
Pu-241	8.03E-01
Pu-242	3.49E-05
Sr-90	6.48E-08
Th-229	5.50E-15
Th-230	1.50E-09
Th-232	5.60E-08
U-233	2.13E-11
U-234	2.77E-05
U-235	3.56E-07
U-236	1.14E-08
U-238	2.40E-06

Haz. Waste No(s).

D006, D007, D008,
D009, D022, D028,
D029, F001, F002,
F003, F005

TRUCON Code(s)

125/225

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.

Waste Stream ID: SR-W026-221F-HET-A

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	CH Mixed TRU/Thirds Heterogeneous debris from 221F				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
55-gal Drum Dir Ld w/o Liner	0.8	0.0	0.8
Current Form Total	1.0	0.0	1.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
55-gal Drum Dir Ld w/o Liner	0.8	0.0	0.8
Final Form Total	1.0	0.0	1.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	7.00
Other Inorganic Materials	475.34
Cellulosics	0.63
Rubber	0.00
Plastics	27.33
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	7.41
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.04E+00
Cm-244	2.37E-02
Cs-137	7.10E-01
Np-237	1.02E-05
Pu-238	1.27E-01
Pu-239	2.33E+00
Pu-240	5.86E-01
Pu-241	1.42E+01
Pu-242	1.02E-04
Sr-90	1.98E-01
Th-229	1.60E-08
Th-230	4.09E-08
Th-232	1.01E-15
U-233	3.04E-05
U-234	7.42E-04
U-235	2.35E-05
U-236	3.46E-06
U-238	8.94E-06

Haz. Waste No(s).

D006, D007, D008, D009, D011, D019, D022, D028, D029, F002, F005

TRUCON Code(s)

125/225, 154

Waste Stream Description

200 Areas (F Separations Facilities). This waste consists of silver impregnated ceramic saddles removed from the F-Canyon dissolver off-gas system.

Waste Stream ID: **SR-W026-221F-HOM**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	CH Mixed TRU Solids (S3000)				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	10.2	0.0	10.2
Current Form Total	10.2	0.0	10.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.7	0.0	2.7
SWB w/ 4 - 55-gal Drums w/ Liners	17.0	0.0	17.0
Final Form Total	19.7	0.0	19.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	2.72
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	12.90
Rubber	4.07
Plastics	40.74
Cement	0.00
Solidified Inorganic Material	167.02
Solidified Organic Material	451.51
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	19.15
Packaging Material, Rubber	0.46
Packaging Material, Steel	200.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.36E-01
Am-243	1.12E-04
Cs-137	1.19E-03
Np-237	8.97E-06
Pu-238	2.71E-01
Pu-239	7.76E-01
Pu-240	1.96E-01
Pu-241	2.24E+00
Pu-242	2.94E-03
Sr-90	6.07E-04
Th-229	6.50E-13
Th-230	9.38E-09
Th-232	5.73E-17
U-233	7.48E-10
U-234	5.91E-05
U-235	6.68E-06
U-236	1.16E-07
U-238	2.26E-04

Haz. Waste No(s).

D005, D006, D007,
D008, D009, D011,
D019, D022, D028,
D029, D043, F002,
F005, U151

TRUCON Code(s)

127/227

Waste Stream Description

Absorbed oil, neutralized acids / bases and water

Waste Stream ID: **SR-W026-772F-HET****Appendix A****Waste Profile Report**

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	CH Mixed TRU/Thirds Heterogeneous debris from 772F				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	58.4	21.6	80.1
Box - SRS B-25 OP	10.8	0.0	10.8
Box - Steel	143.1	0.0	143.1
SWB Dir Ld w/o Liner	17.0	28.4	45.4
Current Form Total	229.4	50.0	279.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.5	58.4	60.9
SWB Dir Ld w/o Liner	172.0	28.4	200.3
SWB w/ 4 - 55-gal Drums w/ Liners	17.0	0.0	17.0
Final Form Total	191.5	86.8	278.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.74
Aluminum-based Metal/Alloys	0.18
Other Metal/Alloys	1.61
Other Inorganic Materials	1.52
Cellulosics	0.40
Rubber	1.06
Plastics	3.25
Cement	0.00
Solidified Inorganic Material	1.05
Solidified Organic Material	1.27
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	9.11
Packaging Material, Rubber	0.29
Packaging Material, Steel	152.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.81E-02
Am-243	1.67E-07
Cm-244	3.95E-02
Cs-137	5.76E-05
Np-237	1.82E-05
Pu-238	6.40E-01
Pu-239	2.99E-02
Pu-240	7.47E-03
Pu-241	1.19E-01
Pu-242	2.83E-06
Sr-90	5.67E-05
Th-229	1.51E-06
Th-230	6.47E-09
Th-232	2.28E-07
U-233	5.92E-06
U-234	1.23E-04
U-235	1.18E-07
U-236	1.33E-09
U-238	8.03E-08

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D022, D028, D029,
F002, F003, F005

TRUCON Code(s)

125/225, 154

Waste Stream Description

Combined waste from former W027-772F-HET and T001-772F-HET. This waste stream is defense related, contact handled TRU waste and is composed of Job Control waste, sludges and resins, HEPA filters and metal equipment.

Waste Stream ID: **SR-W026-CIF-HOM**

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Pollution Control or Waste Treatment Process	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	CIF concreted sludge from incinerator cleanout				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/o Liners	3.8	0.0	3.8
Current Form Total	3.8	0.0	3.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/o Liners	3.8	0.0	3.8
Final Form Total	3.8	0.0	3.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	438.00
Solidified Inorganic Material	146.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.03E-03
Am-243	7.23E-09
Cs-137	5.16E-04
Np-237	2.21E-05
Pu-238	4.42E-02
Pu-239	1.68E-03
Pu-241	4.01E-02
Sr-90	5.32E-05
Th-229	1.21E-08
Th-230	2.40E-09
U-233	1.54E-05
U-234	2.96E-05
U-235	1.69E-06
U-238	2.02E-05

No Hazardous Waste Numbers Provided

TRUCON Code(s)
111/211, 154

Waste Stream Description

CH TRU waste consisting of concreted cleanout material

Waste Stream ID: **SR-W026-DWPF-HET****Appendix A****Waste Profile Report**

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	CH TRU - Heterogeneous debris from the DWPF laboratory			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.4	0.0	0.4
Current Form Total	0.4	0.0	0.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/o Liners	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.78
Aluminum-based Metal/Alloys	0.39
Other Metal/Alloys	0.00
Other Inorganic Materials	1.55
Cellulosics	3.75
Rubber	0.00
Plastics	6.46
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.91E-04
Am-243	3.09E-06
Cm-244	2.19E-04
Cs-137	8.40E-03
Np-237	5.15E-07
Pu-238	5.59E-03
Pu-239	2.82E-04
Pu-240	1.03E-04
Pu-241	1.35E-03
Pu-242	2.15E-07
Sr-90	2.21E-01
Th-229	9.06E-10
Th-230	5.80E-11
Th-232	8.40E-18
U-233	2.57E-06
U-234	1.61E-06
U-235	1.62E-07
U-236	4.26E-08
U-238	5.15E-07

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225, 154**Waste Stream Description**

CH TRU waste consisting of contaminated laboratory debris

Waste Stream ID: **SR-W026-MFFF-1****Appendix A****Waste Profile Report**

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	UNKNOWN	Activity Concentrations Decayed to CY				2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	2970.4	2970.4
Current Form Total	0.0	2970.4	2970.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	2970.4	2970.4
Final Form Total	0.0	2970.4	2970.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	19.32
Aluminum-based Metal/Alloys	32.22
Other Metal/Alloys	18.31
Other Inorganic Materials	29.76
Cellulosics	26.60
Rubber	31.91
Plastics	100.66
Cement	0.00
Solidified Inorganic Material	4.44
Solidified Organic Material	3.64
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
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

Haz. Waste No(s).

D008

TRUCON Code(s)

125/225

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.

Waste Stream ID: **SR-W026-PDCF-1**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	UNKNOWN	Activity Concentrations Decayed to CY				2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	1126.5	1126.5
Current Form Total	0.0	1126.5	1126.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	1126.5	1126.5
Final Form Total	0.0	1126.5	1126.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	5.96
Aluminum-based Metal/Alloys	0.13
Other Metal/Alloys	0.08
Other Inorganic Materials	2.36
Cellulosics	4.19
Rubber	0.50
Plastics	29.15
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.31E+00
Pu-238	8.22E-01
Pu-239	5.51E+00
Pu-240	1.42E+00
Pu-242	3.78E-04

Haz. Waste No(s).

D008

TRUCON Code(s)

125/225

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.

Waste Stream ID: **SR-W026-WSB-2**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	N/A	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	589.1	589.1
Current Form Total	0.0	589.1	589.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	589.1	589.1
Final Form Total	0.0	589.1	589.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	3.41
Aluminum-based Metal/Alloys	0.72
Other Metal/Alloys	12.89
Other Inorganic Materials	8.01
Cellulosics	31.41
Rubber	58.40
Plastics	139.38
Cement	0.00
Solidified Inorganic Material	7.89
Solidified Organic Material	6.45
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
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

Haz. Waste No(s).

D008

TRUCON Code(s)

125/225

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.

Waste Stream ID: SR-W027-221F-HET-A

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 221F			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.0	0.0	4.0
Box - SRS Black Box	83.7	0.0	83.7
Box - SRS Poly Box	0.7	0.0	0.7
SLB2 (5' x 5' x 8) Dir Ld	5.7	0.0	5.7
SWB Dir Ld w/o Liner	18.9	0.0	18.9
Current Form Total	112.9	0.0	112.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.0	0.0	1.0
SLB2 (5' x 5' x 8) Dir Ld	5.7	0.0	5.7
SWB Dir Ld w/o Liner	85.1	0.0	85.1
SWB w/ 4 - 55-gal Drums w/ Liners	7.6	0.0	7.6
Final Form Total	99.3	0.0	99.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	1.99
Aluminum-based Metal/Alloys	1.22
Other Metal/Alloys	1.64
Other Inorganic Materials	1.71
Cellulosics	0.83
Rubber	0.92
Plastics	4.96
Cement	0.00
Solidified Inorganic Material	4.34
Solidified Organic Material	1.41
Soils	0.21
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.63
Packaging Material, Rubber	0.21
Packaging Material, Steel	161.13
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.20E-02
Am-243	5.75E-09
Cm-244	8.12E-04
Cs-137	2.38E-08
Np-237	1.06E-06
Pu-238	1.37E-02
Pu-239	1.36E-01
Pu-240	4.18E-02
Pu-241	2.80E-01
Pu-242	6.22E-06
Sr-90	2.27E-08
Th-229	1.71E-08
Th-230	1.97E-09
Th-232	7.82E-08
U-233	8.10E-06
U-234	9.44E-06
U-235	1.08E-08
U-236	2.97E-08
U-238	7.68E-08

Haz. Waste No(s).

D008, F001, F002,
F003, F005

TRUCON Code(s)

125/225, 154

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.

Waste Stream ID: **SR-W027-221F-HET-C-D****Appendix A****Waste Profile Report**

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 221F			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Current Form Total	0.4	0.0	0.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	5.98
Aluminum-based Metal/Alloys	3.67
Other Metal/Alloys	4.93
Other Inorganic Materials	5.14
Cellulosics	2.49
Rubber	2.78
Plastics	1.49
Cement	0.00
Solidified Inorganic Material	1.31
Solidified Organic Material	4.23
Soils	0.63
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.56E-01
Am-243	1.73E-08
Cm-244	2.44E-03
Cs-137	7.13E-08
Np-237	3.17E-06
Pu-238	4.12E-02
Pu-239	4.07E-01
Pu-240	1.25E-01
Pu-241	8.40E-01
Pu-242	1.87E-05
Sr-90	6.80E-08
Th-229	5.13E-08
Th-230	5.92E-09
Th-232	2.35E-07
U-233	2.43E-05
U-234	2.83E-05
U-235	3.25E-08
U-236	8.91E-08
U-238	2.30E-07

Haz. Waste No(s).

D006, D008, F001, F002, F003, F005

TRUCON Code(s)

125/225, 154

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.

Waste Stream ID: **SR-W027-221F-HET-E****Appendix A****Waste Profile Report**

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 221F			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Current Form Total	0.4	0.0	0.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	5.98
Aluminum-based Metal/Alloys	3.67
Other Metal/Alloys	4.93
Other Inorganic Materials	5.14
Cellulosics	2.49
Rubber	2.78
Plastics	1.49
Cement	0.00
Solidified Inorganic Material	1.31
Solidified Organic Material	4.23
Soils	0.63
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.00E-01
Am-243	1.73E-08
Cm-244	6.11E-03
Cs-137	1.24E-07
Np-237	2.13E-06
Pu-238	1.62E-04
Pu-239	1.33E-03
Pu-240	4.10E-04
Pu-241	8.73E-03
Pu-242	6.08E-08
Sr-90	4.00E-10
Th-232	7.65E-10
U-233	7.92E-08
U-234	8.23E-08
U-235	7.48E-11
U-238	7.51E-10

Haz. Waste No(s).

D008, D009, F001, F002, F003, F005

TRUCON Code(s)

125/225, 154

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.

Waste Stream ID: **SR-W027-221H-HEPA****Appendix A****Waste Profile Report**

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Composite Filter Waste	Inventory Date	12/31/2010		
Stream Name	CH TRU HEPA filters	Activity Concentrations Decayed to CY			2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	4.2	4.6
Box - Concrete	1.6	0.0	1.6
Box - Fiberglass	7.7	0.0	7.7
Box - SRS Poly Box	5.4	0.0	5.4
Box - Steel	5.1	0.0	5.1
SWB Dir Ld w/o Liner	54.8	15.1	69.9
Current Form Total	75.0	19.3	94.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	4.2	4.2
SWB Dir Ld w/o Liner	75.6	15.1	90.7
SWB w/ 4 - 55-gal Drums w/ Liners	1.9	0.0	1.9
Final Form Total	77.5	19.3	96.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	67.39
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	9.64
Cellulosics	23.80
Rubber	1.35
Plastics	26.71
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.32
Packaging Material, Rubber	0.21
Packaging Material, Steel	153.59
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.27E-02
Am-243	2.62E-06
Cs-137	2.26E-03
Np-237	7.13E-05
Pu-238	4.85E+00
Pu-239	6.92E-02
Pu-240	1.72E-02
Pu-241	2.39E-01
Pu-242	2.72E-05
Sr-90	2.25E-03
Th-229	2.13E-13
Th-230	3.14E-08
Th-232	2.01E-19
U-233	1.21E-09
U-234	8.82E-04
U-235	1.39E-07
U-236	2.04E-09
U-238	1.69E-14

Haz. Waste No(s).D006, D008, D009,
D019, D022, D029,
D035, D039, D040,
D043**TRUCON Code(s)**

119/219

Waste Stream Description

This waste stream is defense related, contact handled mixed TRU and is composed of HEPA filters

Waste Stream ID: SR-W027-221H-HET

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 221H			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	44.7	0.0	44.7
55-gal Drum Dir Ld w/o Liner	14.1	0.0	14.1
Box - Concrete	1.6	0.0	1.6
SWB Dir Ld w/o Liner	30.2	0.0	30.2
Current Form Total	90.7	0.0	90.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	22.3	0.0	22.3
55-gal Drum Dir Ld w/o Liner	36.6	0.0	36.6
SWB Dir Ld w/o Liner	34.0	0.0	34.0
Final Form Total	92.9	0.0	92.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	27.16
Aluminum-based Metal/Alloys	4.77
Other Metal/Alloys	16.42
Other Inorganic Materials	11.90
Cellulosics	4.46
Rubber	16.18
Plastics	36.41
Cement	0.00
Solidified Inorganic Material	15.05
Solidified Organic Material	5.06
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.88
Packaging Material, Rubber	0.43
Packaging Material, Steel	139.07
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.66E-02
Am-243	8.57E-07
Cm-244	5.56E+00
Cs-137	5.68E-06
Np-237	8.45E-04
Pu-238	4.10E+01
Pu-239	1.49E-01
Pu-240	4.37E-02
Pu-241	3.07E+00
Pu-242	7.81E-05
Sr-90	5.62E-06
Th-229	1.19E-07
Th-230	4.37E-07
Th-232	4.38E-06
U-233	2.25E-04
U-234	8.27E-03
U-235	1.43E-06
U-236	7.42E-09
U-238	1.51E-06

Haz. Waste No(s).

D006, D008, D009,
D019, D022, D029,
D039, D040, D043,
F001, F002, F003,
F005, U133

TRUCON Code(s)

125/225

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. Small HEPA filters, sludges, resins, absorbed liquids, and large metal equipment are also in these waste streams.

Waste Stream ID: SR-W027-221H-HET-C

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	CH Mixed TRU - Heterogeneous debris from 221H			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.2	73.6	73.8
SWB Dir Ld w/o Liner	0.0	68.0	68.0
Current Form Total	0.2	141.7	141.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.2	73.6	73.8
SWB Dir Ld w/o Liner	0.0	68.0	68.0
Final Form Total	0.2	141.7	141.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	15.88
Aluminum-based Metal/Alloys	14.84
Other Metal/Alloys	13.46
Other Inorganic Materials	26.09
Cellulosics	2.61
Rubber	13.83
Plastics	68.75
Cement	0.00
Solidified Inorganic Material	12.16
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.39
Packaging Material, Steel	141.64
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.33E-01
Cs-137	3.89E-05
Np-237	2.82E-03
Pu-238	8.10E-01
Pu-239	6.12E-01
Pu-240	1.74E-01
Pu-241	1.06E+00
Pu-242	6.93E-05
Sr-90	3.85E-05
Th-229	1.91E-11
Th-230	2.99E-08
Th-232	4.58E-18
U-233	7.24E-08
U-234	5.49E-04
U-235	1.03E-05
U-236	3.09E-08
U-238	2.75E-06

Haz. Waste No(s).

D006, D007, D008,
D009, D011

TRUCON Code(s)

125/225, 154

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. Small HEPA filters, sludges, resins, absorbed liquids, and large metal equipment are also in these waste streams.

Waste Stream ID: **SR-W027-221H-HOM**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	CH Mixed TRU Absorbed / Stabilized Liquids				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.8	0.0	0.8
55-gal Drum Dir Ld w/o Liner	1.2	0.0	1.2
Current Form Total	2.1	0.0	2.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	1.9	0.0	1.9
SWB w/ 4 - 55-gal Drums w/o Liners	3.8	0.0	3.8
Final Form Total	5.7	0.0	5.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	3.11
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	54.87
Cellulosics	2.07
Rubber	2.07
Plastics	23.81
Cement	0.00
Solidified Inorganic Material	16.57
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	5.43
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.72E-01
Am-243	5.98E-08
Cs-137	2.74E-03
Np-237	7.19E-05
Pu-238	3.93E-01
Pu-239	4.14E-01
Pu-240	1.13E-01
Pu-241	1.23E+00
Pu-242	4.02E-05
Sr-90	2.72E-03
Th-229	7.61E-10
Th-230	2.15E-08
Th-232	4.84E-16
U-233	2.88E-06
U-234	7.81E-04
U-235	1.49E-05
U-236	3.28E-06
U-238	7.85E-07

Haz. Waste No(s).

D006, D007, D008, D009, D011, D019, D022, D029, D043, F002, F005, U133

TRUCON Code(s)

127/227

Waste Stream Description

CH Mixed TRU Absorbed / Stabilized Liquids

Waste Stream ID: **SR-W027-235F-HEPA****Appendix A****Waste Profile Report**

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	CH Mixed TRU consisting of HEPA Filters from the 235-F.			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - SRS Poly Box	0.2	0.0	0.2
SWB Dir Ld w/o Liner	20.8	0.0	20.8
Current Form Total	21.0	0.0	21.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	22.7	0.0	22.7
Final Form Total	22.7	0.0	22.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	16.47
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.91
Cellulosics	27.80
Rubber	1.06
Plastics	18.25
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.63E-01
Np-237	9.60E-05
Pu-238	1.46E+01
Pu-239	1.49E-02
Pu-240	1.04E-01
Pu-241	7.59E-01
Pu-242	6.04E-05
Th-229	3.38E-09
Th-230	3.65E-07
Th-232	5.53E-17
U-233	1.43E-06
U-234	2.07E-03
U-235	1.01E-07
U-236	8.30E-08
U-238	2.11E-08

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035

TRUCON Code(s)

119/219, 154

Waste Stream Description

This waste stream is defense related, contact handled TRU waste and is composed of spent HEPA Filters

Waste Stream ID: **SR-W027-235F-HET**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 235F				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	12.3	0.0	12.3
55-gal Drum Dir Ld w/o Liner	1.5	0.0	1.5
Box - Steel	2.7	0.0	2.7
Pipe - Steel	9.0	0.0	9.0
SWB Dir Ld w/o Liner	5.7	0.0	5.7
Current Form Total	31.1	0.0	31.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.1	0.0	3.1
SLB2 (5' x 5' x 8) Dir Ld	28.3	0.0	28.3
SWB Dir Ld w/o Liner	77.5	0.0	77.5
SWB w/ 4 - 55-gal Drums w/ Liners	22.7	0.0	22.7
SWB w/ 4 - 55-gal Drums w/o Liners	3.8	0.0	3.8
Final Form Total	135.4	0.0	135.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	11.25
Aluminum-based Metal/Alloys	6.57
Other Metal/Alloys	5.40
Other Inorganic Materials	3.82
Cellulosics	1.99
Rubber	10.62
Plastics	14.00
Cement	0.00
Solidified Inorganic Material	3.76
Solidified Organic Material	2.94
Soils	1.68
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	3.58
Packaging Material, Rubber	0.24
Packaging Material, Steel	177.17
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.73E-02
Am-243	4.53E-07
Cm-244	7.75E-02
Cs-137	7.27E-07
Np-237	1.31E-03
Pu-238	3.65E+01
Pu-239	4.94E-02
Pu-240	2.11E-02
Pu-241	1.47E+00
Pu-242	3.82E-05
Sr-90	7.22E-07
Th-229	3.20E-08
Th-230	4.54E-07
Th-232	2.33E-06
U-233	7.27E-05
U-234	1.01E-02
U-235	1.04E-06
U-236	3.12E-09
U-238	4.69E-07

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D018,
D019, D035, F002,
F003

TRUCON Code(s)

125/225, 154

Waste Stream Description

This waste stream is defense related contact handled mixed TRU waste. This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste, small HEPAs, liquids, sludges and resins may also be found in this stream..

Waste Stream ID: **SR-W027-235F-HOM**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	CH mixed TRU S3000 solids from 235F				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.6	0.0	4.6
Current Form Total	4.6	0.0	4.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.6	0.0	4.6
Final Form Total	4.6	0.0	4.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	2.55
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	2.55
Cellulosics	2.55
Rubber	2.55
Plastics	7.65
Cement	0.00
Solidified Inorganic Material	237.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.83E-01
Np-237	8.90E-07
Pu-238	1.99E+02
Pu-239	1.60E-01
Pu-240	8.74E-02
Pu-241	1.92E+00
Pu-242	1.04E-04
Th-229	1.71E-14
Th-230	1.03E-06
Th-232	2.31E-17
U-233	3.28E-11
U-234	1.15E-02
U-235	3.00E-09
U-236	4.92E-08
U-238	3.07E-13

Haz. Waste No(s).D004, D005, D006,
D007, D008, D009,
D010, D011, F002**TRUCON Code(s)**

127/227

Waste Stream Description

This waste consists of sludge from tank cleanout.

Waste Stream ID: **SR-W027-643G-HET**

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Spill Clean-ups/Emergency Response Actions	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	CH Mixed TRU Debris (S5000)				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.7	0.0	2.7
Current Form Total	2.7	0.0	2.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	7.6	0.0	7.6
Final Form Total	7.6	0.0	7.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	13.59
Aluminum-based Metal/Alloys	0.46
Other Metal/Alloys	22.29
Other Inorganic Materials	1.86
Cellulosics	16.72
Rubber	10.80
Plastics	49.58
Cement	0.00
Solidified Inorganic Material	0.12
Solidified Organic Material	0.58
Soils	0.12
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.53E-02
Am-243	3.42E-02
Cm-244	2.08E+00
Cs-137	7.38E-03
Np-237	2.48E-04
Pu-238	1.06E-01
Pu-239	1.08E-01
Pu-240	3.72E-02
Pu-241	6.35E-01
Pu-242	1.18E-05
Pu-244	1.08E-15
Sr-90	5.13E-03
Th-229	7.96E-12
Th-230	2.49E-10
Th-232	4.31E-18
U-233	1.39E-08
U-234	4.09E-06
U-235	1.39E-09
U-236	1.37E-08
U-238	2.38E-14

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225, 154

Waste Stream Description

CH Mixed TRU waste resulting from remediation and re-packaging of Mixed "defense related" TRU waste.

Waste Stream ID: **SR-W027-773A-HEPA****Appendix A****Waste Profile Report**

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	CH Mixed TRU consisting of HEPA Filters from the SRNL.			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	11.3	0.0	11.3
Current Form Total	11.3	0.0	11.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	11.3	0.0	11.3
Final Form Total	11.3	0.0	11.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	25.12
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	9.57
Cellulosics	6.74
Rubber	0.10
Plastics	21.45
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.70E-05
Am-243	2.20E-17
Np-237	8.66E-11
Pu-238	2.79E-02
Pu-239	2.35E-05
Pu-240	1.28E-05
Pu-241	2.11E-04
Pu-242	1.53E-08
Pu-244	7.07E-15
Th-229	2.14E-18
Th-230	2.58E-10
Th-232	5.86E-21
U-233	3.55E-15
U-234	2.17E-06
U-235	5.78E-13
U-236	9.50E-12
U-238	5.93E-17

No Hazardous Waste Numbers Provided

TRUCON Code(s)
119/219, 154**Waste Stream Description**

This waste stream is defense related, contact handled TRU waste and is composed of spent HEPA Filters

Waste Stream ID: **SR-W027-773A-HET**

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 773A				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	17.5	0.0	17.5
55-gal Drum Dir Ld w/o Liner	5.2	75.9	81.1
Box - Fiberglass	3.4	0.0	3.4
Box - Plywood	0.9	0.0	0.9
Box - Steel	112.2	0.0	112.2
Cask - Concrete	10.3	0.0	10.3
Cask - SRS CMISC	2.5	0.0	2.5
SWB Dir Ld w/o Liner	0.0	37.8	37.8
Current Form Total	151.9	113.7	265.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.4	0.0	4.4
55-gal Drum Dir Ld w/o Liner	1.5	75.9	77.4
SWB Dir Ld w/o Liner	130.4	37.8	168.2
SWB w/ 4 - 55-gal Drums w/ Liners	30.2	0.0	30.2
SWB w/ 4 - 55-gal Drums w/o Liners	9.5	0.0	9.5
Final Form Total	175.9	113.7	289.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	5.74
Aluminum-based Metal/Alloys	0.54
Other Metal/Alloys	2.33
Other Inorganic Materials	3.28
Cellulosics	1.56
Rubber	3.17
Plastics	5.77
Cement	0.00
Solidified Inorganic Material	6.96
Solidified Organic Material	0.78
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	2.26
Packaging Material, Rubber	0.33
Packaging Material, Steel	154.94
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.18E-02
Am-243	2.59E-04
Cm-244	2.36E-01
Cs-137	1.51E-04
Np-237	4.76E-05
Pu-238	2.06E+00
Pu-239	7.48E-02
Pu-240	1.76E-02
Pu-241	2.97E-01
Pu-242	3.57E-06
Sr-90	1.50E-04
Th-229	3.95E-09
Th-230	1.80E-08
Th-232	6.19E-07
U-233	8.98E-06
U-234	4.07E-04
U-235	2.06E-07
U-236	2.60E-09
U-238	2.35E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D043, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

This waste stream is defense related contact handled mixed TRU waste. This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, other job control waste, small HEPAs liquids, sludges and resins may also be found in this waste.

Waste Stream ID: **SR-W027-776A-HET****Appendix A****Waste Profile Report**

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 776A			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - SRS B-25 OP	7.2	0.0	7.2
Box - Steel	61.2	0.0	61.2
Current Form Total	68.4	0.0	68.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	69.9	0.0	69.9
Final Form Total	69.9	0.0	69.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	22.22
Aluminum-based Metal/Alloys	1.06
Other Metal/Alloys	2.76
Other Inorganic Materials	10.97
Cellulosics	6.51
Rubber	3.82
Plastics	23.28
Cement	0.00
Solidified Inorganic Material	0.07
Solidified Organic Material	0.07
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.98E-04
Cs-137	2.16E-02
Np-237	7.55E-10
Pu-238	2.12E-01
Pu-239	5.90E-04
Pu-240	1.92E-04
Pu-241	3.68E-03
Pu-242	1.29E-07
Sr-90	1.49E-02
Th-229	1.10E-17
Th-230	1.22E-09
Th-232	5.63E-20
U-233	2.37E-14
U-234	1.29E-05
U-235	1.16E-11
U-236	1.14E-10
U-238	4.00E-16

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225, 154**Waste Stream Description**

This waste stream is defense related contact handled mixed TRU waste. This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, other job control waste, small HEPAs liquids, sludges and resins may also be found in this waste.

Waste Stream ID: **SR-W027-FB-Pre86-C**

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	CH Mixed TRU - Heterogeneous debris from 221H			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	56.2	0.0	56.2
Box - Steel	37.9	0.0	37.9
Current Form Total	94.1	0.0	94.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	13.7	0.0	13.7
SWB Dir Ld w/o Liner	39.7	0.0	39.7
SWB w/ 4 - 55-gal Drums w/ Liners	96.4	0.0	96.4
Final Form Total	149.8	0.0	149.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	12.55
Aluminum-based Metal/Alloys	2.97
Other Metal/Alloys	8.38
Other Inorganic Materials	7.70
Cellulosics	3.58
Rubber	4.80
Plastics	23.71
Cement	0.00
Solidified Inorganic Material	18.78
Solidified Organic Material	7.81
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	13.88
Packaging Material, Rubber	0.39
Packaging Material, Steel	188.47
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.84E-01
Am-243	9.76E-07
Cm-244	2.30E-01
Cs-137	1.01E-06
Np-237	3.12E-05
Pu-238	1.22E-01
Pu-239	9.66E-01
Pu-240	2.79E-01
Pu-241	1.34E+00
Pu-242	5.07E-05
Sr-90	9.80E-07
Th-229	1.04E-08
Th-230	6.32E-09
Th-232	3.41E-07
U-233	4.94E-06
U-234	3.30E-05
U-235	9.04E-08
U-236	1.98E-07
U-238	3.16E-07

Haz. Waste No(s).

D005, D006, D007, D008, D009, D011, D018, D019, D022, D029, D039, D040, D043, F001, F002, F003, F005, U002, U151

TRUCON Code(s)

125/225, 133/233, 154

Waste Stream Description

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste. Small HEPA filters, sludges, resins, absorbed liquids, and metal equipment is also in present in the waste stream.

Waste Stream ID: **SR-W027-HBL-Box**

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	CH mixed TRU from 221H				Activity Concentrations Decayed to CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Box - Concrete	4.7	0.0	4.7
Box - Fiberglass	3.4	0.0	3.4
Box - SRS B-25 OP	36.0	0.0	36.0
Box - SRS Black Box	170.8	0.0	170.8
Box - Steel	51.5	0.0	51.5
Box - Steel SS	28.8	0.0	28.8
SLB2 (5' x 5' x 8) Dir Ld	854.7	0.0	854.7
SWB Dir Ld w/o Liner	300.5	0.0	300.5
Current Form Total	1450.8	0.0	1450.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
SLB2 (5' x 5' x 8) Dir Ld	854.7	0.0	854.7
SWB Dir Ld w/o Liner	597.2	0.0	597.2
SWB w/ 4 - 55-gal Drums w/ Liners	1.9	0.0	1.9
Final Form Total	1453.8	0.0	1453.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	102.54
Aluminum-based Metal/Alloys	7.01
Other Metal/Alloys	11.24
Other Inorganic Materials	11.24
Cellulosics	16.81
Rubber	1.06
Plastics	12.49
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.02
Packaging Material, Rubber	0.16
Packaging Material, Steel	190.03
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.68E-03
Cs-137	3.23E-03
Np-237	2.72E-04
Pu-238	8.97E+00
Pu-239	8.25E-03
Pu-240	4.23E-03
Pu-241	8.71E-02
Pu-242	4.77E-06
Sr-90	1.83E-03
Th-229	5.45E-09
Th-230	5.26E-08
Th-232	3.40E-15
U-233	3.11E-06
U-234	5.53E-04
U-235	2.91E-08
U-236	3.45E-06
U-238	1.15E-06

Haz. Waste No(s).

D006, D007, D008, D009, D011, D019, D022, D029, D043, F002, F005, U133

TRUCON Code(s)

125/225, 154

Waste Stream Description

This waste stream is defense related debris consisting of large equipment and job control waste packaged in large steel boxes

APPENDIX B: Potential TRU Waste Profile Reports

The following waste profile reports contain information on potential TRU waste streams as of the inventory date, December 31, 2010. These waste streams have been placed in the potential category for various reasons as stated in section 4.0 of this report.

The TRU waste sites that have reported potential TRU waste streams are:

Material and Fuels Complex	AW
Babcock and Wilcox Nuclear Energy Services	BL
Idaho National Laboratory	IN
Los Alamos National Laboratory	LA
Hanford (Richland Operations) Site	RL
Hanford (Office of River Protection)	RP
Savannah River Site	SR
West Valley Demonstration Project	WV

Waste Stream ID: **AW-IN-TRA-BE-01**

Appendix B
Waste Profile Report

Site	Material and Fuels Complex	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Uncategorized Metal Waste	Inventory Date	12/31/2010		
Stream Name	TRA Beryllium Blocks					Activity Concentrations as of CY	2001

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Beryllium Reflector Block	9.0	10.8	19.8
Shim Control Cylinder	6.2	5.4	11.5
Current Form Total	15.2	16.2	31.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	15.1	16.0	31.2
Final Form Total	15.1	16.0	31.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	429.85
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.00
Packaging Material, Steel	560.67
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.90E-02
Cs-137	6.12E+00
Pu-238	2.96E-02
Pu-239	5.91E-03
Pu-240	1.54E-02
Pu-241	1.97E+00
Pu-242	3.24E-04
Sr-90	1.80E+00
U-233	2.15E-05
U-234	5.51E-06
U-238	1.88E-06

No Hazardous Waste Numbers Provided

TRUCON Code(s)
317

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 INL.

Waste Stream ID: **AW-W018**

Appendix B
Waste Profile Report

Site	Material and Fuels Complex	Summary Category	X7000	Defense Determination	Pending Determination	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Prohibited Waste	Inventory Date	12/31/2010		
Stream Name	SODIUM - TRU			Activity Concentrations as of CY		1996	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Liner - RSWF	2.6	0.0	2.6
Current Form Total	2.6	0.0	2.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	2.7	0.0	2.7
Final Form Total	2.7	0.0	2.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	2361.27
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	295.19
Other Inorganic Materials	147.59
Cellulosics	147.59
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.00
Packaging Material, Steel	560.67
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.43E-03
Cs-137	5.81E+02
Np-237	2.39E-05
Pu-238	1.08E-01
Pu-239	2.39E+01
Pu-240	1.24E+01
Sr-90	5.43E+02
U-235	2.10E-03
U-238	1.49E-03

No Hazardous Waste Numbers Provided

TRUCON Code(s)
317

Waste Stream Description

Sodium was used as a primary and secondary coolant for the EBR-II reactor. Waste sodium metal is a hazardous constituent (D001/D003) of some of the TRU waste stored at the ANL-W Radioactive Scrap and Waste Facility (RSWF). The waste was 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 (EPA technology code DEACT) to remove sodium from the TRU waste prior to disposal at WIPP. Final waste form has not been determined yet, but the sodium will be removed from the waste. Once removed, the resulting waste may not be considered TRU, especially in the case of sodium-bonded blanket fuels.

Waste Stream ID: **AW-W019**

Appendix B
Waste Profile Report

Site	Material and Fuels Complex	Summary Category	X7000	Defense Determination	Pending Determination	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Prohibited Waste	Inventory Date	12/31/2010		
Stream Name	SODIUM POTASSIUM -NaK- TRU			Activity Concentrations as of CY	1996		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Liner - RSWF	0.3	0.0	0.3
Current Form Total	0.3	0.0	0.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	847.04
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	116.15
Other Inorganic Materials	58.07
Cellulosics	58.07
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.00
Packaging Material, Steel	560.67
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Cs-137	4.02E+02
Pu-239	1.43E-01
Pu-240	5.48E-02
Sr-90	3.93E+02
U-235	2.37E-04
U-238	1.47E-04

No Hazardous Waste Numbers Provided

TRUCON Code(s)
317

Waste Stream Description

Sodium potassium alloy (NaK) was used as a coolant for some components of the EBR-II Reactor. Waste NaK metal is a hazardous constituent (D003) 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 was 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 (EPA technology code DEACT) to remove NaK from the TRU waste prior to disposal at WIPP. Final waste form has not been determined yet.

Waste Stream ID: **BL-Parks****Appendix B****Waste Profile Report**

Site	Babcock and Wilcox Nuclear Energy Services	Summary Category	S5000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Parks Township TRU Waste			Activity Concentrations as of CY		2000	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.0	0.0	4.0
Box - Steel	5.7	0.0	5.7
Current Form Total	9.6	0.0	9.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	4.0	0.0	4.0
SWB Dir Ld w/o Liner	5.7	0.0	5.7
Final Form Total	9.6	0.0	9.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.35
Packaging Material, Steel	144.13
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.99E+00
Cs-137	4.11E-03
Pu-238	3.44E+00
Pu-239	1.82E+01
Pu-240	6.85E+00
Pu-241	1.83E+02
Pu-242	4.04E-03
U-234	3.08E-05
U-235	1.40E-06
U-238	2.79E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

10.05 m3 of waste from Parks Township ROD 63FR3629, 65FR82985, 69FR39446 amended 27 February 2008 Point of Contact William Spurgeon (Any reference to 45m3, Matt Hutmaker, B&W is not related to BL-Parks)

Waste Stream ID: **BL-Parks-A****Appendix B****Waste Profile Report**

Site	Babcock and Wilcox Nuclear Energy Services	Summary Category	S5000	Defense Determination	Pending Determination	Handling	RH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Parks Township TRU Waste			Activity Concentrations as of CY 2000			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Box - Misc	0.2	0.0	0.2
Current Form Total	0.4	0.0	0.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.35E-01
Pu-239	6.29E+00

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

10.05 m3 of waste from Parks Township ROD 63FR3629, 65FR82985, 69FR39446 amended 27 February 2008 Point of Contact William Spurgeon (Any reference to 45m3, Matt Hutmaker, B&W is not related to BL-Parks)

Waste Stream ID: **IN-BN203**

Appendix B
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	Paper, Cloth, Metal, Glass				Activity Concentrations as of CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	5.4	0.0	5.4
Bin - Misc	21.0	0.0	21.0
Current Form Total	26.4	0.0	26.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
TDOP w/ 10 - 55-gal Drums w/ Liners	58.5	0.0	58.5
Final Form Total	58.5	0.0	58.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	17.13
Packaging Material, Rubber	0.44
Packaging Material, Steel	231.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.32E-01
Cs-137	2.29E-08
Np-237	3.69E-06
Pu-238	1.80E-02
Pu-239	2.96E-01
Pu-240	7.16E-02
Pu-241	6.14E-01
Pu-242	8.28E-06
Sr-90	2.53E-08
U-234	2.42E-05
U-235	7.55E-06
U-238	1.28E-05

Haz. Waste No(s).

D005, D006, D007,
D008, D009, D011,
F001, F002, F003

**No TRUCON
Codes Provided**

Waste Stream Description

This waste stream was generated by D&D activities at the Battelle Columbus Laboratory. It consists of a mixture of combustible and non-combustible items in roughly equal weights. The combustible wastes are primarily paper and plastic products and the non-combustible wastes are primarily metal with some glass.

Waste Stream ID: **IN-ID-RTC-S5000**

Appendix B
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	RH TRU Debris waste from Reactor Technology Complex at the INL			Activity Concentrations as of CY	N/A		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Uncontained	0.0	4.0	4.0
Current Form Total	0.0	4.0	4.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.0	4.4	4.4
Final Form Total	0.0	4.4	4.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

**No Final Form
Radionuclides Provided**

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
F002, F005, U134

**No TRUCON
Codes Provided**

Waste Stream Description

Draft AK report is being prepared to assure that the D&D waste stream meets WIPP requirements. The waste is planned to be packaged in future (2012). Approximately 20 drums (55 gallon) are expected from this waste stream.

Waste Stream ID: **IN-SBW-01A**

Appendix B
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	SBW Treatment - Steam Reforming - Carbonate Waste Form				Activity Concentrations as of CY	2006	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Tank(s)	3520.0	0.0	3520.0
Current Form Total	3520.0	0.0	3520.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	599.0	0.0	599.0
Final Form Total	599.0	0.0	599.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	1334.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.00
Packaging Material, Steel	560.67
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.27E-01
Am-243	2.85E-04
Cm-244	2.02E-03
Cs-137	2.90E+02
Np-237	4.03E-03
Pu-238	6.22E+00
Pu-239	6.75E-01
Pu-240	2.50E-01
Pu-241	2.54E+00
Pu-242	1.29E-04
Sr-90	1.90E+02
U-233	5.64E-05
U-234	8.98E-03
U-235	2.20E-04
U-238	2.16E-04

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, F001,
F002, F005, U134

**No TRUCON
Codes Provided**

Waste Stream Description

The liquid SBW would be transferred from the storage tanks to the steam reforming process over a 1.0-year period. The steam reforming process 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 600 and 1000 degrees centigrade. The carbonate waste form would be removed from the fluidized bed and transferred to the canning facility and placed by 90% loading in to 72-B canisters (direct loaded). The carbonate waste form would be RH-TRU waste, dried to 1% moisture, and would generate approximately 673 canisters with a surface dose rate <100 Rem/hr.

Waste Stream ID: **IN-SBW-01B**

Appendix B
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	SBW Treatment - Steam Reforming Process - Debris			Activity Concentrations as of CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	0.0	89.0	89.0
Current Form Total	0.0	89.0	89.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	0.0	89.0	89.0
Final Form Total	0.0	89.0	89.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	700.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	2.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.00
Packaging Material, Steel	560.67
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.27E-03
Am-243	2.85E-06
Cm-244	2.02E-05
Cs-137	2.90E+00
Np-237	4.03E-05
Pu-238	6.22E-02
Pu-239	6.75E-03
Pu-240	2.50E-03
Pu-241	2.54E-02
Pu-242	1.29E-06
Sr-90	1.90E+00
U-233	5.64E-07
U-234	8.98E-05
U-235	2.20E-06
U-238	2.16E-06

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, F001,
F002, F005, U134

**No TRUCON
Codes Provided**

Waste Stream Description

The debris from the steam reforming process would include spent HEPA filters and other failed equipment.

Waste Stream ID: **IN-W269**

Appendix B
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Laboratory Waste					Activity Concentrations as of CY	1989

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	24.1	0.0	24.1
Current Form Total	24.1	0.0	24.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	24.1	0.0	24.1
Final Form Total	24.1	0.0	24.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.79E+00
Pu-238	7.93E+00
Pu-239	6.97E+01
Pu-240	7.22E+00
Pu-241	2.65E-01
Pu-242	2.46E-05
U-235	1.21E-02
U-238	7.44E-05

Haz. Waste No(s).

D006, D007, D008, D011

**No TRUCON
Codes Provided**

Waste Stream Description

This waste stream, generated at the ANL-W, may include fluxwire, fission counters, glassware, vials, miscellaneous waste from gloveboxes, aluminum foil and capsules, ion exchange resins, plutonium sources, and uranium pellets. Waste may also contain <50% by volume analytical samples and pellets dissolved and absorbed in Oil-Dri.

Waste Stream ID: **IN-W322**

Appendix B
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Unknown	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Uncategorized Metal Waste	Inventory Date	12/31/2010		
Stream Name	Actinide Neutron Sources					Activity Concentrations as of CY	1989

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.1	0.0	2.1
Current Form Total	2.1	0.0	2.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	5.7	0.0	5.7
Final Form Total	5.7	0.0	5.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	139.10
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-239	4.83E+00
Pu-240	1.00E+00
U-235	1.31E-04

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

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.

Waste Stream ID: **IN-W337**

Appendix B
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Unknown	Handling	CH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Inorganic Nonmetal Waste	Inventory Date	12/31/2010		
Stream Name	Americium Sources			Activity Concentrations as of CY 1989			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Current Form Total	0.4	0.0	0.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	139.10
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-239	1.46E+01
Pu-240	3.03E+00
U-235	3.96E-04

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

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."

Waste Stream ID: **IN-W338**

Appendix B
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	ANL-W ACL Cold-Line Absorbed Liquid and Debris			Activity Concentrations as of CY	1989		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.2	0.0	1.2
Current Form Total	1.2	0.0	1.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.2	0.0	1.2
Final Form Total	1.2	0.0	1.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-239	4.67E-01
U-235	1.17E-04

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream was generated at ANL-W, includes solidified liquids, miscellaneous hardware, and polyethylene.

Waste Stream ID: **IN-W339**

Appendix B
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	ANL-W FMF EFL: Zr-U-Pu Fuel Casting			Activity Concentrations as of CY	1989		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	8.5	0.0	8.5
Current Form Total	8.5	0.0	8.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	8.5	0.0	8.5
Final Form Total	8.5	0.0	8.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-239	1.10E+01
Pu-240	4.49E-02
U-235	8.30E-04

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream was generated at ANL-W. It consists of solid zirconium, uranium, and plutonium fuel casting metal alloy wastes. The waste is a solid with small amounts of glass powder from broken glass molds. The waste is created when the metal is heated in a crucible and then pressurized into the glass molds. The glass molds are broken to remove the fuel pins, and the remaining molds, crucibles, and residues constitute the waste.

Waste Stream ID: **IN-W342R**

Appendix B
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S9000	Defense Determination	Unknown	Handling	RH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Unknown	Inventory Date	12/31/2010		
Stream Name	Miscellaneous Radionuclide Sources					Activity Concentrations as of CY	1989

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Current Form Total	0.4	0.0	0.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	158.69
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.51E+00
Pu-239	3.04E-02

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream generated at the INEL, is believed to contain radionuclide sources (e.g., Pu-239, Cf-252 and Am-241) from calibration units across the INL site.

Waste Stream ID: **IN-W350**

Appendix B
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S9000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Unknown	Inventory Date	12/31/2010		
Stream Name	Special Source Material (UNK)					Activity Concentrations as of CY	1989

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-239	5.74E+01
Pu-240	1.76E+02

No Hazardous
Waste Numbers
Provided

No TRUCON
Codes Provided

Waste Stream Description

There is no descriptive or constituent information available for this waste, which was generated at ANL-E.

Waste Stream ID: **IN-W359R**

Appendix B
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Pending Determination	Handling	RH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Uncategorized Metal Waste	Inventory Date	12/31/2010		
Stream Name	Neutron Sources					Activity Concentrations as of CY	1989

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Current Form Total	0.6	0.0	0.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	2.01E+02

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream generated by Bettis Atomic Laboratory consists of two Pu-238-Be sources and one Pu-238-Li source.

Waste Stream ID: **LA-TA-00-04**

Appendix B
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2010	
Stream Name	Absorbed Liquid Waste					Activity Concentrations as of CY	2007

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	2.40
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.88
Cellulosics	0.00
Rubber	0.00
Plastics	3.76
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	19.13
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.07E-03
Pu-238	1.28E-03
Pu-239	4.35E-02
Pu-240	1.02E-02
Pu-241	1.53E-01
Pu-242	5.86E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005, U003, U044, U196

TRUCON Code(s)

112/212

Waste Stream Description

Inorganic particulate waste generated during plutonium recovery, fabrication, R&D, facility and equipment operations, and maintenance processes.

Waste Stream ID: **LA-TA-03-17****Appendix B****Waste Profile Report**

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Hepa Filters					Activity Concentrations as of CY	1977

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Crate	19.2	0.0	19.2
Current Form Total	19.2	0.0	19.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	18.9	0.0	18.9
Final Form Total	18.9	0.0	18.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	11.96
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	3.91
Other Inorganic Materials	18.97
Cellulosics	15.28
Rubber	1.55
Plastics	44.87
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.30
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.20
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedNo TRUCON
Codes Provided**Waste Stream Description**

Hepa Filters

Waste Stream ID: LA-TA-03-21

Appendix B
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Metals and Miscellaneous Equipment Debris			Activity Concentrations as of CY	1975		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Crate	93.4	0.0	93.4
Current Form Total	93.4	0.0	93.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	92.6	0.0	92.6
Final Form Total	92.6	0.0	92.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	32.66
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	10.68
Other Inorganic Materials	51.81
Cellulosics	41.73
Rubber	4.23
Plastics	122.53
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.82
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.20
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

No Final Form
Radionuclides Provided

Haz. Waste No(s).
D008

No TRUCON
Codes Provided

Waste Stream Description

Metals and Miscellaneous Equipment Debris

Waste Stream ID: **LA-TA-03-23****Appendix B****Waste Profile Report**

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Hepa Filters					Activity Concentrations as of CY	1974

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Crate	66.4	0.0	66.4
Current Form Total	66.4	0.0	66.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	66.2	0.0	66.2
Final Form Total	66.2	0.0	66.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	10.95
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	3.58
Other Inorganic Materials	17.37
Cellulosics	13.99
Rubber	1.42
Plastics	41.08
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.27
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.20
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedNo TRUCON
Codes Provided**Waste Stream Description**

Hepa Filters

Waste Stream ID: **LA-TA-21-11**

Appendix B
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	NonCombustible Building Debris			Activity Concentrations as of CY	1975		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Crate	15.9	0.0	15.9
Other	2.1	0.0	2.1
Current Form Total	18.0	0.0	18.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	17.0	0.0	17.0
Final Form Total	17.0	0.0	17.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	41.02
Aluminum-based Metal/Alloys	15.64
Other Metal/Alloys	31.44
Other Inorganic Materials	8.94
Cellulosics	26.65
Rubber	20.59
Plastics	15.32
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.20
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

No Final Form
Radionuclides Provided

No Hazardous
Waste Numbers
Provided

No TRUCON
Codes Provided

Waste Stream Description

NonCombustible Building Debris

Waste Stream ID: **LA-TA-50-15**

Appendix B
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Heterogeneous Debris			Activity Concentrations as of CY	1987		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Other	7.0	0.0	7.0
Current Form Total	7.0	0.0	7.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	7.6	0.0	7.6
Final Form Total	7.6	0.0	7.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	235.51
Aluminum-based Metal/Alloys	85.73
Other Metal/Alloys	87.01
Other Inorganic Materials	9.56
Cellulosics	17.61
Rubber	16.24
Plastics	17.80
Cement	0.00
Solidified Inorganic Material	3.93
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.20
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.86E-02
Cs-137	1.94E+04
Pu-238	1.21E-02
Pu-239	4.13E-01
Pu-240	9.66E-02
Pu-241	1.46E+00
Pu-242	5.56E-06
Sr-90	1.37E+04
U-234	8.85E-07
U-235	1.53E-08

Haz. Waste No(s).

D008

**No TRUCON
Codes Provided**

Waste Stream Description

Hot cell liners

Waste Stream ID: **RL221U-01**

Appendix B
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	221U moved from RL200-01			Activity Concentrations as of CY	1974		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	214.60
Aluminum-based Metal/Alloys	29.89
Other Metal/Alloys	8.98
Other Inorganic Materials	39.85
Cellulosics	22.91
Rubber	5.44
Plastics	20.21
Cement	0.00
Solidified Inorganic Material	3.79
Solidified Organic Material	0.01
Soils	4.02
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.53E-04
Cs-137	1.50E-03
Pu-238	7.74E-05
Pu-239	3.26E-03
Pu-240	7.45E-04
Pu-241	4.66E-03
Pu-242	6.35E-08
Sr-90	1.37E-03

Haz. Waste No(s).

D006, D007, D008, D009, D011, D027, D030, D032, D033, D034, D036, D037, F001, F002

TRUCON Code(s)

125/225

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RL300-11**

Appendix B
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	300 Area TRU RH Non-Mixed Debris			Activity Concentrations as of CY	2001		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Misc	5.7	0.0	5.7
Current Form Total	5.7	0.0	5.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	7.5	0.0	7.5
Final Form Total	7.5	0.0	7.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	87.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	666.12
Cellulosics	21.75
Rubber	0.00
Plastics	5.44
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.35E-01
Am-243	3.33E-01
Cs-137	5.32E+05
Np-237	2.32E-06
Pu-238	8.20E-01
Pu-239	3.22E-01
Pu-240	1.23E-01
Pu-241	5.42E+00
Pu-242	2.17E-04
Sr-90	3.85E+05
Th-232	1.25E-05
U-234	4.64E-05
U-235	7.08E-07
U-236	1.72E-06
U-238	1.25E-05

No Hazardous Waste Numbers Provided

TRUCON Code(s)
325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RLCH2-08****Appendix B****Waste Profile Report**

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Tank Farms TRU RH Mixed Debris			Activity Concentrations as of CY	2001		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Uncontained	0.0	279.1	279.1
Current Form Total	1.9	279.1	281.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	2.5	279.6	282.0
Final Form Total	2.5	279.6	282.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	3.09
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	374.77
Other Inorganic Materials	7.39
Cellulosics	0.00
Rubber	46.03
Plastics	12.79
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.97E-02
Cs-137	4.45E+00
Pu-238	7.73E-04
Pu-239	4.45E-02
Pu-240	8.61E-03
Sr-90	2.04E+02
U-235	1.74E-05
U-238	4.05E-04

Haz. Waste No(s).

D030, D032, F001, F002, F003, F004, F005

TRUCON Code(s)

325

Waste Stream Description

RH waste- Equipment removed from waste tanks (instrument trees, pumps, circulators, agitators, heaters, sluicers, steam coils, air lances, cameras). The waste stream ranges from contaminated clothing to process equipment contaminated with RCRA constituents.

Waste Stream ID: **RLPFP-10**

Appendix B
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S4000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Contaminated Soil/Debris Waste		Inventory Date	12/31/2010	
Stream Name	PFP RH-TRU Contaminated Soil				Activity Concentrations as of CY	2010	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Uncontained	0.0	23.0	23.0
Current Form Total	0.0	23.0	23.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.0	23.1	23.1
Final Form Total	0.0	23.1	23.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.96E-01
Am-243	9.96E-01
Pu-238	9.96E-01
Pu-239	9.96E-01
Pu-240	9.96E-01
Pu-241	9.96E-01
Pu-242	9.96E-01

No Hazardous Waste Numbers Provided

TRUCON Code(s)

311

Waste Stream Description

Soil remediation wastes in PFP Zone.

Waste Stream ID: **RLPRC-01**

Appendix B
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Unknown	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	CUPRC TRU Mixed Debris				Activity Concentrations as of CY	1987	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Current Form Total	1.9	0.0	1.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	46.45
Other Inorganic Materials	661.59
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.20
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.89E-02
Pu-238	1.99E-02
Pu-239	1.82E-01
Pu-240	4.65E-02
Pu-241	1.28E+00
Pu-242	3.11E-06
Th-232	5.50E-05
U-234	6.24E-07
U-235	2.82E-08
U-238	6.06E-07

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CEER University Laboratory.

Waste Stream ID: **RP-TFC001**

Appendix B
Waste Profile Report

Site	Hanford (River Protection) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Bismuth Phosphate Process TRU Solids				Activity Concentrations as of CY	2004	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Tank(s)	1200.0	0.0	1200.0
Current Form Total	1200.0	0.0	1200.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	438.7	0.0	438.7
Final Form Total	438.7	0.0	438.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	1.60
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.37E-02
Cs-137	6.11E-01
Np-237	1.22E-05
Pu-238	6.60E-03
Pu-239	5.16E-01
Pu-240	6.23E-02
Pu-241	1.89E-01
Pu-242	3.08E-06
Sr-90	7.98E+00
U-233	1.10E-09
U-234	1.68E-03
U-235	5.42E-05
U-236	1.62E-05
U-238	1.24E-03

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D018,
D019, D022, D028,
D029, D030, D033,
D034, D035, D036,
D038, D039, D040,
D041, D043, F001,
F002, F003, F004,
F005

**No TRUCON
Codes Provided**

Waste Stream Description

Solidified aqueous waste slurry

Waste Stream ID: **RP-W754**

Appendix B
Waste Profile Report

Site	Hanford (River Protection) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	224 Waste				Activity Concentrations as of CY	2004	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Tank(s)	1079.0	0.0	1079.0
Current Form Total	1079.0	0.0	1079.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	323.2	0.0	323.2
Final Form Total	323.2	0.0	323.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	1.60
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.20E-01
Cs-137	1.66E-01
Np-237	1.62E-06
Pu-238	1.11E-02
Pu-239	1.55E+00
Pu-240	1.29E-01
Pu-241	2.16E-01
Pu-242	4.91E-06
Sr-90	3.36E+00
U-233	1.24E-10
U-234	1.79E-04
U-235	7.25E-06
U-236	1.75E-06
U-238	1.64E-04

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D018,
D019, D022, D028,
D029, D030, D033,
D034, D035, D036,
D038, D039, D040,
D041, D043, F001,
F002, F003, F004,
F005

**No TRUCON
Codes Provided**

Waste Stream Description

Solidified aqueous waste slurry.

Waste Stream ID: **RP-W755**

Appendix B
Waste Profile Report

Site	Hanford (River Protection) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	Bismuth Phosphate Process TRU Solids			Activity Concentrations as of CY		2004	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Tank(s)	3090.0	0.0	3090.0
Current Form Total	3090.0	0.0	3090.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	793.5	0.0	793.5
Final Form Total	793.5	0.0	793.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	1.60
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.41E-01
Cs-137	3.32E-01
Np-237	8.04E-05
Pu-238	2.97E-03
Pu-239	5.40E-01
Pu-240	4.38E-02
Pu-241	6.82E-02
Pu-242	5.51E-07
Sr-90	1.20E+01
U-233	3.11E-09
U-234	3.61E-03
U-235	1.60E-04
U-236	2.90E-05
U-238	3.67E-03

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D018,
D019, D022, D028,
D029, D030, D033,
D034, D035, D036,
D038, D039, D040,
D041, D043, F001,
F002, F003, F004,
F005

**No TRUCON
Codes Provided**

Waste Stream Description

Solidified aqueous waste slurry

Waste Stream ID: **SR-T001-WSB-1**

Appendix B
Waste Profile Report

Site	Savannah River Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	N/A				Activity Concentrations as of CY	2015	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	4512.8	4512.8
Current Form Total	0.0	4512.8	4512.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	4512.8	4512.8
Final Form Total	0.0	4512.8	4512.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
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

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description

This waste stream is defense related, contact handled TRU and is a neutralized aqueous stream solidified in an inorganic matrix (cement).

Waste Stream ID: **SR-W027-221H-HET-B****Appendix B****Waste Profile Report**

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	Sensitive- Heterogeneous debris from 221H			Activity Concentrations as of CY	1985		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	14.8	0.0	14.8
Current Form Total	14.8	0.0	14.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	34.0	0.0	34.0
Final Form Total	34.0	0.0	34.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedTRUCON Code(s)
125/225**Waste Stream Description**

This waste stream has been separated from its parent waste stream SR-W027-221H-HET because it contains sensitive waste.

Waste Stream ID: **SR-W027-321-322M-HET****Appendix B****Waste Profile Report**

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	CH Mixed TRU Debris (S5000)			Activity Concentrations as of CY	1980		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.6	0.0	4.6
Current Form Total	4.6	0.0	4.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	11.3	0.0	11.3
Final Form Total	11.3	0.0	11.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.50E-01
Np-237	1.93E-04
Pu-238	9.70E-03
Pu-239	1.62E-02
Pu-240	3.84E-03
Pu-241	5.85E+01
Pu-242	6.67E-07

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225, 154**Waste Stream Description**

CH Mixed TRU waste resulting from target assembly fabrication leading to production of defense related nuclear materials.

Waste Stream ID: **SR-W027-773A-HET-CLAS****Appendix B****Waste Profile Report**

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	CH TRU - Sensitive waste from 773A			Activity Concentrations as of CY		1990	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Box - Steel	10.1	0.0	10.1
SWB Dir Ld w/o Liner	5.7	0.0	5.7
Current Form Total	16.2	0.0	16.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	17.0	0.0	17.0
SWB w/ 4 - 55-gal Drums w/ Liners	1.9	0.0	1.9
Final Form Total	18.9	0.0	18.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	162.00
Aluminum-based Metal/Alloys	7.74
Other Metal/Alloys	20.12
Other Inorganic Materials	79.97
Cellulosics	47.46
Rubber	27.86
Plastics	169.74
Cement	0.00
Solidified Inorganic Material	0.52
Solidified Organic Material	0.52
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.63
Packaging Material, Rubber	0.22
Packaging Material, Steel	159.21
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedTRUCON Code(s)
125/225, 154**Waste Stream Description**

This waste stream is defense related, contact handled TRU waste and is composed of metal equipment and debris

Waste Stream ID: **SR-W027-UNK****Appendix B****Waste Profile Report**

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Source Unknown	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	SRS "Generating Source Unknown" TRU Waste			Activity Concentrations as of CY	N/A		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.5	0.0	2.5
Box - Concrete	11.9	0.0	11.9
Box - SRS B-25 OP	3.6	0.0	3.6
Box - Steel	3.6	0.0	3.6
Current Form Total	21.6	0.0	21.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	20.8	0.0	20.8
SWB w/ 4 - 55-gal Drums w/ Liners	5.7	0.0	5.7
Final Form Total	26.5	0.0	26.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	232.02
Aluminum-based Metal/Alloys	11.08
Other Metal/Alloys	28.82
Other Inorganic Materials	114.53
Cellulosics	67.98
Rubber	39.90
Plastics	243.11
Cement	0.00
Solidified Inorganic Material	0.74
Solidified Organic Material	0.74
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	3.49
Packaging Material, Rubber	0.25
Packaging Material, Steel	165.80
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedTRUCON Code(s)
125/225, 154**Waste Stream Description**

This waste stream consists of legacy plutonium contaminated debris from SRS facilities. The unique identification for these waste containers has been lost. Thus, knowledge of the generation source that would allow the waste to be placed in the proper waste stream is not known at this time. Some waste may be remote handled.

Waste Stream ID: **WV-M010a**

Appendix B
Waste Profile Report

Site	West Valley Demonstration Project	Summary Category	S3000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2010	
Stream Name	TRU Spent Absorbents CH				Activity Concentrations as of CY	2008	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Misc	17.5	0.0	17.5
Current Form Total	17.5	0.0	17.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	9.5	0.0	9.5
Final Form Total	9.5	0.0	9.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	249.74
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.61E-02
Am-243	3.15E-03
Cs-137	8.09E-03
Np-237	4.88E-07
Pu-238	1.83E-02
Pu-239	2.28E-02
Pu-240	1.74E-02
Pu-241	2.44E-01
Pu-242	4.83E-04
Sr-90	7.11E-03
Th-230	4.10E-06
Th-232	2.87E-04
U-233	1.84E-04
U-234	8.79E-05
U-235	2.26E-05
U-236	6.79E-05
U-238	1.09E-04

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream consists of spent absorbents (not cement) generated from site operations. The media absorbed is an organic liquid for this waste stream. This does not contain hazardous waste.

Waste Stream ID: **WV-T004**

Appendix B
Waste Profile Report

Site	West Valley Demonstration Project	Summary Category	S3000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2010	
Stream Name	TRU Liquids					Activity Concentrations as of CY	2004

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.3	0.0	3.3
Current Form Total	3.3	0.0	3.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	3.3	0.0	3.3
Final Form Total	3.3	0.0	3.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	1000.60
Solidified Inorganic Material	250.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.42E-01
Am-243	1.08E-02
Cm-244	1.50E-02
Cs-137	2.27E-05
Pu-238	2.74E-01
Pu-239	1.08E-01
Pu-240	8.27E-02
Pu-241	3.45E+00
Pu-242	3.02E-04
Sr-90	2.63E-04
Th-230	1.52E-07
Th-232	2.34E-09
U-233	1.00E-04
U-234	4.71E-05
U-235	5.58E-06
U-236	1.67E-05
U-238	4.17E-05

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream consists of liquid waste with associated fissile material generated from previous decontamination and decommissioning activities.

Waste Stream ID: **WV-T006a**

Appendix B
Waste Profile Report

Site	West Valley Demonstration Project	Summary Category	S5000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	CH TRU General Waste				Activity Concentrations as of CY	2006	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	93.2	0.0	93.2
Box - Misc	189.6	0.0	189.6
Uncontained	0.0	175.0	175.0
Current Form Total	282.8	175.0	457.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	95.3	36.8	132.1
SWB Dir Ld w/o Liner	51.0	141.8	192.8
Final Form Total	146.3	178.6	324.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	277.61
Other Inorganic Materials	555.22
Cellulosics	0.00
Rubber	111.04
Plastics	166.57
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.34
Packaging Material, Steel	144.22
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.82E+00
Am-243	3.65E-01
Cm-244	5.10E-01
Cs-137	8.79E-03
Pu-238	9.29E+00
Pu-239	3.66E+00
Pu-240	2.80E+00
Pu-241	1.17E+02
Pu-242	1.03E-02
Sr-90	1.02E-01
Th-230	5.89E-05
Th-232	9.05E-07
U-233	2.93E-04
U-234	1.38E-04
U-235	1.63E-05
U-236	4.90E-05
U-238	1.22E-04

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream consists of radiologically contaminated solid waste generated from various site activities. The specific contents include but are not limited to Anti-C clothing, hoses, glovebags, tools, pre-filters, HEPA filters, Roughing filters, other filters, sweeping compound, glove boxes, tools, evaporators, dissolver tanks, condensers, piping DAW, plastic bags, bottles, and cell floor debris etc.

Waste Stream ID: **WV-T006b**

Appendix B
Waste Profile Report

Site	West Valley Demonstration Project	Summary Category	S5000	Defense Determination	Pending Determination	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	RH TRU General Waste				Activity Concentrations as of CY	2004	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	75.9	0.0	75.9
Box - Misc	424.8	0.0	424.8
Uncontained	0.0	88.0	88.0
Current Form Total	500.7	88.0	588.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	308.9	46.2	355.1
Final Form Total	308.9	46.2	355.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	204.93
Other Inorganic Materials	409.87
Cellulosics	0.00
Rubber	81.97
Plastics	122.96
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.59E+00
Cm-244	2.98E-01
Cs-137	1.04E+02
Np-237	2.24E-02
Pu-238	2.80E+00
Pu-239	2.17E+00
Pu-240	1.65E+00
Pu-241	4.87E+01
Sr-90	1.22E+02
Th-232	3.44E-04
U-233	1.31E-02
U-234	6.27E-03
U-235	1.19E-03
U-236	3.58E-03
U-238	4.06E-03

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream consists of radiologically contaminated solid waste generated from various site activities. The specific contents include but are not limited to Anti-C clothing, hoses, glovebags, tools, pre-filters, HEPA filters, Roughing filters, other filters, sweeping compound, glove boxes, tools, evaporators, dissolver tanks, condensers, piping DAW, plastic bags, bottles, and cell floor debris etc.

Waste Stream ID: **WV-T017b**

Appendix B

Waste Profile Report

Site	West Valley Demonstration Project	Summary Category	S5000	Defense Determination	Pending Determination	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	RH TRU Spent Filter Media			Activity Concentrations as of CY 2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Misc	39.3	0.0	39.3
Current Form Total	39.3	0.0	39.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	23.7	0.0	23.7
Final Form Total	23.7	0.0	23.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	356.36
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.18E-02
Cs-137	3.06E+01
Np-237	1.12E-04
Pu-238	2.56E-02
Pu-239	4.92E-02
Pu-240	3.75E-02
Pu-241	4.59E-01
Sr-90	3.58E-01
Th-230	3.03E-05
Th-232	3.79E-05
U-235	1.39E-04
U-236	4.19E-04
U-238	2.19E-04

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream consists of spent filter media generated from filtration of the Fuel Receiving & Storage pool where radiologically contaminated equipment was stored.

Waste Stream ID: **WV-W024a****Appendix B****Waste Profile Report**

Site	West Valley Demonstration Project	Summary Category	S5000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2010		
Stream Name	CH TRU Mixed Waste					Activity Concentrations as of CY	2006

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	2.7	0.0	2.7
Box - Misc	53.8	0.0	53.8
Current Form Total	56.5	0.0	56.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	2.7	0.0	2.7
SWB Dir Ld w/o Liner	26.5	0.0	26.5
Final Form Total	29.2	0.0	29.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	250.31
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.23
Packaging Material, Steel	151.34
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.42E-01
Am-243	1.08E-02
Cm-244	1.51E-02
Cs-137	2.27E-05
Pu-238	2.74E-01
Pu-239	1.08E-01
Pu-240	8.28E-02
Pu-241	3.46E+00
Pu-242	3.03E-04
Sr-90	2.63E-04
Th-230	1.52E-07
Th-232	2.34E-09
U-233	1.00E-04
U-234	4.72E-05
U-235	5.58E-06
U-236	1.68E-05
U-238	4.18E-05

Haz. Waste No(s).D006, D007, D008,
D009, D010**No TRUCON
Codes Provided****Waste Stream Description**

Contains hazardous constituents from D&D activities and Laboratory Waste generated onsite in solid forms such as filters, vacuum cans, glove box debris, piping, hoses, pumps, anti C clothing, bags, wipes, and floor debris. If any liquids are found, then the liquid would be solidified and not expected to be TRU.

Waste Stream ID: **WV-W024b**

Appendix B

Waste Profile Report

Site	West Valley Demonstration Project	Summary Category	S5000	Defense Determination	Pending Determination	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2010	
Stream Name	RH TRU Mixed Waste			Activity Concentrations as of CY 2004			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	20.2	0.0	20.2
Box - Misc	131.1	0.0	131.1
Current Form Total	151.3	0.0	151.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	94.8	0.0	94.8
Final Form Total	94.8	0.0	94.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	356.62
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.29E+01
Am-243	4.44E+00
Cm-244	9.01E-01
Cs-137	3.13E+02
Np-237	6.66E-02
Pu-238	1.04E+01
Pu-239	7.93E+01
Pu-240	6.02E+01
Pu-241	4.02E+02
Pu-242	2.00E-01
Sr-90	3.76E+02
Th-229	3.81E-03
Th-230	1.40E-03
Th-232	1.01E-03
U-233	1.68E-01
U-234	7.93E-02
U-235	1.33E-02
U-236	4.12E-02
U-238	4.12E-02

Haz. Waste No(s).

D006, D007, D008,
D009, D010No TRUCON
Codes Provided

Waste Stream Description

Contains hazardous constituents from D&D activities and Laboratory Waste generated onsite in solid forms such as filters, vacuum cans, glove box debris, piping, hoses, pumps, anti C clothing, bags, wipes, and floor debris. If any liquids are found, then the liquid would be solidified and not expected to be TRU.

Waste Stream ID: **WV-Z001**

Appendix B
Waste Profile Report

Site	West Valley Demonstration Project	Summary Category	S9000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Prohibited Waste	Inventory Date	12/31/2010		
Stream Name	West Valley Buried TRU Waste			Activity Concentrations as of CY		N/A	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Uncontained	0.0	1353.0	1353.0
Current Form Total	0.0	1353.0	1353.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	1353.0	1353.0
Final Form Total	0.0	1353.0	1353.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	249.99
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soils	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

No Final Form
Radionuclides Provided

No Hazardous
Waste Numbers
Provided

No TRUCON
Codes Provided

Waste Stream Description

Debris waste buried on-site during original plant processing operations

APPENDIX C: Inventory Comparisons

C.1 Introduction

This appendix presents the comparisons and discusses the significant changes in the transuranic (TRU) waste inventory for total volumes, waste and packaging materials masses, total radionuclide activity, oxyanions, and complexing agents masses reported by sites between the *Annual Transuranic Waste Inventory Report—2010* (ATWIR-2010) (DOE 2010a) and this report (referenced as “this reporting period” in this appendix). Decisions, data, and direction that cause changes from year to year in this TRU waste inventory include:

- *Methodology.* The methodology for calculations has changed for this report. See section 2.2 of this report.
- *Waste program management decisions.* Some sites have reassessed what the final form container types and their respective counts will be for each of the site’s waste streams.
- *Availability of more acceptable knowledge (AK) and characterization data.* As more AK is gathered and prepared and characterization is completed, the new data are included in waste stream estimates, effectively improving the quality of the estimates.
- *Site estimates of projected TRU waste stream volumes.* Depending on their mission, some sites will produce TRU waste in the future and this future generation can have significant uncertainty.
- *Inter-site shipments.* Hanford RL and the SQSs have been shipping some of their waste to INL for centralized characterization and certification before the waste is shipped to WIPP.

The changes described above are captured in the TRU waste sites’ annual updates. These changes are reported in data templates that are completed by the sites with assistance from the Los Alamos National Laboratory – Carlsbad Operations (LANL-CO) Inventory Team members, as needed.

The tables in Appendix C present emplaced waste as a summarization of the total CH- and RH-TRU waste emplaced at WIPP. For a more detailed explanation, refer to section 2.3 of this report.

It should be noted that the “net change” columns in the tables in this appendix represent the total net change for the reporting period, which includes both total increases and total decreases reported by the sites and the total emplaced quantities from the WDS. Also noted is that the acronyms and definitions of terms in this appendix are presented in the Acronyms and Abbreviations and Glossary in the body of this report.

C.2 Volumetric Comparisons

As of December 31, 2010, the total amount of CH- and RH-TRU waste that had been emplaced at WIPP was 72,193 m³ and 229 m³, respectively (LANL 2011a). According to the WDS, during the ATWIR-2011 reporting period, 7,839 m³ of CH-TRU and 79 m³ of RH-TRU waste was received and emplaced at WIPP (DOE 2011).

Tables C-1 and C-2 show the final form total volumes (anticipated [stored plus projected]) and total emplaced) of CH- and RH-TRU waste for the TRU waste complex.

Table C-1. Total CH-TRU Waste Volumes

TRU Waste Site	ATWIR-2010 Total Volume (m ³)	ATWIR-2011 Total Volume (m ³)	Total Net Change (m ³)
Argonne National Laboratory – East	6.91E+01	1.05E+02	3.62E+01
Bettis Atomic Power Laboratory	1.89E+01	NR	-1.89E+01
GE - Vallecitos Nuclear Center	1.46E+00	NR	-1.46E+00
Hanford (Richland) Site	2.20E+04	1.94E+04	-2.62E+03
Idaho National Laboratory	3.66E+04	3.49E+04	-1.67E+03
Knolls Atomic Power Laboratory - NFS	3.22E+02	3.22E+02	0.00E+00
Lawrence Berkeley National Laboratory	1.66E+00	1.66E+00	0.00E+00
Lawrence Livermore National Laboratory	7.52E+02	9.52E+02	1.99E+02
Los Alamos National Laboratory	1.09E+04	1.02E+04	-7.69E+02
Material and Fuels Complex	7.80E+01	3.93E+01	-3.87E+01
Nevada National Security Site	8.69E+01	7.53E+01	-1.16E+01
Nuclear Radiation Development Site	3.39E+01	2.50E+01	-8.94E+00
Oak Ridge National Laboratory	1.00E+03	9.54E+02	-4.97E+01
Paducah Gaseous Diffusion Plant	4.99E+00	4.99E+00	0.00E+00
Sandia National Laboratories	1.77E+01	1.31E+01	-4.58E+00
Savannah River Site	4.73E+03	9.66E+03	4.93E+03
Separations Process Research Unit	4.18E+01	NR	-4.18E+01
U.S. Army Materiel Command	2.08E-01	2.08E-01	0.00E+00
Anticipated Total	7.66E+04	7.66E+04	-7.26E+01
WIPP (Emplaced)	6.44E+04 ¹	7.22E+04	7.84E+03
Grand Total	1.41E+05	1.49E+05	7.77E+03

¹DOE 2010c. NR – not reported.

CH-TRU Waste Volumes

Overall, the CH volume reported has increased by 7,766 m³ but is offset with the emplacement of 7,839 m³. INL's waste stream IN-ID-SDA-Sludge has increased by approximately 3,200 m³. This increase occurred when INL updated their estimates based on the amount of sludge that they had already retrieved to date. Table C-1 shows an overall decrease for INL, but this is due to the amount of waste INL dispositioned (i.e., disposed at WIPP, found to be LLW, etc.) during this reporting period. SRS had an

overall increase mainly due to the moving of three waste streams from potential to WIPP-bound. Waste streams SR-W026-MFFF-1, SR-W026-PDCF-1, and SR-W026-WSB-2 account for an increase of about 4,700 m³.

RH-TRU Waste Volumes

Overall, the RH waste volume has decreased by approximately 1,600 m³, with a small amount of this decrease attributed to the emplacement of 79 m³ of RH waste during this reporting period. The remaining decrease can be attributed to the methodology change for reporting RH volume (see section 2.2 of this report). Since the RH volume is now being calculated on the internal container's volume instead of the outer payload container volume, there is approximately a 30% reduction in this year's RH volume, which accounts for the reduction of about 1,580 m³.

Table C-2. Total RH-TRU Waste Volumes

TRU Waste Site	ATWIR-2010 Total Volume (m³)	ATWIR-2011 Total Volume (m³)	Total Net Change (m³)
Argonne National Laboratory - East	1.17E+02	5.10E+01	-6.56E+01
Bettis Atomic Power Laboratory	5.34E+00	8.11E+00	2.77E+00
Hanford (Richland) Site	3.76E+03	2.29E+03	-1.47E+03
Idaho National Laboratory	3.27E+02	3.87E+02	6.05E+01
Knolls Atomic Power Laboratory - Schenectady	1.10E+02	1.87E+00	-1.08E+02
Los Alamos National Laboratory	8.19E+01	7.92E+01	-2.67E+00
Material and Fuels Complex	1.01E+02	1.17E+02	1.67E+01
Oak Ridge National Laboratory	5.47E+02	4.66E+02	-8.12E+01
Sandia National Laboratories	4.45E+00	8.74E+00	4.29E+00
Savannah River Site	8.46E+01	4.93E+01	-3.53E+01
Separations Process Research Unit	1.25E+01	NR	-1.25E+01
Anticipated Total	5.15E+03	3.46E+03	-1.69E+03
WIPP (Emplaced)	1.49E+02 ¹	2.29E+02	7.92E+01
Grand Total	5.30E+03	3.69E+03	-1.61E+03

¹DOE 2010c. NR – not reported.

C.3 Waste and Packaging Material Parameter Comparisons

The WMPs (see section 3.2.1 for a description of each parameter) and PMs data are presented in Tables C-3 and C-4 for CH- and RH-TRU waste respectively, and their associated discussions are presented within this section to show the differences. It should be noted that ATWIR-2010 masses in Tables C-3 and C-4 has emplaced WMP masses reported separately and Tables 3-3 and 3-4 of the ATWIR-2010 combines anticipated and emplaced as a single value.

CH-TRU Waste Material Parameters and Packaging Materials

The CH-TRU WMP and PM anticipated and emplaced masses are presented in Table C-3.

Table C-3. Total CH-TRU Waste and Packaging Material Parameters

Waste Material Parameter	ATWIR-2010 Mass (kg)	ATWIR-2011 Mass (kg)	Mass Net Change (kg)
Iron-based Metal/Alloys	5.44E+06	3.62E+06	-1.82E+06
Aluminum-based Metal/Alloys	1.42E+05	2.39E+05	9.62E+04
Other Metal/Alloys	2.76E+05	4.10E+05	1.33E+05
Other Inorganic Materials	1.82E+06	2.30E+06	4.75E+05
Cellulosics	2.22E+06	9.79E+05	-1.24E+06
Rubber	4.48E+05	5.55E+05	1.08E+05
Plastics	2.58E+06	1.89E+06	-6.93E+05
Cement	7.24E+06	3.20E+06	-4.04E+06
Solidified Inorganic Material	3.98E+06	3.84E+06	-1.33E+05
Solidified Organic Material	3.72E+06	1.96E+06	-1.76E+06
Soils	2.08E+06	1.09E+06	-9.88E+05
Vitrified	NR	NR	NR
Anticipated Waste Total	2.99E+07	2.01E+07	-9.87E+06
WIPP (Emplaced) Waste Total	1.88E+07	2.18E+07	2.99E+06
Package Material			
Packaging Material, Cellulosics	3.19E+04	2.02E+04	-1.18E+04
Packaging Material, Plastic	9.93E+05	1.03E+06	4.20E+04
Packaging Material, Rubber	NR	3.03E+04	3.03E+04
Packaging Material, Steel	1.30E+07	1.31E+07	1.20E+05
Packaging Material, Lead	NR	NR	NR
Anticipated Packaging Total	1.40E+07	1.42E+07	1.80E+05
WIPP (Emplaced) Packaging Total	1.49E+07	1.65E+07	1.57E+06
Grand Total	7.77E+07	7.25E+07	-5.13E+06

NR – not reported.

The TRU waste sites' anticipated CH WMP mass shows a decrease (about 9.9 million kg), while the sites' PM mass show an increase (around 180,000 kg) for an overall anticipated decrease of about 9.7 million kg. Waste emplacement contributes to the largest decrease reported by the sites. The total mass of WMPs and PMs emplaced at WIPP during this reporting period is approximately 4.6 million kg. The total net decrease at the sites, other than emplacement, is approximately 5.13 million kg. The largest anticipated WMP mass decrease was in cement, with a decrease of about 4.04 million kg, and is attributed mostly to the LANL waste stream LA-TA-21-13, with a decrease of about 4.29 million kg. This decrease is the result of a re-assessment of a portion of the waste stream, and that portion is now considered not to be a candidate for WIPP disposal.

RH-TRU Waste Material Parameters and Packaging Materials

The RH-TRU WMP and PM anticipated and emplaced masses are presented in Table C-4. The TRU waste sites' anticipated RH WMP mass decreased about 481,900 kg, and the PM mass decreased around 97,600 kg, for an overall anticipated decrease of approximately 579,500 kg. Waste emplacement contributes to about 16% of this overall decrease. The total mass of WMPs and PMs emplaced at WIPP during this reporting period is approximately 93,000 kg. The total net decrease at the sites other than emplacement is about 486,500 kg. The two largest WMP decreases were Other Inorganic Materials and Solidified Organic Material. These decreases were directly related to volume decreases and the re-evaluations of the WMPs of two Hanford waste streams. Waste stream RL300-08 reduced its D&D estimated volume by about 343 m³, which caused a decrease in their estimate of their reported WMPs with the largest decrease being in Other Inorganic Materials. Waste stream RL300-08 overestimated their Other Inorganic Materials by about 111,800 kg.

Waste stream RL618-07 was re-categorized from a non-mixed waste stream to a mixed waste stream and the entire waste stream was moved into the new waste stream RL618-08. During this re-evaluation of the waste stream, a new estimated volume was reported and was approximately 717 m³ less than last year's reported estimate. The WMPs also decreased during the reevaluation of the waste stream. The two largest decreases were in Other Inorganic Materials and Solidified Organic Material. Waste Stream RL618-08 decreased in Other Inorganic Materials by 157,500 kg and Solidified Organic Material by 166,900 kg. These two waste streams account for a total decrease of approximately 436,200 kg of the overall decrease of 486,500 kg.

Table C-4. Total RH-TRU Waste and Packaging Material Parameters

Waste Material Parameter	ATWIR-2010 Mass (kg)	ATWIR-2011 Mass (kg)	Mass Net Change (kg)
Iron-based Metal/Alloys	7.23E+05	8.99E+05	1.76E+05
Aluminum-based Metal/Alloys	6.26E+03	3.09E+04	2.46E+04
Other Metal/Alloys	4.93E+05	3.74E+05	-1.19E+05
Other Inorganic Materials	1.12E+06	8.70E+05	-2.55E+05
Cellulosics	1.03E+05	8.73E+04	-1.54E+04
Rubber	8.95E+04	6.97E+04	-1.99E+04
Plastics	1.93E+05	1.98E+05	5.07E+03
Cement	6.96E+05	6.50E+05	-4.61E+04
Solidified Inorganic Material	9.46E+04	7.88E+04	-1.58E+04
Solidified Organic Material	1.71E+05	3.24E+03	-1.68E+05
Soils	1.85E+05	1.37E+05	-4.80E+04
Vitrified	1.36E+02	NR	-1.36E+02
Anticipated Waste Total	3.88E+06	3.40E+06	-4.82E+05
WIPP (Emplaced) Waste Total	3.46E+04	4.64E+04	1.18E+04
Package Material			
Packaging Material, Cellulosics	NR	NR	NR
Packaging Material, Plastic	1.20E+05	1.42E+05	2.21E+04

Table C-4. Total RH-TRU Waste and Packaging Material Parameters

Continued

Waste Material Parameter	ATWIR-2010 Mass (kg)	ATWIR-2011 Mass (kg)	Mass Net Change (kg)
Packaging Material, Rubber	NR	1.93E+03	1.93E+03
Packaging Material, Steel	3.34E+06	3.21E+06	-1.33E+05
Packaging Material, Lead	4.13E+02	1.20E+04	1.16E+04
Anticipated Packaging Total	3.46E+06	3.37E+06	-9.76E+04
WIPP (Emplaced) Packaging Total	1.84E+05	2.65E+05	8.12E+04
Grand Total	7.56E+06	7.07E+06	-4.87E+05

NR – not reported.

C.4 Radionuclide Activity Comparisons

Radionuclide activity data improve as additional waste is characterized and emplaced at WIPP. Characterization data have been used by the sites for this report that were not available at the time the updated inventory information was collected for the ATWIR-2010 (DOE 2010a). A comparison of the total CH-TRU and RH-TRU activity between the ATWIR-2010 and this report are presented in Tables C-5 and C-6, respectively. For comparison purposes, the activities reported in these tables are decayed to WIPP closure in 2033.

As stated earlier, the net change column applies to the total net changes, which include both increases and decreases as reported by the sites and taken from the WDS.

Table C-5 shows the overall CH activity has increased approximately 164,500 Ci. This total increase is offset with the emplacement of 114,300 Ci, leaving a net increase at the sites of 50,200 Ci. The largest net increase is attributed to Lawrence Livermore National Laboratory (LLNL), with an increase of about 57,600 Ci. The increase at LLNL is due to the increase in their projected volume estimate for this year's updated data collection. As discussed in section 2.2.3 of this report, the CID derives a projected activity using the projected-to-stored volume ratio for each waste stream. LLNL calculated projected activity accounts for the greatest increase of activity for CH waste.

Table C-6 presents the total RH radionuclide activity by site. The overall anticipated RH activity has decreased by 84,400 Ci. WIPP received approximately 5,100 Ci of RH waste during this reporting period, leaving a total decrease at the sites of 79,300 Ci. The most significant decrease (approximately 116,600 Ci) came from Hanford RL waste stream RL300-08, which had a reduced volume estimate. The decrease at Hanford is offset by an increase at INL of about 37,500 Ci due to the new waste stream IN-NRF-SPC-103, which was added to the INL inventory.

Table C-5. Total CH-TRU Radionuclide Activity by Site Decayed through 2033

Site	ATWIR-2010 Total Activity (Ci)	ATWIR-2011 Total Activity (Ci)	Total Net Change (Ci)
Argonne National Laboratory – East	1.61E+02	3.88E+02	2.27E+02
Bettis Atomic Power Laboratory	4.55E+01	NR	-4.55E+01

Table C-5. Total CH-TRU Radionuclide Activity by Site Decayed through 2033

Continued

Site	ATWIR-2010 Total Activity (Ci)	ATWIR-2011 Total Activity (Ci)	Total Net Change (Ci)
GE - Vallecitos Nuclear Center	2.63E+00	NR	-2.63E+00
Hanford (Richland) Site	4.49E+05	4.07E+05	-4.20E+04
Idaho National Laboratory	1.14E+05	8.72E+04	-2.68E+04
Knolls Atomic Power Laboratory – NFS	4.91E+02	4.91E+02	6.82E-03
Lawrence Berkeley National Laboratory	1.66E+00	1.66E+00	-4.48E-04
Lawrence Livermore National Laboratory	5.21E+03	6.28E+04	5.76E+04
Los Alamos National Laboratory	2.55E+05	2.91E+05	3.60E+04
Material and Fuels Complex	5.66E+02	5.46E+02	-2.06E+01
Nevada National Security Site	5.29E+02	2.48E+02	-2.81E+02
Nuclear Radiation Development Site	1.44E+03	1.54E+03	1.03E+02
Oak Ridge National Laboratory	4.17E+03	1.52E+04	1.11E+04
Paducah Gaseous Diffusion Plant	1.11E+01	1.11E+01	2.31E-02
Sandia National Laboratories	3.10E+01	3.32E+01	2.18E+00
Savannah River Site	1.86E+05	2.01E+05	1.43E+04
Separations Process Research Unit	4.30E+00	NR	-4.30E+00
U.S. Army Materiel Command	5.12E-03	5.13E-03	7.27E-07
Anticipated Total	1.02E+06	1.07E+06	5.02E+04
WIPP (Emplaced)	1.15E+06	1.26E+06	1.14E+05
Grand Total	2.17E+06	2.33E+06	1.65E+05

NR – not reported.

Table C-6. Total RH-TRU Radionuclide Activity by Site Decayed through 2033

Site	ATWIR-2010 Total Activity (Ci)	ATWIR-2011 Total Activity (Ci)	Total Net Change (Ci)
Argonne National Laboratory – East	9.91E+01	9.89E+03	9.79E+03
Bettis Atomic Power Laboratory	3.87E+04	1.35E+03	-3.74E+04
Hanford (Richland) Site	6.54E+05	5.37E+05	-1.17E+05
Idaho National Laboratory	3.07E+04	6.82E+04	3.75E+04
Knolls Atomic Power Laboratory - Schenectady	1.70E+02	6.85E+00	-1.63E+02
Los Alamos National Laboratory	1.25E+02	1.75E+03	1.62E+03
Material and Fuels Complex	7.94E+04	9.97E+04	2.04E+04
Oak Ridge National Laboratory	2.41E+03	3.92E+03	1.52E+03
Sandia National Laboratories	8.12E+02	8.05E+02	-6.67E+00
Savannah River Site	5.36E+03	5.55E+03	1.89E+02
Separations Process Research Unit	1.28E+03	NR	-1.28E+03
Anticipated Total	8.13E+05	7.29E+05	-8.44E+04
WIPP (Emplaced)	5.10E+03	1.02E+04	5.08E+03
Grand Total	8.18E+05	7.39E+05	-7.93E+04

NR-not reported.

C.5 Complexing Agent Comparisons

Table C-7 shows the comparison of the CH- and RH-TRU estimated complexing agent masses (kg) between the ATWIR-2010 (DOE 2010a) and this report. These data represent only the complexing agents that are currently being reported by the sites in their anticipated (stored plus projected) TRU waste inventory and do not include complexing agents that have been emplaced at WIPP (see section 3.2.3 of this report). A detailed breakout of waste streams that contain complexing agents can be found in section 3.2.3.1 of this report.

An overall net cumulative decrease of approximately 1,250 kg in both the CH- and RH-TRU complexing agents has occurred for this reporting period. The majority of this decrease is in the acetic acid constituent of INL CH-TRU waste streams IN-ID-SDA-Soil (about 745 kg) and IN-ID-SDA-Sludge (about 480 kg). Since the WDS does not contain these data, it is assumed that these decreases occurred because these waste streams are actively being shipped to and emplaced at WIPP or the site has re-evaluated the masses of the constituents.

Table C-7. Total CH/RH-TRU Complexing Agents

Complexing Agent	ATWIR-2010 Total Mass (kg)	ATWIR-2011 Total Mass (kg)	Total Net Change (kg)
Acetate	7.56E+03	7.56E+03	-2.16E-02
Acetic Acid	7.77E+03	6.44E+03	-1.33E+03
Citrate	2.18E+02	2.18E+02	-2.16E-02
Citric Acid	1.54E+03	1.51E+03	-2.78E+01
EDTA	1.55E+02	1.56E+02	3.75E-01
Oxalate	2.11E+01	2.11E+01	3.55E-15
Oxalic Acid	5.65E+03	5.76E+03	1.03E+02
Grand Total	2.29E+04	2.17E+04	-1.25E+03

Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

C.6 Oxyanion Comparisons

Table C-8 shows the comparison of the CH- and RH-TRU estimated oxyanion masses (kg) that were reported by the sites in the ATWIR-2010 (DOE 2010a) and in this report. These data represent only the oxyanions that are currently being reported by the sites as anticipated TRU waste inventory and do not include oxyanions that have been emplaced at WIPP (see section 3.2.3 of this report). A detailed breakout of waste streams that contain oxyanions can be found in section 3.2.3.2 of this report.

The overall decrease of about 48,000 kg in oxyanions is attributed to the INL waste streams IN-ID-SDA-Sludge, IN-ID-SDA-Soil, and IN-ID-SDA-Debris. The IN-ID-SDA-Sludge waste stream reduced its phosphate and sulfate by approximately 5,670 kg and 16,000 kg, respectively. The IN-ID-SDA-Soil decreased its phosphates by about 2,250 kg and its sulfates by about 5,240 kg. Waste stream IN-ID-SDA-Debris also

decreased its sulfates by nearly 2,160 kg. The IN-ID-SDA-Sludge and IN-ID-SDA-Soil waste streams also decreased the amount of nitrates by about 11,280 kg and 3,290 kg respectively. Since the WDS does not contain these data, it is assumed that these decreases are a result of the waste being shipped to WIPP, or the site re-evaluating the masses of the constituents.

Table C-8. Total CH/RH-TRU Oxyanions

Oxyanion	ATWIR-2010 Total Mass (kg)	ATWIR-2011 Total Mass (kg)	Total Net Change (kg)
Nitrate	8.42E+05	8.25E+05	-1.67E+04
Phosphate	1.74E+05	1.66E+05	-7.92E+03
Sulfate	2.13E+05	1.90E+05	-2.33E+04
Grand Total	1.23E+06	1.18E+06	-4.80E+04

Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

APPENDIX D: Historic Crosswalk of Inventory Waste Streams

From one release of the ATWIR report to the next, waste streams may undergo reorganization by the TRU waste sites. Waste streams may be renamed, divided, consolidated, created, or removed from the inventory altogether (i.e., shipped to the WIPP, or reclassified as LLW). This appendix contains a crosswalk that maps current ATWIR-2011 TRU waste site waste streams to the ATWIR-2010 (DOE 2010a) TRU waste site waste streams. This appendix does not include any emplaced waste at the WIPP.

Table D-1 displays the correlation of each ATWIR-2011 waste stream to its respective ATWIR-2010 waste stream(s). Waste streams that are newly reported in the ATWIR-2011, and that do not map to a previous waste stream from ATWIR-2010, are indicated as “*New Waste Stream.*”

Table D-2 shows the inverse of Table D-1. Table D-2 displays the correlation of each ATWIR-2010 waste stream to its respective ATWIR-2011 waste stream(s). Waste streams that were previously reported in the ATWIR-2010, and that do not map to a current ATWIR-2011 waste stream are indicated as “*Deleted Waste Stream.*”

Site Code and Site Name:

AE	Argonne National Laboratory
AW	Material and Fuels Complex (MFC)
BL	Babcock and Wilcox Nuclear Energy Services
BT	Bettis Atomic Power Laboratory
IN	Idaho National Laboratory
KA	Knolls Atomic Power Laboratory
KN	Knolls Atomic Power Laboratory-Nuclear Fuels Services
LA	Los Alamos National Laboratory
LB	Lawrence Berkeley National Laboratory
LL	Lawrence Livermore National Laboratory
MC	U.S. Army Materiel Command
ND	Nuclear Radiation Development Site
NT	Nevada National Security Site
OR	Oak Ridge National Laboratory
PA	Paducah Gaseous Diffusion Plant
RL	Hanford Site (Richland Operations Office)
RP	Hanford Site (Office of River Protection)
SA	Sandia National Laboratories
SP	Separations Process Research Unit
SR	Savannah River Site
VN	General Electric Vallecitos Nuclear Center
WV	West Valley Demonstration Project

Table D-1. Crosswalk of ATWIR-2011 to ATWIR-2010 Waste Streams

Site Code	ATWIR-2011 Waste Streams	ATWIR-2010 Waste Streams
AE	AE-T001	AE-T001
AE	AE-T003	AE-T003
AE	AE-T009	AE-T009
AW	AW-IN-TRA-BE-01	AW-IN-TRA-BE-01
AW	AW-N027.531	AW-N027.531
AW	AW-T031.1322	AW-T031.1322, AW-W029
AW	AW-T033.1325	AW-T033.1325, AW-W049
AW	AW-W018	AW-W018
AW	AW-W019	AW-W019
AW	AW-W020.13	AW-W020.13, AW-W026, AW-W028, AW-W046, AW-W047, AW-W048
BL	BL-Parks	BL-Parks
BL	BL-Parks-A	BL-Parks-A
BT	BT-T001	BT-T001
IN	IN-AE-AGHC-02	AW-W029, IN-AE-AGHC-02
IN	IN-BN004	IN-BN004
IN	IN-BN005	IN-BN005
IN	IN-BN050	IN-BN050
IN	IN-BN090	IN-BN090
IN	IN-BN095	IN-BN095
IN	IN-BN203	<i>New Waste Stream</i>
IN	IN-BN204	IN-BN204
IN	IN-BN222	IN-BN222
IN	IN-BN290	<i>New Waste Stream</i>
IN	IN-BN311	IN-BN311
IN	IN-BN375	IN-BN375
IN	IN-BN409	IN-BN409
IN	IN-BN421	IN-BN421
IN	IN-BN425	IN-BN425
IN	IN-BN430	IN-BN430
IN	IN-BN431	IN-BN431
IN	IN-BN432	IN-BN432
IN	IN-BN510	IN-BN510
IN	IN-BN510.1	IN-BN510, RLBW-01, RLPFP-01
IN	IN-BN806	IN-BN806
IN	IN-BN811	IN-BN811
IN	IN-BN817	IN-BN817
IN	IN-BN823	IN-BN823
IN	IN-BN835	IN-BN835
IN	IN-BN836	IN-BN836
IN	IN-BN842	IN-BN842
IN	IN-BN976	IN-BN976
IN	IN-BN978	IN-BN978
IN	IN-BNINW216	IN-BNINW216
IN	IN-BNINW218	IN-BNINW218
IN	IN-ID-BTO-030	IN-ID-BTO-030

Table D-1. Crosswalk of ATWIR-2011 to ATWIR-2010 Waste Streams
Continued

Site Code	ATWIR-2011 Waste Streams	ATWIR-2010 Waste Streams
IN	IN-ID-EBR-S5000	AW-W029
IN	IN-ID-INL-152	IN-ID-INL-152
IN	IN-ID-INL-152M	AW-T031.1322, IN-ID-INL-152M
IN	IN-ID-MFC-SOLID	AW-T031.1322
IN	IN-ID-RF-S3114	IN-ID-RF-S3114
IN	IN-ID-RF-S3150-A	IN-ID-RF-S3150-A
IN	IN-ID-RF-S5100-A	IN-ID-RF-S5100-A
IN	IN-ID-RF-S5126	IN-ID-RF-S5126-A
IN	IN-ID-RF-S5300-A	IN-ID-RF-S5300-A
IN	IN-ID-RTC-S5000	IN-ID-RTC-S5000
IN	IN-ID-SA-T001	SA-T001
IN	IN-ID-SDA-Debris	IN-GEM-02, IN-ID-SDA-Debris
IN	IN-ID-SDA-Sludge	IN-GEM-01, IN-ID-SDA-Sludge
IN	IN-ID-SDA-Soil	IN-GEM-01, IN-ID-SDA-Soil
IN	IN-ID-SNL-HCF-S5400	SA-W134, SA-W134M
IN	IN-INTEC-SFS-01	IN-INTEC-SFS-01
IN	IN-LL-M001-S5400	LL-M001
IN	IN-LL-T004-S3141	LL-T004
IN	IN-LL-W019-S3900	LL-W019
IN	IN-MFC-S5490	AW-T033.1325
IN	IN-NRF-153	IN-NRF-153
IN	IN-NRF-SPC	IN-NRF-SPC
IN	IN-NRF-SPC-103	<i>New Waste Stream</i>
IN	IN-SBW-01A	IN-SBW-01A
IN	IN-SBW-01B	IN-SBW-01B
IN	IN-TRA-150	IN-TRA-150
IN	IN-W169R	IN-W169R
IN	IN-W170	IN-W170
IN	IN-W171	IN-W171
IN	IN-W197R	IN-W197R
IN	IN-W198R	<i>New Waste Stream</i>
IN	IN-W208R	IN-W208R
IN	IN-W216R	IN-W216R
IN	IN-W228R	IN-W228R
IN	IN-W243R	IN-W243R
IN	IN-W245R	IN-W245R
IN	IN-W247R	IN-W247R
IN	IN-W252R	IN-W252R
IN	IN-W254R	IN-W254R
IN	IN-W259	IN-W259
IN	IN-W269	IN-W269
IN	IN-W283	IN-W283
IN	IN-W283R	IN-W283R
IN	IN-W287	IN-W287
IN	IN-W294R	IN-W294R
IN	IN-W296R	IN-W296R

Table D-1. Crosswalk of ATWIR-2011 to ATWIR-2010 Waste Streams
Continued

Site Code	ATWIR-2011 Waste Streams	ATWIR-2010 Waste Streams
IN	IN-W298R	IN-W298R
IN	IN-W317R	IN-W317R
IN	IN-W322	IN-W322
IN	IN-W323	IN-W323
IN	IN-W337	IN-W337
IN	IN-W338	IN-W338
IN	IN-W339	IN-W339
IN	IN-W342R	IN-W342R
IN	IN-W345	IN-W345
IN	IN-W347	IN-W347
IN	IN-W350	IN-W350
IN	IN-W351	IN-W351
IN	IN-W358	IN-W358
IN	IN-W359R	IN-W359R
IN	IN-W360R	IN-W360R
IN	IN-W364R	IN-W364R
IN	IN-W365R	IN-W365R
KA	KA-T001	KA-T001
KA	KA-W016	KA-W016
KN	KN-B234TRU	KN-B234TRU
KN	KN-B234TRU_SS	KN-B234TRU_SS
LA	LA-CIN01.001	LA-CIN01.001, LA-MHD01.001, LA-TA-03-31, LA-TA-55-38
LA	LA-CIN02.001	LA-CIN02.001, LA-TA-50-19
LA	LA-CIN03.001	LA-CIN03.001
LA	LA-LAMIN04S	LA-LAMIN04S
LA	LA-LANHD01	LA-LANHD01
LA	LA-LANHD02238	<i>New Waste Stream</i>
LA	LA-LANIN03NC	LA-LANIN03NC
LA	LA-MHD01.001	LA-LAMHD03DD, LA-LAMIN04S, LA-LANIN03NC, LA-MHD01.001, LA-MIN02-V.001, LA-TA-00-01, LA-TA-03-30, LA-TA-03-34, LA-TA-50-15, LA-TA-55-19, LA-TA-55-20, LA-TA-55-21, LA-TA-55-23, LA-TA-55-30, LA-TA-55-32, LA-TA-55-61
LA	LA-MHD02-PTX.001	LA-MHD02-PTX.001
LA	LA-MHD03.001	LA-MHD01.001, LA-MHD03.001, LA-TA-03-09, LA-TA-03-10, LA-TA-03-20, LA-TA-03-42
LA	LA-MHD04.001	LA-MHD04.001, LA-TA-00-01
LA	LA-MHD05-ITRI.001	LA-MHD05-ITRI.001
LA	LA-MHD08.001	LA-MHD08.001
LA	LA-MHD09.001	LA-MHD09.001, LA-TA-50-16
LA	LA-MIN02-V.001	LA-MIN02-V.001, LA-TA-55-33
LA	LA-MIN03-NC.001	LA-MIN03-NC.001, LA-TA-50-19
LA	LA-MIN04-S.001	LA-MHD01.001, LA-MIN04-S.001
LA	LA-MSG04.001	LA-MHD04.001, LA-TA-21-14, LA-TA-21-41

Table D-1. Crosswalk of ATWIR-2011 to ATWIR-2010 Waste Streams
Continued

Site Code	ATWIR-2011 Waste Streams	ATWIR-2010 Waste Streams
LA	LA-OS-00-01.001	LA-OS-00-01.001
LA	LA-OS-00-03	LA-OS-00-03
LA	LA-TA-00-01	LA-TA-00-01
LA	LA-TA-00-03	LA-TA-00-03
LA	LA-TA-00-04	LA-TA-00-04
LA	LA-TA-03-01	LA-TA-03-01
LA	LA-TA-03-10	LA-TA-03-10
LA	LA-TA-03-12	LA-TA-03-12
LA	LA-TA-03-14	LA-TA-03-14
LA	LA-TA-03-17	LA-TA-03-17
LA	LA-TA-03-21	LA-TA-03-21
LA	LA-TA-03-23	LA-TA-03-23
LA	LA-TA-03-27	LA-TA-03-27
LA	LA-TA-03-28	LA-TA-03-28
LA	LA-TA-03-30	LA-TA-03-30
LA	LA-TA-03-33	LA-TA-03-33
LA	LA-TA-03-34	LA-TA-03-34
LA	LA-TA-03-40	LA-TA-03-40
LA	LA-TA-03-42	LA-TA-03-42
LA	LA-TA-21-05	LA-TA-21-05
LA	LA-TA-21-06	LA-TA-21-06
LA	LA-TA-21-07	LA-TA-21-07
LA	LA-TA-21-08	LA-TA-21-08
LA	LA-TA-21-09	LA-TA-21-09
LA	LA-TA-21-11	LA-TA-21-11
LA	LA-TA-21-12	LA-TA-21-12
LA	LA-TA-21-13	LA-TA-21-13
LA	LA-TA-21-15	LA-TA-21-15
LA	LA-TA-21-16	LA-TA-21-16
LA	LA-TA-21-17	LA-TA-21-17
LA	LA-TA-50-12	LA-TA-50-12
LA	LA-TA-50-15	LA-MHD03.001
LA	LA-TA-50-18	LA-TA-50-18
LA	LA-TA-50-19	LA-TA-50-19
LA	LA-TA-50-20	LA-TA-50-20
LA	LA-TA-55-19	LA-TA-55-19
LA	LA-TA-55-21	LA-TA-55-21
LA	LA-TA-55-30	LA-TA-55-30
LA	LA-TA-55-32	LA-TA-55-32
LA	LA-TA-55-38	LA-TA-55-38
LA	LA-TRU-Empty	LA-MHD01.001, LA-MHD03.001, LA-TA-21-06
LB	LB-T001	LB-T001
LB	LB-T002	LB-T002
LB	LB-T003	LB-T003
LB	LB-T004	LB-T004
LL	LL-M001	LL-M001

Table D-1. Crosswalk of ATWIR-2011 to ATWIR-2010 Waste Streams
Continued

Site Code	ATWIR-2011 Waste Streams	ATWIR-2010 Waste Streams
LL	LL-T004	LL-T004
LL	LL-W018-S5100	LL-W018-S5100
LL	LL-W018-SS	LL-W018-SS
LL	LL-W019	LL-W019
MC	MC-W001	MC-W001
ND	ND-T001	ND-T001
ND	ND-T002	ND-T002
NT	NT-JAS-01	NT-JAS-01
NT	NT-W021	NT-W021
OR	OR-CHEM-CH-HET	OR-CHEM-CH-HET
OR	OR-GENR-CH-HET	OR-GENR-CH-HET
OR	OR-GENR-RH-HET	OR-TBD-RH-HET
OR	OR-ISTP-CH-HET	OR-ISTP-CH-HET
OR	OR-ISTP-RH-HET	OR-TBD-RH-HET
OR	OR-NBL-CH-HET	OR-NBL-CH-HET
OR	OR-NFS-CH-HET	OR-NFS-CH-HET
OR	OR-NFS-CH-HOM	OR-NFS-CH-HOM
OR	OR-NFS-CH-SOIL	OR-NFS-CH-SOIL
OR	OR-PGDP-CH-HET	OR-PGDP-CH-HET
OR	OR-RADP-CH-HET	OR-RADP-CH-HET
OR	OR-RADP-CH-SOILS	OR-RADP-CH-SOILS
OR	OR-RADP-RH-HET	OR-TBD-RH-HET
OR	OR-REDC-CH-HET	OR-7930-CH-HET, OR-REDC-CH-HET
OR	OR-REDC-RH-HET	OR-REDC-RH-HET
OR	OR-RF-CH-HET	OR-RF-CH-HET
OR	OR-RF-CH-HOM	OR-RF-CH-HOM
OR	OR-RF-RH-HET	OR-TBD-RH-HET
OR	OR-TBD-CH-HET	OR-TBD-CH-HET
OR	OR-TBD-RH-HET	OR-TBD-RH-HET
OR	OR-W203	OR-W203
OR	OR-W213-RH-SOILS	OR-W213-RH-SOILS
OR	OR-WSTR-CH-HET	OR-WSTR-CH-HET
OR	OR-Y12-CH-HET	OR-Y12-CH-HET
PA	PA-A015	PA-A015
PA	PA-W014	PA-W014
RL	RL105-01	RL105-01
RL	RL105-03	RL105-03
RL	RL105-08	RL105-08
RL	RL105-09	RL105-09
RL	RL200-01	RL200-01
RL	RL200-02	RL200-02
RL	RL201-03	RL201-01
RL	RL202S-01	RL202S-01
RL	RL209E-01	RL209E-01
RL	RL209E-08	RL209E-08
RL	RL216Z-02	RL216Z-02

Table D-1. Crosswalk of ATWIR-2011 to ATWIR-2010 Waste Streams
Continued

Site Code	ATWIR-2011 Waste Streams	ATWIR-2010 Waste Streams
RL	RL221T-01	RL221T-01
RL	RL221U-01	RL221U-01
RL	RL221U-09	RL221U-09
RL	RL222S-01	RL222S-01
RL	RL222S-08	RL222S-08
RL	RL231Z-01	RL231Z-01
RL	RL231Z-03	RL231Z-03
RL	RL233S-01	RL233S-01
RL	RL233S-03	RL233S-03
RL	RL300-01	RL300-01
RL	RL300-03	RL300-03
RL	RL300-08	RL300-08
RL	RL300-11	RL300-11
RL	RL308-01	RL308-01
RL	RL308-08	<i>New Waste Stream</i>
RL	RL325-01	RL325-01
RL	RL325-02	RL325-02
RL	RL325-03	RL325-03
RL	RL325-08	RL325-08
RL	RL618-01	RL618-01
RL	RL618-08	RL618-07
RL	RLARG-01	RLARG-01
RL	RLBART-08	RLBART-08
RL	RLBAT-01	RLBAT-01
RL	RLBAT-08	RLBAT-08
RL	RLBET-08	RLBET-08
RL	RLBW-01	RLBW-01
RL	RLBW-03	RLBW-03
RL	RLBW-08	RLBW-08
RL	RLCFF-01	RLCFF-01
RL	RLCFF-03	RLCFF-03
RL	RLCH2-01	RLCH2-01
RL	RLCH2-08	RLCH2-08
RL	RLESG-01	RLESG-01
RL	RLESG-08	RLESG-08
RL	RLEXX-01	RLEXX-01
RL	RLFFTF-01	RLFFTF-01
RL	RLFFTF-08	RLFFTF-08
RL	RLGEV-01	RLGEV-01
RL	RLGEV-03	RLGEV-03
RL	RLGEV-08	RLGEV-08
RL	RLHAN-01	RLHAN-01
RL	RLHAN-08	RLHAN-08
RL	RLIAEA-01	RLIAEA-01
RL	RLMLB-08	RLMLB-08
RL	RLMLL-01	RLMLL-01

Table D-1. Crosswalk of ATWIR-2011 to ATWIR-2010 Waste Streams
Continued

Site Code	ATWIR-2011 Waste Streams	ATWIR-2010 Waste Streams
RL	RLPFP-01	RLPFP-01
RL	RLPFP-02	RLPFP-02
RL	RLPFP-03	RLPFP-03
RL	RLPFP-04	RLPFP-04
RL	RLPFP-08	RLPFP-08
RL	RLPFP-10	<i>New Waste Stream</i>
RL	RLPRC-01	RLPRC-01
RL	RLPURX-01	RLPURX-01
RL	RLPURX-08	RLPURX-08
RL	RLRFET-01	RLRFET-01
RL	RLSAN-01	RLSAN-01
RL	RLSWO-01	RLSWO-01
RL	RLSWO-08	RLSWO-08
RL	RLWAR-01	RLWAR-01
RL	RLWAR-03	RLWAR-03
RL	RLWTP-08	RLWTP-08
RP	RP-TFC001	RP-TFC001
SA	SA-W134M	SA-W134M
SA	SA-W135	SA-W135
SA	SA-W136	SA-W136
SR	SR-AGNS-HET	SR-AGNS-HET
SR	SR-AGNS-HOM	SR-AGNS-HOM
SR	SR-BCLDP-HET	SR-BCLDP.NYA
SR	SR-HBL-235F-HET	SR-W027-235F-HET, SR-W027-HBL-Box-A
SR	SR-KAC-HET	SR-KAC-HET
SR	SR-LA-PAD1	SR-LA-PAD1
SR	SR-MD-HET	SR-MD-HET
SR	SR-MD-HOM-A	SR-MD-HOM-A
SR	SR-MD-HOM-C	SR-MD-HOM-C
SR	SR-MD-PAD1	SR-MD-PAD1
SR	SR-MD-SOIL	SR-MD-SOIL
SR	SR-NIST-HET	SR-NIST-HET
SR	SR-RH-221H.01	SR-RH-221H.01
SR	SR-RH-221H.02	SR-RH-221H.02
SR	SR-RH-235F.01	SR-RH-235F.01
SR	SR-RH-772F.01	SR-RH-772F.01
SR	SR-RH-773A.01	SR-RH-773A.01
SR	SR-RH-FBL.01	SR-RH-FBL.01
SR	SR-RH-FTF.01	SR-RH-FTF.01
SR	SR-RH-MNDPAD1.01	SR-MD-PAD1
SR	SR-RH-SDD.01	SR-RH-SDD.01
SR	SR-RH-SWD.01	SR-SWMF-HET-RH
SR	SR-RL-BCLDP.002	SR-BCLDP.005
SR	SR-SDD-HET-A	SR-AikenTech-HET, SR-SDD-HET-A
SR	SR-SDD-HET-B	SR-SDD-211F-HET, SR-SDD-800UGT-HET
SR	SR-SDD-HOM-A	SR-SDD-800UGT-HOM-A

Table D-1. Crosswalk of ATWIR-2011 to ATWIR-2010 Waste Streams
Continued

Site Code	ATWIR-2011 Waste Streams	ATWIR-2010 Waste Streams
SR	SR-SDD-HOM-B	SR-SDD-800UGT-HOM-B
SR	SR-SDD-HOM-C	SR-SDD-800UGT-HOM-B
SR	SR-SWMF-HET-A	SR-SWMF-HET-A
SR	SR-SWMF-SOIL	SR-SWMF-SOIL
SR	SR-T001-WSB-1	SR-T001-WSB-1
SR	SR-W026-221F-HEPA	SR-W026-221F-HEPA
SR	SR-W026-221F-HET	SR-W026-221F-HET
SR	SR-W026-221F-HET-A	SR-W026-221F-HET
SR	SR-W026-221F-HOM	SR-W026-221F-HOM
SR	SR-W026-772F-HET	SR-W026-772F-HET
SR	SR-W026-CIF-HOM	SR-W026-CIF-HOM
SR	SR-W026-DWPF-HET	SR-W026-DWPF-HET
SR	SR-W026-MFFF-1	SR-W026-MFFF-1
SR	SR-W026-PDCF-1	SR-W026-PDCF-1
SR	SR-W026-WSB-2	SR-W026-WSB-2
SR	SR-W027-221F-HET-A	SR-W027-221F-HET-A
SR	SR-W027-221F-HET-C-D	SR-W027-221F-HET-C-D
SR	SR-W027-221F-HET-E	SR-W027-221F-HET-E
SR	SR-W027-221H-HEPA	SR-W027-221H-HEPA
SR	SR-W027-221H-HET	SR-W027-221H-HET
SR	SR-W027-221H-HET-B	SR-W027-221H-HET-B
SR	SR-W027-221H-HET-C	SR-W027-221H-HET-C
SR	SR-W027-221H-HOM	SR-W027-221H-HOM
SR	SR-W027-235F-HEPA	SR-W027-235F-HEPA
SR	SR-W027-235F-HET	SR-W027-235F-HET
SR	SR-W027-235F-HOM	SR-W027-235F-HOMO
SR	SR-W027-321-322M-HET	SR-W027-321-322M-HET
SR	SR-W027-643G-HET	SR-W027-643G-HET
SR	SR-W027-773A-HEPA	SR-W027-773A-HEPA
SR	SR-W027-773A-HET	SR-W027-773A-HET
SR	SR-W027-773A-HET-CLAS	SR-W027-773A-HET-CLAS
SR	SR-W027-776A-HET	SR-W027-776A-HET
SR	SR-W027-FB-Pre86-C	SR-W027-FB-Pre86-C
SR	SR-W027-HBL-Box	SR-W027-HBL-Box-A, SR-W027-HBL-Box-B
SR	SR-W027-UNK	SR-W027-UNK
WV	WV-M010a	WV-M010a
WV	WV-T004	WV-T004
WV	WV-T006a	WV-T006a
WV	WV-T006b	WV-T006b
WV	WV-T017b	WV-T017b
WV	WV-W024a	WV-W024a
WV	WV-W024b	WV-W024b
WV	WV-Z001	WV-Z001

Table D-2. Crosswalk of ATWIR-2010 to ATWIR-2011 Waste Streams

Site Code	ATWIR-2010 Waste Streams	ATWIR-2011 Waste Streams
AE	AE-T001	AE-T001
AE	AE-T003	AE-T003
AE	AE-T009	AE-T009
AW	AW-IN-TRA-BE-01	AW-IN-TRA-BE-01
AW	AW-N026.82	<i>Deleted Waste Stream</i>
AW	AW-N027.531	AW-N027.531
AW	AW-T031.1322	AW-T031.1322, IN-ID-INL-152M, IN-ID-MFC-SOLID
AW	AW-T033.1325	AW-T033.1325, IN-MFC-S5490
AW	AW-W018	AW-W018
AW	AW-W019	AW-W019
AW	AW-W020.13	AW-W020.13
AW	AW-W026	AW-W020.13
AW	AW-W028	AW-W020.13
AW	AW-W029	AW-T031.1322, IN-AE-AGHC-02, IN-ID-EBR-S5000
AW	AW-W046	AW-W020.13
AW	AW-W047	AW-W020.13
AW	AW-W048	AW-W020.13
AW	AW-W049	AW-T033.1325
BL	BL-Parks	BL-Parks
BL	BL-Parks-A	BL-Parks-A
BT	BT-T001	BT-T001
BT	BT-T002	<i>Deleted Waste Stream</i>
BT	BT-T006	<i>Deleted Waste Stream</i>
BT	BT-T007	<i>Deleted Waste Stream</i>
IN	IN-AE-AGHC-01	<i>Deleted Waste Stream</i>
IN	IN-AE-AGHC-02	IN-AE-AGHC-02
IN	IN-AW-161	<i>Deleted Waste Stream</i>
IN	IN-BN004	IN-BN004
IN	IN-BN005	IN-BN005
IN	IN-BN050	IN-BN050
IN	IN-BN090	IN-BN090
IN	IN-BN095	IN-BN095
IN	IN-BN204	IN-BN204
IN	IN-BN222	IN-BN222
IN	IN-BN311	IN-BN311
IN	IN-BN375	IN-BN375
IN	IN-BN409	IN-BN409
IN	IN-BN421	IN-BN421
IN	IN-BN425	IN-BN425
IN	IN-BN430	IN-BN430
IN	IN-BN431	IN-BN431
IN	IN-BN432	IN-BN432
IN	IN-BN510	IN-BN510, IN-BN510.1

Table D-2. Crosswalk of ATWIR-2010 to ATWIR-2011 Waste Streams
Continued

Site Code	ATWIR-2010 Waste Streams	ATWIR-2011 Waste Streams
IN	IN-BN806	IN-BN806
IN	IN-BN811	IN-BN811
IN	IN-BN817	IN-BN817
IN	IN-BN823	IN-BN823
IN	IN-BN835	IN-BN835
IN	IN-BN836	IN-BN836
IN	IN-BN842	IN-BN842
IN	IN-BN976	IN-BN976
IN	IN-BN978	IN-BN978
IN	IN-BNINW216	IN-BNINW216
IN	IN-BNINW218	IN-BNINW218
IN	IN-GEM-01	IN-ID-SDA-Sludge, IN-ID-SDA-Soil
IN	IN-GEM-02	IN-ID-SDA-Debris
IN	IN-ID-BTO-030	IN-ID-BTO-030
IN	IN-ID-INL-152	IN-ID-INL-152
IN	IN-ID-INL-152M	IN-ID-INL-152M
IN	IN-ID-NTLRC-S5400	<i>Deleted Waste Stream</i>
IN	IN-ID-RF-S3114	IN-ID-RF-S3114
IN	IN-ID-RF-S3150-A	IN-ID-RF-S3150-A
IN	IN-ID-RF-S5100-A	IN-ID-RF-S5100-A
IN	IN-ID-RF-S5126-A	IN-ID-RF-S5126
IN	IN-ID-RF-S5300-A	IN-ID-RF-S5300-A
IN	IN-ID-RTC-S5000	IN-ID-RTC-S5000
IN	IN-ID-SDA-Debris	IN-ID-SDA-Debris
IN	IN-ID-SDA-Sludge	IN-ID-SDA-Sludge
IN	IN-ID-SDA-Soil	IN-ID-SDA-Soil
IN	IN-INTEC-SFS-01	IN-INTEC-SFS-01
IN	IN-NRF-153	IN-NRF-153
IN	IN-NRF-SPC	IN-NRF-SPC
IN	IN-NT-RF-DECON	<i>Deleted Waste Stream</i>
IN	IN-NTLLLBL-S5400	<i>Deleted Waste Stream</i>
IN	IN-NTS-EG&G-HET	<i>Deleted Waste Stream</i>
IN	IN-NTS-ITRI-S5310	<i>Deleted Waste Stream</i>
IN	IN-NTS-TTR-HET	<i>Deleted Waste Stream</i>
IN	IN-NTVERB-S5400	<i>Deleted Waste Stream</i>
IN	IN-SBW-01A	IN-SBW-01A
IN	IN-SBW-01B	IN-SBW-01B
IN	IN-TRA-150	IN-TRA-150
IN	IN-W169R	IN-W169R
IN	IN-W170	IN-W170
IN	IN-W171	IN-W171
IN	IN-W197R	IN-W197R
IN	IN-W208R	IN-W208R
IN	IN-W216R	IN-W216R
IN	IN-W228R	IN-W228R
IN	IN-W243R	IN-W243R

Table D-2. Crosswalk of ATWIR-2010 to ATWIR-2011 Waste Streams
Continued

Site Code	ATWIR-2010 Waste Streams	ATWIR-2011 Waste Streams
IN	IN-W245R	IN-W245R
IN	IN-W247R	IN-W247R
IN	IN-W252R	IN-W252R
IN	IN-W254R	IN-W254R
IN	IN-W259	IN-W259
IN	IN-W269	IN-W269
IN	IN-W283	IN-W283
IN	IN-W283R	IN-W283R
IN	IN-W287	IN-W287
IN	IN-W294R	IN-W294R
IN	IN-W296R	IN-W296R
IN	IN-W298R	IN-W298R
IN	IN-W317R	IN-W317R
IN	IN-W322	IN-W322
IN	IN-W323	IN-W323
IN	IN-W337	IN-W337
IN	IN-W338	IN-W338
IN	IN-W339	IN-W339
IN	IN-W342R	IN-W342R
IN	IN-W345	IN-W345
IN	IN-W347	IN-W347
IN	IN-W350	IN-W350
IN	IN-W351	IN-W351
IN	IN-W358	IN-W358
IN	IN-W359R	IN-W359R
IN	IN-W360R	IN-W360R
IN	IN-W364R	IN-W364R
IN	IN-W365R	IN-W365R
KA	KA-T001	KA-T001
KA	KA-W016	KA-W016
KN	KN-B234TRU	KN-B234TRU
KN	KN-B234TRU_SS	KN-B234TRU_SS
LA	LA-CIN01.001	LA-CIN01.001
LA	LA-CIN02.001	LA-CIN02.001
LA	LA-CIN03.001	LA-CIN03.001
LA	LA-LAMHD03DD	LA-MHD01.001
LA	LA-LAMIN04S	LA-LAMIN04S, LA-MHD01.001
LA	LA-LANHD01	LA-LANHD01
LA	LA-LANIN03NC	LA-LANIN03NC, LA-MHD01.001
LA	LA-MHD01.001	LA-CIN01.001, LA-MHD01.001, LA-MHD03.001, LA-MIN04-S.001, LA-TRU-Empty
LA	LA-MHD02-PTX.001	LA-MHD02-PTX.001
LA	LA-MHD03.001	LA-MHD03.001, LA-TA-50-15, LA-TRU-Empty
LA	LA-MHD04.001	LA-MHD04.001, LA-MSG04.001

Table D-2. Crosswalk of ATWIR-2010 to ATWIR-2011 Waste Streams
Continued

Site Code	ATWIR-2010 Waste Streams	ATWIR-2011 Waste Streams
LA	LA-MHD05-ITRI.001	LA-MHD05-ITRI.001
LA	LA-MHD08.001	LA-MHD08.001
LA	LA-MHD09.001	LA-MHD09.001
LA	LA-MIN02-V.001	LA-MHD01.001, LA-MIN02-V.001
LA	LA-MIN03-NC.001	LA-MIN03-NC.001
LA	LA-MIN04-S.001	LA-MIN04-S.001
LA	LA-OS-00-01.001	LA-OS-00-01.001
LA	LA-OS-00-03	LA-OS-00-03
LA	LA-TA-00-01	LA-MHD01.001, LA-MHD04.001, LA-TA-00-01
LA	LA-TA-00-03	LA-TA-00-03
LA	LA-TA-00-04	LA-TA-00-04
LA	LA-TA-03-01	LA-TA-03-01
LA	LA-TA-03-09	LA-MHD03.001
LA	LA-TA-03-10	LA-MHD03.001, LA-TA-03-10
LA	LA-TA-03-12	LA-TA-03-12
LA	LA-TA-03-14	LA-TA-03-14
LA	LA-TA-03-17	LA-TA-03-17
LA	LA-TA-03-20	LA-MHD03.001
LA	LA-TA-03-21	LA-TA-03-21
LA	LA-TA-03-23	LA-TA-03-23
LA	LA-TA-03-27	LA-TA-03-27
LA	LA-TA-03-28	LA-TA-03-28
LA	LA-TA-03-30	LA-MHD01.001, LA-TA-03-30
LA	LA-TA-03-31	LA-CIN01.001
LA	LA-TA-03-33	LA-TA-03-33
LA	LA-TA-03-34	LA-MHD01.001, LA-TA-03-34
LA	LA-TA-03-40	LA-TA-03-40
LA	LA-TA-03-42	LA-MHD03.001, LA-TA-03-42
LA	LA-TA-21-05	LA-TA-21-05
LA	LA-TA-21-06	LA-TA-21-06, LA-TRU-Empty
LA	LA-TA-21-07	LA-TA-21-07
LA	LA-TA-21-08	LA-TA-21-08
LA	LA-TA-21-09	LA-TA-21-09
LA	LA-TA-21-10	<i>Deleted Waste Stream</i>
LA	LA-TA-21-11	LA-TA-21-11
LA	LA-TA-21-12	LA-TA-21-12
LA	LA-TA-21-13	LA-TA-21-13
LA	LA-TA-21-14	LA-MSG04.001
LA	LA-TA-21-15	LA-TA-21-15
LA	LA-TA-21-16	LA-TA-21-16
LA	LA-TA-21-17	LA-TA-21-17
LA	LA-TA-21-41	LA-MSG04.001
LA	LA-TA-50-12	LA-TA-50-12
LA	LA-TA-50-15	LA-MHD01.001
LA	LA-TA-50-16	LA-MHD09.001

Table D-2. Crosswalk of ATWIR-2010 to ATWIR-2011 Waste Streams
Continued

Site Code	ATWIR-2010 Waste Streams	ATWIR-2011 Waste Streams
LA	LA-TA-50-18	LA-TA-50-18
LA	LA-TA-50-19	LA-CIN02.001, LA-MIN03-NC.001, LA-TA-50-19
LA	LA-TA-50-20	LA-TA-50-20
LA	LA-TA-55-19	LA-MHD01.001, LA-TA-55-19
LA	LA-TA-55-20	LA-MHD01.001
LA	LA-TA-55-21	LA-MHD01.001, LA-TA-55-21
LA	LA-TA-55-23	LA-MHD01.001
LA	LA-TA-55-30	LA-MHD01.001, LA-TA-55-30
LA	LA-TA-55-32	LA-MHD01.001, LA-TA-55-32
LA	LA-TA-55-33	LA-MIN02-V.001
LA	LA-TA-55-38	LA-CIN01.001, LA-TA-55-38
LA	LA-TA-55-43	<i>Deleted Waste Stream</i>
LA	LA-TA-55-61	LA-MHD01.001
LB	LB-T001	LB-T001
LB	LB-T002	LB-T002
LB	LB-T003	LB-T003
LB	LB-T004	LB-T004
LL	LL-M001	IN-LL-M001-S5400, LL-M001
LL	LL-T004	IN-LL-T004-S3141, LL-T004
LL	LL-W018-S5100	LL-W018-S5100
LL	LL-W018-SS	LL-W018-SS
LL	LL-W019	IN-LL-W019-S3900, LL-W019
MC	MC-W001	MC-W001
ND	ND-T001	ND-T001
ND	ND-T002	ND-T002
NT	NT-JAS-01	NT-JAS-01
NT	NT-W021	NT-W021
OR	OR-7930-CH-HET	OR-REDC-CH-HET
OR	OR-CHEM-CH-HET	OR-CHEM-CH-HET
OR	OR-GENR-CH-HET	OR-GENR-CH-HET
OR	OR-ISTP-CH-HET	OR-ISTP-CH-HET
OR	OR-NBL-CH-HET	OR-NBL-CH-HET
OR	OR-NFS-CH-HET	OR-NFS-CH-HET
OR	OR-NFS-CH-HOM	OR-NFS-CH-HOM
OR	OR-NFS-CH-SOIL	OR-NFS-CH-SOIL
OR	OR-PGDP-CH-HET	OR-PGDP-CH-HET
OR	OR-RADP-CH-HET	OR-RADP-CH-HET
OR	OR-RADP-CH-SOILS	OR-RADP-CH-SOILS
OR	OR-REDC-CH-HET	OR-REDC-CH-HET
OR	OR-REDC-RH-HET	OR-REDC-RH-HET
OR	OR-RF-CH-HET	OR-RF-CH-HET
OR	OR-RF-CH-HOM	OR-RF-CH-HOM
OR	OR-TBD-CH-HET	OR-TBD-CH-HET

Table D-2. Crosswalk of ATWIR-2010 to ATWIR-2011 Waste Streams
Continued

Site Code	ATWIR-2010 Waste Streams	ATWIR-2011 Waste Streams
OR	OR-TBD-RH-HET	OR-GENR-RH-HET, OR-ISTP-RH-HET, OR-RADP-RH-HET, OR-RF-RH-HET, OR-TBD-RH-HET
OR	OR-W203	OR-W203
OR	OR-W213-RH-SOILS	OR-W213-RH-SOILS
OR	OR-WSTR-CH-HET	OR-WSTR-CH-HET
OR	OR-Y12-CH-HET	OR-Y12-CH-HET
PA	PA-A015	PA-A015
PA	PA-W014	PA-W014
RL	RL105-01	RL105-01
RL	RL105-03	RL105-03
RL	RL105-08	RL105-08
RL	RL105-09	RL105-09
RL	RL200-01	RL200-01
RL	RL200-02	RL200-02
RL	RL201-01	RL201-03
RL	RL202S-01	RL202S-01
RL	RL209E-01	RL209E-01
RL	RL209E-08	RL209E-08
RL	RL216Z-02	RL216Z-02
RL	RL221T-01	RL221T-01
RL	RL221U-01	RL221U-01
RL	RL221U-09	RL221U-09
RL	RL222S-01	RL222S-01
RL	RL222S-08	RL222S-08
RL	RL231Z-01	RL231Z-01
RL	RL231Z-03	RL231Z-03
RL	RL233S-01	RL233S-01
RL	RL233S-03	RL233S-03
RL	RL300-01	RL300-01
RL	RL300-03	RL300-03
RL	RL300-08	RL300-08
RL	RL300-11	RL300-11
RL	RL308-01	RL308-01
RL	RL325-01	RL325-01
RL	RL325-02	RL325-02
RL	RL325-03	RL325-03
RL	RL325-08	RL325-08
RL	RL325-09	<i>Deleted Waste Stream</i>
RL	RL618-01	RL618-01
RL	RL618-07	RL618-08
RL	RLARG-01	RLARG-01
RL	RLBART-01	<i>Deleted Waste Stream</i>
RL	RLBART-08	RLBART-08
RL	RLBAT-01	RLBAT-01
RL	RLBAT-08	RLBAT-08

Table D-2. Crosswalk of ATWIR-2010 to ATWIR-2011 Waste Streams
Continued

Site Code	ATWIR-2010 Waste Streams	ATWIR-2011 Waste Streams
RL	RLBET-08	RLBET-08
RL	RLBW-01	IN-BN510.1, RLBW-01
RL	RLBW-03	RLBW-03
RL	RLBW-08	RLBW-08
RL	RLCFF-01	RLCFF-01
RL	RLCFF-03	RLCFF-03
RL	RLCH2-01	RLCH2-01
RL	RLCH2-08	RLCH2-08
RL	RLESG-01	RLESG-01
RL	RLESG-08	RLESG-08
RL	RLEXX-01	RLEXX-01
RL	RLFFTF-01	RLFFTF-01
RL	RLFFTF-08	RLFFTF-08
RL	RLGEV-01	RLGEV-01
RL	RLGEV-03	RLGEV-03
RL	RLGEV-08	RLGEV-08
RL	RLHAN-01	RLHAN-01
RL	RLHAN-08	RLHAN-08
RL	RLIAEA-01	RLIAEA-01
RL	RLMLB-08	RLMLB-08
RL	RLMLL-01	RLMLL-01
RL	RLPFP-01	IN-BN510.1, RLPFP-01
RL	RLPFP-02	RLPFP-02
RL	RLPFP-02A	<i>Deleted Waste Stream</i>
RL	RLPFP-03	RLPFP-03
RL	RLPFP-04	RLPFP-04
RL	RLPFP-08	RLPFP-08
RL	RLPRC-01	RLPRC-01
RL	RLPURX-01	RLPURX-01
RL	RLPURX-08	RLPURX-08
RL	RLRFET-01	RLRFET-01
RL	RLSAN-01	RLSAN-01
RL	RLSWO-01	RLSWO-01
RL	RLSWO-08	RLSWO-08
RL	RLWAR-01	RLWAR-01
RL	RLWAR-03	RLWAR-03
RL	RLWTP-08	RLWTP-08
RP	RP-TFC001	RP-TFC001
RP	RP-TFC002	<i>Deleted Waste Stream</i>
RP	RP-TFC003	<i>Deleted Waste Stream</i>
RP	RP-W013	<i>Deleted Waste Stream</i>
RP	RP-W016	<i>Deleted Waste Stream</i>
RP	RP-W754	RP-W754
RP	RP-W755	RP-W755
SA	SA-T001	IN-ID-SA-T001, SA-T001
SA	SA-W134	IN-ID-SNL-HCF-S5400, SA-W134

Table D-2. Crosswalk of ATWIR-2010 to ATWIR-2011 Waste Streams
Continued

Site Code	ATWIR-2010 Waste Streams	ATWIR-2011 Waste Streams
SA	SA-W134M	IN-ID-SNL-HCF-S5400, SA-W134M
SA	SA-W135	SA-W135
SA	SA-W136	SA-W136
SP	SP-T001	<i>Deleted Waste Stream</i>
SP	SP-T002	<i>Deleted Waste Stream</i>
SR	SR-AGNS-HET	SR-AGNS-HET
SR	SR-AGNS-HOM	SR-AGNS-HOM
SR	SR-AikenTech-HET	SR-SDD-HET-A
SR	SR-BCLCH-MT01	<i>Deleted Waste Stream</i>
SR	SR-BCLDP.001.001	<i>Deleted Waste Stream</i>
SR	SR-BCLDP.001.002	<i>Deleted Waste Stream</i>
SR	SR-BCLDP.002	<i>Deleted Waste Stream</i>
SR	SR-BCLDP.003	<i>Deleted Waste Stream</i>
SR	SR-BCLDP.004.002	<i>Deleted Waste Stream</i>
SR	SR-BCLDP.004.003	<i>Deleted Waste Stream</i>
SR	SR-BCLDP.005	SR-RL-BCLDP.002
SR	SR-BCLDP.NYA	SR-BCLDP-HET
SR	SR-KAC-HET	SR-KAC-HET
SR	SR-LA-PAD1	SR-LA-PAD1
SR	SR-MD-HET	SR-MD-HET
SR	SR-MD-HOM-A	SR-MD-HOM-A
SR	SR-MD-HOM-B	<i>Deleted Waste Stream</i>
SR	SR-MD-HOM-C	SR-MD-HOM-C
SR	SR-MD-PAD1	SR-MD-PAD1, SR-RH-MNDPAD1.01
SR	SR-MD-SOIL	SR-MD-SOIL
SR	SR-NIST-HET	SR-NIST-HET
SR	SR-RH-221H.01	SR-RH-221H.01
SR	SR-RH-221H.02	SR-RH-221H.02
SR	SR-RH-235F.01	SR-RH-235F.01
SR	SR-RH-772F.01	SR-RH-772F.01
SR	SR-RH-773A.01	SR-RH-773A.01
SR	SR-RH-FBL.01	SR-RH-FBL.01
SR	SR-RH-FTF.01	SR-RH-FTF.01
SR	SR-RH-SDD.01	SR-RH-SDD.01
SR	SR-SDD-211F-HET	SR-SDD-HET-B
SR	SR-SDD-800UGT-HET	SR-SDD-HET-B
SR	SR-SDD-800UGT-HOM-A	SR-SDD-HOM-A
SR	SR-SDD-800UGT-HOM-B	SR-SDD-HOM-B, SR-SDD-HOM-C
SR	SR-SDD-HET-A	SR-SDD-HET-A
SR	SR-SWMF-HET-A	SR-SWMF-HET-A
SR	SR-SWMF-HET-RH	SR-RH-SWD.01
SR	SR-SWMF-SOIL	SR-SWMF-SOIL
SR	SR-T001-WSB-1	SR-T001-WSB-1
SR	SR-T001-WSB-3	<i>Deleted Waste Stream</i>
SR	SR-W026-221F-HEPA	SR-W026-221F-HEPA
SR	SR-W026-221F-HET	SR-W026-221F-HET, SR-W026-221F-HET-A

Table D-2. Crosswalk of ATWIR-2010 to ATWIR-2011 Waste Streams
Continued

Site Code	ATWIR-2010 Waste Streams	ATWIR-2011 Waste Streams
SR	SR-W026-221F-HOM	SR-W026-221F-HOM
SR	SR-W026-772F-HET	SR-W026-772F-HET
SR	SR-W026-CIF-HOM	SR-W026-CIF-HOM
SR	SR-W026-DWPF-HET	SR-W026-DWPF-HET
SR	SR-W026-MFFF-1	SR-W026-MFFF-1
SR	SR-W026-PDCF-1	SR-W026-PDCF-1
SR	SR-W026-WSB-2	SR-W026-WSB-2
SR	SR-W027-221F-HET-A	SR-W027-221F-HET-A
SR	SR-W027-221F-HET-C-D	SR-W027-221F-HET-C-D
SR	SR-W027-221F-HET-E	SR-W027-221F-HET-E
SR	SR-W027-221H-HEPA	SR-W027-221H-HEPA
SR	SR-W027-221H-HET	SR-W027-221H-HET
SR	SR-W027-221H-HET-B	SR-W027-221H-HET-B
SR	SR-W027-221H-HET-C	SR-W027-221H-HET-C
SR	SR-W027-221H-HET-D	<i>Deleted Waste Stream</i>
SR	SR-W027-221H-HOM	SR-W027-221H-HOM
SR	SR-W027-235F-HEPA	SR-W027-235F-HEPA
SR	SR-W027-235F-HET	SR-HBL-235F-HET, SR-W027-235F-HET
SR	SR-W027-235F-HOMO	SR-W027-235F-HOM
SR	SR-W027-321-322M-HET	SR-W027-321-322M-HET
SR	SR-W027-643G-HET	SR-W027-643G-HET
SR	SR-W027-773A-HEPA	SR-W027-773A-HEPA
SR	SR-W027-773A-HET	SR-W027-773A-HET
SR	SR-W027-773A-HET-CLAS	SR-W027-773A-HET-CLAS
SR	SR-W027-776A-HET	SR-W027-776A-HET
SR	SR-W027-FB-Pre86-C	SR-W027-FB-Pre86-C
SR	SR-W027-HBL-Box-A	SR-HBL-235F-HET, SR-W027-HBL-Box
SR	SR-W027-HBL-Box-B	SR-W027-HBL-Box
SR	SR-W027-UNK	SR-W027-UNK
VN	VN-GEVNC.02	<i>Deleted Waste Stream</i>
WV	WV-M010a	WV-M010a
WV	WV-T004	WV-T004
WV	WV-T006a	WV-T006a
WV	WV-T006b	WV-T006b
WV	WV-T017a	<i>Deleted Waste Stream</i>
WV	WV-T017b	WV-T017b
WV	WV-W024a	WV-W024a
WV	WV-W024b	WV-W024b
WV	WV-Z001	WV-Z001

APPENDIX E: DOE Potential Waste Screening Memorandum



Department of Energy

Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221

March 29, 2010

Mr. Ned Elkins, Manager
Los Alamos National Laboratory - Carlsbad Operations
115 N. Main
Carlsbad, NM 88220

Subject: TRU Waste Inventory Screening Criteria Guidance

Dear Mr. Elkins:

The Department of Energy Carlsbad Field Office (CBFO), in the enclosed memorandum, is providing guidance on the criteria to be used to screen transuranic (TRU) waste streams for exclusion from the Waste Isolation Pilot Plant (WIPP)-bound inventory in upcoming Annual TRU Waste Inventory Reports. This guidance will stay in effect until Los Alamos National Laboratory – Carlsbad Operations is formally notified otherwise by CBFO.

If you have any questions regarding this guidance please notify me at (575) 234-7457.

Sincerely,

Russ Patterson
Compliance Certification Manager

Enclosure

cc: w/enclosure
C. Fesmire, CBFO *ED
S. McCauslin, CBFO ED
G. Basabilvazo, CBFO ED
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INV - 1004-01-01-01

CBFO:ORC:RLP:MDA:10-0945:UFC 5822.00

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**Screening Memorandum
March 17, 2010**

This screening memo describes criteria that will be used to screen transuranic (TRU) waste streams for exclusion from the Waste Isolation Pilot Plant (WIPP)-bound inventory. This WIPP-bound waste is used in future performance assessments (PAs) for the Compliance Recertification Application (CRA). This memo does not address high level, low level or commercial waste since they are prohibited for disposal in WIPP. The table below contains screening criteria that will be used to designate Potential waste streams. The table in no way indicates that waste identified as Potential will be excluded from emplacement in WIPP in the future.

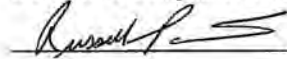
All waste streams collected for each Annual TRU Waste Inventory Report (ATWIR) are categorized within the TRU waste inventory database as WIPP-Bound unless one or more of the screening criteria listed in the table below are encountered. All shipments to WIPP will be subject to the conditions delineated in the WIPP Hazardous Waste Facility Permit Waste Analysis Plan (WAP), WIPP Waste Acceptance Criteria (WAC) and the Transuranic Authorized Methods for Payload Control (TRAMPAC). The table below is intended to be treated as a guide for delineating Potential waste streams that will be reported in the ATWIR in Appendix C and excluded from being reported in Performance Assessment Inventory Report (PAIR) that will be used for future PAs.

Criteria for Categorizing Waste Streams as Potential

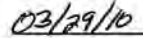
Screening Criteria	Comment
TRU Determination Undetermined	Will remain potential until the waste stream has been officially determined to be transuranic. If the waste stream is determined to be non-transuranic then it will be removed from the inventory.
Defense Determination Unknown	Will remain potential until the waste stream has been officially determined to be defense waste. If the waste stream is determined to be non-defense then it will be removed from the inventory.
Regulatory Restrictions <ul style="list-style-type: none"> • Surface Dose > 1000 R/hr • Activity >23 Ci/L (or 23,000 Ci/m³) averaged over the volume of the canister • Prohibited hazardous constituents • Summary category groups other than S3000, S4000, S5000 • And other regulatory restrictions 	Will remain potential until the waste stream meets all acceptance criteria for WIPP. This may involve: <ul style="list-style-type: none"> • Repackaging waste stream • Treating waste stream • Removal of restricted items from waste stream • Any other process that would remediate the regulatory restriction
Incomplete Data <ul style="list-style-type: none"> • Incomplete or missing radionuclide concentrations • Incomplete or missing WMP 	Will remain potential until the waste stream reports all required data.

Screening Criteria	Comment
densities <ul style="list-style-type: none"> • Incomplete or missing final form container information • Unknown waste stream information • Any other incomplete or missing waste stream information that is required for PA 	
Directed by DOE to move to Potential	Will remain potential until DOE directs to remove waste stream from potential.

DOE/CBFO Compliance Certification Manager



Russ Patterson



Date