TWBIR ID: RF-MT0007

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W010	**Handling**	CH	**Stream Name**	Bypass Sludge Bldg 374/TRM			**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3190

EPA Codes

As-Generated
F001, F002, F005, F006, F007, F009

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	0.00	0.00	0.00
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	217.70	217.70	217.70
Cellulosics	0.00	0.00	0.00
Rubber	0.00	0.00	0.00
Plastics	0.00	0.00	0.00
Solidified, Inorganic Matrix	196.00	196.00	196.00
Cement (Solidified)	130.60	130.60	130.60
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	131.00		
Packaging Material, Plastic	64.80		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Pollution Control or Waste Treatment Process

TRUCON Codes

111

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.03E+00
Pu-239	5.16E-01
Pu-240	1.18E-01
Pu-241	2.81E+00

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0007

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	0.8	0.0	0.0	0.0	0.0	0.8

As-Generated	Stored	0.8	Projected	0.0	Total	0.8

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.8	0.0	0.0	0.0	0.0	0.8

Final Form	Stored	0.8	Projected	0.0	Total	0.8

TWBIR ID: RF-MT0007

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste stream is a solid cemented sludge. It could have small amounts of free liquids in the bottom of the container.
Waste Stream Source Description	Aqueous sludge wastes assigned IDCs 001 and 800 were generated by the high-level aqueous waste treatment system in Building 774. IDC 001 was replaced by IDC 800 in 1986. A two-stage basic waste treatment, precipitation, and filtration process generates IDCs 001 and 800 aqueous sludge. Acidic wastes are neutralized with sodium hydroxide in stage one. Ferric sulfate and Purifloc flocculant are added to the neutralized waste (containing metal ions) to precipitate the sludge prior to filtration. In stage two, ferric sulfate, magnesium sulfate, calcium chloride, and Purifloc flocculant are added to basic wastes during the two-stage treatment to precipitate sludge. The sludge slurry from the acidic and basic waste treatment is drawn through a diatomite filter media on a rotating drum filter to trap the solids. The filter media and sludge are continuously scraped off the drum filter and co-fed into a 55-gallon drum with additional diatomite and Portland cement making up the solidification process. No mechanical mixing of the sludge and cement is performed. Prior to 1979, IDC 001 consisted of sludge from the first-stage treatment only. When the first- and second-stage sludges were packaged separately, two vacuum filters were used. From 1979 to 1986, IDC 001 was a combination of the sludges from the first- and second-stage treatment processes. The sludge was produced chemically in the same fashion aqueous waste was treated to produce IDC 800 sludge. The solidification process for IDC 001 differs from the IDC 800 method of adding cement and diatomite as the sludge collects. Portland cement was added to the bottom of the IDC 001 drum prior to placing the sludge in the drum. In some cases additional Portland cement was added on top of the sludge. Prior to September 1984, Building 774 accepted many aqueous process wastes from other buildings. These wastes, now piped to Building 374, were treated as described above. The accepted wastes included aqueous waste from Buildings 122, 123, 444, 559, 707, 776, 778, 779, 865, 881, 883, 889. After August 1984 and the start-up of the Building 374 Precipitation Process, only waste piped from Building 771 (stream condensate, scrubber waste, ion column effluent, and process waste sinks), waste in containers from various buildings, and wastes generated within Building 774 (silver recovery effluent, seal liquid, and floor washdown) were accepted. From 1986 through 1989, the treatment process treated from 150,000 gallons to over 500,000 gallons per year and generated 2,700 drums of IDCs and 800 sludge. See Solidified Bypass Sludge/LLM for detailed descriptions of IDCs 007, 803, and 807.
Current Container Comments	N/A
EPA Comments	All waste with D001, D002, and D003 codes will be processed or repackaged prior to shipment to WIPP per Geoff Asmus. According to the Building 774 Second-Stage Treatment Log (January 1981 to October 1989), prior to September 1984, the Building 774 aqueous waste treatment system received waste streams that are treated in the Building 374 Liquid Waste Treatment Facility. These streams affected the characterization of Building 774 solidified sludge until September 1985. The choice of the transition date of September 1984 is discussed in detail under the Subpopulation 55A discussion in the Backlog Baseline Book prepared by Rocky Flats. Information contained in the November 1992 WSRIC Valve Vaults Book has been used to characterize waste streams treated in Building 774 prior to September 1984. The Valve Vaults book describes the process waste sent to Building 374 for treatment. The book was used because it is the only reference that provides detailed characterization information on waste that was sent to Building 774. Other references and interviews have been used to enhance or add to this information as it relates to the waste form.
Management Comments	N/A
Acceptance Comments	RFP has assumed this waste to be LDR based on process knowledge characterization and limited analytical data.

TWBIR ID: RF-MT0007

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

	1. Basis for determining LDR storage prohibition status is based pirmarily on process knowledge. WASTE_ PACK: Waste is packaged in 55 gallon DOT 7A Type A Drums. The drums are lined with one rigid polyethylene liner and two bag liners.
Final Form Comments	N/A

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TWBIR ID: RF-MT0089

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0089	**Handling**	CH	**Stream Name**	N/A			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3229

EPA Codes

As-Generated
D007

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	0.00	0.00	0.00
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	0.00	0.00	0.00
Cellulosics	12.89	12.89	12.89
Rubber	0.00	0.00	0.00
Plastics	0.00	0.00	0.00
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	701.69	701.69	701.69
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.43		
Packaging Material, Plastic	17.18		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N/A
PCBs:	N/A
Source:	N/A

TRUCON Codes

126

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	3.88E-03
Pu-239	8.27E-02
Pu-240	1.89E-02
Pu-241	4.84E-01
Pu-242	2.40E-06

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0089

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
8802 Can	0.0	0.0	0.0	0.0	0.0	0.0
8804 Can	0.0	0.0	0.0	0.0	0.0	0.0

As-Generated	Stored	0.0	Projected	0.0	Total	0.0

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.4	0.0	0.0	0.0	0.0	0.4

Final Form	Stored	0.4	Projected	0.0	Total	0.4

TWBIR ID: RF-MT0089

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	N/A
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	N/A
Management Comments	Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0090

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0090	**Handling**	CH	**Stream Name**	N/A			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3119

EPA Codes

As-Generated
D005, D006, D007, D008, D010, D011

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	4.30	4.30	4.30
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	5.73	5.73	5.73
Other Inorganic Materials	8.59	8.59	8.59
Cellulosics	167.07	167.07	167.07
Rubber	0.00	0.00	0.00
Plastics	1.15	1.15	1.15
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	525.22		
Packaging Material, Plastic	23.87		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N/A
PCBs:	N/A
Source:	N/A

TRUCON Codes

130

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.26E+00
Pu-238	9.16E-01
Pu-239	3.54E+01
Pu-240	8.04E+00
Pu-241	8.07E+01
Pu-242	4.91E-04

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0090

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
POC / 55 gallon	2.5	0.0	0.0	0.0	0.0	2.5

As-Generated	Stored	Projected	Total
	2.5	0.0	2.5

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon POCs	2.5	0.0	0.0	0.0	0.0	2.5

Final Form	Stored	Projected	Total
	2.5	0.0	2.5

TWBIR ID: RF-MT0090

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	"Plutonium tetrafluoride that meets the chemical standards for plutonium fluoride reduction. The material is a pink to brown colored powdered solid, found as a uniform powder or in clumps."
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	N/A
Management Comments	Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0091

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0091	**Handling**	CH	**Stream Name**	N/A			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3119

EPA Codes

As-Generated
D005, D006, D007, D008, D010, D011

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	4.61	4.30	7.16
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	5.73	5.73	5.73
Other Inorganic Materials	8.43	5.73	9.55
Cellulosics	167.07	167.07	167.07
Rubber	0.00	0.00	0.00
Plastics	1.15	1.15	1.15
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	524.11		
Packaging Material, Plastic	23.87		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N/A
PCBs:	N/A
Source:	N/A

TRUCON Codes

130

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.49E+00
Pu-238	1.56E+00
Pu-239	3.98E+01
Pu-240	9.10E+00
Pu-241	1.12E+02
Pu-242	5.64E-04
U-234	2.06E-05
U-235	6.63E-07
U-238	5.87E-09

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0091

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
8801 Can	0.0	0.0	0.0	0.0	0.0	0.0
8802 Can	0.0	0.0	0.0	0.0	0.0	0.0
POC / 55 gallon	148.1	0.0	0.0	0.0	0.0	148.1
Slip Lid Can	0.0	0.0	0.0	0.0	0.0	0.0

As-Generated	Stored	148.1	Projected	0.0	Total	148.1

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.4	0.0	0.0	0.0	0.0	0.4
55 Gallon POCs	148.4	0.0	0.0	0.0	0.0	148.4

Final Form	Stored	148.8	Projected	0.0	Total	148.8

TWBIR ID: RF-MT0091

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	"Plutonium tetrafluoride that has become contaminated and does not meet the chemical standards for plutonium fluoride reduction. The material is a beige or pink to brown colored powdered solid, found as a uniform powder or in clumps."
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	N/A
Management Comments	Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0092

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0092	**Handling**	CH	**Stream Name**	N/A			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3119

EPA Codes

As-Generated
D005, D006, D007, D008, D010, D011

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	4.30	4.30	4.30
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	5.73	5.73	5.73
Other Inorganic Materials	8.91	8.12	9.55
Cellulosics	167.07	167.07	167.07
Rubber	0.00	0.00	0.00
Plastics	1.15	1.15	1.15
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	525.22		
Packaging Material, Plastic	23.87		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N/A
PCBs:	N/A
Source:	N/A

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.57E+00
Pu-238	1.36E+00
Pu-239	3.95E+01
Pu-240	9.19E+00
Pu-241	1.07E+02
Pu-242	5.87E-04

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0092

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
POC / 55 gallon	21.4	0.0	0.0	0.0	0.0	21.4

As-Generated	Stored	Projected	Total
	21.4	0.0	21.4

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon POCs	21.5	0.0	0.0	0.0	0.0	21.5

Final Form	Stored	Projected	Total
	21.5	0.0	21.5

TWBIR ID: RF-MT0092

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	"Solids recovered from filtration of solution containing non-specification fluoride dissolved in heated nitric acid. The material is a beige or pink to brown colored powdered solid, found as a uniform powder or in clumps."
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	N/A
Management Comments	Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0093

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W096	**Handling**	CH	**Stream Name**	Process Residues/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3119

EPA Codes

As-Generated
D005, D006, D007, D008, D010, D011

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	4.30	4.30	4.30
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	5.73	5.73	5.73
Other Inorganic Materials	8.95	7.64	11.46
Cellulosics	167.07	167.07	167.07
Rubber	0.00	0.00	0.00
Plastics	1.15	1.15	1.15
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	525.22		
Packaging Material, Plastic	23.87		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N
PCBs:	N
Source:	Recovery Operations

TRUCON Codes

130

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.28E+00
Np-237	3.10E-05
Pu-238	1.29E+00
Pu-239	3.92E+01
Pu-240	9.28E+00
Pu-241	8.40E+01
Pu-242	6.16E-04

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0093

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
POC / 55 gallon	23.3	0.0	0.0	0.0	0.0	23.3

As-Generated	Stored	Projected	Total
	23.3	0.0	23.3

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon POCs	23.3	0.0	0.0	0.0	0.0	23.3

Final Form	Stored	Projected	Total
	23.3	0.0	23.3

TWBIR ID: RF-MT0093

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	"Sodium fluoride pellets contaminated with plutonium hexafluoride. This material is beige or pink to brown colored pellets with similarly colored powdered solids. It may be found as uniform pellets, in degraded clumps, or in a powder"
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	EPA hazardous waste numbers are assigned to this waste stream based on process knowledge and confirmed by WIPP characterization sampling and analysis.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0097

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0097	**Handling**	CH	**Stream Name**	N/A			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3119

EPA Codes

As-Generated
D005, D006, D007, D008, D010, D011

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	11.46	11.46	11.46
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	5.73	5.73	5.73
Other Inorganic Materials	6.68	6.68	6.68
Cellulosics	167.07	167.07	167.07
Rubber	0.00	0.00	0.00
Plastics	1.15	1.15	1.15
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	525.22		
Packaging Material, Plastic	23.87		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N/A
PCBs:	N/A
Source:	N/A

TRUCON Codes

130

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.00E+00
Pu-238	9.08E-01
Pu-239	3.28E+01
Pu-240	6.74E+00
Pu-241	7.34E+01
Pu-242	3.37E-04

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0097

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
POC / 55 gallon	1.5	0.0	0.0	0.0	0.0	1.5

As-Generated	Stored	Projected	Total
	1.5	0.0	1.5

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon POCs	1.5	0.0	0.0	0.0	0.0	1.5

Final Form	Stored	Projected	Total
	1.5	0.0	1.5

TWBIR ID: RF-MT0097

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	There is conflicting information as to the actual contents of this fluoride material. One source indicates it is impure fluoride (IDC 091) while another source indicates it is impure fluoride heel (IDC 092). This IDC may include a mixture of several fluoride IDCs.
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	N/A
Management Comments	Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0099

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0099	**Handling**	CH	**Stream Name**	N/A			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Organics	**Waste Matrix Code**	S3229

EPA Codes

As-Generated
D007

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	0.00	0.00	0.00
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	0.00	0.00	0.00
Cellulosics	12.89	12.89	12.89
Rubber	0.00	0.00	0.00
Plastics	0.00	0.00	0.00
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	701.69	701.69	701.69
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.43		
Packaging Material, Plastic	17.18		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N/A
PCBs:	N/A
Source:	N/A

TRUCON Codes

126

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	3.88E-03
Pu-239	8.27E-02
Pu-240	1.89E-02
Pu-241	4.84E-01
Pu-242	2.40E-06

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0099

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
8802 Can	0.0	0.0	0.0	0.0	0.0	0.0

As-Generated	Stored	Projected	Total
	0.0	0.0	0.0

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.6	0.0	0.0	0.0	0.0	0.6

Final Form	Stored	Projected	Total
	0.6	0.0	0.6

TWBIR ID: RF-MT0099

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	N/A
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	N/A
Management Comments	Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0290

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0290	**Handling**	CH	**Stream Name**	N/A			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3129

EPA Codes

As-Generated
D006, D007, D008, F001, F002, F005

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	7.16	7.16	7.16
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	0.00	0.00	0.00
Cellulosics	0.00	0.00	0.00
Rubber	0.00	0.00	0.00
Plastics	8.59	8.59	8.59
Solidified, Inorganic Matrix	10.50	10.50	10.50
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	525.22		
Packaging Material, Plastic	23.87		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N/A
PCBs:	N/A
Source:	N/A

TRUCON Codes

111

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	3.17E-01
Pu-239	6.75E+00
Pu-240	1.55E+00
Pu-241	3.95E+01
Pu-242	1.96E-04

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0290

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
POC / 55 gallon	18.9	0.0	0.0	0.0	0.0	18.9

As-Generated	Stored	Projected	Total
	18.9	0.0	18.9

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon POCs	19.0	0.0	0.0	0.0	0.0	19.0

Final Form	Stored	Projected	Total
	19.0	0.0	19.0

TWBIR ID: RF-MT0290

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	N/A
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	N/A
Management Comments	Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT-0292

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W068	**Handling**	CH	**Stream Name**	Particulate Sludge/TRM			**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	ZZ	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3129

EPA Codes

As-Generated
D004, D005, D006, D007, D008, D009, D010, D011, F001, F002, F003, F005

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	0.00	0.00	0.00
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	11.89	11.89	11.89
Cellulosics	0.00	0.00	0.00
Rubber	0.00	0.00	0.00
Plastics	15.85	15.85	15.85
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	368.46	368.46	368.46
Soils	0.00	0.00	0.00
Packaging Material, Steel	155.38		
Packaging Material, Plastic	32.09		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

111
RF111

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	3.17E-01
Pu-239	6.75E+00
Pu-240	1.55E+00
Pu-241	3.95E+01
Pu-242	1.96E-04

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT-0292

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
8804 Can	0.0	0.0	0.0	0.0	0.0	0.0
Drum / 55 gallon	21.8	0.0	0.0	0.0	0.0	21.8
Drum / 85 gallon	0.6	0.0	0.0	0.0	0.0	0.6
Drum / 85 gallon	0.6	0.0	0.0	0.0	0.0	0.6
POC / 55 gallon	1.0	0.0	0.0	0.0	0.0	1.0
Slip Lid Can	0.0	0.0	0.0	0.0	0.0	0.0

As-Generated	Stored	Projected	Total
	24.2	0.0	24.2

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	22.9	0.0	0.0	0.0	0.0	22.9
55 Gallon POCs	1.0	0.0	0.0	0.0	0.0	1.0

Final Form	Stored	Projected	Total
	24.0	0.0	24.0

TWBIR ID: RF-MT-0292

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste consists of sludge type material. It is a semi-fluid material. Some of it has had cement added to it to try to solidify it.
Waste Stream Source Description	Item Description Code 292-Incinerator Sludge IDC 292 was intended for incinerator sludge from the recovery incinerator in Building 771. IDC 292 materials were reassessed under Waste Form 1, Incinerator Ash. However, there is one box WEMS incorrectly assigned this IDC. According to the waste-box log sheet dated October 14, 1987, the box contains Electrochemical Milling Sludge generated in Building 881. This operation generated sludge from the milling of various metals including stainless steel. It was indicated that no cyanides were used in the ECM operations in Building 881. The IDC for this box should be changed to 299. Item Description Code 299-Miscellaneous Sludge This IDC has been used for sludges that were not accurately categorized as IDC 290 or 340 and could have been generated in any plutonium processing building. However, the backlog miscellaneous sludge was generated in Building 771 during the processing of residues, in Building 371 in the analytical laboratory, and in Building 883 by the Rolling Process. Process pipe sludge, sludge dissolution heel, and filter plenum sludge from Building 771 were processed through nitric acid dissolution and sparging. Soil and sludge samples from around the site were analyzed in Building 371, and the waste was stored for processing. IDC 299 materials generated in Building 883 include quench sludge and uranium oxide sludge from the Rolling Process. This group also includes one container of electrochemical milling sludge generated in Building 881 in October 1987. The container is assigned IDC 292. Item Description Code 372-Grit This IDC was generated by grit blasting operations in Building 371 (primarily for cleaning steel and iron) and Building 777 in the Machining and Coating processes (primarily cleaning shields). A variety of materials were used for the grit, including iron shot, walnut shells, glass beads, and ceramic beads. The majority of the grit is thought to be iron shot ranging in size from fines to irregular particles. There were apparently no other RCRA-regulated metals involved in the grit blasting. There is one drum of IDC 372 shown in WEMS as being generated in Building 371. However, no grit blasting operation could be identified in that building. Item Description Code 823-Cemented Sludge IDC 823, cemented miscellaneous sludge, was generated when sludge designated as inorganic particulate and sludgy material that was below the economic discard limit (EDL) was placed in 1-gallon paint cans and covered with Portland cement or mixed with cement into a block. The first scenario was conducted in Building 771 and the second in Building 371. This could have included IDCs 290-299 and was done to meet the Waste Isolation Pilot Plant (WIPP) waste acceptance criteria. The material came primarily from Nash pumps in Building 771 and included vacuum grease and oily sludge. One drum of the material was apparently generated when the pit in front of Building 707 was cleaned out. However, the contents of the pit sludge could not be ascertained. One drum was generated in the Size Reduction Vault in Building 776. Six drums were generated in Building 774 and are stored in Building 371. Drum-specific information was requested but was not received. The drums from Building 559 are incorrectly assigned IDC 823 in WEMS. The drums are stored in Building 771 and are labeled with IDC 863. It appears that IDC 823 was entered incorrectly in WEMS. Therefore, these drums should be changed to IDC 863 in WEMS. This waste form is generated from Facility/Equipment Operation, Maintenance, Analytical Laboratories, R&D Laboratories, D&D, and limited Emergency Response actions.
Current Container Comments	N/A
EPA Comments	All waste with D001, D002, and D003 codes will be processed or repackaged prior to shipment to WIPP per Geoff Asmus. Subpopulation 1B consists of approximately 85, IDC 292 incinerator sludge containers. EPA Codes D002, D004-D011, F001, F002, F003, and F005 were assigned to this subpopulation based on the characterization of incinerator feed materials. Based on the characterization of the feed, alcohols, glycols,

halogenated solvents, and metals may have been introduced into the incinerator. Because the specific sources of the incinerator feed cannot be determined at this time, it has been assumed that the process could have accepted any of the combustible, plastic, or filter wastes currently contained in the inventory that were generated during the time the incinerator was operational.

Management Comments N/A

Acceptance Comments

1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. WASTE_PACK: The waste is packaged in 55-gallon drums with multiple bag liners. These are typically smaller containers within the drums.

Final Form Comments N/A

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TWBIR ID: RF-MT-0299

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W068	**Handling**	CH	**Stream Name**	Particulate Sludge/TRM	**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3129

EPA Codes

As-Generated
D006, D007, D008, D011, F001, F002, F005

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	7.16	7.16	7.16
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	0.00	0.00	0.00
Cellulosics	0.00	0.00	0.00
Rubber	0.00	0.00	0.00
Plastics	8.59	8.59	8.59
Solidified, Inorganic Matrix	10.50	10.50	10.50
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.43		
Packaging Material, Plastic	23.87		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

111, 112

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.67E+01
Pu-238	6.28E+00
Pu-239	1.34E+02
Pu-240	3.06E+01
Pu-241	7.83E+02
Pu-242	3.87E-03
U-238	1.22E-04

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT-0299

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
8804 Can	0.0	0.0	0.0	0.0	0.0	0.0
Drum / 55 gallon	16.0	0.0	0.0	0.0	0.0	16.0
POC / 55 gallon	14.8	0.0	0.0	0.0	0.0	14.8

As-Generated	Stored	30.8	Projected	0.0	Total	30.8

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	16.3	0.0	0.0	0.0	0.0	16.3
55 Gallon POCs	14.8	0.0	0.0	0.0	0.0	14.8

Final Form	Stored	31.1	Projected	0.0	Total	31.1

TWBIR ID: RF-MT-0299

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste consists of sludge type material. It is a semi-fluid material. Some of it has had cement added to it to try to solidify it.
Waste Stream Source Description	Item Description Code 292-Incinerator Sludge IDC 292 was intended for incinerator sludge from the recovery incinerator in Building 771. IDC 292 materials were reassessed under Waste Form 1, Incinerator Ash. However, there is one box WEMS incorrectly assigned this IDC. According to the waste-box log sheet dated October 14, 1987, the box contains Electrochemical Milling Sludge generated in Building 881. This operation generated sludge from the milling of various metals including stainless steel. It was indicated that no cyanides were used in the ECM operations in Building 881. The IDC for this box should be changed to 299. Item Description Code 299-Miscellaneous Sludge This IDC has been used for sludges that were not accurately categorized as IDC 290 or 340 and could have been generated in any plutonium processing building. However, the backlog miscellaneous sludge was generated in Building 771 during the processing of residues, in Building 371 in the analytical laboratory, and in Building 883 by the Rolling Process. Process pipe sludge, sludge dissolution heel, and filter plenum sludge from Building 771 were processed through nitric acid dissolution and sparging. Soil and sludge samples from around the site were analyzed in Building 371, and the waste was stored for processing. IDC 299 materials generated in Building 883 include quench sludge and uranium oxide sludge from the Rolling Process. This group also includes one container of electrochemical milling sludge generated in Building 881 in October 1987. The container is assigned IDC 292. Item Description Code 372-Grit This IDC was generated by grit blasting operations in Building 371 (primarily for cleaning steel and iron) and Building 777 in the Machining and Coating processes (primarily cleaning shields). A variety of materials were used for the grit, including iron shot, walnut shells, glass beads, and ceramic beads. The majority of the grit is thought to be iron shot ranging in size from fines to irregular particles. There were apparently no other RCRA-regulated metals involved in the grit blasting. There is one drum of IDC 372 shown in WEMS as being generated in Building 371. However, no grit blasting operation could be identified in that building. Item Description Code 823-Cemented Sludge IDC 823, cemented miscellaneous sludge, was generated when sludge designated as inorganic particulate and sludgy material that was below the economic discard limit (EDL) was placed in 1-gallon paint cans and covered with Portland cement or mixed with cement into a block. The first scenario was conducted in Building 771 and the second in Building 371. This could have included IDCs 290-299 and was done to meet the Waste Isolation Pilot Plant (WIPP) waste acceptance criteria. The material came primarily from Nash pumps in Building 771 and included vacuum grease and oily sludge. One drum of the material was apparently generated when the pit in front of Building 707 was cleaned out. However, the contents of the pit sludge could not be ascertained. One drum was generated in the Size Reduction Vault in Building 776. Six drums were generated in Building 774 and are stored in Building 371. Drum-specific information was requested but was not received. The drums from Building 559 are incorrectly assigned IDC 823 in WEMS. The drums are stored in Building 771 and are labeled with IDC 863. It appears that IDC 823 was entered incorrectly in WEMS. Therefore, these drums should be changed to IDC 863 in WEMS. This waste form is generated from Facility/Equipment Operation, Maintenance, Analytical Laboratories, R&D Laboratories, D&D, and limited Emergency Response actions.
Current Container Comments	N/A
EPA Comments	Subpopulation 46GA includes 15 containers generated in the Building 371 analytical labs. The WSRIC book for the building includes no IDC 299 waste streams. Until shortly after September 1993, the WSRIC book for Building 371 included a process output numbered 371-4-18 (Low-level Soil Sludges) that was assigned EPA Codes D002-D011, D018, D019, D035, D040, F001, F002, F005-F007, and F009. The current WSRIC book for Building 371 includes a new

stream, 371-4-22 (Low-Level Soil Sludges), that replaced number 371-4-18, and that is characterized only as characteristic waste with EPA Waste Codes D004-D011. The WEMS characterization for this group is D007. It is assumed, therefore, that since the containers in this group were generated from 1984 to 1992, the materials are best assigned the same waste codes as the 371-4-18 stream cited above, with the exception of the plating waste codes (F006, F007, and F009), and the reactivity code (D003), because it is known that no plating waste was generated in Building 371 labs and that no reactive wastes were generated. Most likely, all 15 containers do not contain wastes that are assigned all of the codes. It is also possible that some of the remaining waste codes can be removed based on EPA guidance concerning the sample exclusion cited in Section 261.4 (d). However, it could not be determined from personnel in Building 371 whether waste stream 371-4-18 was characterized as toxic for benzene (D018), carbon tetrachloride (D019), methyl ethyl ketone (D035), and trichloroethylene (D040) based on the double listing policy previously used or if the codes were assigned because the waste actually exhibits the characteristic of toxicity for those organics. Nor could it be confirmed whether the F-listed solvent codes were assigned because the lab felt it was generating listed solvent waste or if the codes were assigned because the lab was analyzing the F-listed solvent waste. Therefore, until these issues can be resolved, this subpopulation is characterized as hazardous and assigned EPA Waste Codes D002, D004-D011, D018, D019, D035, D040, F002, and F005. These containers should be analyzed unless data exist that can confirm or refute this characterization. The containers are all LDR regulated.

Subpopulation 46GB includes 11 containers generated in miscellaneous residue processing. All drums are characterized as hazardous and assigned EPA Waste Code D007 (chromium) in WEMS. The WSRIC book dated September 1993 includes process outputs numbered 771-12-14, 771-12-16, and 771-27-7, sludge dissolution heel, pipe sludge, and filter plenum sludge, respectively. These WSRIC outputs were generated by the Miscellaneous Residue Processing and Plenums processes. The sludges generated by residue processing are characterized as D007 wastes because the corrosive liquids the sludges came from leached chromium from the insides of stainless-steel transfer lines. The plenum sludge is characterized as nonhazardous. According to NMC, these streams were being generated during the period from 1984 to 1989, which would coincide with dates of generation for Subpopulation GB. According to NMC, the drums of IDC 299 were most likely generated by the residue processing operation. Therefore, the group is characterized as hazardous and assigned waste code D007 until analytical data are collected that prove otherwise. The containers are also LDR regulated.

Management Comments N/A

Acceptance Comments

1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. WASTE_PACK: The waste is packaged in 55-gallon drums with multiple bag liners. These are typically smaller containers within the drums.

Final Form Comments N/A

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TWBIR ID: RF-MT0302

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W012	**Handling**	CH	**Stream Name**	Combustibles/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Combustible	**Waste Matrix Code**	S5313

EPA Codes

As-Generated
D005, D008

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	5.28	0.48	41.43
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	0.00	0.00	0.00
Cellulosics	12.89	12.89	12.89
Rubber	0.00	0.00	0.00
Plastics	193.70	42.96	304.54
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.44		
Packaging Material, Plastic	25.78		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N
PCBs:	N
Source:	General Building Waste and Decommissioning

TRUCON Codes

121

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.28E-02
Np-237	3.21E-07
Pu-238	1.85E-02
Pu-239	4.30E-01
Pu-240	9.86E-02
Pu-241	2.27E+00
Pu-242	1.12E-05
U-234	4.03E-05
U-235	1.30E-06
U-238	1.15E-08

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0302

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	0.4	0.0	0.0	0.0	0.0	0.4

As-Generated	Stored	Projected	Total
	0.4	0.0	0.4

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.4	0.0	0.0	0.0	0.0	0.4

Final Form	Stored	Projected	Total
	0.4	0.0	0.4

TWBIR ID: RF-MT0302

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	"This waste stream consists of Benelex and Plexiglas used for radiation shielding around gloveboxes, tanks, glovebox windows, and equipment enclosures."
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	EPA hazardous waste numbers are assigned to this waste stream based on process knowledge.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0320

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W037	**Handling**	CH	**Stream Name**	Heavy Metal (non-SS)/TRM			**Inventory Date**	9/30/2002
Local ID	IDC 320	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Uncategorized Metal	**Waste Matrix Code**	S5112

EPA Codes

As-Generated
D008

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	41.91	1.91	144.16
Aluminum-Base Metal/Alloys	4.77	4.77	4.77
Other Metal/Alloys	126.66	11.31	398.10
Other Inorganic Materials	38.31	37.95	38.67
Cellulosics	29.91	25.78	31.98
Rubber	0.00	0.00	0.00
Plastics	19.94	3.01	47.73
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	161.22		
Packaging Material, Plastic	27.70		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

117

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.29E+00
Np-237	1.15E-05
Pu-238	1.13E+00
Pu-239	2.46E+01
Pu-240	5.64E+00
Pu-241	1.35E+02
Pu-242	6.90E-04
U-234	1.76E-06
U-235	5.67E-08
U-238	5.01E-10

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0320

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
8802 Can	0.0	0.0	0.0	0.0	0.0	0.0
Drum / 55 gallon	4.8	0.0	0.0	0.0	0.0	4.8
POC / 55 gallon	0.4	0.0	0.0	0.0	0.0	0.4

As-Generated	Stored	5.2	Projected	0.0	Total	5.2

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	6.7	0.0	0.0	0.0	0.0	6.7
55 Gallon POCs	0.4	0.0	0.0	0.0	0.0	0.4

Final Form	Stored	7.1	Projected	0.0	Total	7.1

TWBIR ID: RF-MT0320

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	IDC 320 - Scrap metals which are heavier than iron and steel. Metal above Cu on the periodic table. Mainly used tantalum crucibles.
Waste Stream Source Description	Heavy metals have been produced as by-products of Rocky Flats operations in Buildings 371, 707, 771, 776, 777, 779, and 865; they are identified by IDC 320. The IDC 320 heavy nonspecial source metal was generated in various locations throughout the Rocky Flats and is stored in Resource Conservation and Recovery Act (RCRA) Units 11, 12, 13, 15A, and 20. This IDC includes nonstainless-steel metals that are heavier than iron. Examples of this waste include crucibles, funnels, rods, and process fixtures. These items are made primarily from tantalum, tungsten, and platinum, but some parts could have been manufactured or contaminated with lead if the accumulation start date was prior to 1987. IDC 320 originally included lead. During maintenance operations, the maintenance shop in Building 371 generated heavy metal vessels, instruments, rods, and plates fabricated from tantalum, tungsten, and platinum. The shop generated these items during 4 1/2 years of operation from 1983 until 1988. Of these containers in storage, 19 backlog containers have an EPA Code of D008 (lead); eight of these were produced after 1987. Building 707, Modules A and J, generated heavy metals in its foundry operations. These heavy metals were primarily crucibles and pans used for presampling. These processes generated material during 6 1/2 years of operation from 1985 until 1991. Nine backlog containers have an EPA Code of D008 (lead). The plutonium recovery operations in Building 771 generated leached Oralloy parts consisting of tantalum, tungsten, and platinum. The system generated material during 3 years of operation from 1987 until 1990. Five backlog containers have an EPA Code of D008 (lead); four of these backlog containers were produced after 1987. Building 776, Pyrochemical Processing, generated material during almost three years of operation from 1988 until 1990. This material consists primarily of tantalum crucibles, stirrers, and cans from MSE, salt scrub, and anode heel processes. Eight containers have an EPA Code of D008 (lead). Building 777, the Coatings Laboratory, generated material during a 2-year period of operation from 1988 until 1990. This material consists primarily of various heavy metals used in the research and development of coating technologies. These backlog containers have been associated with lead as a constituent and were produced after 1987. The Residue Treatment Technology Group, Building 779, generated crucibles, stirrers, and other general lab equipment derived from tantalum and tungsten. In Building 779, the Physical Metallurgy Group generated tantalum materials used in casting and cast testing. Additionally, the Surface Analysis Laboratory in Building 779 generated heavy metal samples primarily of depleted uranium (D-38). IDC 320 material was produced by Building 779 operations over a 10-year period from 1981 until 1991. Nine backlog containers have an EPA Code of D008 (lead), six were produced after 1987.
Current Container Comments	N/A
EPA Comments	One subpopulation (25A) was identified based on specific process knowledge and generation date. The EPA Code D008 was assigned to this subpopulation because of contact with known lead products and process association. This subpopulation consists of containers produced before or during 1987. The WEMS database lists the EPA Code D008 for these containers. Because of the generation date, a conservative position has been taken by placing backlog drums with the DOO8 (lead) EPA Code in this subpopulation. The primary buildings of generation were 371, 707, 771, 776, 779. Subpopulation 25B was identified based on specific process knowledge and generation date. At this time, the generation date has been used judiciously in separating and characterizing containers with lead. The EPA Code D008 was assigned to this subpopulation because of contact with known lead products and process association. This subpopulation consists of containers produced before or during 1987. The WEMS database lists the EPA Code D008 for these containers. Because of the generation date, a conservative position has been taken by placing backlog drums with the D008 (lead) EPA Code in this subpopulation. The primary buildings of generation were 371, 707, 771, 776, and 779.
Management Comments	N/A
Acceptance Comments	Future generation is projected beyond 1999.
Final Form Comments	N/A

TWBIR ID: RF-MT0321

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W028	**Handling**	CH	**Stream Name**	Lead/TRM			**Inventory Date**	9/30/2002
Local ID	IDC 321	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Lead/Cadmium Metal	**Waste Matrix Code**	S5112

EPA Codes

As-Generated
D008

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	47.53	2.39	138.19
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	400.76	21.48	1435.84
Other Inorganic Materials	73.60	95.47	95.47
Cellulosics	10.92	4.31	12.89
Rubber	5.72	4.30	10.51
Plastics	16.62	5.25	53.46
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	135.78		
Packaging Material, Plastic	20.85		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

117

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.24E-01
Np-237	9.89E-06
Pu-238	5.72E-02
Pu-239	1.35E+00
Pu-240	3.05E-01
Pu-241	6.43E+00
Pu-242	4.13E-05
U-234	5.81E-05
U-235	1.87E-06
U-238	1.66E-08

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0321

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	19.1	2.1	0.0	0.0	0.0	21.2
Drum / 85 gallon	4.2	0.0	0.0	0.0	0.0	4.2
Standard Waste Box	1.9	5.7	0.0	0.0	0.0	7.6

As-Generated — Stored: 25.2 | Projected: 7.8 | Total: 33.0

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	19.2	0.0	0.0	0.0	0.0	21.3
85 Gallon Drum	4.2	0.0	0.0	0.0	0.0	4.2
Standard Waste Box	1.9	0.0	0.0	0.0	0.0	7.6

Final Form — Stored: 25.3 | Projected: 7.8 | Total: 33.0

TWBIR ID: RF-MT0321

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste form consists of metallic lead in the form of sheets, bricks, or tape. Physical form: solid Currently, no analytical data for lead waste is available. Process knowledge is the basis for characterization of this waste form. Lead waste (IDC 321) from non-specific sources is believed to have only lead (D008) as a hazardous constituent. In numerous tests of elemental lead, EP toxicity values exceed those listed in Table 1, 40 CFR 261.24. It is assumed that IDC 321 would also exceed EP toxicity limits for lead.
Waste Stream Source Description	Transuranic lead was generated at a number of locations throughout Rocky Flats and includes IDC 321. The as-low-as-reasonably- achievable (ALARA) principle requires that the exposure of workers to radiation be kept "as low as reasonable achievable." In support of this principle, selected components and surfaces of gloveboxes enclosing materials that generate elevated levels of penetrating radiation (primarily gamma radiation) are commonly covered with metallic lead sheeting. The lead serves to attenuate the radiation dose received by employees working in the glovebox or in proximity to the glovebox. Lead waste (IDC 321) components are generally composed of lead bricks, lead shielding, and lead tape. The lead or lead-covered components may become waste due to replacement, modification, or decommissioning activities. The dates of generation for IDC 321 range from August 15, 1986 to March 1, 1994. The lead waste form is not a by-product of any process routinely performed at Rocky Flats. According to WSRIC Building Books, lead is most commonly generated as a result of maintenance activities. The lead waste is generally composed of lead shielding, scrap lead metal, and lead tape. The lead waste is collected in standard waste drums. The lead waste form was generated in Buildings 371, 559, 707, 771, 776, 777, and 779. This stream is generated from Facility Operations, Analytical Laboratories, and R&D Laboratories.
Current Container Comments	N/A
EPA Comments	Drums Containing Scrap Lead Metal and Lead Shielding Scrap lead metal and lead shielding exhibit the characteristic of toxicity for lead (D008). Subpopulation 8A was identified based on specific process knowledge and analytical results from elemental lead waste. According to WEMS, WSRIC, drums reports, and internal correspondence, the waste primarily consists of lead bricks, lead shielding, and scrap lead metal. Although some of waste could have come in contact with solvents, it is not considered to be a listed waste if the metal was wiped down with solvents for decontamination or paint stripping purposes, or if it was generated by the decommissioning of gloveboxes or other container-like apparatuses. Additional EPA codes are assigned to the waste based on process knowledge.
Management Comments	N/A
Acceptance Comments	RFP has determined this waste form to be LDR waste based on process knowledge available for TRU lead waste (IDC 321) and the fact that elemental lead exceeds values for EP toxicity pursuant to 40 CFR 261 24. 1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. WASTE_PACK: This waste is packaged in 55-gallon drums lined with a fiberboard liner and two polyethylene bag liners.
Final Form Comments	N/A

TWBIR ID: RF-MT-0328

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W066	**Handling**	CH	**Stream Name**	Filters & media/TRM			**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Filter	**Waste Matrix Code**	S5410

EPA Codes

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

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	0.00	0.00	0.00
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	0.00	0.00	0.00
Cellulosics	0.00	0.00	0.00
Rubber	0.00	0.00	0.00
Plastics	4.77	4.77	4.77
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.57		
Packaging Material, Plastic	32.46		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.59E-01
Np-237	3.98E-06
Pu-238	8.83E-02
Pu-239	1.88E+00
Pu-240	4.31E-01
Pu-241	1.10E+01
Pu-242	5.44E-05
U-234	1.04E-04
U-235	3.36E-06
U-238	2.98E-08

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT-0328

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	1.0	1.0	0.0	0.0	0.0	2.1

As-Generated	Stored	1.0	Projected	1.0	Total	2.1

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	1.0	0.0	0.0	0.0	0.0	2.1

Final Form	Stored	1.0	Projected	1.0	Total	2.1

TWBIR ID: RF-MT-0328

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description 328 - Flu-Flo filters from the recovery incineration, building 771. Mixed Waste.

Waste Stream Source Description Item Description Code 328-Ful-Flo Filters From Building 771 Incinerator

These Ful-Flo filters are in-line cartridge filters used to remove particulates from specific fluid streams in Building 771.

During normal process operations, IDC 328 Ful-Flo filters in the backlog population were used to filter particulates from the incinerator fume scrubber system in Building 771. These filters were used for the filtration of caustic solutions; therefore, they are contaminated with bases and may contain free liquids.

During normal process operations, IDC 331 Ful-Flo filters in this backlog population were used to filter particulates from liquid waste streams in Buildings 371, 707, 771, 776, 777, and 779. These waste streams were primarily from filtration of caustic solutions in Building 371, the carbon tetrachloride system and oil systems, and from filtration of water and developer in Building 707. In Building 771, the primary waste streams filtered were anion column feed, potassium hydroxide, nitrate feed, spent nitric acid and hydrofluoric acid from the scrubber, eluate and effluent exiting the ion-exchange columns, floor pick-up solution were filtered in Building 776. In Buildings 777 and 779, Ful-Flo filters were used in the carbon tetrachloride system for purification of Freon TF and for filtration of incoming waters.

Typically, Ful-Flo filters were placed on drying racks pending bag-out of a glovebox. Filters were not always dried before removal from the glovebox. Filters were then "bagged out" of the glovebox and placed in a second layer of plastic. Next, the filters were placed in a "Poly bottle" or "Clam Shell" (hard plastic container), then placed in a double-lined drum.

Item Description Code-331 Ful-Flo filters Not From Incinerator

These Ful-Flo filters are in-line cartridge filters used throughout Rocky Flats to remove particulates from fluid streams and typically filter down to 5,1, and 0.5 micron-sized particulates. Ful-Flo filters are used in various liquid systems that include nitric- and chloride-acid systems, such as those found in plutonium recovery operations; caustic systems, such as those found in utilities scrubbing; solvent systems using carbon tetrachloride in machining operations; water systems, such as steam cleaning; and condensate collection. These filters are also used in lubricant oil filtration.

Ful-Flo filters are poly-fiber-wound cartridges, about 10" long by 3.5" in diameter. Other fiber filters, such as R-6 pads, may be included in this IDC. R-6 pads are cloth filters, about sixteen inches in diameter, used to filter solids from nitric acid solutions. Therefore, backlog material in this IDC cannot be considered homogeneous. Filter elements are produced by combining a media blanket and spirally wound matrix yarn on an inner core. The filter elements might have a polypropylene cap on one end. Both the media blanket and matrix yarn can be cotton or polypropylene. The inner core material can be constructed of polypropylene, tinned steel, or stainless steel. Warehouse data from Rocky Flats indicate that the inner-core material is polypropylene.

During normal process operations, IDC 331 Ful-Flo filters in this backlog population were used to filter particulates from liquid waste streams in Buildings 371, 707, 771, 776, 777, and 779. These waste streams were primarily from filtration of caustic solutions in Building 371, the carbon tetrachloride system and oil systems, and from filtration of water and developer in Building 707. In Building 771, the primary waste streams filtered were anion column feed, potassium hydroxide, nitrate feed, spent nitric acid and hydrofluoric acid from the scrubber, eluate and effluent exiting the ion-exchange columns, floor pick-up solution, steam condensate, and miscellaneous aqueous solutions. Hydraulic oil and floor pick-up solution were filtered in Building 776. In Buildings 777 and 779, Ful-Flo filters were used in the carbon tetrachloride system for purification of Freon TF and for filtration of incoming waters.

Typically, Ful-Flo filters were placed on drying racks pending bag-out of a glovebox. Filters were not always dried before removal from the glovebox. Filters were then "bagged out'"of the glovebox and placed in a second layer of plastic. Next, the filters were placed in a "Poly Bottle" or "Clam Shell" (hard plastic container), then placed in a double-lined drum.

These Ful-Flo filters may be contaminated with acids, bases, carbon tetrachloride, chromium, Freon, and oil. They may contain relatively small amounts of free liquids.

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Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Item Description Code 335-HEPA Glovebox Filters, Not Acid Contaminated

The material in this IDC is High Efficiency Particulate Air (HEPA) filters used in ventilation systems at Rocky Flats. HEPA filters have been and are used in all of the buildings which contain plutonium processing activities. HEPA filters are used on gloveboxes and in large filter plenums that filter the room air.

Used filters were removed from their position in the ventilation system and packaged for further processing. The filters used on gloveboxes (nominal 8" x 8" x 5") were identified as IDC 335 if they were not acid contaminated.

Item Description Code 342-HEPA Glovebox Filters, Acid Contaminated

HEPA filters are used on all gloveboxes to remove particulates from the atmosphere exiting the glovebox to the plenum exhaust system. The filters in IDC 342 are from gloveboxes with atmospheres that could cause the filters to be contaminated with acids or bases used in chemical processing.

Item Description Code 491-Plenum Prefilters

The material in this IDC is a variety of plenum prefilters used in the ventilation systems at Rocky Flats. Plenum prefilters have been and are used in all of the buildings that contain plutonium processing activities. These prefilters are used in large plenums that filter the room and glovebox air. Used prefilters were removed from their position in the ventilation system and packaged for further processing.

IDC 491 plenum prefilters range from furnace-type filters to pleated fiberglass filters and can be as large as 24" x 24" x 12". The filter medium consists of fiberglass packing or paper which may be more or less dense, depending on filtering needs. Wire mesh can be used to hold the media in place. The frame material for these prefilters is cardboard.

Item Description Code 492-HEPA Filters (24" x 24"), Acid Contaminated

The material in this IDC is HEPA filters used in the ventilation systems at Rocky Flats. HEPA filters have been and are used in all of the buildings which contain plutonium processing activities. HEPA filters are used on gloveboxes and in large plenums that filter the room and glovebox air.

Used filters were removed from their position in the ventilation system and packaged for further processing. The larger-sized filters used in filters plenums were identified and packaged as IDC 492 if acid contaminated.

IDC 492 HEPA filters (24" x 24"), acid contaminated, are large HEPA filters (nominal 24" x 24" x 5" or 24" x 24" x 12") that were used in filter plenum racks. These filters consist of filter media contained within a wooden or metal frame.

This waste form is generated from Facility/Equipment Operation, Maintenance, Analytical Laboratories, R&D Laboratories, D&D, and limited Emergency Response actions.

Current Container Comments N/A

EPA Comments All waste with D001, D002, and D003 codes will be processed or repackaged prior to shipment to WIPP per Geoff Asmus.
Ful-Flo filters from various buildings are also segregated based on their generation prefixes. The generation prefix corresponds to a Material Balance Account (MBA). Specific gloveboxes in Building 771 have been identified as having nitric acid spray exposure such that "crystals" of nitrate salts have been reported to have formed on the filters causing them to meet the definition of a DOT oxidizer (EG&G 1993d). These gloveboxes were correlated to WSRIC processes and then to generation prefixes to characterize the filters generated from them.

Ful-Flo filters which filtered solutions containing chromium are included in Subpopulations BA, BE, and BH. The EPA Code D007 (chromium) does not apply because the solutions were generated from tanks and are nearly exclusively trivalent chromium. The processes did not generate hexavalent chromium, and

TWBIR ID: RF-MT-0328

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

these wastes were managed in a non-oxidizing environment (CDH 1994).

Subpopulation 54AA

Subpopulation 54AA consists of all IDC 328 filters. These six drums contain Ful-Flo filters from the Building 771 incinerator. It is assumed that all the drums contain free liquids. Because potassium hydroxide is used to neutralize acidic vapors in the incinerator, the liquid is characterized as RCRA hazardous due to exhibiting the characteristic of corrosivity and assigned EPA Code D002. EPA Codes F001, F002, F003, and F005 are assigned because these codes have been applied to the incinerator ash which has contacted these filters.

Management Comments N/A

Acceptance Comments

1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. WASTE_PACK: Filter waste is packaged in 55-gallon drums and metal standard waste boxes.

Final Form Comments N/A

TWBIR ID: RF-MT0330

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W012	**Handling**	CH	**Stream Name**	Combustibles, dry/TRM	**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Combustible	**Waste Matrix Code**	S5390

EPA Codes

As-Generated
D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D028, D029, D035, D038, D040, D043, F001, F002, F005, F006, F007, F009, P030, P098, P099, P106, U003, U103, U108

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	8.97	1.43	32.94
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	0.00	0.00	0.00
Cellulosics	0.00	0.00	0.00
Rubber	0.00	0.00	0.00
Plastics	37.23	8.59	159.43
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.52		
Packaging Material, Plastic	22.72		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

116

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.43E+00
Np-237	8.47E-06
Pu-238	6.41E-01
Pu-239	2.53E+01
Pu-240	6.22E+00
Pu-241	6.86E+01
Pu-242	4.28E-04

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0330

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	2.9	0.8	0.0	0.0	0.0	3.7
Slip Lid Can	0.0	0.0	0.0	0.0	0.0	0.0

As-Generated	Stored	2.9	Projected	0.8	Total	3.7

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	3.1	0.0	0.0	0.0	0.0	4.0

Final Form	Stored	3.1	Projected	0.8	Total	4.0

TWBIR ID: RF-MT0330

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste consits of rags, paper, cloth, coveralls, plastic, rubber, and wood. The waste consists mainly of cloth and paper products from cleanup of gloveboxes and spills. The bulk of these wastes are packaged in 55-gallon drums with one rigid polyethylene liner and several bag liners. In addition, the waste may be packaged in DOT 7A Type A metal boxes which are lined with a fiberboard liner and a PVC liner or standard TRUPACT-II container. The containers are then assayed and transferred to interim status storage areas. These wastes have been shipped to the INEL for stroage in the past. RF-330, 356, 337, 821, 822, 853, 831, 832, 833. Predominantly combustible debris.
Waste Stream Source Description	Combustible wastes were produced by materials-handling and cleanup from production, research and development, laboratory, utility, custodial and maintenance activities. The combustible wastes form includes wipes, gloves, paper and plastics. Item Description 330, Combustibles, Dry IDC 330 is Dry Combustibles. This IDC is dry combustibles such as cloth, paper, and wood. This IDC changes to 821, 831, 851, or 861 at the point of assay, depending on radiological content. Containers of IDC 330 currently in inventory were generated in all buildings handling fissile material. Item Description 336, Combustibles, Wet Wet combustibles are paper, cloth, etc., which contain a discernible amount of moisture and must be drained or wrung out prior to packaging to prevent an accumulation of free liquid. This IDC changes to 822, 832, 852, or 862 at the point of assay. Item Description 337, Plastic (Teflon, PVC, Polyethylene) IDC 337 represents PVC sheeting, poly bottles, supplied-air suits, polyethylene, and other plastics. IDC 337 changes to 825, 833, 853, or 863 at the point of assay. Item Description 821, Combustibles, Dry TRU Waste Dry transuranic combustible wastes, such as paper, cloth, and wood are classified as IDC 821. Item Description 822, Combustibles, Wet TRU Waste Wet combustible transuranic wastes, such as paper, cloth, and wood, which contain a discernible amount of moisture must be drained or wrung out prior to packaging to prevent accumulation of free liquid. These wastes are classified as IDC 822. Item Description 831, Combustibles, Dry, TRU Mixed Waste Dry combustibles such as paper, cloth, wood, etc. This waste has been identified as being low level mixed waste. Item Description 832, Combustibles, Wet, TRU Mixed Waste Wet combustibles such as paper, cloth, and wood which contain a discernible amount of moisture. These combustibles must be drained or wrung prior to packaging to prevent accumulation of free liquid. Item Description 833, Plastic TRU Mixed Waste PVC sheeting, poly bottles, supplied air suits, and other plastics. This waste has been identified as being a low level mixed waste. Item Description 853, Plastic (Teflon, PVC, and Polyethylene)

TWBIR ID: RF-MT0330

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

This waste has been identified as being a low level mixed waste, consisting of PVC sheeting, poly bottles, supplied-air suits, and other plastics.

Current Container Comments N/A

EPA Comments A- Process knowledge based upon general knowledge of waste type or source (e.g., there is some probability of a waste constituent being absent or present).

Bounding analytical data have not been compiled in a form that is compatible with this report. This effort has been completed and the results are available in the Final Backlog Baseline Book dated September 26, 1994.

Management Comments N/A

Acceptance Comments GENERAAREA: Numerous locations throughout RFP.GENOPERATI: RECLASS_CO: Rocky Flats assays wastes to determine waste type instead of relying on process knowledge or historical data. For this reason, the potential for reclassification has not been analyzed.CATION: Not applicable OTHER_CHAR: No information available.

RFP has assumed this waste to be LDR based on process knowledge characterization, and one sample analyzed for volatiles in 1988.
1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. Analytical data are limited. WASTE_PACK: This waste is stored in 55 gallon carbon steel drums with one rigid polyethylene liner and several bag liners and standard metal boxes.

Final Form Comments N/A

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TWBIR ID: RF-MT-0331

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W066	**Handling**	CH	**Stream Name**	Filters & media/TRM			**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Filter	**Waste Matrix Code**	S5410

EPA Codes

As-Generated
D006, D008, F001, F002

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	115.41	0.48	280.20
Aluminum-Base Metal/Alloys	119.34	119.34	119.34
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	36.78	1.91	173.75
Cellulosics	12.89	12.89	12.89
Rubber	0.00	0.00	0.00
Plastics	91.22	3.34	406.70
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	3.66	2.86	4.77
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.54		
Packaging Material, Plastic	31.45		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

119

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.16E+00
Np-237	1.02E-05
Pu-238	7.93E-01
Pu-239	2.20E+01
Pu-240	4.93E+00
Pu-241	7.91E+01
Pu-242	5.17E-04
U-234	8.43E-04
U-235	2.72E-05
U-238	5.58E-07

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT-0331

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 10 gallon	0.0	0.0	0.0	0.0	0.0	0.0
Drum / 55 gallon	24.3	0.0	0.0	0.0	0.0	24.3

As-Generated	Stored	24.4	Projected	0.0	Total	24.4

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	24.6	0.0	0.0	0.0	0.0	24.6

Final Form	Stored	24.6	Projected	0.0	Total	24.6

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Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description

331 - Ful-Flo filters used to filter solids from aqueous solutions. Additional required processing undetermined. Because of the potential of liquids in this IDC, it requires a compatibility code when packaging.

Waste Stream Source Description

Item Description Code 328-Ful-Flo Filters From Building 771 Incinerator

These Ful-Flo filters are in-line cartridge filters used to remove particulates from specific fluid streams in Building 771.

During normal process operations, IDC 328 Ful-Flo filters in the backlog population were used to filter particulates from the incinerator fume scrubber system in Building 771. These filters were used for the filtration of caustic solutions; therefore, they are contaminated with bases and may contain free liquids.

During normal process operations, IDC 331 Ful-Flo filters in this backlog population were used to filter particulates from liquid waste streams in Buildings 371, 707, 771, 776, 777, and 779. These waste streams were primarily from filtration of caustic solutions in Building 371, the carbon tetrachloride system and oil systems, and from filtration of water and developer in Building 707. In Building 771, the primary waste streams filtered were anion column feed, potassium hydroxide, nitrate feed, spent nitric acid and hydrofluoric acid from the scrubber, eluate and effluent exiting the ion-exchange columns, floor pick-up solution were filtered in Building 776. In Buildings 777 and 779, Ful-Flo filters were used in the carbon tetrachloride system for purification of Freon TF and for filtration of incoming waters.

Typically, Ful-Flo filters were placed on drying racks pending bag-out of a glovebox. Filters were not always dried before removal from the glovebox. Filters were then "bagged out" of the glovebox and placed in a second layer of plastic. Next, the filters were placed in a "Poly bottle" or "Clam Shell" (hard plastic container), then placed in a double-lined drum.

Item Description Code-331 Ful-Flo filters Not From Incinerator

These Ful-Flo filters are in-line cartridge filters used throughout Rocky Flats to remove particulates from fluid streams and typically filter down to 5,1, and 0.5 micron-sized particulates. Ful-Flo filters are used in various liquid systems that include nitric- and chloride-acid systems, such as those found in plutonium recovery operations; caustic systems, such as those found in utilities scrubbing; solvent systems using carbon tetrachloride in machining operations; water systems, such as steam cleaning; and condensate collection. These filters are also used in lubricant oil filtration.

Ful-Flo filters are poly-fiber-wound cartridges, about 10" long by 3.5" in diameter. Other fiber filters, such as R-6 pads, may be included in this IDC. R-6 pads are cloth filters, about sixteen inches in diameter, used to filter solids from nitric acid solutions. Therefore, backlog material in this IDC cannot be considered homogeneous. Filter elements are produced by combining a media blanket and spirally wound matrix yarn on an inner core. The filter elements might have a polypropylene cap on one end. Both the media blanket and matrix yarn can be cotton or polypropylene. The inner core material can be constructed of polypropylene, tinned steel, or stainless steel. Warehouse data from Rocky Flats indicate that the inner-core material is polypropylene.

During normal process operations, IDC 331 Ful-Flo filters in this backlog population were used to filter particulates from liquid waste streams in Buildings 371, 707, 771, 776, 777, and 779. These waste streams were primarily from filtration of caustic solutions in Building 371, the carbon tetrachloride system and oil systems, and from filtration of water and developer in Building 707. In Building 771, the primary waste streams filtered were anion column feed, potassium hydroxide, nitrate feed, spent nitric acid and hydrofluoric acid from the scrubber, eluate and effluent exiting the ion-exchange columns, floor pick-up solution, steam condensate, and miscellaneous aqueous solutions. Hydraulic oil and floor pick-up solution were filtered in Building 776. In Buildings 777 and 779, Ful-Flo filters were used in the carbon tetrachloride system for purification of Freon TF and for filtration of incoming waters.

Typically, Ful-Flo filters were placed on drying racks pending bag-out of a glovebox. Filters were not always dried before removal from the glovebox. Filters were then "bagged out'"of the glovebox and placed in a second layer of plastic. Next, the filters were placed in a "Poly Bottle" or "Clam Shell" (hard plastic container), then placed in a double-lined drum.

These Ful-Flo filters may be contaminated with acids, bases, carbon tetrachloride, chromium, Freon, and oil. They may contain relatively small amounts of free

liquids.

Item Description Code 335-HEPA Glovebox Filters, Not Acid Contaminated

The material in this IDC is High Efficiency Particulate Air (HEPA) filters used in ventilation systems at Rocky Flats. HEPA filters have been and are used in all of the buildings which contain plutonium processing activities. HEPA filters are used on gloveboxes and in large filter plenums that filter the room air.

Used filters were removed from their position in the ventilation system and packaged for further processing. The filters used on gloveboxes (nominal 8" x 8" x 5") were identified as IDC 335 if they were not acid contaminated.

Item Description Code 342-HEPA Glovebox Filters, Acid Contaminated

HEPA filters are used on all gloveboxes to remove particulates from the atmosphere exiting the glovebox to the plenum exhaust system. The filters in IDC 342 are from gloveboxes with atmospheres that could cause the filters to be contaminated with acids or bases used in chemical processing.

Item Description Code 491-Plenum Prefilters

The material in this IDC is a variety of plenum prefilters used in the ventilation systems at Rocky Flats. Plenum prefilters have been and are used in all of the buildings that contain plutonium processing activities. These prefilters are used in large plenums that filter the room and glovebox air. Used prefilters were removed from their position in the ventilation system and packaged for further processing.

IDC 491 plenum prefilters range from furnace-type filters to pleated fiberglass filters and can be as large as 24" x 24" x 12". The filter medium consists of fiberglass packing or paper which may be more or less dense, depending on filtering needs. Wire mesh can be used to hold the media in place. The frame material for these prefilters is cardboard.

Item Description Code 492-HEPA Filters (24" x 24"), Acid Contaminated

The material in this IDC is HEPA filters used in the ventilation systems at Rocky Flats. HEPA filters have been and are used in all of the buildings which contain plutonium processing activities. HEPA filters are used on gloveboxes and in large plenums that filter the room and glovebox air.

Used filters were removed from their position in the ventilation system and packaged for further processing. The larger-sized filters used in filters plenums were identified and packaged as IDC 492 if acid contaminated.

IDC 492 HEPA filters (24" x 24"), acid contaminated, are large HEPA filters (nominal 24" x 24" x 5" or 24" x 24" x 12") that were used in filter plenum racks. These filters consist of filter media contained within a wooden or metal frame.

This waste form is generated from Facility/Equipment Operation, Maintenance, Analytical Laboratories, R&D Laboratories, D&D, and limited Emergency Response actions.

Current Container Comments N/A

EPA Comments All waste with D001, D002, and D003 codes will be processed or repackaged prior to shipment to WIPP per Geoff Asmus.
Ful-Flo filters from various buildings are also segregated based on their generation prefixes. The generation prefix corresponds to a Material Balance Account (MBA). Specific gloveboxes in Building 771 have been identified as having nitric acid spray exposure such that "crystals" of nitrate salts have been reported to have formed on the filters causing them to meet the definition of a DOT oxidizer (EG&G 1993d). These gloveboxes were correlated to WSRIC processes and then to generation prefixes to characterize the filters generated from them.

Ful-Flo filters which filtered solutions containing chromium are included in Subpopulations BA, BE, and BH. The EPA Code D007 (chromium) does not apply

because the solutions were generated from tanks and are nearly exclusively trivalent chromium. The processes did not generate hexavalent chromium, and these wastes were managed in a non-oxidizing environment (CDH 1994).

Subpopulation 54BA

The four generation prefixes of the nine drums of IDC 331 filters generated in Building 371 indicate that all the filters could have been generated from any process in the building using Ful-Flos. These filters may contain free liquids and exhibit the characteristic of corrosivity. These filters in Subpopulation 54 BA are, therefore, RCRA hazardous and are assigned EPA Code D002.

Subpopulation 54BB

Generation Prefix 12, Module C consists of processes in Building 707 which used IDC 331 Ful-Flo filters to filter oil and carbon tetrachloride. The material filtered is based on information in WSRIC. The single container of filters in Subpopulation 54BB is RCRA hazardous because the filters contain carbon tetrachloride and EPA Code F001 is assigned

Subpopulation 54BC

Generation prefix 15 corresponds to WSRIC Process 6, Machining-Module A, in Building 707. The IDC 331 Ful-Flo filters from this process were used to filter oil and Freon, according to the WSRIC book for Building 707. These 16 containers of filters in Subpopulation 54BC are RCRA hazardous because they contain the F-listed constituent trichloro-trifluoroethane, and are assigned EPA Codes F001 and F002.

Subpopulation 54BD

Generation prefix 22 corresponds to WSRIC processes 4-7, 11-13, 18-20, 23 and 26 in Building 707. The IDC 331 Ful-Flo filters from these processes were used to filter oil, carbon tetrachloride, and Freon, according to WSRIC.

Generation prefix 23 corresponds to WSRIC processes 7,8,9,11, and 12 in Building 777. Generation prefixes 54 and 779 may include any process in Building 779. According to current and archived WSRIC information, the IDC 331 Ful-Flo filters from these processes may have been used to filter oil, carbon tetrachloride, and Freon.

These containers of filters in Subpopulation 54BD are RCRA hazardous because they contain the F-listed constituents carbon tetrachloride and trichloro-trifluoroethane. They are therefore assigned EPA Codes F001 and F002.

Subpopulation 54BE

Subpopulation 54BE consists of all IDC 331 Ful-Flo filters generated from processes in Building 771. There are 146 containers of filters in this subpopulation. These filters could have been used to filter either acidic or caustic liquids, since specific information on the point of generation for each container could not be obtained. Seventeen of these drums were checked for free liquids by Real-Time Radiography (RTR) during "courtesy" inspection in 1993. Because 16 of these drums were evaluated by RTR as having free liquids, all drums in this subpopulation are assumed to have free liquids containing acids or bases that are free liquids. These liquids may exhibit the characteristic of corrosivity, and are assigned EPA Code D002.

Subpopulation 54BF

Generation prefix 04 is used for the Building 777 Radiography Process (Process 777-10). The building of generation should be changed in WEMS from 707 to 777. Based on archived WSRIC information for Radiography, the IDC 331 Ful-Flo filters were used to filter caustic solutions. The single container of filters in Subpopulation 54BF is RCRA hazardous because the filters are assumed to contain free liquids which exhibit the characteristic of corrosivity. EPA Code D002 has therefore been assigned. Additional investigation is warranted to further evaluate if the container has free liquids.

Subpopulation 54BH

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

Subpopulation 54BH includes all IDC 331 Ful-Flo filters which are shown in WEMS as being generated in Building 776 with prefixes 19, 25, 26, or 57. Based on the WSRIC book for Building 776, these filters could contain acids or bases which are free liquids, and therefore could exhibit the characteristic of corrosivity. The D002 EPA Code is assigned for corrosivity. The filters might have been used to filter oil, carbon tetrachloride, and Freon; therefore, they are assigned EPA Codes F001 and F002.

Management Comments N/A

Acceptance Comments

1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. WASTE_PACK: Filter waste is packaged in 55-gallon drums and metal standard waste boxes.

Final Form Comments N/A

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TWBIR ID: RF-MT0332

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0332	**Handling**	CH	**Stream Name**	N/A			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Organics	**Waste Matrix Code**	S3229

EPA Codes

As-Generated
D007, D008, F001, F002

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	0.00	0.00	0.00
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	0.00	0.00	0.00
Cellulosics	12.89	12.89	12.89
Rubber	0.00	0.00	0.00
Plastics	0.00	0.00	0.00
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	701.69	701.69	701.69
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.43		
Packaging Material, Plastic	17.18		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N/A
PCBs:	N/A
Source:	N/A

TRUCON Codes

112

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	3.88E-03
Pu-239	8.27E-02
Pu-240	1.89E-02
Pu-241	4.84E-01
Pu-242	2.40E-06

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0332

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
8804 Can	0.1	0.0	0.0	0.0	0.0	0.1

As-Generated	Stored	Projected	Total
	0.1	0.0	0.1

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	1.5	0.0	0.0	0.0	0.0	1.5

Final Form	Stored	Projected	Total
	1.5	0.0	1.5

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Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	N/A
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	N/A
Management Comments	Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT-0335

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W066	**Handling**	CH	**Stream Name**	Filters & media/TRM			**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Filter	**Waste Matrix Code**	S5410

EPA Codes

As-Generated
D007, D008, D011, F001, F002, F005

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	11.29	0.48	72.46
Aluminum-Base Metal/Alloys	7.90	0.05	24.58
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	5.09	0.19	59.19
Cellulosics	12.83	10.50	12.89
Rubber	7.03	0.05	18.14
Plastics	17.72	1.43	49.64
Solidified, Inorganic Matrix	2.33	0.05	5.73
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.48	0.48	0.48
Packaging Material, Steel	138.48		
Packaging Material, Plastic	28.31		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

119

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.16E+00
Np-237	1.32E-05
Pu-238	3.13E-01
Pu-239	7.47E+00
Pu-240	1.72E+00
Pu-241	3.46E+01
Pu-242	1.82E-04
U-234	6.50E-04
U-235	2.02E-05
U-238	1.86E-06

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT-0335

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	0.8	0.0	0.0	0.0	0.0	0.8

As-Generated	Stored	0.8	Projected	0.0	Total	0.8

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.8	0.0	0.0	0.0	0.0	0.8

Final Form	Stored	0.8	Projected	0.0	Total	0.8

TWBIR ID: RF-MT-0335

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description 335 - High efficiency particulate air filters used on glovebox air intakes and exhausts.

Waste Stream Source Description Item Description Code 328-Ful-Flo Filters From Building 771 Incinerator

These Ful-Flo filters are in-line cartridge filters used to remove particulates from specific fluid streams in Building 771.

During normal process operations, IDC 328 Ful-Flo filters in the backlog population were used to filter particulates from the incinerator fume scrubber system in Building 771. These filters were used for the filtration of caustic solutions; therefore, they are contaminated with bases and may contain free liquids.

During normal process operations, IDC 331 Ful-Flo filters in this backlog population were used to filter particulates from liquid waste streams in Buildings 371, 707, 771, 776, 777, and 779. These waste streams were primarily from filtration of caustic solutions in Building 371, the carbon tetrachloride system and oil systems, and from filtration of water and developer in Building 707. In Building 771, the primary waste streams filtered were anion column feed, potassium hydroxide, nitrate feed, spent nitric acid and hydrofluoric acid from the scrubber, eluate and effluent exiting the ion-exchange columns, floor pick-up solution were filtered in Building 776. In Buildings 777 and 779, Ful-Flo filters were used in the carbon tetrachloride system for purification of Freon TF and for filtration of incoming waters.

Typically, Ful-Flo filters were placed on drying racks pending bag-out of a glovebox. Filters were not always dried before removal from the glovebox. Filters were then "bagged out" of the glovebox and placed in a second layer of plastic. Next, the filters were placed in a "Poly bottle" or "Clam Shell" (hard plastic container), then placed in a double-lined drum.

Item Description Code-331 Ful-Flo filters Not From Incinerator

These Ful-Flo filters are in-line cartridge filters used throughout Rocky Flats to remove particulates from fluid streams and typically filter down to 5,1, and 0.5 micron-sized particulates. Ful-Flo filters are used in various liquid systems that include nitric- and chloride-acid systems, such as those found in plutonium recovery operations; caustic systems, such as those found in utilities scrubbing; solvent systems using carbon tetrachloride in machining operations; water systems, such as steam cleaning; and condensate collection. These filters are also used in lubricant oil filtration.

Ful-Flo filters are poly-fiber-wound cartridges, about 10" long by 3.5" in diameter. Other fiber filters, such as R-6 pads, may be included in this IDC. R-6 pads are cloth filters, about sixteen inches in diameter, used to filter solids from nitric acid solutions. Therefore, backlog material in this IDC cannot be considered homogeneous. Filter elements are produced by combining a media blanket and spirally wound matrix yarn on an inner core. The filter elements might have a polypropylene cap on one end. Both the media blanket and matrix yarn can be cotton or polypropylene. The inner core material can be constructed of polypropylene, tinned steel, or stainless steel. Warehouse data from Rocky Flats indicate that the inner-core material is polypropylene.

During normal process operations, IDC 331 Ful-Flo filters in this backlog population were used to filter particulates from liquid waste streams in Buildings 371, 707, 771, 776, 777, and 779. These waste streams were primarily from filtration of caustic solutions in Building 371, the carbon tetrachloride system and oil systems, and from filtration of water and developer in Building 707. In Building 771, the primary waste streams filtered were anion column feed, potassium hydroxide, nitrate feed, spent nitric acid and hydrofluoric acid from the scrubber, eluate and effluent exiting the ion-exchange columns, floor pick-up solution, steam condensate, and miscellaneous aqueous solutions. Hydraulic oil and floor pick-up solution were filtered in Building 776. In Buildings 777 and 779, Ful-Flo filters were used in the carbon tetrachloride system for purification of Freon TF and for filtration of incoming waters.

Typically, Ful-Flo filters were placed on drying racks pending bag-out of a glovebox. Filters were not always dried before removal from the glovebox. Filters were then "bagged out'"of the glovebox and placed in a second layer of plastic. Next, the filters were placed in a "Poly Bottle" or "Clam Shell" (hard plastic container), then placed in a double-lined drum.

These Ful-Flo filters may be contaminated with acids, bases, carbon tetrachloride, chromium, Freon, and oil. They may contain relatively small amounts of free liquids.

Item Description Code 335-HEPA Glovebox Filters, Not Acid Contaminated

The material in this IDC is High Efficiency Particulate Air (HEPA) filters used in ventilation systems at Rocky Flats. HEPA filters have been and are used in all of the buildings which contain plutonium processing activities. HEPA filters are used on gloveboxes and in large filter plenums that filter the room air.

Used filters were removed from their position in the ventilation system and packaged for further processing. The filters used on gloveboxes (nominal 8" x 8" x 5") were identified as IDC 335 if they were not acid contaminated.

Item Description Code 342-HEPA Glovebox Filters, Acid Contaminated

HEPA filters are used on all gloveboxes to remove particulates from the atmosphere exiting the glovebox to the plenum exhaust system. The filters in IDC 342 are from gloveboxes with atmospheres that could cause the filters to be contaminated with acids or bases used in chemical processing.

Item Description Code 491-Plenum Prefilters

The material in this IDC is a variety of plenum prefilters used in the ventilation systems at Rocky Flats. Plenum prefilters have been and are used in all of the buildings that contain plutonium processing activities. These prefilters are used in large plenums that filter the room and glovebox air. Used prefilters were removed from their position in the ventilation system and packaged for further processing.

IDC 491 plenum prefilters range from furnace-type filters to pleated fiberglass filters and can be as large as 24" x 24" x 12". The filter medium consists of fiberglass packing or paper which may be more or less dense, depending on filtering needs. Wire mesh can be used to hold the media in place. The frame material for these prefilters is cardboard.

Item Description Code 492-HEPA Filters (24" x 24"), Acid Contaminated

The material in this IDC is HEPA filters used in the ventilation systems at Rocky Flats. HEPA filters have been and are used in all of the buildings which contain plutonium processing activities. HEPA filters are used on gloveboxes and in large plenums that filter the room and glovebox air.

Used filters were removed from their position in the ventilation system and packaged for further processing. The larger-sized filters used in filters plenums were identified and packaged as IDC 492 if acid contaminated.

IDC 492 HEPA filters (24" x 24"), acid contaminated, are large HEPA filters (nominal 24" x 24" x 5" or 24" x 24" x 12") that were used in filter plenum racks. These filters consist of filter media contained within a wooden or metal frame.

This waste form is generated from Facility/Equipment Operation, Maintenance, Analytical Laboratories, R&D Laboratories, D&D, and limited Emergency Response actions.

Current Container Comments N/A

EPA Comments Subpopulation 54CC

These containers of IDC 335 filters are identified by prefix 746, indicating that they might have been generated from anywhere in Building 774. Because the IDC 335 filters from Process 774-5 are characterized in WSRIC as hazardous and cannot be segregated from other filters in this prefix, all filters in Subpopulation 54CC must be characterized as hazardous. These filters might have been contaminated by sludges containing oil, Freon TF, carbon tetrachloride, and 1,1,1-trichloroethane, from the OASIS Process (774-5). EPA Codes F001 and F002 have therefore been applied.

Other EPA codes are assigned to this waste form for newly generated waste characterized by the generator using process knowledge. Discussion of these

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Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

characterizations may be found in the appropriate WSRIC building book.

Management Comments N/A

Acceptance Comments

1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. WASTE_PACK: Filter waste is packaged in 55-gallon drums and metal standard waste boxes.

Final Form Comments N/A

TWBIR ID: RF-MT0336

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W012	**Handling**	CH	**Stream Name**	Combustibles/TRM			**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Combustible	**Waste Matrix Code**	S5390

EPA Codes

As-Generated
D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D028, D029, D035, D038, D040, D043, F001, F002, F005, F006, F007, F009, P030, P098, P099, P106, U003, U103, U108

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	1.59	0.96	2.39
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	0.00	0.00	0.00
Cellulosics	0.00	0.00	0.00
Rubber	0.00	0.00	0.00
Plastics	17.72	2.39	59.67
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	137.50		
Packaging Material, Plastic	29.61		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

116

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.61E+00
Np-237	9.34E-07
Pu-238	1.21E+00
Pu-239	3.09E+01
Pu-240	7.05E+00
Pu-241	1.18E+02
Pu-242	8.20E-04
U-234	1.27E-04
U-235	4.11E-06
U-238	3.63E-08

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0336

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	13.7	0.0	0.0	0.0	0.0	13.7
Drum / 85 gallon	0.3	0.0	0.0	0.0	0.0	0.3
Slip Lid Can	0.0	0.0	0.0	0.0	0.0	0.0

As-Generated	Stored	14.1	Projected	0.0	Total	14.1

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	14.0	0.0	0.0	0.0	0.0	14.0
85 Gallon Drum	0.3	0.0	0.0	0.0	0.0	0.3

Final Form	Stored	14.3	Projected	0.0	Total	14.3

TWBIR ID: RF-MT0336

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste consits of rags, paper, cloth, coveralls, plastic, rubber, and wood. The waste consists mainly of cloth and paper products from cleanup of gloveboxes and spills. The bulk of these wastes are packaged in 55-gallon drums with one rigid polyethylene liner and several bag liners. In addition, the waste may be packaged in DOT 7A Type A metal boxes which are lined with a fiberboard liner and a PVC liner or standard TRUPACT-II container. The containers are then assayed and transferred to interim status storage areas. These wastes have been shipped to the INEL for stroage in the past. RF-330, 356, 337, 821, 822, 853, 831, 832, 833. Predominantly combustible debris.
Waste Stream Source Description	Combustible wastes were produced by materials-handling and cleanup from production, research and development, laboratory, utility, custodial and maintenance activities. The combustible wastes form includes wipes, gloves, paper and plastics. Item Description 330, Combustibles, Dry IDC 330 is Dry Combustibles. This IDC is dry combustibles such as cloth, paper, and wood. This IDC changes to 821, 831, 851, or 861 at the point of assay, depending on radiological content. Containers of IDC 330 currently in inventory were generated in all buildings handling fissile material. Item Description 336, Combustibles, Wet Wet combustibles are paper, cloth, etc., which contain a discernible amount of moisture and must be drained or wrung out prior to packaging to prevent an accumulation of free liquid. This IDC changes to 822, 832, 852, or 862 at the point of assay. Item Description 337, Plastic (Teflon, PVC, Polyethylene) IDC 337 represents PVC sheeting, poly bottles, supplied-air suits, polyethylene, and other plastics. IDC 337 changes to 825, 833, 853, or 863 at the point of assay. Item Description 821, Combustibles, Dry TRU Waste Dry transuranic combustible wastes, such as paper, cloth, and wood are classified as IDC 821. Item Description 822, Combustibles, Wet TRU Waste Wet combustible transuranic wastes, such as paper, cloth, and wood, which contain a discernible amount of moisture must be drained or wrung out prior to packaging to prevent accumulation of free liquid. These wastes are classified as IDC 822. Item Description 831, Combustibles, Dry, TRU Mixed Waste Dry combustibles such as paper, cloth, wood, etc. This waste has been identified as being low level mixed waste. Item Description 832, Combustibles, Wet, TRU Mixed Waste Wet combustibles such as paper, cloth, and wood which contain a discernible amount of moisture. These combustibles must be drained or wrung prior to packaging to prevent accumulation of free liquid. Item Description 833, Plastic TRU Mixed Waste PVC sheeting, poly bottles, supplied air suits, and other plastics. This waste has been identified as being a low level mixed waste. Item Description 853, Plastic (Teflon, PVC, and Polyethylene)

TWBIR ID: RF-MT0336

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

	This waste has been identified as being a low level mixed waste, consisting of PVC sheeting, poly bottles, supplied-air suits, and other plastics.
Current Container Comments	N/A
EPA Comments	A- Process knowledge based upon general knowledge of waste type or source (e.g., there is some probability of a waste constituent being absent or present). Bounding analytical data have not been compiled in a form that is compatible with this report. This effort has been completed and the results are available in the Final Backlog Baseline Book dated September 26, 1994.
Management Comments	N/A
Acceptance Comments	GENERAAREA: Numerous locations throughout RFP.GENOPERATI: RECLASS_CO: Rocky Flats assays wastes to determine waste type instead of relying on process knowledge or historical data. For this reason, the potential for reclassification has not been analyzed.CATION: Not applicable OTHER_CHAR: No information available. RFP has assumed this waste to be LDR based on process knowledge characterization, and one sample analyzed for volatiles in 1988. 1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. Analytical data are limited. WASTE_PACK: This waste is stored in 55 gallon carbon steel drums with one rigid polyethylene liner and several bag liners and standard metal boxes.
Final Form Comments	N/A

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TWBIR ID: RF-MT0337

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W012	**Handling**	CH	**Stream Name**	Combustibles/TRM			**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Combustible	**Waste Matrix Code**	S5390

EPA Codes

As-Generated
D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D028, D029, D035, D038, D040, D043, F001, F002, F005, F006, F007, F009, P030, P098, P099, P106, U003, U103, U108

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	1.85	0.48	4.77
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	10.50	0.96	20.05
Cellulosics	0.00	0.00	0.00
Rubber	0.00	0.00	0.00
Plastics	120.69	7.16	350.37
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.56		
Packaging Material, Plastic	32.30		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

116

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.55E+00
Np-237	5.97E-07
Pu-238	6.79E-01
Pu-239	1.93E+01
Pu-240	4.35E+00
Pu-241	5.92E+01
Pu-242	4.12E-04
U-234	2.76E-04
U-235	8.88E-06
U-238	7.86E-08

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0337

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	13.9	0.0	0.0	0.0	0.0	13.9

As-Generated	Stored	Projected	Total
	13.9	0.0	13.9

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	14.0	0.0	0.0	0.0	0.0	14.0

Final Form	Stored	Projected	Total
	14.0	0.0	14.0

TWBIR ID: RF-MT0337

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste consits of rags, paper, cloth, coveralls, plastic, rubber, and wood. The waste consists mainly of cloth and paper products from cleanup of gloveboxes and spills. The bulk of these wastes are packaged in 55-gallon drums with one rigid polyethylene liner and several bag liners. In addition, the waste may be packaged in DOT 7A Type A metal boxes which are lined with a fiberboard liner and a PVC liner or standard TRUPACT-II container. The containers are then assayed and transferred to interim status storage areas. These wastes have been shipped to the INEL for stroage in the past. RF-330, 356, 337, 821, 822, 853, 831, 832, 833. Predominantly combustible debris.
Waste Stream Source Description	Combustible wastes were produced by materials-handling and cleanup from production, research and development, laboratory, utility, custodial and maintenance activities. The combustible wastes form includes wipes, gloves, paper and plastics. Item Description 330, Combustibles, Dry IDC 330 is Dry Combustibles. This IDC is dry combustibles such as cloth, paper, and wood. This IDC changes to 821, 831, 851, or 861 at the point of assay, depending on radiological content. Containers of IDC 330 currently in inventory were generated in all buildings handling fissile material. Item Description 336, Combustibles, Wet Wet combustibles are paper, cloth, etc., which contain a discernible amount of moisture and must be drained or wrung out prior to packaging to prevent an accumulation of free liquid. This IDC changes to 822, 832, 852, or 862 at the point of assay. Item Description 337, Plastic (Teflon, PVC, Polyethylene) IDC 337 represents PVC sheeting, poly bottles, supplied-air suits, polyethylene, and other plastics. IDC 337 changes to 825, 833, 853, or 863 at the point of assay. Item Description 821, Combustibles, Dry TRU Waste Dry transuranic combustible wastes, such as paper, cloth, and wood are classified as IDC 821. Item Description 822, Combustibles, Wet TRU Waste Wet combustible transuranic wastes, such as paper, cloth, and wood, which contain a discernible amount of moisture must be drained or wrung out prior to packaging to prevent accumulation of free liquid. These wastes are classified as IDC 822. Item Description 831, Combustibles, Dry, TRU Mixed Waste Dry combustibles such as paper, cloth, wood, etc. This waste has been identified as being low level mixed waste. Item Description 832, Combustibles, Wet, TRU Mixed Waste Wet combustibles such as paper, cloth, and wood which contain a discernible amount of moisture. These combustibles must be drained or wrung prior to packaging to prevent accumulation of free liquid. Item Description 833, Plastic TRU Mixed Waste PVC sheeting, poly bottles, supplied air suits, and other plastics. This waste has been identified as being a low level mixed waste. Item Description 853, Plastic (Teflon, PVC, and Polyethylene)

TWBIR ID: RF-MT0337

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

This waste has been identified as being a low level mixed waste, consisting of PVC sheeting, poly bottles, supplied-air suits, and other plastics.

Current Container Comments N/A

EPA Comments A- Process knowledge based upon general knowledge of waste type or source (e.g., there is some probability of a waste constituent being absent or present).

Bounding analytical data have not been compiled in a form that is compatible with this report. This effort has been completed and the results are available in the Final Backlog Baseline Book dated September 26, 1994.

Management Comments N/A

Acceptance Comments GENERAAREA: Numerous locations throughout RFP.GENOPERATI: RECLASS_CO: Rocky Flats assays wastes to determine waste type instead of relying on process knowledge or historical data. For this reason, the potential for reclassification has not been analyzed.CATION: Not applicable OTHER_CHAR: No information available.

RFP has assumed this waste to be LDR based on process knowledge characterization, and one sample analyzed for volatiles in 1988.

1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. Analytical data are limited. WASTE_PACK: This waste is stored in 55 gallon carbon steel drums with one rigid polyethylene liner and several bag liners and standard metal boxes.

Final Form Comments N/A

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TWBIR ID: RF-MT0339

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W029	**Handling**	CH	**Stream Name**	Leaded Dry Box Gloves/TRM			**Inventory Date**	9/30/2002
Local ID	IDC 339	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Combustible	**Waste Matrix Code**	S5311

EPA Codes

As-Generated
D006, D007, D008, F001, F002, F005

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	5.36	1.43	14.32
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	229.49	5.25	874.01
Other Inorganic Materials	103.54	4.77	176.62
Cellulosics	12.09	4.31	12.89
Rubber	133.48	3.82	513.14
Plastics	20.85	2.86	143.35
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	139.38		
Packaging Material, Plastic	28.73		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

123

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.24E-01
Np-237	1.34E-05
Pu-238	9.95E-02
Pu-239	2.28E+00
Pu-240	5.15E-01
Pu-241	1.15E+01
Pu-242	5.53E-05
U-234	6.54E-05
U-235	9.95E-07
U-238	2.50E-07

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0339

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	101.9	64.5	0.0	0.0	0.0	166.4
Standard Waste Box	1.9	9.5	0.0	0.0	0.0	11.4

As-Generated	Stored	Projected	Total
	103.8	74.0	177.8

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	102.1	0.0	0.0	0.0	0.0	166.8
Standard Waste Box	1.9	0.0	0.0	0.0	0.0	11.3

Final Form	Stored	Projected	Total
	104.0	74.1	178.1

TWBIR ID: RF-MT0339

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste stream is a solid matrix consisting of gloves with lead lining. There could be some free liquids in waste containers.
Waste Stream Source Description	Leaded glovebox gloves are generated as waste at Rocky Flats by processes requiring a controlled atmosphere in Buildings 371, 374, 559, 707, 771, 774, 776, 777, 778, and 779 and encompasses IDCs 339 and 341. Prior to January 22, 1986, all leaded glovebox gloves were accumulated together as IDC 339 (Leaded Glovebox Gloves). At that time, IDC 341 (Leaded Glovebox Gloves, Acid Contaminated) was created. IDC 339 became "Leaded Glovebox Gloves, Nonacid Contaminated." Leaded glovebox gloves are replaced by schedule or as needed. All backlog leaded glovebox gloves (IDC 0339 and 0341) were washed in Building 776 until about September 1989, at which time the process was curtailed. The primary purpose of the washing process was to remove the accountable material; however, the acid from the acid-contaminated gloves (IDC 341) was removed as well. After the acid-contaminated gloves were washed, the IDC was changed from 341 to 339. The glove washing process was curtailed upon completion of the inventory of backlog gloves. Due to degradation from contact with process materials during normal process operations and age, the leaded glovebox gloves are replaced according to schedule or as necessary. Nonacid-contaminated leaded glovebox gloves (IDC 339) are generated as waste or residue depending on the assay, in Buildings 371, 374, 559, 707, 771, 774, 776, 779. Acid contaminated leaded glovebox gloves (IDC 341) were washed in Building 776 after which they were assigned IDC 339. This stream is generated from Facility Operations, Analytical Laboratories, and R&D Laboratories.
Current Container Comments	N/A
EPA Comments	Subpopulation 42C: This Subpopulation consists of IDC 339 nonacid contaminated glovebox gloves in Building 774. The waste was characterized as hazardous under WSRIC process numbers 774-3-3, 774-5-2, 774-9-3, and 774-10-7. According to process knowledge, this waste exhibits the characteristic of toxicity for cadmium, chromium, and lead. The waste also contains spent halogenated solvents, and it meets the definition of an F-listed waste. Therefore, this waste is assigned EPA Waste Codes D006, D007, D008, F001, F002, and F005. Subpopulation 42E: This Subpopulation includes containers previously identified in Subpopulation 42A, which have been reassessed based on a review of WSRIC information. Based on the archived WSRIC information, Buildings 707 and 777 conducted machining operations using cutting oils and solvents such as carbon tetrachloride, 1,1,1-trichloroethane, and 1,1,2-trichloro-1,2,2-trifluoroethane (Freon TF). These oil/solvent mixtures were re-used for a period of time before being piped to C-Pit (in the basement beneath Module C) where they passed through Ful-Flo filters to recover a portion of the plutonium before being sent as waste to Building 774 for treatment. These operations were conducted in gloveboxes that were fitted with leaded gloves. If the leaded gloves were visibly contaminated when discarded, they would be considered F001 and F002 listed wastes under the mixture rule. Leaded gloves will still carry the EPA Waste Code D008 for lead. Leaded gloves were periodically changed out and accumulated in waste drums. These gloves had an expiration date, but it is undetermined how often they were changed out. However, it is known that production operations were curtailed in late 1989. Based on a review of the headspace gas VOC (HGVO) analytical data, the above solvents are consistently detected in IDC 339 drums that have accumulation start dates or fill dates prior to April 1990. From this information it can be inferred that leaded gloves generated in any area of Buildings 707 and 777 prior to April 1990 will be contaminated with oils and solvents. Headspace gas sampling performed during the TRU Waste Characterization Program detected chloroform in sampled containers above the Program Required Quantitation Limit (PRQL). Subsequent review of the headspace gas sampling data and reconsideration of process knowledge confirms the initial conclusion that these leaded glovebox gloves are hazardous waste. Based on further review of process knowledge, there is no indication this waste became contaminated with chloroform. Nevertheless, Procedure WIPP-009 (RCRA Characterization of TRU Waste to be Disposed of at WIPP) requires the addition of applicable EPA Codes to containers when compounds indicative of spent solvents are measured in the headspace gas above PRQL. EPA Code D022 will be added prior to shipment offsite. Until shipment, these leaded glovebox gloves will continue to be managed as hazardous waste.

TWBIR ID: RF-MT0339

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Management Comments	N/A
Acceptance Comments	RFP has assumed this waste to be LDR based on the fact that lead is a RCRA listed waste exhibiting the characteristic of toxicity. 1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. WASTE_PACK: The gloves are packaged in 55-gallon drums lined with a rigid polyethylene liner and one bag liner.
Final Form Comments	N/A

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TWBIR ID: RF-MT-0342

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W066	**Handling**	CH	**Stream Name**	Filters & media/TRM			**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Filter	**Waste Matrix Code**	S5410

EPA Codes

As-Generated
D008

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	7.47	3.82	16.71
Aluminum-Base Metal/Alloys	12.86	0.48	176.62
Other Metal/Alloys	4.30	4.30	4.30
Other Inorganic Materials	7.58	0.96	84.49
Cellulosics	12.62	10.50	12.89
Rubber	9.61	0.48	27.69
Plastics	24.64	1.91	47.73
Solidified, Inorganic Matrix	1.67	0.48	2.86
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	8.59	8.59	8.59
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.46		
Packaging Material, Plastic	26.15		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

119

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.20E+00
Np-237	2.05E-05
Pu-238	5.21E-01
Pu-239	1.31E+01
Pu-240	2.95E+00
Pu-241	5.25E+01
Pu-242	2.75E-04
U-234	1.40E-04
U-235	4.52E-06
U-238	2.77E-06

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT-0342

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	0.4	0.0	0.0	0.0	0.0	0.4

As-Generated	Stored	0.4	Projected	0.0	Total	0.4

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.4	0.0	0.0	0.0	0.0	0.4

Final Form	Stored	0.4	Projected	0.0	Total	0.4

TWBIR ID: RF-MT-0342

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description 342 - Drybox filters from all acid lines.

Waste Stream Source Description Item Description Code 328-Ful-Flo Filters From Building 771 Incinerator

These Ful-Flo filters are in-line cartridge filters used to remove particulates from specific fluid streams in Building 771.

During normal process operations, IDC 328 Ful-Flo filters in the backlog population were used to filter particulates from the incinerator fume scrubber system in Building 771. These filters were used for the filtration of caustic solutions; therefore, they are contaminated with bases and may contain free liquids.

During normal process operations, IDC 331 Ful-Flo filters in this backlog population were used to filter particulates from liquid waste streams in Buildings 371, 707, 771, 776, 777, and 779. These waste streams were primarily from filtration of caustic solutions in Building 371, the carbon tetrachloride system and oil systems, and from filtration of water and developer in Building 707. In Building 771, the primary waste streams filtered were anion column feed, potassium hydroxide, nitrate feed, spent nitric acid and hydrofluoric acid from the scrubber, eluate and effluent exiting the ion-exchange columns, floor pick-up solution were filtered in Building 776. In Buildings 777 and 779, Ful-Flo filters were used in the carbon tetrachloride system for purification of Freon TF and for filtration of incoming waters.

Typically, Ful-Flo filters were placed on drying racks pending bag-out of a glovebox. Filters were not always dried before removal from the glovebox. Filters were then "bagged out" of the glovebox and placed in a second layer of plastic. Next, the filters were placed in a "Poly bottle" or "Clam Shell" (hard plastic container), then placed in a double-lined drum.

Item Description Code-331 Ful-Flo filters Not From Incinerator

These Ful-Flo filters are in-line cartridge filters used throughout Rocky Flats to remove particulates from fluid streams and typically filter down to 5,1, and 0.5 micron-sized particulates. Ful-Flo filters are used in various liquid systems that include nitric- and chloride-acid systems, such as those found in plutonium recovery operations; caustic systems, such as those found in utilities scrubbing; solvent systems using carbon tetrachloride in machining operations; water systems, such as steam cleaning; and condensate collection. These filters are also used in lubricant oil filtration.

Ful-Flo filters are poly-fiber-wound cartridges, about 10" long by 3.5" in diameter. Other fiber filters, such as R-6 pads, may be included in this IDC. R-6 pads are cloth filters, about sixteen inches in diameter, used to filter solids from nitric acid solutions. Therefore, backlog material in this IDC cannot be considered homogeneous. Filter elements are produced by combining a media blanket and spirally wound matrix yarn on an inner core. The filter elements might have a polypropylene cap on one end. Both the media blanket and matrix yarn can be cotton or polypropylene. The inner core material can be constructed of polypropylene, tinned steel, or stainless steel. Warehouse data from Rocky Flats indicate that the inner-core material is polypropylene.

During normal process operations, IDC 331 Ful-Flo filters in this backlog population were used to filter particulates from liquid waste streams in Buildings 371, 707, 771, 776, 777, and 779. These waste streams were primarily from filtration of caustic solutions in Building 371, the carbon tetrachloride system and oil systems, and from filtration of water and developer in Building 707. In Building 771, the primary waste streams filtered were anion column feed, potassium hydroxide, nitrate feed, spent nitric acid and hydrofluoric acid from the scrubber, eluate and effluent exiting the ion-exchange columns, floor pick-up solution, steam condensate, and miscellaneous aqueous solutions. Hydraulic oil and floor pick-up solution were filtered in Building 776. In Buildings 777 and 779, Ful-Flo filters were used in the carbon tetrachloride system for purification of Freon TF and for filtration of incoming waters.

Typically, Ful-Flo filters were placed on drying racks pending bag-out of a glovebox. Filters were not always dried before removal from the glovebox. Filters were then "bagged out'"of the glovebox and placed in a second layer of plastic. Next, the filters were placed in a "Poly Bottle" or "Clam Shell" (hard plastic container), then placed in a double-lined drum.

These Ful-Flo filters may be contaminated with acids, bases, carbon tetrachloride, chromium, Freon, and oil. They may contain relatively small amounts of free liquids.

TWBIR ID: RF-MT-0342

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Item Description Code 335-HEPA Glovebox Filters, Not Acid Contaminated

The material in this IDC is High Efficiency Particulate Air (HEPA) filters used in ventilation systems at Rocky Flats. HEPA filters have been and are used in all of the buildings which contain plutonium processing activities. HEPA filters are used on gloveboxes and in large filter plenums that filter the room air.

Used filters were removed from their position in the ventilation system and packaged for further processing. The filters used on gloveboxes (nominal 8" x 8" x 5") were identified as IDC 335 if they were not acid contaminated.

Item Description Code 342-HEPA Glovebox Filters, Acid Contaminated

HEPA filters are used on all gloveboxes to remove particulates from the atmosphere exiting the glovebox to the plenum exhaust system. The filters in IDC 342 are from gloveboxes with atmospheres that could cause the filters to be contaminated with acids or bases used in chemical processing.

Item Description Code 491-Plenum Prefilters

The material in this IDC is a variety of plenum prefilters used in the ventilation systems at Rocky Flats. Plenum prefilters have been and are used in all of the buildings that contain plutonium processing activities. These prefilters are used in large plenums that filter the room and glovebox air. Used prefilters were removed from their position in the ventilation system and packaged for further processing.

IDC 491 plenum prefilters range from furnace-type filters to pleated fiberglass filters and can be as large as 24" x 24" x 12". The filter medium consists of fiberglass packing or paper which may be more or less dense, depending on filtering needs. Wire mesh can be used to hold the media in place. The frame material for these prefilters is cardboard.

Item Description Code 492-HEPA Filters (24" x 24"), Acid Contaminated

The material in this IDC is HEPA filters used in the ventilation systems at Rocky Flats. HEPA filters have been and are used in all of the buildings which contain plutonium processing activities. HEPA filters are used on gloveboxes and in large plenums that filter the room and glovebox air.

Used filters were removed from their position in the ventilation system and packaged for further processing. The larger-sized filters used in filters plenums were identified and packaged as IDC 492 if acid contaminated.

IDC 492 HEPA filters (24" x 24"), acid contaminated, are large HEPA filters (nominal 24" x 24" x 5" or 24" x 24" x 12") that were used in filter plenum racks. These filters consist of filter media contained within a wooden or metal frame.

This waste form is generated from Facility/Equipment Operation, Maintenance, Analytical Laboratories, R&D Laboratories, D&D, and limited Emergency Response actions.

Current Container Comments N/A

EPA Comments All waste with D001, D002, and D003 codes will be processed or repackaged prior to shipment to WIPP per Geoff Asmus.
Ful-Flo filters from various buildings are also segregated based on their generation prefixes. The generation prefix corresponds to a Material Balance Account (MBA).

Subpopulation 54EB

Subpopulation 54EB consists of IDC 342 filters generated from processes in Building 771 assigned to prefixes 02 and 74. The following gloveboxes have been determined to have had nitric acid spray exposure.

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

Gloveboxes A-1, A-2, A-3, and A-4 in Room 174
Gloveboxes 13, 14, and 15 in Room 114
Glovebox 29 in Room 149

The gloveboxes in Room 174 are associated with the OY Leach Process which corresponds to prefix 74. The gloveboxes in Rooms 114 and 149 are associated with Batching, Precipitation, and other processes corresponding to prefix 02.

Other EPA codes are assigned to this waste form for newly generated waste characterized by the generator using process knowledge. Discussion of these characterizations may be found in the appropriate WSRIC building book.

Management Comments N/A

Acceptance Comments 1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. WASTE_PACK: Filter waste is packaged in 55-gallon drums and metal standard waste boxes.

Final Form Comments N/A

TWBIR ID: RF-MT0371

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0371	**Handling**	CH	**Stream Name**	N/A			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Inorganic Non-Metal	**Waste Matrix Code**	S5123

EPA Codes

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

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	0.96	0.96	0.96
Aluminum-Base Metal/Alloys	1.91	1.91	1.91
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	236.28	83.06	382.83
Cellulosics	0.00	0.00	0.00
Rubber	0.00	0.00	0.00
Plastics	50.76	9.55	123.15
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	489.70		
Packaging Material, Plastic	23.56		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N/A
PCBs:	N/A
Source:	N/A

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.03E+01
Np-237	1.07E-04
Pu-238	2.45E+00
Pu-239	5.22E+01
Pu-240	1.20E+01
Pu-241	3.06E+02
Pu-242	1.51E-03
U-234	6.34E-05
U-235	2.05E-06
U-238	1.81E-08

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0371

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
8802 Can	0.0	0.0	0.0	0.0	0.0	0.0
8804 Can	0.0	0.0	0.0	0.0	0.0	0.0
Drum / 55 gallon	1.2	0.0	0.0	0.0	0.0	1.2
POC / 55 gallon	18.5	0.0	0.0	0.0	0.0	18.5

As-Generated	Stored	19.8	Projected	0.0	Total	19.8

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	1.9	0.0	0.0	0.0	0.0	1.9
55 Gallon POCs	18.6	0.0	0.0	0.0	0.0	18.6

Final Form	Stored	20.4	Projected	0.0	Total	20.4

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	N/A
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	N/A
Management Comments	Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT-0372

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W068	**Handling**	CH	**Stream Name**	Particulate Sludge/TRM			**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	ZZ	**Final Waste Form**	Inorganic Non-Metal	**Waste Matrix Code**	S5123

EPA Codes

As-Generated
D007

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	4.77	4.77	4.77
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	115.80	16.71	346.07
Cellulosics	12.89	12.89	12.89
Rubber	0.00	0.00	0.00
Plastics	17.50	9.07	25.78
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.48		
Packaging Material, Plastic	29.60		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.58E-01
Np-237	1.45E-06
Pu-238	2.42E-01
Pu-239	5.11E+00
Pu-240	1.17E+00
Pu-241	2.65E+01
Pu-242	1.33E-04
U-234	1.64E-04
U-235	5.29E-06
U-238	4.68E-08

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT-0372

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	1.5	0.0	0.0	0.0	0.0	1.5

As-Generated	Stored	1.5	Projected	0.0	Total	1.5

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	1.5	0.0	0.0	0.0	0.0	1.5

Final Form	Stored	1.5	Projected	0.0	Total	1.5

TWBIR ID: RF-MT-0372

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste consists of iron shot, walnut shells, glass beads, and ceramic beads generated by grit blasting operations.
Waste Stream Source Description	Item Description Code 292-Incinerator Sludge IDC 292 was intended for incinerator sludge from the recovery incinerator in Building 771. IDC 292 materials were reassessed under Waste Form 1, Incinerator Ash. However, there is one box WEMS incorrectly assigned this IDC. According to the waste-box log sheet dated October 14, 1987, the box contains Electrochemical Milling Sludge generated in Building 881. This operation generated sludge from the milling of various metals including stainless steel. It was indicated that no cyanides were used in the ECM operations in Building 881. The IDC for this box should be changed to 299. Item Description Code 299-Miscellaneous Sludge This IDC has been used for sludges that were not accurately categorized as IDC 290 or 340 and could have been generated in any plutonium processing building. However, the backlog miscellaneous sludge was generated in Building 771 during the processing of residues, in Building 371 in the analytical laboratory, and in Building 883 by the Rolling Process. Process pipe sludge, sludge dissolution heel, and filter plenum sludge from Building 771 were processed through nitric acid dissolution and sparging. Soil and sludge samples from around the site were analyzed in Building 371, and the waste was stored for processing. IDC 299 materials generated in Building 883 include quench sludge and uranium oxide sludge from the Rolling Process. This group also includes one container of electrochemical milling sludge generated in Building 881 in October 1987. The container is assigned IDC 292. Item Description Code 372-Grit This IDC was generated by grit blasting operations in Building 371 (primarily for cleaning steel and iron) and Building 777 in the Machining and Coating processes (primarily cleaning shields). A variety of materials were used for the grit, including iron shot, walnut shells, glass beads, and ceramic beads. The majority of the grit is thought to be iron shot ranging in size from fines to irregular particles. There were apparently no other RCRA-regulated metals involved in the grit blasting. There is one drum of IDC 372 shown in WEMS as being generated in Building 371. However, no grit blasting operation could be identified in that building. Item Description Code 823-Cemented Sludge IDC 823, cemented miscellaneous sludge, was generated when sludge designated as inorganic particulate and sludgy material that was below the economic discard limit (EDL) was placed in 1-gallon paint cans and covered with Portland cement or mixed with cement into a block. The first scenario was conducted in Building 771 and the second in Building 371. This could have included IDCs 290-299 and was done to meet the Waste Isolation Pilot Plant (WIPP) waste acceptance criteria. The material came primarily from Nash pumps in Building 771 and included vacuum grease and oily sludge. One drum of the material was apparently generated when the pit in front of Building 707 was cleaned out. However, the contents of the pit sludge could not be ascertained. One drum was generated in the Size Reduction Vault in Building 776. Six drums were generated in Building 774 and are stored in Building 371. Drum-specific information was requested but was not received. The drums from Building 559 are incorrectly assigned IDC 823 in WEMS. The drums are stored in Building 771 and are labeled with IDC 863. It appears that IDC 823 was entered incorrectly in WEMS. Therefore, these drums should be changed to IDC 863 in WEMS. This waste form is generated from Facility/Equipment Operation, Maintenance, Analytical Laboratories, R&D Laboratories, D&D, and limited Emergency Response actions.
Current Container Comments	N/A
EPA Comments	Subpopulation 46DA includes one drum generated in Building 371, according to WEMS. WEMS also indicates that the drum contains D007 waste. This drum contains grit from grit blasting of stainless steel and could contain chromium. This information could not be verified or refuted at the time this document was produced. Therefore, the drum is characterized as hazardous and assigned EPA Waste Code D007 until proven otherwise. The drum is also prohibited from

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

	land disposal.
Management Comments	N/A
Acceptance Comments	1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. WASTE_PACK: The waste is packaged in 55-gallon drums with multiple bag liners. These are typically smaller containers within the drums.
Final Form Comments	N/A

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TWBIR ID: RF-MT0373

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0373	**Handling**	CH	**Stream Name**	N/A			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3119

EPA Codes

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

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	19.44	0.96	42.96
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	23.87	23.87	23.87
Other Inorganic Materials	92.37	1.43	493.57
Cellulosics	12.89	12.89	12.89
Rubber	0.00	0.00	0.00
Plastics	15.87	2.20	41.05
Solidified, Inorganic Matrix	80.40	0.48	339.39
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	525.22		
Packaging Material, Plastic	23.87		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N/A
PCBs:	N/A
Source:	N/A

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.26E+00
Pu-238	9.16E-01
Pu-239	3.54E+01
Pu-240	8.04E+00
Pu-241	8.07E+01
Pu-242	4.91E-04

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0373

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
8802 Can	0.0	0.0	0.0	0.0	0.0	0.0
POC / 55 gallon	3.7	0.0	0.0	0.0	0.0	3.7

As-Generated	Stored	3.7	Projected	0.0	Total	3.7

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon POCs	4.0	0.0	0.0	0.0	0.0	4.0

Final Form	Stored	4.0	Projected	0.0	Total	4.0

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TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	Scarfed firebrick (IDC 377 and 378) was subjected to a nitric acid dissolution process. Firebrick heel (IDC 373) is the material that did not dissolve and was filtered and dried.
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	N/A
Management Comments	Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0374

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W008	**Handling**	CH	**Stream Name**	Soil & Cleanup Debris/TRM			**Inventory Date**	9/30/2002
Local ID	IDC 374	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Heterogeneous Debris	**Waste Matrix Code**	S5420

EPA Codes

As-Generated
D007, F001, F002, F003, F005, F006, F007, F009, P030, P098, P099, P106, U003, U103, U108

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	18.66	4.77	32.56
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	447.28	16.23	821.03
Cellulosics	12.89	12.89	12.89
Rubber	5.44	5.44	5.44
Plastics	18.14	3.68	38.19
Solidified, Inorganic Matrix	840.22	840.22	840.22
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	608.13	608.13	608.13
Soils	239.96	139.86	417.77
Packaging Material, Steel	138.52		
Packaging Material, Plastic	31.17		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Remediation/D&D Waste

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.57E-01
Np-237	7.90E-06
Pu-238	2.08E-01
Pu-239	4.42E+00
Pu-240	1.01E+00
Pu-241	2.59E+01
Pu-242	1.28E-04
U-234	5.30E-06
U-235	9.46E-07
U-238	5.64E-06

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0374

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	0.6	0.0	0.0	0.0	0.0	0.6

As-Generated	Stored	Projected	Total
	0.6	0.0	0.6

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.6	0.0	0.0	0.0	0.0	0.6

Final Form	Stored	Projected	Total
	0.6	0.0	0.6

TWBIR ID: RF-MT0374

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste consists of blacktop/concrete/dirt/sand.
Waste Stream Source Description	Soil and cleanup-debris (IDC 374) were generated during cleanup and construction activities around Rocky Flats. In most cases, construction or demolition activities generated rubble consisting of blacktop, concrete, dirt, sand , and rock. The rubble was packaged in plywood boxes with a fiberboard liner and a polyvinyl chloride (PVC) bag liner or in 55-gallon, DOT Type 7A drups. The waste was generated on a nonroutine basis. Information describing spendid activities generating soil and debris were often unavailable.
Current Container Comments	N/A
EPA Comments	Subpopulation 23B-Container Number D48510 was generated in Building 374, Room 3803. Room 3803 houses part of the Building 374 Sludge Immobilization Process. The process generated solidified sludge. The waste in drum D48510 is potentially contaminated with process sludge. The sludge consists of RCRA-regulated materials from Decontamination-Precipitation and Neutralization Processes in the Building 374 Liquid Waste Treatment Facility. Building 374 solidified sludge is characterized in the Building 374 Solidified Sludge Backlog Waste Reassessment Baseline Book. Building 374 sludge was intermittently contaminated with RCRA metals (EPA Codes D004–D011). Sampling and analysis of solidified sludge found the waste exceeded toxicity characteristic criteria for chromium (EPA Code D007) and selenium (D010), but at very low levels. It will be assumed that the waste contained in drum D48510 would not exhibit the characteristic of toxicity for chromium and selenium because of dilution by the soil and debris. Toxicity Characteristic Leaching Procedure (TCLP) analysis of the waste under EPA SW□846 (EPA 1990) is required to prove the waste does not exceed toxicity characteristic criteria. Contaminated soil and cleanup debris must carry the listed EPA codes associated with Building 374 solidified sludge. The EPA Codes F001, F002, F005, F006, F007, and F009 are assigned to the waste and it will not be considered as meeting the Land Disposal Restrictions (LDR) treatment standards until sampling and analysis prove otherwise. Subpopulation 23D- According to WEMS drum D75005 was generated in Building 776. However, the waste was repackaged in Building 776 in April 1988 after a failed drum containing the waste was discovered in the Property Utilization and Disposal (PU&D) storage yard. Drum D75055 contains soil and two sample vials of chromium oxide and aluminum oxide. It will be assumed that the waste contained in drum D75005 exhibits the characteristic of toxicity for chromium (D007) because of chromium oxide contamination. Subpopulation 23Y includes insulation (IDC 374) that was originally characterized as hazardous under WSRIC process number 374-6-33. The Building 374 process treatment system is used to treat aqueous waste from throughout the site, including F-listed wastes and product and/or off-spec chemicals. Therefore, waste generated from 374-6-33 since 1994 meets the definition of an F-listed waste as well as the definition of P- and U-listed waste. This waste was also generated under NRWOLs 231-1-11, MM331001, and TI027079. NRWOL MM331001 identifies hazardous silicate filters that have visible residue from the inspection of Freon containing units in building 374. NRWOL TI027079 identifies hazardous concrete pieces and granules chipped from around process liquid drains. The concrete has been in contact with process liquid, which was determined to be RCRA hazardous. NRWOL 231-1-11 identifies dirt and rocks picked up from a spill from Tanker #6. The liquid in Tanker #6 was determined to be hazardous, radioactive waste from building 374. RTR performed on 4/29/98 identified approximately 90ml of liquid in D85534. NRWOL TI027079 identified EPA Waste Code F003. Based on the above information, this waste is characterized as hazardous and EPA Waste Codes F001, F002, F003, F005, F006, F007, F009, P030, P098, P099, P106, U003, U103, and U108 will be applied to this waste.
Management Comments	N/A
Acceptance Comments	GENERAAREA: Plutonium process areas. GENOPERATION: Generated in multiple buildings in which aqueous plutonium recovery or plutonium fabrication

processes were conducted. RECLASS_CO: Rocky Flats assays wastes to determine waste type instead of relying on process knowledge or historical data. For this reason, the potential for reclassification has not been analyzed. CATION: Not Applicabe. OTHER_CHAR: Not Applicable.

RFP has determined this waste to be LDR based on process knowledge characterization.

1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. WASTE_PACK: 55 gallon carbon steel DOT 7A Type A Drum.

Final Form Comments N/A

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TWBIR ID: RF-MT0376

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0376	**Handling**	CH	**Stream Name**	N/A			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Filter	**Waste Matrix Code**	S5410

EPA Codes

As-Generated
N/A

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	2.52	0.48	11.93
Aluminum-Base Metal/Alloys	16.25	4.77	52.51
Other Metal/Alloys	172.56	19.09	326.02
Other Inorganic Materials	73.46	2.86	441.54
Cellulosics	12.68	9.55	12.89
Rubber	8.99	2.86	21.96
Plastics	13.79	2.86	22.91
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	10.26	4.77	15.75
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.44		
Packaging Material, Plastic	27.71		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N/A
PCBs:	N/A
Source:	N/A

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.48E+00
Np-237	8.42E-06
Pu-238	5.03E-01
Pu-239	1.32E+01
Pu-240	3.08E+00
Pu-241	5.72E+01
Pu-242	2.98E-04
U-234	7.25E-05
U-235	2.34E-06
U-238	4.49E-06

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0376

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	0.2	0.0	0.0	0.0	0.0	0.2

As-Generated	Stored	Projected	Total
	0.2	0.0	0.2

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.2	0.0	0.0	0.0	0.0	0.2

Final Form	Stored	Projected	Total
	0.2	0.0	0.2

TWBIR ID: RF-MT0376

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	N/A
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	N/A
Management Comments	N/A
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0377

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W036	**Handling**	CH	**Stream Name**	Firebrick, coarse/TRM	**Inventory Date**	9/30/2002
Local ID	)C 377,378,373,37	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S5123

EPA Codes

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

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	25.22	2.86	95.47
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	110.43	2.39	512.66
Cellulosics	12.89	12.89	12.89
Rubber	0.00	0.00	0.00
Plastics	19.64	2.86	41.53
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	493.81		
Packaging Material, Plastic	24.36		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Facility/Equipment Operation and Maintenance Waste

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.25E+00
Np-237	4.20E-05
Pu-238	8.11E-01
Pu-239	1.73E+01
Pu-240	3.96E+00
Pu-241	1.01E+02
Pu-242	5.00E-04
U-234	1.37E-04
U-235	4.35E-06
U-238	3.83E-08

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0377

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	6.0	0.0	0.0	0.0	0.0	6.0
POC / 55 gallon	68.2	0.0	0.0	0.0	0.0	68.2

As-Generated	Stored	Projected	Total
	74.3	0.0	74.3

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	6.0	0.0	0.0	0.0	0.0	6.0
55 Gallon POCs	68.4	0.0	0.0	0.0	0.0	68.4

Final Form	Stored	Projected	Total
	74.4	0.0	74.4

TWBIR ID: RF-MT0377

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste form is firebrick that has been crushed and pulverized.
Waste Stream Source Description	During incinerator maintenance and stripout operations, firebrick used to line the firebox (IDCs 371, 373, 377 and 378) was generated in Buildings 371 and 771. A bed liner material used in the FBI in Building 776 was also generated. This material was a sodium carbonate and sand material but was assigned IDC 371, firebrick. The following sections describe the specific wastes, by IDC, generated by the incinerators. Item Description Code 371, Firebrick Firebrick was generated during maintenance operations in the incineration systems in Building 771. This material was also generated during incinerator stripout operations in Building 371. Firebrick consists of brick and chunks of high-density alumina ceramic material used to line the firebox of the incinerator. The current inventory contains 30 drums of LLW, residues, and mixed residues. IDC 371 is mixed residue only. Item Description Code 373, Firebrick Heel During dissolution of scarfed firebrick (IDC 377 and 378), undissolved firebrick heel was generated in Building 771. Spent firebrick was subjected to a mechanical scarfing process to remove plutonium-bearing surface layers. Those layers were pulverized and subjected to a nitric acid dissolution process. The material that did not dissolve was filtered, dried, assayed, and set aside for additional processing. The current inventory contains four drums of mixed residues. IDC 373 is mixed residue only. Item Description Code 377, Coarse Firebrick During maintenance operations, coarse chunks of scarfed firebrick were generated in Building 771. This material was also generated during incinerator stripout operations in Building 371. Spent firebrick was subjected to a mechanical scarfing process to remove plutonium-bearing surface layers. Coarse firebrick consists of chunks of the unpulverized, plutonium-bearing surface layer of the high-density alumina ceramic firebrick material. The current inventory contains 66 drums of transuranic waste, mixed transuranic waste, and residues. Item Description Code 378, Scarfed Firebrick During maintenance operations, pulverized scarfed firebrick was generated in Building 771. This material was also generated during incinerator stripout operations in Building 371. Spent firebrick was subjected to a mechanical scarfing process to remove plutonium-bearing surface layers. Pulverized firebrick consists of chunks granular, fine, and very fine, plutonium-bearing surface layer of the high-density alumina ceramic firebrick material The current inventory contains 45 drums mixed transuranic waste and residues.
Current Container Comments	N/A
EPA Comments	Subpopulations IK, IL, IM, IN EPA Codes D004-D011, F001, F002, F003, and F005 were assigned to these subpopulations based on the characterization of incinerator feed materials. Based on the characterization of the feed, alcohols, glycols, halogenated solvents, and metals may have been introduced into the incinerator. Because the specific sources of the incinerator feed cannot be determined at this time, it has been assumed that the process could have accepted any of the combustible, plastic, or filter waste currently contained in the backlog that were generated during the time the incinerator was operational.

TWBIR ID: RF-MT0377

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

A report was generated from the Backlog Waste Reassessment database that summarizes the EPA codes assigned to inventory containers of combustibles (IDCs 330 and 336), plastics (337), and Ful-Flo filters (331) generated about the same time that the incinerator was operational. The following EPA codes were contained in the database for these wastes; D004-D011, D018, D019, D028, D029, D035, D038, F001, F002, F003, and F005. It was assumed that the F-listed solvents would have to be applied due to the "derived-from" rule. The codes for the D-listed metals were applied because these metals would be concentrated during incineration. However, it was assumed that the D-listed solvent would be volatilized and driven off in this process. Therefore, these solvents would not be present at levels exceeding Toxicity Characteristic Leaching Procedure (TCLP) limits due to the thermal treatment. This subpopulation is land disposal restricted due to the presence of RCRA metals. It is not land disposal restricted for F-listed solvents because the Best Demonstrated Available Technology (BDAT) (thermal treatment) was used to treat this waste.

Management Comments N/A

Acceptance Comments Net and gross weight data are not available for all container types.

1. Variability surronding fullness of containers precludes a meaningful computation of density.

2. Basis for determining LDR storage prohibition status is based primarily on process knowledge. The waste is packaged in 55- gallon drums lined with a rigid polyethylene liner.

Projected future generation begins in CY2005.

Final Form Comments N/A

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TWBIR ID: RF-MT0378

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W036	**Handling**	CH	**Stream Name**	Firebrick, pulverized or fines/TRM	**Inventory Date**	9/30/2002
Local ID	)C 377,378,373,37	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Inorganic Non-Metal	**Waste Matrix Code**	S5123

EPA Codes

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

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	1.43	1.43	1.43
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	18.62	18.62	18.62
Cellulosics	0.00	0.00	0.00
Rubber	0.00	0.00	0.00
Plastics	7.64	7.64	7.64
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.57		
Packaging Material, Plastic	8.59		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Facility/Equipment Operation and Maintenance Waste

TRUCON Codes

122

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.92E+00
Np-237	2.60E-05
Pu-238	1.33E+00
Pu-239	2.84E+01
Pu-240	6.51E+00
Pu-241	1.66E+02
Pu-242	8.23E-04

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0378

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	0.6	0.0	0.0	0.0	0.0	0.6

As-Generated	Stored	Projected	Total
	0.6	0.0	0.6

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.6	0.0	0.0	0.0	0.0	0.6

Final Form	Stored	Projected	Total
	0.6	0.0	0.6

TWBIR ID: RF-MT0378

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste form is firebrick that has been crushed and pulverized.
Waste Stream Source Description	During incinerator maintenance and stripout operations, firebrick used to line the firebox (IDCs 371, 373, 377 and 378) was generated in Buildings 371 and 771. A bed liner material used in the FBI in Building 776 was also generated. This material was a sodium carbonate and sand material but was assigned IDC 371, firebrick. The following sections describe the specific wastes, by IDC, generated by the incinerators. Item Description Code 371, Firebrick Firebrick was generated during maintenance operations in the incineration systems in Building 771. This material was also generated during incinerator stripout operations in Building 371. Firebrick consists of brick and chunks of high-density alumina ceramic material used to line the firebox of the incinerator. The current inventory contains 30 drums of LLW, residues, and mixed residues. IDC 371 is mixed residue only. Item Description Code 373, Firebrick Heel During dissolution of scarfed firebrick (IDC 377 and 378), undissolved firebrick heel was generated in Building 771. Spent firebrick was subjected to a mechanical scarfing process to remove plutonium-bearing surface layers. Those layers were pulverized and subjected to a nitric acid dissolution process. The material that did not dissolve was filtered, dried, assayed, and set aside for additional processing. The current inventory contains four drums of mixed residues. IDC 373 is mixed residue only. Item Description Code 377, Coarse Firebrick During maintenance operations, coarse chunks of scarfed firebrick were generated in Building 771. This material was also generated during incinerator stripout operations in Building 371. Spent firebrick was subjected to a mechanical scarfing process to remove plutonium-bearing surface layers. Coarse firebrick consists of chunks of the unpulverized, plutonium-bearing surface layer of the high-density alumina ceramic firebrick material. The current inventory contains 66 drums of transuranic waste, mixed transuranic waste, and residues. Item Description Code 378, Scarfed Firebrick During maintenance operations, pulverized scarfed firebrick was generated in Building 771. This material was also generated during incinerator stripout operations in Building 371. Spent firebrick was subjected to a mechanical scarfing process to remove plutonium-bearing surface layers. Pulverized firebrick consists of chunks granular, fine, and very fine, plutonium-bearing surface layer of the high-density alumina ceramic firebrick material The current inventory contains 45 drums mixed transuranic waste and residues.
Current Container Comments	N/A
EPA Comments	Subpopulations IK, IL, IM, IN EPA Codes D004-D011, F001, F002, F003, and F005 were assigned to these subpopulations based on the characterization of incinerator feed materials. Based on the characterization of the feed, alcohols, glycols, halogenated solvents, and metals may have been introduced into the incinerator. Because the specific sources of the incinerator feed cannot be determined at this time, it has been assumed that the process could have accepted any of the combustible, plastic, or filter waste currently contained in the backlog that were generated during the time the incinerator was operational.

TWBIR ID: RF-MT0378

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

A report was generated from the Backlog Waste Reassessment database that summarizes the EPA codes assigned to inventory containers of combustibles (IDCs 330 and 336), plastics (337), and Ful-Flo filters (331) generated about the same time that the incinerator was operational. The following EPA codes were contained in the database for these wastes; D004-D011, D018, D019, D028, D029, D035, D038, F001, F002, F003, and F005. It was assumed that the F-listed solvents would have to be applied due to the "derived-from" rule. The codes for the D-listed metals were applied because these metals would be concentrated during incineration. However, it was assumed that the D-listed solvent would be volatilized and driven off in this process. Therefore, these solvents would not be present at levels exceeding Toxicity Characteristic Leaching Procedure (TCLP) limits due to the thermal treatment. This subpopulation is land disposal restricted due to the presence of RCRA metals. It is not land disposal restricted for F-listed solvents because the Best Demonstrated Available Technology (BDAT) (thermal treatment) was used to treat this waste.

Management Comments N/A

Acceptance Comments Net and gross weight data are not available for all container types.

1. Variability surronding fullness of containers precludes a meaningful computation of density.

2. Basis for determining LDR storage prohibition status is based primarily on process knowledge. The waste is packaged in 55- gallon drums lined with a rigid polyethylene liner.

Final Form Comments N/A

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TWBIR ID: RF-MT0419

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0419	**Handling**	CH	**Stream Name**	N/A			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3111

EPA Codes

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

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	2.67	2.67	2.67
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	8.69	8.69	8.69
Cellulosics	12.89	12.89	12.89
Rubber	0.00	0.00	0.00
Plastics	2.01	2.01	2.01
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	525.22		
Packaging Material, Plastic	23.87		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N/A
PCBs:	N/A
Source:	N/A

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.07E-01
Np-237	8.29E-06
Pu-238	1.63E-01
Pu-239	3.46E+00
Pu-240	7.93E-01
Pu-241	2.03E+01
Pu-242	1.00E-04

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0419

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
POC / 55 gallon	4.8	0.0	0.0	0.0	0.0	4.8

As-Generated	Stored	Projected	Total
	4.8	0.0	4.8

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon POCs	4.8	0.0	0.0	0.0	0.0	4.8

Final Form	Stored	Projected	Total
	4.8	0.0	4.8

TWBIR ID: RF-MT0419

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	N/A
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	N/A
Management Comments	Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0420

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W040	**Handling**	CH	**Stream Name**	incinerator ash/TRM			**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3111

EPA Codes

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

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	2.67	2.67	2.67
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	8.69	8.69	8.69
Cellulosics	12.89	12.89	12.89
Rubber	0.00	0.00	0.00
Plastics	2.01	2.01	2.01
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.57		
Packaging Material, Plastic	32.46		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Pollution Control or Waste Treatment Process

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.07E-01
Np-237	8.29E-06
Pu-238	1.63E-01
Pu-239	3.46E+00
Pu-240	7.93E-01
Pu-241	2.03E+01
Pu-242	1.00E-04

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0420

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	0.8	0.0	0.0	0.0	0.0	0.8

As-Generated	Stored	Projected	Total
	0.8	0.0	0.8

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.8	0.0	0.0	0.0	0.0	0.8

Final Form	Stored	Projected	Total
	0.8	0.0	0.8

TWBIR ID: RF-MT0420

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste stream is a fire particulate ash. It could also be chunky material from moisture.
Waste Stream Source Description	This waste form consists of waste generated by the Residue Recovery Incinerator system in Building 771, Fluidized Bed Incinerator (FBI) in Building 776, and test runs by the incinerator in Building 371. The Low-Specific Activity (LSA) and High-Specific Activity (HSA) incinerators in Building 371 were developed as volume-reduction incinerators. The startup operation test used noncontaminated materials throughout the processes. The test revealed design concerns; therefore, these incinerators never became operational. No WSRIC information is available to describe this process in greater detail. The function of the Residue Recovery Incinerator was to reduce volume and destroy volatile constituents prior to plutonium recovery operations for combustible wastes from production processes (primarily IDCs 330, 331, 336, and 337). Waste feed was hand-sorted to segregate combustibles. Noncombustibles such as metal and glass were segregated and removed from the process. The by-products of this process included ash (IDCs 419, 420, 421, and 428). The FBIs in Building 776 were developed as pilot operations. Their test function was to develop new technology to reduce volume and destroy volatile constituents prior to plutonium recovery operations. The only incinerator to generate backlog waste covered by this waste form was the Full-Scale Unit. The first runs of this incinerator (1978 to 1981) used newspaper, Building 776 low-level waste (LLW), combustible waste, kerosene, garage oil, and grease as test materials. The tests were conducted with methanol, diesel products, and nonradioactive surrogate combustibles (shredded coveralls, leather gloves, rolls of polyvinyl chloride [PVC] plastic, wood, and paper). The by-product of this process was FBI ash (IDC 425). Item Description Code 419, Unpulverized Incinerator Ash Unpulverized incinerator ash was generated as an intermediate product during routine operation of the incinerator in Building 771. This material was also generated during incinerator stripout operations in Building 371. The unpulverized ash consists of a mixture of coarse, granular, fine, and very fine particulates. The ash contains miscellaneous tramp metal, bits of unburned feed material, and carbon from the incomplete oxidation of feed material. The coarse materials consist of fused ash, clinkers, or unburned materials that fell through the stationary grate of the incinerator. IDC 419 is mixed residue only. Item Description Code 420, Pulverized Incinerator Ash Pulverized incinerator ash was generated as an intermediate product during routine operation of the incinerator in Building 771. This material was also generated during incinerator stripout operations in Building 371. The pulverized ash consists of a mixture of coarse, granular, fine, and very fine particulates that have been ground by the ball mill. The ash contains miscellaneous tramp metal, bits of unburned feed material, and carbon from the incomplete oxidation of feed material. Item Description Code 421, Ash Heel During dissolution of incinerator ash (IDC 419 and 420), undissolved incinerator ash heel was generated in Building 771. Incinerator ash was subjected to a nitric acid dissolution process. The material that did not dissolve was filtered, dried, assayed, and set aside for additional processing. IDC 421 is mixed residue only. Item Description Code 425, Fluidized Bed Ash This waste is a mixture of aluminum oxide and a chromium oxide oxidation catalyst, sodium carbonate, and ash, mainly catalyst and sodium carbonate ash from Building 776. During the incineration of materials containing chloride compounds, a portion of the sodium carbonate changes to sodium chloride.

TWBIR ID: RF-MT0420

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

The Pilot-Scale FBI Unit was operated from 1971 to 1978. The first runs used PVC, polyethylene, and paper as test materials. After 1974, paint thinner from the Building 333 paint shop, tributyl phosphate, kerosene, and hydrazine hydrate were burned. Polychlorinated biphenyls (PCBs), mixed 1 part PCB to 4-5 parts diesel fuel or kerosene were burned in 1978. Unless containers of backlog waste were generated during maintenance operations of the Pilot-Scale Unit, all containers in the current inventory were generated after 1978 and are assumed to be from the Full-Scale Unit. Though the Pilot-Scale Unit burned PCBs, the ash is not Toxic Substance Control Act (TSCA) regulated. The incinerator burned at a high destruction efficiency and PCBs over the TSCA regulatory limit of 50 parts per million (ppm) are not anticipated in the ash.

The Full-Scale Unit was operated from 1978 to 1981, and again from 1985 to 1988. The first runs (1978 to 1981) used newspaper, Building 776 LLW, combustible waste, kerosene, garage oil, and grease as test materials. The tests from 1985 to 1988 were conducted with methanol, diesel products, and nonradioactive surrogate combustibles (shredded coveralls, leather gloves, rolls of PVC plastic, wood, and paper).

Item Description Code 428, Incinerator Ash

After incinerator ash (IDC 420) was generated in Building 771, this material was prepared, assayed, and packaged in Building 371, for transportation to an alternate DOE site for plutonium recovery processing. This material does not differ from incinerator ash IDC 420.

IDC 428 is mixed residue only.

Current Container Comments N/A

EPA Comments The last subpopulation consists of IDC 420 backlog containers. EPA codes D004-D011, F001, F002, F003, and F005 were assigned to this subpopulation based on the characterization of incinerator feed materials (alcohols, glycols, halogenated solvents, and metals). However, this subpopulation contained no free liquids and thus D002 is not applied.

Subpopulations 1F, 1G, 1P, and 1Q, consist of IDCs 420, 421, 423, 371, 373, 377, 378, 422, 428, and 419, respectively, for backlog inventory containers. EPA Codes D004-D011, F001, F002, F003, and F005 were assigned to this subpopulation.

Limited analytical data indicate that this waste form exceeds the LDR treatment standard for chromium. These data must complete data validation. The results to date are discussed in the Waste Characterization Report, Incinerator Ash, Item Description Codes 420 and 425.

Management Comments N/A

Acceptance Comments RFP has determined that incinerator ash is LDR waste based on available process knowledge.

1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. FBI ash was packaged in 55-gallon drums lined with a rigid polyethylene liner and one bag liner.

Final Form Comments N/A

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TWBIR ID: RF-MT0423

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0423	**Handling**	CH	**Stream Name**	N/A			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3111

EPA Codes

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

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	21.48	21.48	21.48
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	17.18	17.18	17.18
Other Inorganic Materials	35.32	35.32	35.32
Cellulosics	167.07	167.07	167.07
Rubber	0.00	0.00	0.00
Plastics	3.44	3.44	3.44
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	525.22		
Packaging Material, Plastic	23.87		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N/A
PCBs:	N/A
Source:	N/A

TRUCON Codes

130

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	8.69E+00
Pu-238	1.06E+00
Pu-239	4.00E+01
Pu-240	8.87E+00
Pu-241	6.43E+01
Pu-242	5.15E-04

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0423

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
POC / 55 gallon	1.0	0.0	0.0	0.0	0.0	1.0

As-Generated	Stored	Projected	Total
	1.0	0.0	1.0

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon POCs	1.0	0.0	0.0	0.0	0.0	1.0

Final Form	Stored	Projected	Total
	1.0	0.0	1.0

TWBIR ID: RF-MT0423

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	"Soot heel is the material remaining after acid dissolution, filtering, and drying of soot (IDC 422)."
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	N/A
Management Comments	Waste Stream currently exists in the TWBIR as a mixed waste or residue, (i.e., RF-MRXXXX, or RF-MTXXXX), but has been recharacterized as non-mixed waste.
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0425

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W040	**Handling**	CH	**Stream Name**	incinerator ash/TRM			**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3111

EPA Codes

As-Generated
D007

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	2.67	2.67	2.67
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	8.69	8.69	8.69
Cellulosics	12.89	12.89	12.89
Rubber	0.00	0.00	0.00
Plastics	2.01	2.01	2.01
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.57		
Packaging Material, Plastic	32.46		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Pollution Control or Waste Treatment Process

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.07E-01
Np-237	8.29E-06
Pu-238	1.63E-01
Pu-239	3.46E+00
Pu-240	7.93E-01
Pu-241	2.03E+01
Pu-242	1.00E-04

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0425

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	0.2	0.0	0.0	0.0	0.0	0.2

As-Generated	Stored	Projected	Total
	0.2	0.0	0.2

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.2	0.0	0.0	0.0	0.0	0.2

Final Form	Stored	Projected	Total
	0.2	0.0	0.2

TWBIR ID: RF-MT0425

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste stream is a fire particulate ash. It could also be chunky material from moisture.
Waste Stream Source Description	This waste form consists of waste generated by the Residue Recovery Incinerator system in Building 771, Fluidized Bed Incinerator (FBI) in Building 776, and test runs by the incinerator in Building 371. The Low-Specific Activity (LSA) and High-Specific Activity (HSA) incinerators in Building 371 were developed as volume-reduction incinerators. The startup operation test used noncontaminated materials throughout the processes. The test revealed design concerns; therefore, these incinerators never became operational. No WSRIC information is available to describe this process in greater detail. The function of the Residue Recovery Incinerator was to reduce volume and destroy volatile constituents prior to plutonium recovery operations for combustible wastes from production processes (primarily IDCs 330, 331, 336, and 337). Waste feed was hand-sorted to segregate combustibles. Noncombustibles such as metal and glass were segregated and removed from the process. The by-products of this process included ash (IDCs 419, 420, 421, and 428). The FBIs in Building 776 were developed as pilot operations. Their test function was to develop new technology to reduce volume and destroy volatile constituents prior to plutonium recovery operations. The only incinerator to generate backlog waste covered by this waste form was the Full-Scale Unit. The first runs of this incinerator (1978 to 1981) used newspaper, Building 776 low-level waste (LLW), combustible waste, kerosene, garage oil, and grease as test materials. The tests were conducted with methanol, diesel products, and nonradioactive surrogate combustibles (shredded coveralls, leather gloves, rolls of polyvinyl chloride [PVC] plastic, wood, and paper). The by-product of this process was FBI ash (IDC 425). Item Description Code 419, Unpulverized Incinerator Ash Unpulverized incinerator ash was generated as an intermediate product during routine operation of the incinerator in Building 771. This material was also generated during incinerator stripout operations in Building 371. The unpulverized ash consists of a mixture of coarse, granular, fine, and very fine particulates. The ash contains miscellaneous tramp metal, bits of unburned feed material, and carbon from the incomplete oxidation of feed material. The coarse materials consist of fused ash, clinkers, or unburned materials that fell through the stationary grate of the incinerator. IDC 419 is mixed residue only. Item Description Code 420, Pulverized Incinerator Ash Pulverized incinerator ash was generated as an intermediate product during routine operation of the incinerator in Building 771. This material was also generated during incinerator stripout operations in Building 371. The pulverized ash consists of a mixture of coarse, granular, fine, and very fine particulates that have been ground by the ball mill. The ash contains miscellaneous tramp metal, bits of unburned feed material, and carbon from the incomplete oxidation of feed material. Item Description Code 421, Ash Heel During dissolution of incinerator ash (IDC 419 and 420), undissolved incinerator ash heel was generated in Building 771. Incinerator ash was subjected to a nitric acid dissolution process. The material that did not dissolve was filtered, dried, assayed, and set aside for additional processing. IDC 421 is mixed residue only. Item Description Code 425, Fluidized Bed Ash This waste is a mixture of aluminum oxide and a chromium oxide oxidation catalyst, sodium carbonate, and ash, mainly catalyst and sodium carbonate ash from Building 776. During the incineration of materials containing chloride compounds, a portion of the sodium carbonate changes to sodium chloride.

TWBIR ID: RF-MT0425

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

The Pilot-Scale FBI Unit was operated from 1971 to 1978. The first runs used PVC, polyethylene, and paper as test materials. After 1974, paint thinner from the Building 333 paint shop, tributyl phosphate, kerosene, and hydrazine hydrate were burned. Polychlorinated biphenyls (PCBs), mixed 1 part PCB to 4-5 parts diesel fuel or kerosene were burned in 1978. Unless containers of backlog waste were generated during maintenance operations of the Pilot-Scale Unit, all containers in the current inventory were generated after 1978 and are assumed to be from the Full-Scale Unit. Though the Pilot-Scale Unit burned PCBs, the ash is not Toxic Substance Control Act (TSCA) regulated. The incinerator burned at a high destruction efficiency and PCBs over the TSCA regulatory limit of 50 parts per million (ppm) are not anticipated in the ash.

The Full-Scale Unit was operated from 1978 to 1981, and again from 1985 to 1988. The first runs (1978 to 1981) used newspaper, Building 776 LLW, combustible waste, kerosene, garage oil, and grease as test materials. The tests from 1985 to 1988 were conducted with methanol, diesel products, and nonradioactive surrogate combustibles (shredded coveralls, leather gloves, rolls of PVC plastic, wood, and paper).

Item Description Code 428, Incinerator Ash

After incinerator ash (IDC 420) was generated in Building 771, this material was prepared, assayed, and packaged in Building 371, for transportation to an alternate DOE site for plutonium recovery processing. This material does not differ from incinerator ash IDC 420.

IDC 428 is mixed residue only.

Current Container Comments N/A

EPA Comments One subpopulation consists of IDC 425 materials characterized under Backlog Waste Reassessment Task 7, Event 20, but only includes the ash generated by the Full-Scale unit. EPA code D007 was assigned to the subpopulation. The characterization rationale for this subpopulation can be found in the report prepared for this event.

Another subpopulation consists of IDC 425 materials characterized under Backlog Waste Reassessment Task 7, Event 20, but only includes ash generated by the Pilot-Scale unit. EPA codes D007, F003, and F005 were assigned to the subpopulation. The characterization rationale for this subpopulation can be found in the report prepared for this event.

Subpopulation 1D consists of IDC 425 materials characterized under Task 7, Event 20 but only includes the ash generated by the Pilot-Scale Unit. EPA Codes D007, F003, and F005 were assigned to the subpopulation. Rationale for this subpopulation can be found in the report prepared for this event.

Limited analytical data indicate that this waste form exceeds the LDR treatment standard for chromium. These data must complete data validation. The results to date are discussed in the Waste Characterization Report, Incinerator Ash, Item Description Codes 420 and 425.

Management Comments N/A

Acceptance Comments RFP has determined that incinerator ash is LDR waste based on available process knowledge.

1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. FBI ash was packaged in 55-gallon drums lined with a rigid polyethylene liner and one bag liner.

Final Form Comments N/A

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TWBIR ID: RF-MT-0438

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W057	**Handling**	CH	**Stream Name**	Insulation/TRM			**Inventory Date**	9/30/2002
Local ID	IDC 438	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Inorganic Non-Metal	**Waste Matrix Code**	S5129

EPA Codes

As-Generated
F001, F002, F005, F006, F007, F009

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	29.75	0.48	148.93
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	40.01	0.96	189.03
Cellulosics	12.89	12.89	12.89
Rubber	2.01	2.01	2.01
Plastics	15.52	1.43	47.73
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.55		
Packaging Material, Plastic	31.51		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.55E+00
Np-237	3.99E-06
Pu-238	7.10E-01
Pu-239	2.04E+01
Pu-240	4.64E+00
Pu-241	6.69E+01
Pu-242	3.89E-04
U-234	2.10E-05
U-235	6.79E-07
U-238	6.01E-09

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT-0438

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	0.6	0.0	0.0	0.0	0.0	0.6

As-Generated	Stored	Projected	Total
	0.6	0.0	0.6

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.6	0.0	0.0	0.0	0.0	0.6

Final Form	Stored	Projected	Total
	0.6	0.0	0.6

TWBIR ID: RF-MT-0438

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste stream is contaminated insulation.
Waste Stream Source Description	Item Description Code 438 Maintenance, repair, and strip-out operations in Buildings 371, 374, 444, 559, 666, 707, 771, 774, 776, 777, 779, 865, 881, and 883 produced waste insulation. Insulation waste is generated by replacement of furnace heating elements, construction, maintenance, and demolition activities within the Protected Area at Rocky Flats. During these activities, insulation material is removed from furnaces, boilers, piping, ceilings and walls, and heating and cooling systems. WEMS data indicate that insulation waste was generated in: Building 374 Acid Neutralization, Radioactive Decontamination, Sludge Solidification, Evaporation, Spray Dryer and Saltcrete, and General Building Operations. Building 444 Maintenance Buildings 559 and 779 Utilities Building 666 Drum Repack Building 707 Foundry Operations-Module A, Casting-Module K, X-Y Retriever-Module J, Maintenance, and Modules A-H Building 771, Maintenance and General Building Waste Building 774 Microwave Process Building 776 during the replacement of furnace heating elements. Generated by construction and demolition activities.
Current Container Comments	N/A
EPA Comments	Subpopulation 53D, IDC 438, was identified based on WEMS data, IDC, and discussion with generating personnel. The insulation in this subpopulation was used on pipes, walls, and other barriers and could have come in contact with listed constituents when leaks or spills occurred. According to the generator, the insulation was visibility contaminated with sludge and salt produced in Building 374. The D-codes currently assigned to containers in this subpopulation are not appropriate based on the volume of insulation relative to the amount of caked on sludge. The following EPA Codes were assigned to this waste: F001, F002, F003, F005, F006, F007, F009, and F039. This inventory was generated in Building 374. Other EPA codes are assigned to this waste form for newly generated waste characterized by the generator using process knowledge. Discussion of these characterizations may be found in the appropriate WSRIC building book.
Management Comments	N/A
Acceptance Comments	RFP has determined this waste to be LDR based on process knowledge characterization.

TWBIR ID: RF-MT-0438

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

	1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. WASTE_PACK: 55 gallon drums DOT 7A TYPE A; metal boxes.
Final Form Comments	N/A

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TWBIR ID: RF-MT0440

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W052	**Handling**	CH	**Stream Name**	Glass/TRM			**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Inorganic Non-Metal	**Waste Matrix Code**	S5122

EPA Codes

As-Generated
D005, D008, D009, F001, F002

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	19.39	0.48	280.68
Aluminum-Base Metal/Alloys	1.38	1.38	1.38
Other Metal/Alloys	0.72	0.72	0.72
Other Inorganic Materials	184.09	3.82	415.29
Cellulosics	12.76	8.12	12.89
Rubber	0.00	0.00	0.00
Plastics	33.08	5.73	89.74
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.45		
Packaging Material, Plastic	29.31		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.22E-01
Np-237	5.75E-06
Pu-238	6.93E-02
Pu-239	2.02E+00
Pu-240	4.73E-01
Pu-241	7.52E+00
Pu-242	4.36E-05
U-234	7.20E-05
U-235	2.36E-06
U-238	7.12E-07

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0440

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	2.3	0.0	0.0	0.0	0.0	2.3

As-Generated	Stored	Projected	Total
	2.3	0.0	2.3

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	2.3	0.0	0.0	0.0	0.0	2.3

Final Form	Stored	Projected	Total
	2.3	0.0	2.3

TWBIR ID: RF-MT0440

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste stream is made up of glass from analytical labs, recovery processes, ceramics, and glovebox windows.
Waste Stream Source Description	IDC 440 includes glass waste from analytical laboratories and recovery processes, standard light bulbs generated inside the PA, and ceramic materials. Glass waste assigned IDC 440 was generated in Buildings 123, 371, 444, 559, 707, 771, 776, 777, 889. Raschig Rings currently in WEMS assigned IDC 442 were generated in Buildings 771, 776, and 777. Prior to being replaced, the tanks were drained and the rings were leached with dilute nitric acid or water. The rings generated in Building 771 are from the production processes and Tanks D80-D85, D0-360, D-361, D-451-D-454, D-467, D-750, D-706, D-922, D-973, D-974, D-980, D-1008, D-1013, D-1022, and D-1081. Rings generated in Building 776 are from the Size Reduction Process and Tanks SR 3,4, and 5 and as unused rings. Rings generated in Building 777 were generated by the Carbon Tetrachloride System in Tanks 1103, 1104, and 1106, Room 131, and by the Trichloroethane Collection and Filter System in Tanks T-1 and T-2, Room 430. The building 777 rings should be assigned IDC 443 as discussed in the following section. IDC 856 includes Raschig Rings which are removed from vessels containing RCRA regulated solvents. There is also glass from spent fluorescent lamps in some of these containers. This stream is generated from Facility Operations, Analytical Laboratories, and R&D Laboratories.
Current Container Comments	N/A
EPA Comments	Item Description Code 440 This IDC was separated from IDC 444 (created in 1989 specifically for ground glass and leaded glass) because the two waste forms exhibit different chemical characteristics, hazardous constituents, and EPA codes. Therefore, drums of IDC 440 materials generated prior to 1989 could contain leaded glass. These are included in Subpopulation 17G and are assigned EPA codes D005 and D008. Subpopulation 27B is assigned EPA code D009 because of mercury in the spent fluorescent lamps.
Management Comments	N/A
Acceptance Comments	RFP has determined that this grouping is LDR waste based on available process knowledge with some of the IDCs identified containing listed hazardous components. 1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. WASTE_PACK: DOT 7A TYPE A metal boxes and DOT 7A TYPE A drums.
Final Form Comments	N/A

TWBIR ID: RF-MT0442

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W052	**Handling**	CH	**Stream Name**	Glass/TRM			**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Inorganic Non-Metal	**Waste Matrix Code**	S5122

EPA Codes

As-Generated
F001, F002

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	4.54	0.48	9.55
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	306.14	42.96	493.09
Cellulosics	12.84	10.50	13.37
Rubber	0.00	0.00	0.00
Plastics	21.90	5.25	50.60
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.44		
Packaging Material, Plastic	28.26		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.38E-01
Np-237	9.86E-07
Pu-238	8.27E-02
Pu-239	1.91E+00
Pu-240	4.36E-01
Pu-241	7.68E+00
Pu-242	3.95E-05
U-234	1.14E-04
U-235	3.52E-06
U-238	3.87E-07

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0442

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	0.8	0.0	0.0	0.0	0.0	0.8

As-Generated	Stored	Projected	Total
	0.8	0.0	0.8

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.8	0.0	0.0	0.0	0.0	0.8

Final Form	Stored	Projected	Total
	0.8	0.0	0.8

TWBIR ID: RF-MT0442

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste stream is made up of Raschig Rings which are borosilicate glass rings used to maintain subcritical conditions in fissile storage tanks.
Waste Stream Source Description	IDC 440 includes glass waste from analytical laboratories and recovery processes, standard light bulbs generated inside the PA, and ceramic materials. Glass waste assigned IDC 440 was generated in Buildings 123, 371, 444, 559, 707, 771, 776, 777, 889. Raschig Rings currently in WEMS assigned IDC 442 were generated in Buildings 771, 776, and 777. Prior to being replaced, the tanks were drained and the rings were leached with dilute nitric acid or water. The rings generated in Building 771 are from the production processes and Tanks D80-D85, D0-360, D-361, D-451-D-454, D-467, D-750, D-706, D-922, D-973, D-974, D-980, D-1008, D-1013, D-1022, and D-1081. Rings generated in Building 776 are from the Size Reduction Process and Tanks SR 3,4, and 5 and as unused rings. Rings generated in Building 777 were generated by the Carbon Tetrachloride System in Tanks 1103, 1104, and 1106, Room 131, and by the Trichloroethane Collection and Filter System in Tanks T-1 and T-2, Room 430. The building 777 rings should be assigned IDC 443 as discussed in the following section. IDC 856 includes Raschig Rings which are removed from vessels containing RCRA regulated solvents. There is also glass from spent fluorescent lamps in some of these containers. This stream is generated from Facility Operations, Analytical Laboratories, and R&D Laboratories.
Current Container Comments	N/A
EPA Comments	Item Description Code 442 In addition to the reference documents and WEMs information used, analytical data compiled by EG&G Rocky Flats were reviewed. The data shows that the concentrations of Toxicity Characteristic (TC) metals barium, cadmium, chromium, lead, and silver were well below regulated levels provided in 6 CCR 1007-3, Section 261.24. Subpopulation 17F includes Raschig Rings assigned IDC 442 that are contaminated with carbon tetrachloride, 1,1,1-trichloroethane, or both. Based on analytical data, Raschig Rings do not exhibit the characteristic of toxicity for metals. All containers in this group were generated in Building 777 according to WEMS. Rings generated in Building 777 were generated by the Carbon Tetrachloride System in Tanks 1103, 1104, and 1106, Room 131, and by the Trichloroethane Collection and Filter System in Tanks T-1 and T-2, Room 430. Therefore, it is assumed that these rings are all contaminated with carbon tetrachloride or 1,1,1-trichloroethane sludge. They are, therefore, assigned EPA Waste Codes F001 and F002.
Management Comments	N/A
Acceptance Comments	RFP has determined that this grouping is LDR waste based on available process knowledge with some of the IDCs identified containing listed hazardous components. 1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. WASTE_PACK: DOT 7A TYPE A metal boxes and DOT 7A TYPE A drums.
Final Form Comments	N/A

TWBIR ID: RF-MT0443

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W052	**Handling**	CH	**Stream Name**	Glass/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Inorganic Non-Metal	**Waste Matrix Code**	S5122

EPA Codes

As-Generated
F001, F002, F005

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	0.00	0.00	0.00
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	337.60	0.96	542.74
Cellulosics	12.89	12.89	12.89
Rubber	0.00	0.00	0.00
Plastics	19.65	7.16	33.41
Solidified, Inorganic Matrix	0.96	0.96	0.96
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.44		
Packaging Material, Plastic	24.56		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N
PCBs:	N
Source:	Materials Production/Decontamination and Decommissioning

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.93E-02
Np-237	1.10E-07
Pu-238	5.86E-02
Pu-239	1.28E+00
Pu-240	2.92E-01
Pu-241	6.89E+00
Pu-242	3.44E-05
U-234	8.16E-06
U-235	3.34E-07
U-238	7.68E-06

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0443

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	19.3	0.0	0.0	0.0	0.0	19.3

As-Generated	Stored	Projected	Total
	19.3	0.0	19.3

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	19.4	0.0	0.0	0.0	0.0	19.4

Final Form	Stored	Projected	Total
	19.4	0.0	19.4

TWBIR ID: RF-MT0443

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	"Rachig rings leached with dilute nitric acid or water, and rinsed with carbon tetrachloride or 1,1,1-trichloroethane prior to removal from process tanks."
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	EPA hazardous waste numbers are assigned to this waste stream based on process knowledge.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0444

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W032	**Handling**	CH	**Stream Name**	Ground Leaded Glass/TRM			**Inventory Date**	9/30/2002
Local ID	IDC 444, 855	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Inorganic Non-Metal	**Waste Matrix Code**	S5122

EPA Codes

As-Generated
D005, D006, D009

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	22.38	0.33	53.91
Aluminum-Base Metal/Alloys	1.10	1.11	4.03
Other Metal/Alloys	85.37	0.10	538.87
Other Inorganic Materials	300.89	1.00	677.82
Cellulosics	9.20	4.31	12.89
Rubber	16.05	3.00	44.67
Plastics	16.43	3.20	41.58
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	212.47		
Packaging Material, Plastic	16.61		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	3.66E-01
Np-237	3.21E-06
Pu-238	1.23E-01
Pu-239	2.63E+00
Pu-240	6.03E-01
Pu-241	1.53E+01
Pu-242	7.60E-05
U-234	4.97E-07
U-235	1.60E-08
U-238	1.42E-10

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0444

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
8802 Can	0.0	0.0	0.0	0.0	0.0	0.0
8804 Can	0.0	0.0	0.0	0.0	0.0	0.0
Drum / 55 gallon	15.8	1.0	0.0	0.0	0.0	16.8
POC / 55 gallon	7.7	0.0	0.0	0.0	0.0	7.7
Standard Waste Box	19.0	0.0	0.0	0.0	0.0	19.0

As-Generated	Stored	Projected	Total
	42.5	1.0	43.6

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	16.3	0.0	0.0	0.0	0.0	17.3
55 Gallon POCs	7.7	0.0	0.0	0.0	0.0	7.7
Standard Waste Box	18.9	0.0	0.0	0.0	0.0	18.9

Final Form	Stored	Projected	Total
	42.9	1.0	43.9

TWBIR ID: RF-MT0444

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	Matrix consits of crushed glass light bulbs and leaded glass that is crushed on removal.
Waste Stream Source Description	Item Description Code 444--Ground Glass and Leaded Glovebox Glass This IDC includes ground fluorescent bulbs and leaded glass used throughout the plutonium-and uranium-processing areas. The material was generated as waste or residue when glovebox glass was replaced, or as low-level waste when fluorescent light bulbs were replaced. IDC 444 materials in the backlog inventory were generated in Building 371, 374, 559, 707, 771, and 776. Item Description Code 855-Ground Glass This IDC includes ground glass from fluorescent light bulbs. It can be used for waste generated outside the PA and for nonline-generated waste. In other words, it can only be used for low-level mixed waste.
Current Container Comments	N/A
EPA Comments	Analytical data showed the presence of toxic metals in some containers of IDC 444. Based on these analytical data, these materials are characterized as hazardous and assigned EPA codes D005 and D008. Analytical data for IDC 855 show that there are enough cases where the samples fail the Toxicity Characteristic Leaching Procedure (TCLP), that the waste bulbs should be managed as hazardous waste and assigned the EPA code D009. EPA codes are assigned to newly generated waste by the generator based on process knowledge. Subpopulation 17G includes containers of leaded glovebox glass. Based on analytical data, these materials are characterized as hazardous and assigned EPA Waste Codes.
Management Comments	N/A
Acceptance Comments	LDR_DETERM: Net and gross weight data are not available for all container types. RFP has assumed this waste to be LDR based on the fact that it is a RCRA listed waste. 1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. WASTE_PACK: The glass waste is packaged in 55- gallon drums that are lined with one fiberboard liner and two polyethylene bags or metal boxes. Drums are placed in TRUPACT II containers.
Final Form Comments	N/A

TWBIR ID: RF-MT0480

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W011	**Handling**	CH	**Stream Name**	LIGHT METAL/TRM	**Inventory Date**	9/30/2002
Local ID	IDC 480	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Lead/Cadmium Metal	**Waste Matrix Code**	S5119

EPA Codes

As-Generated
D004, D005, D006, D007, D008, D009, D011, D019, F001, F002, F005, F006, F007, F009

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	243.09	10.50	1279.27
Aluminum-Base Metal/Alloys	42.78	0.68	521.26
Other Metal/Alloys	41.63	1.81	444.40
Other Inorganic Materials	8.09	0.14	87.45
Cellulosics	7.30	4.31	12.89
Rubber	2.94	0.33	7.86
Plastics	12.21	1.63	76.85
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.03	0.04	0.04
Soils	0.00	0.00	0.00
Packaging Material, Steel	147.71		
Packaging Material, Plastic	13.02		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Facility/Equipment Operation and Maintenance Waste

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.31E-01
Cs-137	6.22E-05
Np-237	1.36E-06
Pu-238	1.31E-01
Pu-239	2.81E+00
Pu-240	6.43E-01
Pu-241	1.50E+01
Pu-242	7.50E-05
U-234	2.07E-05
U-235	6.70E-07
U-238	3.31E-07

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0480

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Box / Metal	6.3	0.0	0.0	0.0	0.0	6.3
Drum / 55 gallon	27.2	10.4	0.0	0.0	0.0	37.6
Standard Waste Box	66.5	0.0	0.0	0.0	0.0	66.5

As-Generated	Stored	Projected	Total
	100.1	10.4	110.5

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	27.3	0.0	0.0	0.0	0.0	37.7
Standard Waste Box	69.9	0.0	0.0	0.0	0.0	69.9

Final Form	Stored	Projected	Total
	97.2	10.4	107.7

TWBIR ID: RF-MT0480

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste stream is metal tools, etc. generated during glovebox operations.
Waste Stream Source Description	The one container of IDC 480, Light metal, in this waste form was generated in Building 707, Module K, in April 1991. The metal in this container is line generated material.
Current Container Comments	N/A
EPA Comments	All waste with D001, D002, and D003 codes will be processed or repackaged prior to shipment to WIPP per Geoff Asmus. EPA codes are assigned to this waste form for newly generated waste characterized by the generator using process knowledge. Discussion of these characterizations may be found in the appropriate WSRIC building book.
Management Comments	N/A
Acceptance Comments	Rocky Flats assays wastes to determine waste type instead of relying on process knowledge or historical data. For this reason, the potential for reclassification has not been analyzed. RFP has assumed this waste to be LDR based on process knowledge characterization. 1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. Waste is packaged in 55 gallon DOT 7A Type A Drums. The drums are lined with one rigid polyethylene liner and several bag liners.
Final Form Comments	N/A

TWBIR ID: RF-MT0488

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W011	**Handling**	CH	**Stream Name**	Metal/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Uncategorized Metal	**Waste Matrix Code**	S5112

EPA Codes

As-Generated
D008

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	234.15	4.77	630.51
Aluminum-Base Metal/Alloys	0.42	155.14	155.14
Other Metal/Alloys	83.76	10.51	573.29
Other Inorganic Materials	0.00	0.00	0.00
Cellulosics	4.33	4.31	12.89
Rubber	23.36	0.53	109.24
Plastics	4.62	1.94	25.78
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	152.73		
Packaging Material, Plastic	11.11		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N
PCBs:	N
Source:	General Building Waste and Decommissioning

TRUCON Codes

117

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.54E-01
Np-237	2.50E-06
Pu-238	4.44E-02
Pu-239	9.46E-01
Pu-240	2.17E-01
Pu-241	5.54E+00
Pu-242	2.74E-05
U-234	5.89E-05
U-235	1.90E-06
U-238	1.68E-08

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0488

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	0.8	0.0	0.0	0.0	0.0	0.8
Standard Waste Box	114.0	195.7	0.0	0.0	0.0	309.7

As-Generated	Stored	Projected	Total
	114.8	195.7	310.5

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.8	0.0	0.0	0.0	0.0	0.8
Standard Waste Box	113.4	0.0	0.0	0.0	0.0	308.1

Final Form	Stored	Projected	Total
	114.2	194.7	308.9

TWBIR ID: RF-MT0488

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	"This waste consists of lead tape and/or lead shielding from within the glovebox system, or glovebox parts with bonded lead"
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	EPA hazardous waste numbers are assigned to this waste stream based on process knowledge.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0490

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W066	**Handling**	CH	**Stream Name**	Filters and Media/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Filter	**Waste Matrix Code**	S5410

EPA Codes

As-Generated
F001, F002, F005, F006, F007, F009

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	8.36	0.53	12.77
Aluminum-Base Metal/Alloys	18.42	5.49	44.24
Other Metal/Alloys	11.24	11.24	11.24
Other Inorganic Materials	11.37	1.94	72.51
Cellulosics	4.31	4.31	4.31
Rubber	12.91	0.77	44.24
Plastics	6.45	2.68	11.09
Solidified, Inorganic Matrix	3.84	3.84	3.84
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	44.06	44.06	44.06
Packaging Material, Steel	152.73		
Packaging Material, Plastic	2.49		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	Y
PCBs:	N
Source:	Waste Treatment/Decontamination and Decommissioning

TRUCON Codes

119

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.41E-01
Np-237	1.53E-06
Pu-238	7.17E-02
Pu-239	1.55E+00
Pu-240	3.55E-01
Pu-241	8.48E+00
Pu-242	4.23E-05
U-234	5.94E-06
U-235	3.96E-07
U-238	3.50E-05

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0490

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
1/2 Wood Box	1.6	0.0	0.0	0.0	0.0	1.6

As-Generated	Stored	Projected	Total
	1.6	0.0	1.6

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Standard Waste Box	1.9	0.0	0.0	0.0	0.0	1.9

Final Form	Stored	Projected	Total
	1.9	0.0	1.9

TWBIR ID: RF-MT0490

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	"HEPA filters (24 x 24), not acid contaminated, are large HEPA filters used in the filter plenums of plutonium processing buildings to filter room and glovebox air. The materials of construction consist of a filter medium contained within a wood frame. Older medium consisted of glass fiber with a small percentage of asbestos and a corrugated aluminum foil. Newer medium is constructed of glass and aromatic polyamide fibers (Nomex) and aluminum alloy metal. Wood filter frames are constructed of ¼-inch fire retardant exterior grade plywood, or particle board."
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	All waste with D001, D002, and D003 codes will be processed or repackaged prior to shipment to WIPP per Geoff Asmus. EPA hazardous waste numbers are assigned to this waste stream based on process knowledge.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT-0491

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W066	**Handling**	CH	**Stream Name**	Filters & media/TRM			**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Filter	**Waste Matrix Code**	S5410

EPA Codes

As-Generated
D008, D010, F001, F002, F005, F006, F007, F009

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	9.55	9.55	9.55
Aluminum-Base Metal/Alloys	13.46	4.77	25.78
Other Metal/Alloys	3.34	3.34	3.34
Other Inorganic Materials	16.57	2.86	46.30
Cellulosics	12.89	12.89	12.89
Rubber	0.96	0.48	1.43
Plastics	20.80	10.98	34.37
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.46		
Packaging Material, Plastic	24.64		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

119

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.13E-02
Np-237	5.04E-07
Pu-238	9.89E-03
Pu-239	2.12E-01
Pu-240	4.85E-02
Pu-241	1.20E+00
Pu-242	5.98E-06
U-234	3.22E-06
U-235	2.73E-07
U-238	9.18E-10

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT-0491

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	0.6	0.0	0.0	0.0	0.0	0.6

As-Generated	Stored	0.6	Projected	0.0	Total	0.6

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.6	0.0	0.0	0.0	0.0	0.6

Final Form	Stored	0.6	Projected	0.0	Total	0.6

TWBIR ID: RF-MT-0491

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description 491 - Room air exhaust filters only. This waste must be collected in 55-gallon or 35-gallon drums for assay.

Waste Stream Source Description Item Description Code 328-Ful-Flo Filters From Building 771 Incinerator

These Ful-Flo filters are in-line cartridge filters used to remove particulates from specific fluid streams in Building 771.

During normal process operations, IDC 328 Ful-Flo filters in the backlog population were used to filter particulates from the incinerator fume scrubber system in Building 771. These filters were used for the filtration of caustic solutions; therefore, they are contaminated with bases and may contain free liquids.

During normal process operations, IDC 331 Ful-Flo filters in this backlog population were used to filter particulates from liquid waste streams in Buildings 371, 707, 771, 776, 777, and 779. These waste streams were primarily from filtration of caustic solutions in Building 371, the carbon tetrachloride system and oil systems, and from filtration of water and developer in Building 707. In Building 771, the primary waste streams filtered were anion column feed, potassium hydroxide, nitrate feed, spent nitric acid and hydrofluoric acid from the scrubber, eluate and effluent exiting the ion-exchange columns, floor pick-up solution were filtered in Building 776. In Buildings 777 and 779, Ful-Flo filters were used in the carbon tetrachloride system for purification of Freon TF and for filtration of incoming waters.

Typically, Ful-Flo filters were placed on drying racks pending bag-out of a glovebox. Filters were not always dried before removal from the glovebox. Filters were then "bagged out" of the glovebox and placed in a second layer of plastic. Next, the filters were placed in a "Poly bottle" or "Clam Shell" (hard plastic container), then placed in a double-lined drum.

Item Description Code-331 Ful-Flo filters Not From Incinerator

These Ful-Flo filters are in-line cartridge filters used throughout Rocky Flats to remove particulates from fluid streams and typically filter down to 5,1, and 0.5 micron-sized particulates. Ful-Flo filters are used in various liquid systems that include nitric- and chloride-acid systems, such as those found in plutonium recovery operations; caustic systems, such as those found in utilities scrubbing; solvent systems using carbon tetrachloride in machining operations; water systems, such as steam cleaning; and condensate collection. These filters are also used in lubricant oil filtration.

Ful-Flo filters are poly-fiber-wound cartridges, about 10" long by 3.5" in diameter. Other fiber filters, such as R-6 pads, may be included in this IDC. R-6 pads are cloth filters, about sixteen inches in diameter, used to filter solids from nitric acid solutions. Therefore, backlog material in this IDC cannot be considered homogeneous. Filter elements are produced by combining a media blanket and spirally wound matrix yarn on an inner core. The filter elements might have a polypropylene cap on one end. Both the media blanket and matrix yarn can be cotton or polypropylene. The inner core material can be constructed of polypropylene, tinned steel, or stainless steel. Warehouse data from Rocky Flats indicate that the inner-core material is polypropylene.

During normal process operations, IDC 331 Ful-Flo filters in this backlog population were used to filter particulates from liquid waste streams in Buildings 371, 707, 771, 776, 777, and 779. These waste streams were primarily from filtration of caustic solutions in Building 371, the carbon tetrachloride system and oil systems, and from filtration of water and developer in Building 707. In Building 771, the primary waste streams filtered were anion column feed, potassium hydroxide, nitrate feed, spent nitric acid and hydrofluoric acid from the scrubber, eluate and effluent exiting the ion-exchange columns, floor pick-up solution, steam condensate, and miscellaneous aqueous solutions. Hydraulic oil and floor pick-up solution were filtered in Building 776. In Buildings 777 and 779, Ful-Flo filters were used in the carbon tetrachloride system for purification of Freon TF and for filtration of incoming waters.

Typically, Ful-Flo filters were placed on drying racks pending bag-out of a glovebox. Filters were not always dried before removal from the glovebox. Filters were then "bagged out'"of the glovebox and placed in a second layer of plastic. Next, the filters were placed in a "Poly Bottle" or "Clam Shell" (hard plastic container), then placed in a double-lined drum.

These Ful-Flo filters may be contaminated with acids, bases, carbon tetrachloride, chromium, Freon, and oil. They may contain relatively small amounts of free liquids.

TWBIR ID: RF-MT-0491

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Item Description Code 335-HEPA Glovebox Filters, Not Acid Contaminated

The material in this IDC is High Efficiency Particulate Air (HEPA) filters used in ventilation systems at Rocky Flats. HEPA filters have been and are used in all of the buildings which contain plutonium processing activities. HEPA filters are used on gloveboxes and in large filter plenums that filter the room air.

Used filters were removed from their position in the ventilation system and packaged for further processing. The filters used on gloveboxes (nominal 8" x 8" x 5") were identified as IDC 335 if they were not acid contaminated.

Item Description Code 342-HEPA Glovebox Filters, Acid Contaminated

HEPA filters are used on all gloveboxes to remove particulates from the atmosphere exiting the glovebox to the plenum exhaust system. The filters in IDC 342 are from gloveboxes with atmospheres that could cause the filters to be contaminated with acids or bases used in chemical processing.

Item Description Code 491-Plenum Prefilters

The material in this IDC is a variety of plenum prefilters used in the ventilation systems at Rocky Flats. Plenum prefilters have been and are used in all of the buildings that contain plutonium processing activities. These prefilters are used in large plenums that filter the room and glovebox air. Used prefilters were removed from their position in the ventilation system and packaged for further processing.

IDC 491 plenum prefilters range from furnace-type filters to pleated fiberglass filters and can be as large as 24" x 24" x 12". The filter medium consists of fiberglass packing or paper which may be more or less dense, depending on filtering needs. Wire mesh can be used to hold the media in place. The frame material for these prefilters is cardboard.

Item Description Code 492-HEPA Filters (24" x 24"), Acid Contaminated

The material in this IDC is HEPA filters used in the ventilation systems at Rocky Flats. HEPA filters have been and are used in all of the buildings which contain plutonium processing activities. HEPA filters are used on gloveboxes and in large plenums that filter the room and glovebox air.

Used filters were removed from their position in the ventilation system and packaged for further processing. The larger-sized filters used in filters plenums were identified and packaged as IDC 492 if acid contaminated.

IDC 492 HEPA filters (24" x 24"), acid contaminated, are large HEPA filters (nominal 24" x 24" x 5" or 24" x 24" x 12") that were used in filter plenum racks. These filters consist of filter media contained within a wooden or metal frame.

This waste form is generated from Facility/Equipment Operation, Maintenance, Analytical Laboratories, R&D Laboratories, D&D, and limited Emergency Response actions.

Current Container Comments N/A

EPA Comments Subpopulation 54HB includes wastes which were originally characterized as nonhazardous and assigned to Subpopulation 54HA, IDC 491 filters. Based on a Nonconformance Report, a lead lined glove (potentially acid-contaminated) has been identified in one container. Therefore, the waste may exhibit the characteristic for lead (D008).

WSRIC Process Number 374-6-36 consists of prefilters from the 321 Plenum in Building 374. According to process knowledge and supported by analytical data (sample Nos. 00Z1264 and 00Z1273), this output exhibits the RCRA hazardous characteristic of toxicity due to the presence of selenium. This output has come into contact with spent solvents and, therefore, meets the definition of an F-listed waste.

TWBIR ID: RF-MT-0491

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Management Comments	N/A
Acceptance Comments	1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. WASTE_PACK: Filter waste is packaged in 55-gallon drums and metal standard waste boxes.
Final Form Comments	N/A

TWBIR ID: RF-MT0523A

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W013	**Handling**	CH	**Stream Name**	Solidified Organics/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Organics	**Waste Matrix Code**	S3219

EPA Codes

As-Generated
D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D032, D033, D034, D043, F001, F002, F005, F006, F007, F009, P030, P098, P099, P106, U003, U103, U108

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	36.82	8.59	150.41
Aluminum-Base Metal/Alloys	6.86	0.91	10.41
Other Metal/Alloys	12.60	2.58	21.24
Other Inorganic Materials	21.10	8.50	44.39
Cellulosics	0.00	0.00	0.00
Rubber	1.53	1.53	1.53
Plastics	30.65	19.52	55.37
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	18.40	0.96	40.24
Soils	0.00	0.00	0.00
Packaging Material, Steel	250.10		
Packaging Material, Plastic	29.98		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N
PCBs:	N
Source:	Decontamination and Decommissioning

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.75E+00
Np-237	1.82E-05
Pu-238	4.54E-01
Pu-239	9.69E+00
Pu-240	2.22E+00
Pu-241	5.64E+01
Pu-242	2.80E-04
U-234	2.37E-05
U-235	3.25E-05
U-238	3.78E-05

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0523A

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
8801 Can	0.0	0.0	0.0	0.0	0.0	0.0
8802 Can	0.0	0.0	0.0	0.0	0.0	0.0
Can / 1-Liter	0.0	0.0	0.0	0.0	0.0	0.0
Drum / 55 gallon	4.4	0.0	0.0	0.0	0.0	4.4
POC / 55 gallon	3.1	0.0	0.0	0.0	0.0	3.1

As-Generated	Stored	7.5	Projected	0.0	Total	7.5

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	7.7	0.0	0.0	0.0	0.0	7.7
55 Gallon POCs	3.1	0.0	0.0	0.0	0.0	3.1

Final Form	Stored	10.8	Projected	0.0	Total	10.8

TWBIR ID: RF-MT0523A

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This output is predominantly consolidated excess solid sample material and solid remnants of processed sample materials. This output contains greater than 50% by volume organic particulates.
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	All waste with D001, D002, and D003 codes will be processed or repackaged prior to shipment to WIPP per Geoff Asmus. EPA hazardous waste numbers are assigned to this waste stream based on process knowledge.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0523B

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W013	**Handling**	CH	**Stream Name**	Solidified Organics/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Organics	**Waste Matrix Code**	S3900

EPA Codes

As-Generated
D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D032, D033, D034, D043, F001, F002, F005, F006, F007, F009, P030, P098, P099, P106, U003, U103, U108

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	36.82	8.59	150.41
Aluminum-Base Metal/Alloys	6.86	0.91	10.41
Other Metal/Alloys	12.60	2.58	21.24
Other Inorganic Materials	21.10	8.50	44.39
Cellulosics	0.00	0.00	0.00
Rubber	1.53	1.53	1.53
Plastics	30.65	19.52	55.37
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	18.40	0.96	40.24
Soils	0.00	0.00	0.00
Packaging Material, Steel	250.10		
Packaging Material, Plastic	29.98		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N
PCBs:	N
Source:	Decontamination and Decommissioning

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.75E+00
Np-237	1.82E-05
Pu-238	4.54E-01
Pu-239	9.69E+00
Pu-240	2.22E+00
Pu-241	5.64E+01
Pu-242	2.80E-04
U-234	2.37E-05
U-235	3.25E-05
U-238	3.78E-05

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0523B

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
8801 Can	0.0	0.0	0.0	0.0	0.0	0.0
8802 Can	0.0	0.0	0.0	0.0	0.0	0.0
Can / 1-Liter	0.0	0.0	0.0	0.0	0.0	0.0
Drum / 55 gallon	4.4	0.0	0.0	0.0	0.0	4.4
POC / 55 gallon	3.1	0.0	0.0	0.0	0.0	3.1

As-Generated	Stored	7.5	Projected	0.0	Total	7.5

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	7.7	0.0	0.0	0.0	0.0	7.7
55 Gallon POCs	3.1	0.0	0.0	0.0	0.0	3.1

Final Form	Stored	10.8	Projected	0.0	Total	10.8

TWBIR ID: RF-MT0523B

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This output is predominantly consolidated excess solid sample material and solid remnants of processed sample materials but may also contain some sample vials and foil pans generated in the analytical processes. This output contains at least 50% by volume homogeneous solids.
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	All waste with D001, D002, and D003 codes will be processed or repackaged prior to shipment to WIPP per Geoff Asmus. EPA hazardous waste numbers are assigned to this waste stream based on process knowledge.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0523C

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W013	**Handling**	CH	**Stream Name**	Solidified Organics/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Heterogeneous Debris	**Waste Matrix Code**	S5420

EPA Codes

As-Generated
D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D032, D033, D034, D043, F001, F002, F005, F006, F007, F009, P030, P098, P099, P106, U003, U103, U108

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	36.82	8.59	150.41
Aluminum-Base Metal/Alloys	6.86	0.91	10.41
Other Metal/Alloys	12.60	2.58	21.24
Other Inorganic Materials	21.10	8.50	44.39
Cellulosics	0.00	0.00	0.00
Rubber	1.53	1.53	1.53
Plastics	30.65	19.52	55.37
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	18.40	0.96	40.24
Soils	0.00	0.00	0.00
Packaging Material, Steel	250.10		
Packaging Material, Plastic	29.98		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	Y
PCBs:	N
Source:	Decontamination and Decommissioning

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.75E+00
Np-237	1.82E-05
Pu-238	4.54E-01
Pu-239	9.69E+00
Pu-240	2.22E+00
Pu-241	5.64E+01
Pu-242	2.80E-04
U-234	2.37E-05
U-235	3.25E-05
U-238	3.78E-05

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0523C

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
8801 Can	0.0	0.0	0.0	0.0	0.0	0.0
8802 Can	0.0	0.0	0.0	0.0	0.0	0.0
Can / 1-Liter	0.0	0.0	0.0	0.0	0.0	0.0
Drum / 55 gallon	4.4	0.0	0.0	0.0	0.0	4.4
POC / 55 gallon	3.1	0.0	0.0	0.0	0.0	3.1

As-Generated	Stored	Projected	Total
	7.5	0.0	7.5

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	7.7	0.0	0.0	0.0	0.0	7.7
55 Gallon POCs	3.1	0.0	0.0	0.0	0.0	3.1

Final Form	Stored	Projected	Total
	10.8	0.0	10.8

TWBIR ID: RF-MT0523C

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	"This waste stream consists of greater than 50% by volume inorganic debris from decontamination and decommissioning activities. May contain excess solid sample material, and solid remnants of processed sample materials generated in the analytical processes. "
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	All waste with D001, D002, and D003 codes will be processed or repackaged prior to shipment to WIPP per Geoff Asmus. EPA hazardous waste numbers are assigned to this waste stream based on process knowledge.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0523D

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W013	**Handling**	CH	**Stream Name**	Solidified Organics/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Heterogeneous Debris	**Waste Matrix Code**	S5440

EPA Codes

As-Generated
D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D032, D033, D034, D043, F001, F002, F005, F006, F007, F009, P030, P098, P099, P106, U003, U103, U108

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	36.82	8.59	150.41
Aluminum-Base Metal/Alloys	6.86	0.91	10.41
Other Metal/Alloys	12.60	2.58	21.24
Other Inorganic Materials	21.10	8.50	44.39
Cellulosics	0.00	0.00	0.00
Rubber	1.53	1.53	1.53
Plastics	30.65	19.52	55.37
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	18.40	0.96	40.24
Soils	0.00	0.00	0.00
Packaging Material, Steel	250.10		
Packaging Material, Plastic	29.98		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	Y
PCBs:	N
Source:	Decontamination and Decommissioning

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.75E+00
Np-237	1.82E-05
Pu-238	4.54E-01
Pu-239	9.69E+00
Pu-240	2.22E+00
Pu-241	5.64E+01
Pu-242	2.80E-04
U-234	2.37E-05
U-235	3.25E-05
U-238	3.78E-05

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0523D

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
8801 Can	0.0	0.0	0.0	0.0	0.0	0.0
8802 Can	0.0	0.0	0.0	0.0	0.0	0.0
Can / 1-Liter	0.0	0.0	0.0	0.0	0.0	0.0
Drum / 55 gallon	4.4	0.0	0.0	0.0	0.0	4.4
POC / 55 gallon	3.1	0.0	0.0	0.0	0.0	3.1

As-Generated	Stored	Projected	Total
	7.5	0.0	7.5

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	7.7	0.0	0.0	0.0	0.0	7.7
55 Gallon POCs	3.1	0.0	0.0	0.0	0.0	3.1

Final Form	Stored	Projected	Total
	10.8	0.0	10.8

TWBIR ID: RF-MT0523D

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	"This waste stream consists of greater than 50% by volume organic debris from decontamination and decommissioning activities. May contain excess solid sample material, and solid remnants of processed sample materials generated in the analytical processes. "
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	All waste with D001, D002, and D003 codes will be processed or repackaged prior to shipment to WIPP per Geoff Asmus. EPA hazardous waste numbers are assigned to this waste stream based on process knowledge.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0523E

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W013	**Handling**	CH	**Stream Name**	Solidified Organics/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Heterogeneous Debris	**Waste Matrix Code**	S5490

EPA Codes

As-Generated
D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D032, D033, D034, D043, F001, F002, F005, F006, F007, F009, P030, P098, P099, P106, U003, U103, U108

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	36.82	8.59	150.41
Aluminum-Base Metal/Alloys	6.86	0.91	10.41
Other Metal/Alloys	12.60	2.58	21.24
Other Inorganic Materials	21.10	8.50	44.39
Cellulosics	0.00	0.00	0.00
Rubber	1.53	1.53	1.53
Plastics	30.65	19.52	55.37
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	18.40	0.96	40.24
Soils	0.00	0.00	0.00
Packaging Material, Steel	250.10		
Packaging Material, Plastic	29.98		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	Y
PCBs:	N
Source:	Decontamination and Decommissioning

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.75E+00
Np-237	1.82E-05
Pu-238	4.54E-01
Pu-239	9.69E+00
Pu-240	2.22E+00
Pu-241	5.64E+01
Pu-242	2.80E-04
U-234	2.37E-05
U-235	3.25E-05
U-238	3.78E-05

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0523E

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
8801 Can	0.0	0.0	0.0	0.0	0.0	0.0
8802 Can	0.0	0.0	0.0	0.0	0.0	0.0
Can / 1-Liter	0.0	0.0	0.0	0.0	0.0	0.0
Drum / 55 gallon	4.4	0.0	0.0	0.0	0.0	4.4
POC / 55 gallon	3.1	0.0	0.0	0.0	0.0	3.1

As-Generated	Stored	7.5	Projected	0.0	Total	7.5

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	7.7	0.0	0.0	0.0	0.0	7.7
55 Gallon POCs	3.1	0.0	0.0	0.0	0.0	3.1

Final Form	Stored	10.8	Projected	0.0	Total	10.8

TWBIR ID: RF-MT0523E

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	"This waste stream consists of debris from decontamination and decommissioning activities and may contain excess solid sample material, and solid remnants of processed sample materials generated in the analytical processes. This output contains at least 50% by volume debris waste."
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	All waste with D001, D002, and D003 codes will be processed or repackaged prior to shipment to WIPP per Geoff Asmus. EPA hazardous waste numbers are assigned to this waste stream based on process knowledge.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0531

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W013	**Handling**	CH	**Stream Name**	Solidified Organics/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Organics	**Waste Matrix Code**	S3229

EPA Codes

As-Generated
F001, F002, F005

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	0.00	0.00	0.00
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	0.00	0.00	0.00
Cellulosics	12.89	12.89	12.89
Rubber	0.00	0.00	0.00
Plastics	0.00	0.00	0.00
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	701.69	701.69	701.69
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.43		
Packaging Material, Plastic	17.18		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N
PCBs:	N
Source:	Decontamination and Decommissioning

TRUCON Codes

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Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	3.88E-03
Pu-239	8.27E-02
Pu-240	1.89E-02
Pu-241	4.84E-01
Pu-242	2.40E-06

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0531

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	0.2	0.0	0.0	0.0	0.0	0.2

As-Generated	Stored	0.2	Projected	0.0	Total	0.2

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.2	0.0	0.0	0.0	0.0	0.2

Final Form	Stored	0.2	Projected	0.0	Total	0.2

TWBIR ID: RF-MT0531

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	Miscellaneous organic sludge consists of solid materials removed from process piping and equipment during deactivation and decontamination and decommissioning activities in plutonium buildings.
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	EPA hazardous waste numbers are assigned to this waste stream based on process knowledge.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0532E

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W068	**Handling**	CH	**Stream Name**	Particulate Sludge/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3119

EPA Codes

As-Generated
D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, D040, F001, F002, F005, F006, F007, F009

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	19.44	0.96	42.96
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	23.87	23.87	23.87
Other Inorganic Materials	92.37	1.43	493.57
Cellulosics	12.89	12.89	12.89
Rubber	0.00	0.00	0.00
Plastics	15.87	2.20	41.05
Solidified, Inorganic Matrix	80.40	0.48	339.39
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	288.04		
Packaging Material, Plastic	27.26		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N
PCBs:	N
Source:	Decontamination and Decommissioning

TRUCON Codes

122, 130

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.50E+00
Np-237	1.87E-04
Pu-238	6.73E-01
Pu-239	1.47E+01
Pu-240	3.35E+00
Pu-241	8.33E+01
Pu-242	4.88E-04
U-234	7.08E-05
U-235	2.61E-06
U-238	4.60E-05

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0532E

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
8801 Can	0.0	0.0	0.0	0.0	0.0	0.0
8802 Can	0.0	0.0	0.0	0.0	0.0	0.0
8804 Can	0.0	0.0	0.0	0.0	0.0	0.0
Can / 1-Liter	0.0	0.0	0.0	0.0	0.0	0.0
Drum / 55 gallon	5.8	0.0	0.0	0.0	0.0	5.8
POC / 55 gallon	6.0	0.0	0.0	0.0	0.0	6.0
Slip Lid Can	0.0	0.0	0.0	0.0	0.0	0.0

As-Generated	Stored	11.9	Projected	0.0	Total	11.9

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	9.6	0.0	0.0	0.0	0.0	9.6
55 Gallon POCs	6.0	0.0	0.0	0.0	0.0	6.0

Final Form	Stored	15.6	Projected	0.0	Total	15.6

TWBIR ID: RF-MT0532E

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	"This output is greater than 50% by volume inorganic particulates, predominantly consolidated excess solid sample material and solid remnants of processed sample materials and includes absorbed inorganic liquids and small quantities of other inorganic process sludges."
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	All waste with D001, D002, and D003 codes will be processed or repackaged prior to shipment to WIPP per Geoff Asmus. EPA hazardous waste numbers are assigned to this waste stream based on process knowledge.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0532F

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W068	**Handling**	CH	**Stream Name**	Particulate Sludge/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Inorganic Non-Metal	**Waste Matrix Code**	S5129

EPA Codes

As-Generated
D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, D040, F001, F002, F005, F006, F007, F009

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	19.44	0.96	42.96
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	23.87	23.87	23.87
Other Inorganic Materials	92.37	1.43	493.57
Cellulosics	12.89	12.89	12.89
Rubber	0.00	0.00	0.00
Plastics	15.87	2.20	41.05
Solidified, Inorganic Matrix	80.40	0.48	339.39
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	288.04		
Packaging Material, Plastic	27.26		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N
PCBs:	N
Source:	Decontamination and Decommissioning

TRUCON Codes

122, 130

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.50E+00
Np-237	1.87E-04
Pu-238	6.73E-01
Pu-239	1.47E+01
Pu-240	3.35E+00
Pu-241	8.33E+01
Pu-242	4.88E-04
U-234	7.08E-05
U-235	2.61E-06
U-238	4.60E-05

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0532F

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
8801 Can	0.0	0.0	0.0	0.0	0.0	0.0
8802 Can	0.0	0.0	0.0	0.0	0.0	0.0
8804 Can	0.0	0.0	0.0	0.0	0.0	0.0
Can / 1-Liter	0.0	0.0	0.0	0.0	0.0	0.0
Drum / 55 gallon	5.8	0.0	0.0	0.0	0.0	5.8
POC / 55 gallon	6.0	0.0	0.0	0.0	0.0	6.0
Slip Lid Can	0.0	0.0	0.0	0.0	0.0	0.0

As-Generated	Stored	11.9	Projected	0.0	Total	11.9

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	9.6	0.0	0.0	0.0	0.0	9.6
55 Gallon POCs	6.0	0.0	0.0	0.0	0.0	6.0

Final Form	Stored	15.6	Projected	0.0	Total	15.6

TWBIR ID: RF-MT0532F

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	"Miscellaneous inorganic solids consists of inorganic debris materials such as mercury switches, thermometers, paint related materials such as dried paint, paint chips, floor sweepings with paint chips, and paint contaminated wipes, brushes, cartons, and pails, foreign materials, e.g., bolts, nuts, screws, glass, graphite, etc. separated from various foundry and scrape out IDCs, and excess sample containers. "
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	All waste with D001, D002, and D003 codes will be processed or repackaged prior to shipment to WIPP per Geoff Asmus. EPA hazardous waste numbers are assigned to this waste stream based on process knowledge.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0541

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-MT0541	**Handling**	CH	**Stream Name**	miscellaneous liquids/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	L1190

EPA Codes

As-Generated
D004, D005, D006, D007, D008, D009, D010, D011

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	59.00	0.00	0.00
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	0.00	0.00	0.00
Cellulosics	0.00	0.00	0.00
Rubber	0.00	0.00	0.00
Plastics	0.00	0.00	0.00
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	525.22		
Packaging Material, Plastic	23.87		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

N/A

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.20E+00
Pu-238	3.48E-02
Pu-239	7.43E-01
Pu-240	1.70E-01
Pu-241	4.34E+00
Pu-242	2.14E-05

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0541

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
8804 Can	0.1	0.0	0.0	0.0	0.0	0.1
Can / 1-Gallon	0.0	0.0	0.0	0.0	0.0	0.0

As-Generated	Stored	Projected	Total
	0.2	0.0	0.2

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon POCs	4.4	0.0	0.0	0.0	0.0	4.4

Final Form	Stored	Projected	Total
	4.4	0.0	4.4

TWBIR ID: RF-MT0541

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	These wastes are aqueous acidic liquid residues.
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	All waste with D001, D002, and D003 codes will be processed or repackaged prior to shipment to WIPP per Geoff Asmus. Subpopulation A Subpopulation A includes acidic solutions generated in the Building 371 Analytical Laboratory. These solutions were sampled for pH and were determined to be corrosive (D002). Therefore, this subpopulation exhibits the characteristic of corrosivity as defined in 6 CCR 1007-3, Section 261.22. Subpopulation H These solutions were sampled for pH and were determined to be corrosive (D002). Twenty-eight bottles of newly generated solutions generated in Building 771 were sampled for metals. Nine bottles contained greater than 1.0 ppm cadmium, 20 contained greater than 5.0 ppm chromium, and nine contained greater than 5.0 ppm lead. Six bottles are below the regulatory levels for these metals. In addition, Building 771 does X-Ray Fluorescence which uses silver chloride in the analysis. Silver is presumed to be in these solutions, but it has not been determined which bottles were generated from this process and if any of the bottles sampled were from this process. This subpopulation exhibits the characteristics of corrosivity (D002) and toxicity for cadmium, chromium, and lead (D006, D007, and D008) as defined in 6 CCR 1007-3, Sections 261.22 and 261.24.
Management Comments	N/A
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0545

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W090	**Handling**	CH	**Stream Name**	Excess Chemicals/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Inorganic Non-Metal	**Waste Matrix Code**	S3160

EPA Codes

As-Generated
N/A

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	0.96	0.96	0.96
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	23.87	23.87	23.87
Cellulosics	0.00	0.00	0.00
Rubber	0.00	0.00	0.00
Plastics	17.18	17.18	17.18
Solidified, Inorganic Matrix	413.85	413.85	413.85
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.43		
Packaging Material, Plastic	23.87		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N
PCBs:	N
Source:	Decontamination and Decommissioning

TRUCON Codes

N/A

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	3.53E-02
Pu-239	7.51E-01
Pu-240	1.72E-01
Pu-241	4.40E+00
Pu-242	2.18E-05

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0545

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	0.2	0.0	0.0	0.0	0.0	0.2

As-Generated	Stored	Projected	Total
	0.2	0.0	0.2

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.2	0.0	0.0	0.0	0.0	0.2

Final Form	Stored	Projected	Total
	0.2	0.0	0.2

TWBIR ID: RF-MT0545

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	Solid excess chemicals contaminated with plutonium to TRU concentrations. Chemicals are expired or off-specification in some manner and are therefore not useable.
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	All waste with D001, D002, and D003 codes will be processed or repackaged prior to shipment to WIPP per Geoff Asmus. EPA hazardous waste numbers are assigned to this waste stream based on process knowledge.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0800

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W010	**Handling**	CH	**Stream Name**	Solidified Sludge - Bldg 774 / TRM	**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3190

EPA Codes

As-Generated
D006, D007, D011, F001, F002

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	0.00	0.00	0.00
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	458.25	458.25	458.25
Cellulosics	0.00	0.00	0.00
Rubber	0.00	0.00	0.00
Plastics	16.52	8.59	17.18
Solidified, Inorganic Matrix	815.35	591.43	998.60
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	137.26		
Packaging Material, Plastic	30.07		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Pollution Control or Waste Treatment Process

TRUCON Codes

111

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.90E+01
Pu-238	5.82E-02
Pu-239	1.24E+00
Pu-240	2.84E-01
Pu-241	7.26E+00
Pu-242	3.59E-05
U-234	7.74E-06
U-235	1.11E-06
U-238	1.35E-07

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0800

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	60.7	0.0	0.0	0.0	0.0	60.7
Drum / 85 gallon	1.6	0.0	0.0	0.0	0.0	1.6

As-Generated	Stored	Projected	Total
	62.3	0.0	62.3

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	60.9	0.0	0.0	0.0	0.0	60.9
85 Gallon Drum	1.6	0.0	0.0	0.0	0.0	1.6

Final Form	Stored	Projected	Total
	62.5	0.0	62.5

TWBIR ID: RF-MT0800

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste stream is a solid cemented sludge. It could have small amounts of free liquids in the bottom of the container.
Waste Stream Source Description	Aqueous sludge wastes assigned IDCs 001 and 800 were generated by the high-level aqueous waste treatment system in Building 774. IDC 001 was replaced by IDC 800 in 1986. A two-stage basic waste treatment, precipitation, and filtration process generates IDCs 001 and 800 aqueous sludge. Acidic wastes are neutralized with sodium hydroxide in stage one. Ferric sulfate and Purifloc flocculant are added to the neutralized waste (containing metal ions) to precipitate the sludge prior to filtration. In stage two, ferric sulfate, magnesium sulfate, calcium chloride, and Purifloc flocculant are added to basic wastes during the two-stage treatment to precipitate sludge. The sludge slurry from the acidic and basic waste treatment is drawn through a diatomite filter media on a rotating drum filter to trap the solids. The filter media and sludge are continuously scraped off the drum filter and co-fed into a 55-gallon drum with additional diatomite and Portland cement making up the solidification process. No mechanical mixing of the sludge and cement is performed. Prior to 1979, IDC 001 consisted of sludge from the first-stage treatment only. When the first- and second-stage sludges were packaged separately, two vacuum filters were used. From 1979 to 1986, IDC 001 was a combination of the sludges from the first- and second-stage treatment processes. The sludge was produced chemically in the same fashion aqueous waste was treated to produce IDC 800 sludge. The solidification process for IDC 001 differs from the IDC 800 method of adding cement and diatomite as the sludge collects. Portland cement was added to the bottom of the IDC 001 drum prior to placing the sludge in the drum. In some cases additional Portland cement was added on top of the sludge. Prior to September 1984, Building 774 accepted many aqueous process wastes from other buildings. These wastes, now piped to Building 374, were treated as described above. The accepted wastes included aqueous waste from Buildings 122, 123, 444, 559, 707, 776, 778, 779, 865, 881, 883, 889. After August 1984 and the start-up of the Building 374 Precipitation Process, only waste piped from Building 771 (stream condensate, scrubber waste, ion column effluent, and process waste sinks), waste in containers from various buildings, and wastes generated within Building 774 (silver recovery effluent, seal liquid, and floor washdown) were accepted. From 1986 through 1989, the treatment process treated from 150,000 gallons to over 500,000 gallons per year and generated 2,700 drums of IDCs and 800 sludge. See Solidified Bypass Sludge/LLM for detailed descriptions of IDCs 007, 803, and 807.
Current Container Comments	N/A
EPA Comments	All waste with D001, D002, and D003 codes will be processed or repackaged prior to shipment to WIPP per Geoff Asmus. According to the Building 774 Second-Stage Treatment Log (January 1981 to October 1989), prior to September 1984, the Building 774 aqueous waste treatment system received waste streams that are treated in the Building 374 Liquid Waste Treatment Facility. These streams affected the characterization of Building 774 solidified sludge until September 1985. The choice of the transition date of September 1984 is discussed in detail under the Subpopulation 55A discussion in the Backlog Baseline Book prepared by Rocky Flats. Information contained in the November 1992 WSRIC Valve Vaults Book has been used to characterize waste streams treated in Building 774 prior to September 1984. The Valve Vaults book describes the process waste sent to Building 374 for treatment. The book was used because it is the only reference that provides detailed characterization information on waste that was sent to Building 774. Other references and interviews have been used to enhance or add to this information as it relates to the waste form.
Management Comments	N/A
Acceptance Comments	RFP has assumed this waste to be LDR based on process knowledge characterization and limited analytical data.

TWBIR ID: RF-MT0800

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

1. Basis for determining LDR storage prohibition status is based pirmarily on process knowledge. WASTE_ PACK: Waste is packaged in 55 gallon DOT 7A Type A Drums. The drums are lined with one rigid polyethylene liner and two bag liners.

Final Form Comments N/A

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TWBIR ID: RF-MT0801

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W013	**Handling**	CH	**Stream Name**	Solidified Organics - Bldg 774/TRM			**Inventory Date**	9/30/2002
Local ID	IDC 801	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Organics	**Waste Matrix Code**	S3190

EPA Codes

As-Generated
D005, D006, D007, D010, F001, F002

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	0.00	0.00	0.00
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	0.00	0.00	0.00
Cellulosics	0.00	0.00	0.00
Rubber	0.00	0.00	0.00
Plastics	166.75	8.59	1119.84
Solidified, Inorganic Matrix	955.49	1072.58	1143.71
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	1032.33	746.88	1278.80
Soils	0.00	0.00	0.00
Packaging Material, Steel	132.02		
Packaging Material, Plastic	30.57		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Facility/Equipment Operation and Maintenance Waste

TRUCON Codes

111

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.20E+00
Pu-238	3.48E-02
Pu-239	7.43E-01
Pu-240	1.70E-01
Pu-241	4.34E+00
Pu-242	2.14E-05

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0801

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	85.9	1.0	0.0	0.0	0.0	86.9
Drum / 85 gallon	14.2	0.0	0.0	0.0	0.0	14.2

As-Generated	Stored	Projected	Total
	100.1	1.0	101.1

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	86.1	0.0	0.0	0.0	0.0	87.1
85 Gallon Drum	14.2	0.0	0.0	0.0	0.0	14.2

Final Form	Stored	Projected	Total
	100.3	1.0	101.3

TWBIR ID: RF-MT0801

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description

This waste stream consists of a cemented solid, with some free liquids. It can also have some small chunks in it.

Waste Stream Source Description

Solidified organics are cemented waste oils and solvents that were generated as a result of machining and tool degreasing. Waste oil was transferred primarily from Buildings 707 and 777. Cementation was performed in Waste Management Unit (WMU) 56, Room 210, Building 774. The earliest generation date for the backlog inventory is June 1984. The Organic and Sludge Immobilization System (OASIS) Process generating solidified organics stopped in January 1990. These containers are assigned IDC 0003 and 0801.

Solidified organics waste currently stored at Rocky Flats was generated by the Grease Plant Process or the OASIS Process. The Grease Plant Process operated until November 1985. The OASIS Process began operating in November 1985. The last OASIS runs occurred in 1991.

Tanks T-1 and T-2, Tank T-374A, and Tanks T-13 and T-14 have all received waste oils and solvents for treatment at various times. The waste oils and solvents were generated primarily by processes in Buildings 707 and 777. Solvent-contaminated waste oils were generated by plutonium machining and tool degreasing. Ultrasonic cleaners consisting of trichloroethane baths were used to clean parts. Buildings 707 and 777 also cleaned metal turnings and scrap in carbon tetrachloride baths before forming them into briquettes.

Laboratory wastes in bottles were poured into containers of solidified organics in the past. Laboratory waste contaminants included organophosphates and nitrobenzene. According to the generator, bottled laboratory wastes were poured into five or fewer solidified organics containers. However, there is no documentation specifying the individual drums.

The majority of wastes fed to the solidified organics generation processes consisted of plutonium-contaminated oils and solvents. A cutting oil, usually Texaco Regal "A," flowed onto a part during machining. After machining, the part was rinsed to remove residual oil. Various solvents were used to rinse machined parts and degrease tools. These included trichloroethylene and tetrachloroethylene. According to the generator, trichloroethylene and tetrachloroethylene use stopped in 1973.

Spent carbon tetrachloride and trichloroethane from cleaning baths were also fed to the solidified organics generation processes. Parts for assembly from Buildings 707 and 777 were cleaned in ultrasonic wash tanks before welding. The tanks contained 15 gallons of trichloroethane. In another cleaning process, metal turnings and scraps were placed into perforated metal baskets and dipped into a series of tanks containing carbon tetrachloride. Each of the steel tanks held 4 gallons of solvent. The cleaned metal was then formed into briquettes. Carbon tetrachloride and trichloroethane baths were replaced periodically.

Waste oil and solvents were drained and pumped into storage tanks. The wastes were then filtered to recover the actinides. After filtering, the plutonium and uranium concentrations in the waste were measured. If the concentrations were above specified transfer limits, the waste was refiltered in the Ful-Flo filtration system. When the concentrations of plutonium and uranium were below transfer limits, the waste was transferred to the solidified organics generation processes in Building 774.

Tanks T-1 and T-2, Tank T-374A, and Tanks T-13 and T-14 received waste oils from the same processes in Buildings 707 and 777. Tanks T-1 and T-2 fed waste oils to the Grease Plant Process and the OASIS Process. Tank T-374A began feeding waste oils to the OASIS Process after damage to Tanks T-1 and T-2 was identified and they were removed from operation. Tanks T-13 and T-14 began feeding waste oils after Tank T-374A. Tanks T-374A, T-13, and T-14 were used simultaneously until Tank T-374A was removed from operation. Tanks T-13 and T-14 continued feeding the OASIS Process until it stopped in January 1990.

In the Grease Plant Process, waste oil and Microcel E (calcium silicate) were fed separately into a continuous mixer. Small amounts of Oil Dri were sometimes added to the mixture as well. The amounts of materials added to the mixture were not metered. However, the operator would adjust the composition if the outgoing mixture did not have a paste-like consistency. The mixture would then drop into an O-ring bag contained in a 55-gallon drum. Drums of solidified organics from the Grease Plant Process were subsequently transported to the Size Reduction Facility in Building 776 for inspection and sealing.

OASIS was a batch-type process generating one drum per run. Waste oils were pumped into an O-ring bag contained in a 55-gallon drum attached to the

bottom of the OASIS glovebox. Envirostone emulsifier, gypsum cement, and accelerator were also metered into the bag. House water, which had not been used in any other processes, was added to the mixture as well. A Lightning Mixer was lowered into the drum after all of the materials were added. The amount of materials added to the mixture was operator controlled.

The drums were transferred to WMU 73, Room 241, after they had been inspected and sealed. Solidified organics containers from the OASIS process were stored in Building 774 until they were transferred to Building 371 for nondestructive assay (NDA). After RTR, drums were usually sent to Building 664, where they were stored until shipment off site. Solidified organics waste is not being shipped at this time. Consequently, Building 664 has reached capacity and solidified organics are also being stored in Buildings 371, 569, 774, and 776.

Current Container Comments N/A

EPA Comments Solidified organics were generated by the OASIS process after November 11, 1985.

Analytical information regarding solidified organics was not found in the WSRIC Sampling and Analysis database. However, non-WSRIC analytical data from 1988 and 1989 are considered in the characterization of the waste. The analytical method was not specified for the results. However, Toxicity Characteristic Leaching Procedure (TCLP) analysis was not typically performed in 1988 and 1989. The results are assumed to be from Totals analysis. Validated headpsace analysis performed on drums containing solidified organics are considered as well. Headspace analytical results support the 1988 and 1989 results from sampling and analysis.

Wastes received by Tanks T-1 and T-2, T-374A, and T-13 and T-14 were intermittently contaminated with Resource Conservation and Recovery Act (RCRA) organics. Carbon tetrachloride (D019), nitrobenzene (D036), and trichloroethylene (D040) were cited contaminants. Nitrobenzene was a contaminant in nonroutine laboratory waste and was introduced into five or fewer drums. Contaminated drums could be not be identified. However, the solidified organics population, as a whole, does not exhibit the toxicity characteristic for nitrobenzene.

Sampling and analysis of three solidified organics samples in 1988 and 1989 indicated the waste exceeded toxicity characteristic criteria for carbon tetrachloride (EPA Code D019). The waste did not exceed toxicity characteristic criteria for any of the other cited RCRA organics. TCLP analysis of the waste under EPA SW-846 is required to support the analytical results and confirm the assumptions.

Based on the "mixture" rule and the "derived-from" rule, solidified organics would carry the listed EPA codes associated with the wastes fed to the solidified organics generation processes. EPA Codes F001 and F002 are assigned to all solidified organics because wastes received by Tanks T-1 and T-2, T-374A, and T-13 and T-14 were contaminated with regulated spent solvents in the past.

Sampling and analysis of solidified organics waste in 1988 and 1989 indicated the waste exceeded the F001 and F002 LDR treatment standards for carbon tetrachloride and 1,1,1-trichloroethane. The analyses found detectable concentrations of other F001 and F002 constituents, as well. Total analysis of the waste under EPA SW-846 is required to confirm these results.

P- and U-listed EPA codes for discarded commercial chemical products will not be assigned to solidified organics. Excess chemicals are stored on the plant site. However, there is no documentation supporting P- and U-listed waste codes for specific chemicals that were disposed of in process waste. Cited laboratory chemicals like nitrobenzene were used for their intended purpose as reagents and were not discarded commercial chemical products.

Management Comments N/A

Acceptance Comments RFP has assumed this waste to be LDR based on process knowledge characterization, and one sample analyzed for volatiles in 1988.

1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. The waste is stored in 55-gallon carbon steel drums with a rigid polyethylene liner and one or two bag liners.

TWBIR ID: RF-MT0801

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Final Form Comments N/A

TWBIR ID: RF-MT0803

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W010	**Handling**	CH	**Stream Name**	Solidified Sludge - Bldg 374 / TRM			**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3190

EPA Codes

As-Generated
F001, F002, F005, F006, F007, F009

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	0.00	0.00	0.00
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	801.46	801.46	801.46
Cellulosics	0.00	0.00	0.00
Rubber	0.00	0.00	0.00
Plastics	17.18	17.18	17.18
Solidified, Inorganic Matrix	828.31	579.97	991.91
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.52		
Packaging Material, Plastic	36.17		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Pollution Control or Waste Treatment Process

TRUCON Codes

111

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.20E+00
Pu-238	3.48E-02
Pu-239	7.43E-01
Pu-240	1.70E-01
Pu-241	4.34E+00
Pu-242	2.14E-05

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0803

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	2.3	0.0	0.0	0.0	0.0	2.3

As-Generated	Stored	Projected	Total
	2.3	0.0	2.3

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	2.3	0.0	0.0	0.0	0.0	2.3

Final Form	Stored	Projected	Total
	2.3	0.0	2.3

TWBIR ID: RF-MT0803

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste stream is a solid cemented sludge. It could have small amounts of free liquids in the bottom of the container.
Waste Stream Source Description	Aqueous sludge wastes assigned IDCs 001 and 800 were generated by the high-level aqueous waste treatment system in Building 774. IDC 001 was replaced by IDC 800 in 1986. A two-stage basic waste treatment, precipitation, and filtration process generates IDCs 001 and 800 aqueous sludge. Acidic wastes are neutralized with sodium hydroxide in stage one. Ferric sulfate and Purifloc flocculant are added to the neutralized waste (containing metal ions) to precipitate the sludge prior to filtration. In stage two, ferric sulfate, magnesium sulfate, calcium chloride, and Purifloc flocculant are added to basic wastes during the two-stage treatment to precipitate sludge. The sludge slurry from the acidic and basic waste treatment is drawn through a diatomite filter media on a rotating drum filter to trap the solids. The filter media and sludge are continuously scraped off the drum filter and co-fed into a 55-gallon drum with additional diatomite and Portland cement making up the solidification process. No mechanical mixing of the sludge and cement is performed. Prior to 1979, IDC 001 consisted of sludge from the first-stage treatment only. When the first- and second-stage sludges were packaged separately, two vacuum filters were used. From 1979 to 1986, IDC 001 was a combination of the sludges from the first- and second-stage treatment processes. The sludge was produced chemically in the same fashion aqueous waste was treated to produce IDC 800 sludge. The solidification process for IDC 001 differs from the IDC 800 method of adding cement and diatomite as the sludge collects. Portland cement was added to the bottom of the IDC 001 drum prior to placing the sludge in the drum. In some cases additional Portland cement was added on top of the sludge. Prior to September 1984, Building 774 accepted many aqueous process wastes from other buildings. These wastes, now piped to Building 374, were treated as described above. The accepted wastes included aqueous waste from Buildings 122, 123, 444, 559, 707, 776, 778, 779, 865, 881, 883, 889. After August 1984 and the start-up of the Building 374 Precipitation Process, only waste piped from Building 771 (stream condensate, scrubber waste, ion column effluent, and process waste sinks), waste in containers from various buildings, and wastes generated within Building 774 (silver recovery effluent, seal liquid, and floor washdown) were accepted. From 1986 through 1989, the treatment process treated from 150,000 gallons to over 500,000 gallons per year and generated 2,700 drums of IDCs and 800 sludge. See Solidified Bypass Sludge/LLM for detailed descriptions of IDCs 007, 803, and 807.
Current Container Comments	N/A
EPA Comments	All waste with D001, D002, and D003 codes will be processed or repackaged prior to shipment to WIPP per Geoff Asmus. According to the Building 774 Second-Stage Treatment Log (January 1981 to October 1989), prior to September 1984, the Building 774 aqueous waste treatment system received waste streams that are treated in the Building 374 Liquid Waste Treatment Facility. These streams affected the characterization of Building 774 solidified sludge until September 1985. The choice of the transition date of September 1984 is discussed in detail under the Subpopulation 55A discussion in the Backlog Baseline Book prepared by Rocky Flats. Information contained in the November 1992 WSRIC Valve Vaults Book has been used to characterize waste streams treated in Building 774 prior to September 1984. The Valve Vaults book describes the process waste sent to Building 374 for treatment. The book was used because it is the only reference that provides detailed characterization information on waste that was sent to Building 774. Other references and interviews have been used to enhance or add to this information as it relates to the waste form.
Management Comments	N/A
Acceptance Comments	RFP has assumed this waste to be LDR based on process knowledge characterization and limited analytical data.

TWBIR ID: RF-MT0803

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

	1. Basis for determining LDR storage prohibition status is based pirmarily on process knowledge. WASTE_ PACK: Waste is packaged in 55 gallon DOT 7A Type A Drums. The drums are lined with one rigid polyethylene liner and two bag liners.
Final Form Comments	N/A

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TWBIR ID: RF-MT0806

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W097	**Handling**	CH	**Stream Name**	Solidified Process Solids/TRM			**Inventory Date**	9/30/2002
Local ID	IDC 806	**Waste Type**	MTRU	**Generator Site**	RF, RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3119

EPA Codes

As-Generated
D004, D008

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	0.00	0.00	0.00
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	235.33	235.33	235.33
Cellulosics	0.00	0.00	0.00
Rubber	0.00	0.00	0.00
Plastics	33.41	33.41	33.41
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.57		
Packaging Material, Plastic	41.05		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Pollution Control or Waste Treatment Process

TRUCON Codes

114

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.26E+00
Pu-238	9.16E-01
Pu-239	3.54E+01
Pu-240	8.04E+00
Pu-241	8.07E+01
Pu-242	4.91E-04

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0806

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Can / 1-Liter	0.0	0.0	0.0	0.0	0.0	0.0

As-Generated	Stored	Projected	Total
	0.0	0.0	0.0

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.2	0.0	0.0	0.0	0.0	0.2

Final Form	Stored	Projected	Total
	0.2	0.0	0.2

TWBIR ID: RF-MT0806

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste stream represents the solidified final form of all particulate and sludge type materials. Particulates and sludge type materials are immobilized with Portland cement. The cemented wastes are cast into 1-gallon molds and allowed to cure prior to packaging. This is the final waste form for Firebrick, Pulverized or Fines/TRM (RF-W036), Incinerator Ash/TRM (RF-W040), Particulate Sludge/TRM (RF-W068), and Sand, Slag, and Crucible/TRM (RF-W059). IDC 806 - All inorganic particulate and inorganic sludge waste must be immobilized by processing into a solid and identified as IDC 806.
Waste Stream Source Description	This is a new waste stream and includes IDC 806 only. It represents the solidified final form of Firebrick, Pulverized or Fines/TRM (RF-W036), Incinerator Ash/TRM (RF-W040), Particulate Sludge/TRM (RF-W068), and Sand, Slag, and Crucible/TRM (RF-W059). Particulates and sludge type materials are immobilized with Portland Cement. The cemented wastes are cast into 1-gallon molds and allowed to cure prior to packaging. There is currently no inventory of this waste at Rocky Flats. However, generation of this waste is expected as the plant progresses in its mission of environmental cleanup and waste management. Therefore, some IDC 806 material is expected to be generated in the 20-year horizon as waste management and disposal activities continue. For these reasons, this waste must be reported in the Baseline Inventory Report; it is included here to maintain consistency between this report and the BIR.
Current Container Comments	N/A
EPA Comments	All waste with D001, D002, and D003 codes will be processed or repackaged prior to shipment to WIPP per Geoff Asmus. The characterization basis for this waste is to apply EPA hazardous waste numbers from the four feed materials identified above that would be expected to apply to the final solidified waste form as well. These are projected hazardous waste numbers and may not apply after the waste is generated and analytical work completed. Projected list of contaminants based on those present in source wastes.
Management Comments	N/A
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0807

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W010	**Handling**	CH	**Stream Name**	Solidified Sludge - Bldg 374 / TRM	**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3190

EPA Codes

As-Generated
F001, F002, F005, F006, F007, F009

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	0.00	0.00	0.00
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	801.46	801.46	801.46
Cellulosics	0.00	0.00	0.00
Rubber	0.00	0.00	0.00
Plastics	17.18	17.18	17.18
Solidified, Inorganic Matrix	828.31	579.97	991.91
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	137.28		
Packaging Material, Plastic	35.92		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Pollution Control or Waste Treatment Process

TRUCON Codes

111

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.45E-01
Pu-238	1.75E-02
Pu-239	3.73E-01
Pu-240	8.55E-02
Pu-241	2.19E+00
Pu-242	1.08E-05
U-235	2.38E-07

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0807

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	81.7	0.0	0.0	0.0	0.0	81.7
Drum / 85 gallon	2.3	0.0	0.0	0.0	0.0	2.3

As-Generated	Stored	Projected	Total
	84.0	0.0	84.0

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	81.9	0.0	0.0	0.0	0.0	81.9
85 Gallon Drum	2.3	0.0	0.0	0.0	0.0	2.3

Final Form	Stored	Projected	Total
	84.2	0.0	84.2

TWBIR ID: RF-MT0807

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste stream is a solid cemented sludge. It could have small amounts of free liquids in the bottom of the container.
Waste Stream Source Description	Aqueous sludge wastes assigned IDCs 001 and 800 were generated by the high-level aqueous waste treatment system in Building 774. IDC 001 was replaced by IDC 800 in 1986. A two-stage basic waste treatment, precipitation, and filtration process generates IDCs 001 and 800 aqueous sludge. Acidic wastes are neutralized with sodium hydroxide in stage one. Ferric sulfate and Purifloc flocculant are added to the neutralized waste (containing metal ions) to precipitate the sludge prior to filtration. In stage two, ferric sulfate, magnesium sulfate, calcium chloride, and Purifloc flocculant are added to basic wastes during the two-stage treatment to precipitate sludge. The sludge slurry from the acidic and basic waste treatment is drawn through a diatomite filter media on a rotating drum filter to trap the solids. The filter media and sludge are continuously scraped off the drum filter and co-fed into a 55-gallon drum with additional diatomite and Portland cement making up the solidification process. No mechanical mixing of the sludge and cement is performed. Prior to 1979, IDC 001 consisted of sludge from the first-stage treatment only. When the first- and second-stage sludges were packaged separately, two vacuum filters were used. From 1979 to 1986, IDC 001 was a combination of the sludges from the first- and second-stage treatment processes. The sludge was produced chemically in the same fashion aqueous waste was treated to produce IDC 800 sludge. The solidification process for IDC 001 differs from the IDC 800 method of adding cement and diatomite as the sludge collects. Portland cement was added to the bottom of the IDC 001 drum prior to placing the sludge in the drum. In some cases additional Portland cement was added on top of the sludge. Prior to September 1984, Building 774 accepted many aqueous process wastes from other buildings. These wastes, now piped to Building 374, were treated as described above. The accepted wastes included aqueous waste from Buildings 122, 123, 444, 559, 707, 776, 778, 779, 865, 881, 883, 889. After August 1984 and the start-up of the Building 374 Precipitation Process, only waste piped from Building 771 (stream condensate, scrubber waste, ion column effluent, and process waste sinks), waste in containers from various buildings, and wastes generated within Building 774 (silver recovery effluent, seal liquid, and floor washdown) were accepted. From 1986 through 1989, the treatment process treated from 150,000 gallons to over 500,000 gallons per year and generated 2,700 drums of IDCs and 800 sludge. See Solidified Bypass Sludge/LLM for detailed descriptions of IDCs 007, 803, and 807.
Current Container Comments	N/A
EPA Comments	All waste with D001, D002, and D003 codes will be processed or repackaged prior to shipment to WIPP per Geoff Asmus. According to the Building 774 Second-Stage Treatment Log (January 1981 to October 1989), prior to September 1984, the Building 774 aqueous waste treatment system received waste streams that are treated in the Building 374 Liquid Waste Treatment Facility. These streams affected the characterization of Building 774 solidified sludge until September 1985. The choice of the transition date of September 1984 is discussed in detail under the Subpopulation 55A discussion in the Backlog Baseline Book prepared by Rocky Flats. Information contained in the November 1992 WSRIC Valve Vaults Book has been used to characterize waste streams treated in Building 774 prior to September 1984. The Valve Vaults book describes the process waste sent to Building 374 for treatment. The book was used because it is the only reference that provides detailed characterization information on waste that was sent to Building 774. Other references and interviews have been used to enhance or add to this information as it relates to the waste form.
Management Comments	N/A
Acceptance Comments	RFP has assumed this waste to be LDR based on process knowledge characterization and limited analytical data.

TWBIR ID: RF-MT0807

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

1. Basis for determining LDR storage prohibition status is based pirmarily on process knowledge. WASTE_ PACK: Waste is packaged in 55 gallon DOT 7A Type A Drums. The drums are lined with one rigid polyethylene liner and two bag liners.

Final Form Comments N/A

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TWBIR ID: RF-MT0816

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W013	**Handling**	CH	**Stream Name**	Solidified Organics/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Organics	**Waste Matrix Code**	S3290

EPA Codes

As-Generated
D006, D007, D008, D010, D022, D029, F001, F002, F005

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	0.00	0.00	0.00
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	0.00	0.00	0.00
Cellulosics	0.00	0.00	0.00
Rubber	0.00	0.00	0.00
Plastics	0.00	0.00	0.00
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	426.74	426.74	426.74
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.57		
Packaging Material, Plastic	32.46		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N
PCBs:	N
Source:	Decontamination and Decommissioning

TRUCON Codes

112

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.59E+00
Pu-238	4.99E-01
Pu-239	1.06E+01
Pu-240	2.43E+00
Pu-241	6.22E+01
Pu-242	3.08E-04
U-235	3.35E-04

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0816

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	0.4	0.0	0.0	0.0	0.0	0.4

As-Generated	Stored	Projected	Total
	0.4	0.0	0.4

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.4	0.0	0.0	0.0	0.0	0.4

Final Form	Stored	Projected	Total
	0.4	0.0	0.4

TWBIR ID: RF-MT0816

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	Polymerized organics - small containers consists of small quantities of organic liquids solidified with polymer such as Nochar Petrobond.
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	EPA hazardous waste numbers are assigned to this waste stream based on process knowledge.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT-0823

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W068	**Handling**	CH	**Stream Name**	Particulate Sludge/TRM			**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	ZZ	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3900

EPA Codes

As-Generated
D006, D007, D008, F001, F002, F005

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	36.82	8.59	150.41
Aluminum-Base Metal/Alloys	6.86	0.91	10.41
Other Metal/Alloys	12.60	2.58	21.24
Other Inorganic Materials	21.10	8.50	44.39
Cellulosics	0.00	0.00	0.00
Rubber	1.53	1.53	1.53
Plastics	30.65	19.52	55.37
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	18.40	0.96	40.24
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.56		
Packaging Material, Plastic	32.46		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

114

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.75E+00
Np-237	1.82E-05
Pu-238	4.54E-01
Pu-239	9.69E+00
Pu-240	2.22E+00
Pu-241	5.64E+01
Pu-242	2.80E-04
U-234	2.37E-05
U-235	3.25E-05
U-238	3.78E-05

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT-0823

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	0.2	0.0	0.0	0.0	0.0	0.2

As-Generated	Stored	0.2	Projected	0.0	Total	0.2

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.2	0.0	0.0	0.0	0.0	0.2

Final Form	Stored	0.2	Projected	0.0	Total	0.2

TWBIR ID: RF-MT-0823

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste consists of sludge type material. It is a semi-fluid material. Some of it has had cement added to it to try to solidify it.
Waste Stream Source Description	Item Description Code 292-Incinerator Sludge IDC 292 was intended for incinerator sludge from the recovery incinerator in Building 771. IDC 292 materials were reassessed under Waste Form 1, Incinerator Ash. However, there is one box WEMS incorrectly assigned this IDC. According to the waste-box log sheet dated October 14, 1987, the box contains Electrochemical Milling Sludge generated in Building 881. This operation generated sludge from the milling of various metals including stainless steel. It was indicated that no cyanides were used in the ECM operations in Building 881. The IDC for this box should be changed to 299. Item Description Code 299-Miscellaneous Sludge This IDC has been used for sludges that were not accurately categorized as IDC 290 or 340 and could have been generated in any plutonium processing building. However, the backlog miscellaneous sludge was generated in Building 771 during the processing of residues, in Building 371 in the analytical laboratory, and in Building 883 by the Rolling Process. Process pipe sludge, sludge dissolution heel, and filter plenum sludge from Building 771 were processed through nitric acid dissolution and sparging. Soil and sludge samples from around the site were analyzed in Building 371, and the waste was stored for processing. IDC 299 materials generated in Building 883 include quench sludge and uranium oxide sludge from the Rolling Process. This group also includes one container of electrochemical milling sludge generated in Building 881 in October 1987. The container is assigned IDC 292. Item Description Code 372-Grit This IDC was generated by grit blasting operations in Building 371 (primarily for cleaning steel and iron) and Building 777 in the Machining and Coating processes (primarily cleaning shields). A variety of materials were used for the grit, including iron shot, walnut shells, glass beads, and ceramic beads. The majority of the grit is thought to be iron shot ranging in size from fines to irregular particles. There were apparently no other RCRA-regulated metals involved in the grit blasting. There is one drum of IDC 372 shown in WEMS as being generated in Building 371. However, no grit blasting operation could be identified in that building. Item Description Code 823-Cemented Sludge IDC 823, cemented miscellaneous sludge, was generated when sludge designated as inorganic particulate and sludgy material that was below the economic discard limit (EDL) was placed in 1-gallon paint cans and covered with Portland cement or mixed with cement into a block. The first scenario was conducted in Building 771 and the second in Building 371. This could have included IDCs 290-299 and was done to meet the Waste Isolation Pilot Plant (WIPP) waste acceptance criteria. The material came primarily from Nash pumps in Building 771 and included vacuum grease and oily sludge. One drum of the material was apparently generated when the pit in front of Building 707 was cleaned out. However, the contents of the pit sludge could not be ascertained. One drum was generated in the Size Reduction Vault in Building 776. Six drums were generated in Building 774 and are stored in Building 371. Drum-specific information was requested but was not received. The drums from Building 559 are incorrectly assigned IDC 823 in WEMS. The drums are stored in Building 771 and are labeled with IDC 863. It appears that IDC 823 was entered incorrectly in WEMS. Therefore, these drums should be changed to IDC 863 in WEMS. This waste form is generated from Facility/Equipment Operation, Maintenance, Analytical Laboratories, R&D Laboratories, D&D, and limited Emergency Response actions.
Current Container Comments	N/A
EPA Comments	Subpopulation 46MX includes IDC 823, cemented miscellaneous sludge, generated in Building 371. The waste in this subpopulation was originally characterized as hazardous miscellaneous sludge (IDC 299). Building 371 Residue Project personnel visually inspected the material and determined the waste to be cemented sludge. Since the primary function of Building 371 was plutonium recovery, it is assumed the processes that generated this cemented sludge

TWBIR ID: RF-MT-0823

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

	were similar to the plutonium recovery processes in Building 771 (see Subpopulation 46GB). Therefore, EPA Hazardous Waste Numbers D006, D007, D008, F001, F002, and F005 are also applied to this waste.
Management Comments	N/A
Acceptance Comments	1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. WASTE_PACK: The waste is packaged in 55-gallon drums with multiple bag liners. These are typically smaller containers within the drums.
Final Form Comments	N/A

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TWBIR ID: RF-MT0827

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W013	**Handling**	CH	**Stream Name**	Solidified Organics/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Organics	**Waste Matrix Code**	S3290

EPA Codes

As-Generated
D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D034, D041, D043, F001, F002, F005

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	0.00	0.00	0.00
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	0.00	0.00	0.00
Cellulosics	0.00	0.00	0.00
Rubber	0.00	0.00	0.00
Plastics	0.00	0.00	0.00
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	426.74	426.74	426.74
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.57		
Packaging Material, Plastic	32.46		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N
PCBs:	N
Source:	Decontamination and Decommissioning

TRUCON Codes

112

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.59E+00
Pu-238	4.99E-01
Pu-239	1.06E+01
Pu-240	2.43E+00
Pu-241	6.22E+01
Pu-242	3.08E-04
U-235	3.35E-04

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0827

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	8.3	1.0	0.0	0.0	0.0	9.4

As-Generated	Stored	Projected	Total
	8.3	1.0	9.4

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	8.3	0.0	0.0	0.0	0.0	9.4

Final Form	Stored	Projected	Total
	8.3	1.0	9.4

TWBIR ID: RF-MT0827

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	Polymerized organics - drum consists of 55-gallon drum quantities of organic liquids solidified with polymer such as Nochar Petrobond.
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	EPA hazardous waste numbers are assigned to this waste stream based on process knowledge.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0831

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W012	**Handling**	CH	**Stream Name**	Combustibles/TRM	**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Combustible	**Waste Matrix Code**	S5390

EPA Codes

As-Generated
D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D028, D029, D035, D038, D040, D043, F001, F002, F005, F006, F007, F009, P030, P098, P099, P106, U003, U103, U108

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	3.12	0.48	34.37
Aluminum-Base Metal/Alloys	1.86	2.39	2.39
Other Metal/Alloys	7.69	0.96	23.87
Other Inorganic Materials	5.47	0.86	9.60
Cellulosics	10.99	4.31	12.89
Rubber	8.58	0.48	46.11
Plastics	24.88	1.91	192.85
Solidified, Inorganic Matrix	11.90	6.68	23.87
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	3.57	4.58	4.58
Soils	0.00	0.00	0.00
Packaging Material, Steel	141.61		
Packaging Material, Plastic	24.51		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

116

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	5.94E-01
Np-237	5.76E-06
Pu-238	2.40E-01
Pu-239	5.06E+00
Pu-240	1.16E+00
Pu-241	2.89E+01
Pu-242	1.43E-04
U-234	2.04E-04
U-235	6.58E-06
U-238	1.50E-06

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0831

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Box / Metal	3.2	0.0	0.0	0.0	0.0	3.2
Drum / 55 gallon	46.6	0.0	0.0	0.0	0.0	46.6
Standard Waste Box	11.4	0.0	0.0	0.0	0.0	11.4

As-Generated	Stored	61.2	Projected	0.0	Total	61.2

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	46.7	0.0	0.0	0.0	0.0	46.7
Standard Waste Box	13.2	0.0	0.0	0.0	0.0	13.2

Final Form	Stored	59.9	Projected	0.0	Total	59.9

TWBIR ID: RF-MT0831

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste consits of rags, paper, cloth, coveralls, plastic, rubber, and wood. The waste consists mainly of cloth and paper products from cleanup of gloveboxes and spills. The bulk of these wastes are packaged in 55-gallon drums with one rigid polyethylene liner and several bag liners. In addition, the waste may be packaged in DOT 7A Type A metal boxes which are lined with a fiberboard liner and a PVC liner or standard TRUPACT-II container. The containers are then assayed and transferred to interim status storage areas. These wastes have been shipped to the INEL for stroage in the past. RF-330, 356, 337, 821, 822, 853, 831, 832, 833. Predominantly combustible debris.
Waste Stream Source Description	Combustible wastes were produced by materials-handling and cleanup from production, research and development, laboratory, utility, custodial and maintenance activities. The combustible wastes form includes wipes, gloves, paper and plastics. Item Description 330, Combustibles, Dry IDC 330 is Dry Combustibles. This IDC is dry combustibles such as cloth, paper, and wood. This IDC changes to 821, 831, 851, or 861 at the point of assay, depending on radiological content. Containers of IDC 330 currently in inventory were generated in all buildings handling fissile material. Item Description 336, Combustibles, Wet Wet combustibles are paper, cloth, etc., which contain a discernible amount of moisture and must be drained or wrung out prior to packaging to prevent an accumulation of free liquid. This IDC changes to 822, 832, 852, or 862 at the point of assay. Item Description 337, Plastic (Teflon, PVC, Polyethylene) IDC 337 represents PVC sheeting, poly bottles, supplied-air suits, polyethylene, and other plastics. IDC 337 changes to 825, 833, 853, or 863 at the point of assay. Item Description 821, Combustibles, Dry TRU Waste Dry transuranic combustible wastes, such as paper, cloth, and wood are classified as IDC 821. Item Description 822, Combustibles, Wet TRU Waste Wet combustible transuranic wastes, such as paper, cloth, and wood, which contain a discernible amount of moisture must be drained or wrung out prior to packaging to prevent accumulation of free liquid. These wastes are classified as IDC 822. Item Description 831, Combustibles, Dry, TRU Mixed Waste Dry combustibles such as paper, cloth, wood, etc. This waste has been identified as being low level mixed waste. Item Description 832, Combustibles, Wet, TRU Mixed Waste Wet combustibles such as paper, cloth, and wood which contain a discernible amount of moisture. These combustibles must be drained or wrung prior to packaging to prevent accumulation of free liquid. Item Description 833, Plastic TRU Mixed Waste PVC sheeting, poly bottles, supplied air suits, and other plastics. This waste has been identified as being a low level mixed waste. Item Description 853, Plastic (Teflon, PVC, and Polyethylene)

TWBIR ID: RF-MT0831

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

This waste has been identified as being a low level mixed waste, consisting of PVC sheeting, poly bottles, supplied-air suits, and other plastics.

Current Container Comments N/A

EPA Comments A- Process knowledge based upon general knowledge of waste type or source (e.g., there is some probability of a waste constituent being absent or present).

Bounding analytical data have not been compiled in a form that is compatible with this report. This effort has been completed and the results are available in the Final Backlog Baseline Book dated September 26, 1994.

Management Comments N/A

Acceptance Comments GENERAAREA: Numerous locations throughout RFP.GENOPERATI: RECLASS_CO: Rocky Flats assays wastes to determine waste type instead of relying on process knowledge or historical data. For this reason, the potential for reclassification has not been analyzed.CATION: Not applicable OTHER_CHAR: No information available.

RFP has assumed this waste to be LDR based on process knowledge characterization, and one sample analyzed for volatiles in 1988.

1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. Analytical data are limited. WASTE_PACK: This waste is stored in 55 gallon carbon steel drums with one rigid polyethylene liner and several bag liners and standard metal boxes.

Final Form Comments N/A

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TWBIR ID: RF-MT0832

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W012	**Handling**	CH	**Stream Name**	Combustibles/TRM			**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Combustible	**Waste Matrix Code**	S5390

EPA Codes

As-Generated
D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D028, D029, D035, D038, D040, D043, F001, F002, F005, F006, F007, F009, P030, P098, P099, P106, U003, U103, U108

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	2.40	0.48	23.87
Aluminum-Base Metal/Alloys	2.14	0.86	2.82
Other Metal/Alloys	4.75	0.48	10.50
Other Inorganic Materials	78.92	0.48	301.01
Cellulosics	12.85	10.98	12.89
Rubber	71.68	0.24	826.75
Plastics	23.43	1.43	186.16
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	253.04	253.04	253.04
Soils	0.00	0.00	0.00
Packaging Material, Steel	141.08		
Packaging Material, Plastic	25.13		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

116

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.83E+00
Np-237	1.18E-05
Pu-238	2.69E-01
Pu-239	6.07E+00
Pu-240	1.38E+00
Pu-241	3.17E+01
Pu-242	1.69E-04
U-234	1.72E-04
U-235	5.59E-06
U-238	5.48E-06

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0832

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	95.9	17.9	0.0	0.0	0.0	113.8
Drum / 85 gallon	0.6	0.0	0.0	0.0	0.0	0.6

As-Generated	Stored	Projected	Total
	96.5	17.9	114.4

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	96.1	0.0	0.0	0.0	0.0	114.0
85 Gallon Drum	0.6	0.0	0.0	0.0	0.0	0.6
Standard Waste Box	0.0	0.0	0.0	0.0	0.0	28.4

Final Form	Stored	Projected	Total
	96.7	46.3	143.0

TWBIR ID: RF-MT0832

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste consits of rags, paper, cloth, coveralls, plastic, rubber, and wood. The waste consists mainly of cloth and paper products from cleanup of gloveboxes and spills. The bulk of these wastes are packaged in 55-gallon drums with one rigid polyethylene liner and several bag liners. In addition, the waste may be packaged in DOT 7A Type A metal boxes which are lined with a fiberboard liner and a PVC liner or standard TRUPACT-II container. The containers are then assayed and transferred to interim status storage areas. These wastes have been shipped to the INEL for stroage in the past. RF-330, 356, 337, 821, 822, 853, 831, 832, 833. Predominantly combustible debris.
Waste Stream Source Description	Combustible wastes were produced by materials-handling and cleanup from production, research and development, laboratory, utility, custodial and maintenance activities. The combustible wastes form includes wipes, gloves, paper and plastics. Item Description 330, Combustibles, Dry IDC 330 is Dry Combustibles. This IDC is dry combustibles such as cloth, paper, and wood. This IDC changes to 821, 831, 851, or 861 at the point of assay, depending on radiological content. Containers of IDC 330 currently in inventory were generated in all buildings handling fissile material. Item Description 336, Combustibles, Wet Wet combustibles are paper, cloth, etc., which contain a discernible amount of moisture and must be drained or wrung out prior to packaging to prevent an accumulation of free liquid. This IDC changes to 822, 832, 852, or 862 at the point of assay. Item Description 337, Plastic (Teflon, PVC, Polyethylene) IDC 337 represents PVC sheeting, poly bottles, supplied-air suits, polyethylene, and other plastics. IDC 337 changes to 825, 833, 853, or 863 at the point of assay. Item Description 821, Combustibles, Dry TRU Waste Dry transuranic combustible wastes, such as paper, cloth, and wood are classified as IDC 821. Item Description 822, Combustibles, Wet TRU Waste Wet combustible transuranic wastes, such as paper, cloth, and wood, which contain a discernible amount of moisture must be drained or wrung out prior to packaging to prevent accumulation of free liquid. These wastes are classified as IDC 822. Item Description 831, Combustibles, Dry, TRU Mixed Waste Dry combustibles such as paper, cloth, wood, etc. This waste has been identified as being low level mixed waste. Item Description 832, Combustibles, Wet, TRU Mixed Waste Wet combustibles such as paper, cloth, and wood which contain a discernible amount of moisture. These combustibles must be drained or wrung prior to packaging to prevent accumulation of free liquid. Item Description 833, Plastic TRU Mixed Waste PVC sheeting, poly bottles, supplied air suits, and other plastics. This waste has been identified as being a low level mixed waste. Item Description 853, Plastic (Teflon, PVC, and Polyethylene)

TWBIR ID: RF-MT0832

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

This waste has been identified as being a low level mixed waste, consisting of PVC sheeting, poly bottles, supplied-air suits, and other plastics.

Current Container Comments N/A

EPA Comments A- Process knowledge based upon general knowledge of waste type or source (e.g., there is some probability of a waste constituent being absent or present).

Bounding analytical data have not been compiled in a form that is compatible with this report. This effort has been completed and the results are available in the Final Backlog Baseline Book dated September 26, 1994.

Management Comments N/A

Acceptance Comments GENERAAREA: Numerous locations throughout RFP.GENOPERATI: RECLASS_CO: Rocky Flats assays wastes to determine waste type instead of relying on process knowledge or historical data. For this reason, the potential for reclassification has not been analyzed.CATION: Not applicable OTHER_CHAR: No information available.

RFP has assumed this waste to be LDR based on process knowledge characterization, and one sample analyzed for volatiles in 1988.

1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. Analytical data are limited. WASTE_PACK: This waste is stored in 55 gallon carbon steel drums with one rigid polyethylene liner and several bag liners and standard metal boxes.

Final Form Comments N/A

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TWBIR ID: RF-MT0833

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W012	**Handling**	CH	**Stream Name**	Combustibles/TRM			**Inventory Date**	9/30/2002
Local ID	None	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Combustible	**Waste Matrix Code**	S5390

EPA Codes

As-Generated
D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D028, D029, D035, D038, D040, D043, F001, F002, F005, F006, F007, F009, P030, P098, P099, P106, U003, U103, U108

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	2.75	0.33	33.41
Aluminum-Base Metal/Alloys	2.28	2.39	2.39
Other Metal/Alloys	6.90	0.43	23.87
Other Inorganic Materials	7.20	0.48	47.73
Cellulosics	12.50	4.31	12.89
Rubber	5.01	1.91	14.32
Plastics	111.52	1.43	320.77
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	3.65	3.82	3.82
Soils	0.00	0.00	0.00
Packaging Material, Steel	139.14		
Packaging Material, Plastic	28.97		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

116

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	9.02E-01
Np-237	5.98E-06
Pu-238	1.29E-01
Pu-239	2.82E+00
Pu-240	6.47E-01
Pu-241	1.54E+01
Pu-242	8.41E-05
U-234	7.60E-05
U-235	2.48E-06
U-238	3.47E-06

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0833

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
1/2 Wood Box	1.6	0.0	0.0	0.0	0.0	1.6
Drum / 55 gallon	45.3	33.9	0.0	0.0	0.0	79.2
Standard Waste Box	1.9	0.0	0.0	0.0	0.0	1.9

As-Generated	Stored	48.8	Projected	33.9	Total	82.7

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	45.4	0.0	0.0	0.0	0.0	79.4
Standard Waste Box	3.8	0.0	0.0	0.0	0.0	3.8

Final Form	Stored	49.2	Projected	34.0	Total	83.2

TWBIR ID: RF-MT0833

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste consits of rags, paper, cloth, coveralls, plastic, rubber, and wood. The waste consists mainly of cloth and paper products from cleanup of gloveboxes and spills. The bulk of these wastes are packaged in 55-gallon drums with one rigid polyethylene liner and several bag liners. In addition, the waste may be packaged in DOT 7A Type A metal boxes which are lined with a fiberboard liner and a PVC liner or standard TRUPACT-II container. The containers are then assayed and transferred to interim status storage areas. These wastes have been shipped to the INEL for stroage in the past. RF-330, 356, 337, 821, 822, 853, 831, 832, 833. Predominantly combustible debris.
Waste Stream Source Description	Combustible wastes were produced by materials-handling and cleanup from production, research and development, laboratory, utility, custodial and maintenance activities. The combustible wastes form includes wipes, gloves, paper and plastics. Item Description 330, Combustibles, Dry IDC 330 is Dry Combustibles. This IDC is dry combustibles such as cloth, paper, and wood. This IDC changes to 821, 831, 851, or 861 at the point of assay, depending on radiological content. Containers of IDC 330 currently in inventory were generated in all buildings handling fissile material. Item Description 336, Combustibles, Wet Wet combustibles are paper, cloth, etc., which contain a discernible amount of moisture and must be drained or wrung out prior to packaging to prevent an accumulation of free liquid. This IDC changes to 822, 832, 852, or 862 at the point of assay. Item Description 337, Plastic (Teflon, PVC, Polyethylene) IDC 337 represents PVC sheeting, poly bottles, supplied-air suits, polyethylene, and other plastics. IDC 337 changes to 825, 833, 853, or 863 at the point of assay. Item Description 821, Combustibles, Dry TRU Waste Dry transuranic combustible wastes, such as paper, cloth, and wood are classified as IDC 821. Item Description 822, Combustibles, Wet TRU Waste Wet combustible transuranic wastes, such as paper, cloth, and wood, which contain a discernible amount of moisture must be drained or wrung out prior to packaging to prevent accumulation of free liquid. These wastes are classified as IDC 822. Item Description 831, Combustibles, Dry, TRU Mixed Waste Dry combustibles such as paper, cloth, wood, etc. This waste has been identified as being low level mixed waste. Item Description 832, Combustibles, Wet, TRU Mixed Waste Wet combustibles such as paper, cloth, and wood which contain a discernible amount of moisture. These combustibles must be drained or wrung prior to packaging to prevent accumulation of free liquid. Item Description 833, Plastic TRU Mixed Waste PVC sheeting, poly bottles, supplied air suits, and other plastics. This waste has been identified as being a low level mixed waste. Item Description 853, Plastic (Teflon, PVC, and Polyethylene)

TWBIR ID: RF-MT0833

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

This waste has been identified as being a low level mixed waste, consisting of PVC sheeting, poly bottles, supplied-air suits, and other plastics.

Current Container Comments N/A

EPA Comments A- Process knowledge based upon general knowledge of waste type or source (e.g., there is some probability of a waste constituent being absent or present).

Bounding analytical data have not been compiled in a form that is compatible with this report. This effort has been completed and the results are available in the Final Backlog Baseline Book dated September 26, 1994.

Management Comments N/A

Acceptance Comments GENERAAREA: Numerous locations throughout RFP.GENOPERATI: RECLASS_CO: Rocky Flats assays wastes to determine waste type instead of relying on process knowledge or historical data. For this reason, the potential for reclassification has not been analyzed.CATION: Not applicable OTHER_CHAR: No information available.

RFP has assumed this waste to be LDR based on process knowledge characterization, and one sample analyzed for volatiles in 1988.

1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. Analytical data are limited. WASTE_PACK: This waste is stored in 55 gallon carbon steel drums with one rigid polyethylene liner and several bag liners and standard metal boxes.

Final Form Comments N/A

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TWBIR ID: RF-MT0855

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W032	**Handling**	CH	**Stream Name**	Ground glass/TRM			**Inventory Date**	9/30/2002
Local ID	IDC 444, 855	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Inorganic Non-Metal	**Waste Matrix Code**	S5122

EPA Codes

As-Generated
D009

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	10.50	10.50	10.50
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	59.19	24.34	94.04
Cellulosics	0.00	0.00	0.00
Rubber	0.00	0.00	0.00
Plastics	12.89	8.59	17.18
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.43		
Packaging Material, Plastic	23.87		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Other/Multiple Sources

TRUCON Codes

116

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Pu-238	4.16E-03
Pu-239	8.86E-02
Pu-240	2.03E-02
Pu-241	5.19E-01
Pu-242	2.57E-06

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0855

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
8802 Can	0.0	0.0	0.0	0.0	0.0	0.0
Drum / 55 gallon	1.5	0.0	0.0	0.0	0.0	1.5

As-Generated	Stored	1.5	Projected	0.0	Total	1.5

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	1.7	0.0	0.0	0.0	0.0	1.7

Final Form	Stored	1.7	Projected	0.0	Total	1.7

TWBIR ID: RF-MT0855

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	Matrix consits of crushed glass light bulbs.
Waste Stream Source Description	Item Description Code 444--Ground Glass and Leaded Glovebox Glass This IDC includes ground fluorescent bulbs and leaded glass used throughout the plutonium-and uranium-processing areas. The material was generated as waste or residue when glovebox glass was replaced, or as low-level waste when fluorescent light bulbs were replaced. IDC 444 materials in the backlog inventory were generated in Building 371, 374, 559, 707, 771, and 776. Item Description Code 855-Ground Glass This IDC includes ground glass from fluorescent light bulbs. It can be used for waste generated outside the PA and for nonline-generated waste. In other words, it can only be used for low-level mixed waste.
Current Container Comments	N/A
EPA Comments	Analytical data for IDC 855 show that there are enough cases where the samples fail the Toxicity Characteristic Leaching Procedure (TCLP), that the waste bulbs should be managed as hazardous waste and assigned the EPA code D009.
Management Comments	N/A
Acceptance Comments	LDR_DETERM: Net and gross weight data are not available for all container types. RFP has assumed this waste to be LDR based on the fact that it is a RCRA listed waste. 1. Basis for determining LDR storage prohibition status is based primarily on process knowledge. WASTE_PACK: The glass waste is packaged in 55- gallon drums that are lined with one fiberboard liner and two polyethylene bags or metal boxes. Drums are placed in TRUPACT II containers.
Final Form Comments	N/A

TWBIR ID: RF-MT0857

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W097	**Handling**	CH	**Stream Name**	Solidified Process Solids/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3119

EPA Codes

As-Generated
D006, D007, D008, F001, F002, F005

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	57.28	57.28	57.28
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	0.00	0.00	0.00
Other Inorganic Materials	34.37	34.37	34.37
Cellulosics	0.00	0.00	0.00
Rubber	0.00	0.00	0.00
Plastics	17.18	17.18	17.18
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.43		
Packaging Material, Plastic	23.87		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N
PCBs:	N
Source:	Waste Treatment

TRUCON Codes

N/A

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.26E+00
Pu-238	9.16E-01
Pu-239	3.54E+01
Pu-240	8.04E+00
Pu-241	8.07E+01
Pu-242	4.91E-04

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0857

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	0.2	0.0	0.0	0.0	0.0	0.2

As-Generated	Stored	Projected	Total
	0.2	0.0	0.2

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.2	0.0	0.0	0.0	0.0	0.2

Final Form	Stored	Projected	Total
	0.2	0.0	0.2

TWBIR ID: RF-MT0857

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	Dried sludge from the vitrification of radioactive waste.
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	EPA hazardous waste numbers are assigned to this waste stream based on process knowledge.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT0H61

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W076	**Handling**	CH	**Stream Name**	Process Residues/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3119

EPA Codes

As-Generated
D006, D007, D008, D018, D019

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	19.44	0.96	42.96
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	23.87	23.87	23.87
Other Inorganic Materials	92.37	1.43	493.57
Cellulosics	12.89	12.89	12.89
Rubber	0.00	0.00	0.00
Plastics	15.87	2.20	41.05
Solidified, Inorganic Matrix	80.40	0.48	339.39
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	514.79		
Packaging Material, Plastic	24.02		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N
PCBs:	N
Source:	Residue Repackaging/Decontamination and Decommissioning

TRUCON Codes

130

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	4.26E+00
Pu-238	9.16E-01
Pu-239	3.54E+01
Pu-240	8.04E+00
Pu-241	8.07E+01
Pu-242	4.91E-04

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT0H61

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	0.2	0.0	0.0	0.0	0.0	0.2
POC / 55 gallon	7.5	0.0	0.0	0.0	0.0	7.5

As-Generated	Stored	Projected	Total
	7.7	0.0	7.7

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	0.2	0.0	0.0	0.0	0.0	0.2
55 Gallon POCs	7.5	0.0	0.0	0.0	0.0	7.5

Final Form	Stored	Projected	Total
	7.7	0.0	7.7

TWBIR ID: RF-MT0H61

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste consists of plutonium oxide removed from ductwork. The material includes both dry particulates and moist sludges with graphite and varying concentrations of plutonium.
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	EPA hazardous waste numbers are assigned to this waste stream based on process knowledge.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT2116

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W096	**Handling**	CH	**Stream Name**	Supercompacted Combustibles/TRM	**Inventory Date**	9/30/2002
Local ID	2116	**Waste Type**	MTRU	**Generator Site**	RF, RF	**Final Waste Form**	Combustible	**Waste Matrix Code**	S5390

EPA Codes

As-Generated
D007, D008, F001, F002, F005

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	2.97	0.10	105.49
Aluminum-Base Metal/Alloys	0.78	0.48	1.19
Other Metal/Alloys	2.84	0.10	12.32
Other Inorganic Materials	7.27	0.24	267.31
Cellulosics	12.83	10.98	12.89
Rubber	43.41	0.14	214.95
Plastics	136.75	5.25	793.34
Solidified, Inorganic Matrix	2.77	2.77	2.77
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	13.80	8.02	19.57
Soils	0.00	0.00	0.00
Packaging Material, Steel	138.49		
Packaging Material, Plastic	28.24		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	No
Asbestos:	No
PCBs:	No
Source:	Pollution Control or Waste Treatment Process

TRUCON Codes

116

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	1.83E+00
Np-237	1.18E-05
Pu-238	2.69E-01
Pu-239	6.07E+00
Pu-240	1.38E+00
Pu-241	3.17E+01
Pu-242	1.69E-04
U-234	1.72E-04
U-235	5.59E-06
U-238	5.48E-06

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT2116

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	2.1	0.0	0.0	0.0	0.0	2.1

As-Generated	Stored	Projected	Total
	2.1	0.0	2.1

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	2.1	0.0	0.0	0.0	0.0	2.1

Final Form	Stored	Projected	Total
	2.1	0.0	2.1

TWBIR ID: RF-MT2116

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	This waste consists of cloth and paper products from cleanup of gloveboxes and spills, which has been supercompacted for volume reduction.
Waste Stream Source Description	Item Description Code 2116 - IDC 2116 is Supercompacted TRU-mixed combustible waste (IDCs 831, 832, and 833). Refer to Waste Form RF-W012 for details of these IDCs. Containers of IDC 2116 were generated in Building 776. The WSRIC stream number is 776-13-40 (a/o 3/2/95). Soft wastes are inspected for rejectable items, including free liquids and metal, which are separated from the soft waste for further disposition. Soft wastes are moved to the precompactor where they are placed in an empty 35-gallon drum located in the precompactor. The soft waste is precompacted using a 30-ton precompactor. Once the drum is filled with precompacted waste, the lid is placed on the drum. The drum is transferred to the appropriate glovebox line for piercing. Prior to supercompaction, drums of soft waste are pierced with four holes to allow air to escape and to reduce the amount of "springback" during supercompaction. After piercing, the drums are moved to the supercompactor. A mold is lowered over the drum. Once the mold is in place, the supercompactor is lowered, compacting the drum. Liquid forced out of the waste during compaction is collected by the liquid waste collection system. After supercompaction, the pucks (supercompacted 35-gallon drums) are moved to staging. An operator selects from the available pucks to efficiently fill 55-gallon loadout drums.
Current Container Comments	N/A
EPA Comments	Subpopulation 52NW consists of super compacted combustible waste (IDC 2116) from generation prefix 0057. These wastes are characterized in WEMS as hazardous with EPA codes F001 and F002. According to the container paperwork, these containers were originally characterized under WSRIC process descriptions 776-13-1 or 776-13-40 (Supercompactor Process). WSRIC process description 776-13-1 was written for samples and therefore does not include any characterization information. WSRIC process description 776-13-40 includes several other EPA codes in addition to F001 and F002. However, it states in the characterization rationale for this WSRIC that codes are listed for all possible contaminants and that the actual EPA codes to be applied are indicated in the W/RT and/or WEMS for individual containers. There is no information available to refute the characterization provided in WEMS. Therefore, this waste is characterized as hazardous and EPA codes F001 and F002 are retained. Subpopulation 52NX consists of super compacted combustible waste (IDC 2116) from generation prefix 0057. These wastes are characterized in WEMS with EPA Codes D007, D008, F001, F002, and F005. No container information is available to support or refute this characterization, so the EPA codes have been retained and these wastes are characterized as RCRA hazardous. They are assumed to exhibit the characteristic of toxicity for chromium and lead and to be contaminated with unspecified F001, F002, and F005 solvents. These wastes have probably come into contact with paint and paint thinner.
Management Comments	N/A
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT3010

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W011	**Handling**	CH	**Stream Name**	Metal/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Heterogeneous Debris	**Waste Matrix Code**	S5420

EPA Codes

As-Generated
D008, D011, F001, F002

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	243.11	38.45	585.72
Aluminum-Base Metal/Alloys	12.54	0.96	41.03
Other Metal/Alloys	12.58	0.11	52.65
Other Inorganic Materials	15.80	1.04	32.26
Cellulosics	7.82	4.31	12.89
Rubber	5.94	0.86	12.24
Plastics	18.62	2.05	87.35
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	146.85		
Packaging Material, Plastic	16.52		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	Y
PCBs:	N
Source:	Decontamination and Decommissioning

TRUCON Codes

130

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.47E-01
Np-237	5.72E-06
Pu-238	1.04E-01
Pu-239	2.25E+00
Pu-240	5.16E-01
Pu-241	1.27E+01
Pu-242	6.27E-05
U-234	7.03E-06
U-235	2.27E-07
U-238	9.27E-09

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT3010

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	1.0	12.1	0.0	0.0	0.0	13.1
Standard Waste Box	9.5	9.5	0.0	0.0	0.0	19.0

As-Generated	Stored	Projected	Total
	10.5	21.6	32.1

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	1.0	0.0	0.0	0.0	0.0	13.1
Standard Waste Box	9.4	0.0	0.0	0.0	0.0	18.9

Final Form	Stored	Projected	Total
	10.5	21.5	32.0

TWBIR ID: RF-MT3010

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	"This IDC is assigned to composite debris, rubble, or material composed of such things as gloveboxes, process equipment and other inorganic materials, such as concrete, glass, firebrick, ceramics, asbestos, etc. The materials contain up to 10 weight percent hydrogenous (organic) material such as cellulosics, Plexiglas, rubber, small quantities of nonhazardous liquid (e.g., Texaco 650 oil) absorbed or solidified using Oil Dri or Nochar polymer, or other organic materials associated with the waste items."
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	EPA hazardous waste numbers are assigned to this waste stream based on process knowledge.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT3011

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W011	**Handling**	CH	**Stream Name**	Metal/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Heterogeneous Debris	**Waste Matrix Code**	S5490

EPA Codes

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

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	201.22	4.02	712.33
Aluminum-Base Metal/Alloys	7.12	0.16	32.94
Other Metal/Alloys	69.29	0.76	566.71
Other Inorganic Materials	36.28	0.14	358.76
Cellulosics	4.40	4.31	12.89
Rubber	4.22	0.11	47.72
Plastics	29.66	0.43	225.63
Solidified, Inorganic Matrix	4.73	0.53	10.67
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	16.23	0.71	52.54
Soils	0.00	0.00	0.00
Packaging Material, Steel	152.68		
Packaging Material, Plastic	5.18		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	Y
PCBs:	N
Source:	Decontamination and Decommissioning

TRUCON Codes

121

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	2.57E-01
Np-237	6.84E-06
Pu-238	7.20E-02
Pu-239	1.53E+00
Pu-240	3.52E-01
Pu-241	8.98E+00
Pu-242	4.44E-05
U-234	1.55E-05
U-235	5.03E-07
U-238	3.87E-07

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT3011

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Drum / 55 gallon	2.7	0.8	0.0	0.0	0.0	3.5
POC / 55 gallon	0.2	0.0	0.0	0.0	0.0	0.2
Standard Waste Box	212.8	136.8	0.0	0.0	0.0	349.6

As-Generated	Stored	Projected	Total
	215.7	137.6	353.3

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon Drum	2.7	0.0	0.0	0.0	0.0	3.5
55 Gallon POCs	0.2	0.0	0.0	0.0	0.0	0.2
Standard Waste Box	211.7	0.0	0.0	0.0	0.0	347.8

Final Form	Stored	Projected	Total
	214.6	136.9	351.5

TWBIR ID: RF-MT3011

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	"This IDC is assigned to composite debris, rubble, or material composed of such things as gloveboxes, process equipment and other inorganic materials, such as concrete, glass, firebrick, ceramics, asbestos, etc. This material typically contains greater than 10 weight percent hydrogenous (organic) material such as cellulosics, plastic, Plexiglas, rubber, small quantities of nonhazardous liquid (e.g., Texaco 650 oil) absorbed or solidified using Oil Dri or Nochar polymer, or other organic materials associated with the waste items; however, there is no upper limit for the amount of hydrogenous material. "
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	EPA hazardous waste numbers are assigned to this waste stream based on process knowledge.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT420P

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W040	**Handling**	CH	**Stream Name**	Incinerator Ash/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3111

EPA Codes

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

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	11.32	2.86	30.07
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	8.49	5.73	17.18
Other Inorganic Materials	11.20	3.82	49.17
Cellulosics	167.07	167.07	167.07
Rubber	0.00	0.00	0.00
Plastics	1.69	1.15	3.44
Solidified, Inorganic Matrix	0.00	0.00	0.00
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	524.67		
Packaging Material, Plastic	23.88		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N
PCBs:	N
Source:	Residue Repackaging/Waste Treatment

TRUCON Codes

130

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	6.25E+00
Np-237	1.86E-06
Pu-238	1.14E+00
Pu-239	3.94E+01
Pu-240	9.04E+00
Pu-241	9.19E+01
Pu-242	6.87E-04
U-234	6.22E-05
U-235	2.00E-06
U-238	1.77E-08

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT420P

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
Can / 6-Liter	0.0	0.0	0.0	0.0	0.0	0.0
Drum / 30 gallon	0.2	0.0	0.0	0.0	0.0	0.2
POC / 55 gallon	160.2	0.0	0.0	0.0	0.0	160.2

As-Generated	Stored	160.4	Projected	0.0	Total	160.4

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
30 Gallon Drum	0.2	0.0	0.0	0.0	0.0	0.2
55 Gallon POCs	160.7	0.0	0.0	0.0	0.0	160.7

Final Form	Stored	160.9	Projected	0.0	Total	160.9

TWBIR ID: RF-MT420P

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	"Blended incinerator ash consists in all or part of the following IDCs: pulverized incinerator ash (IDC 420), ash heel (IDC 421), soot (IDC 422), , and ash selected for MMEC (IDC 428). These IDCs are blended together to adjust plutonium content and container fill height. When low plutonium content feedstock for blending is unavailable, a surrogate material may be used."
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	EPA hazardous waste numbers are assigned to this waste stream based on process knowledge and confirmed by WIPP characterization sampling and analysis.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A

TWBIR ID: RF-MT532A

Annex J

TRU WASTE BASELINE INVENTORY WASTE PROFILE

HQ ID	RF-W068	**Handling**	CH	**Stream Name**	Particulate Sludge/TRM			**Inventory Date**	9/30/2002
Local ID	N/A	**Waste Type**	MTRU	**Generator Site**	RF	**Final Waste Form**	Solidified Inorganics	**Waste Matrix Code**	S3119

EPA Codes

As-Generated
TBD

Waste Material Parameters (kg/m3)

Material Parameter	Average	Lower	Upper
Iron-Base Metal/Alloys	19.44	0.96	42.96
Aluminum-Base Metal/Alloys	0.00	0.00	0.00
Other Metal/Alloys	23.87	23.87	23.87
Other Inorganic Materials	92.37	1.43	493.57
Cellulosics	12.89	12.89	12.89
Rubber	0.00	0.00	0.00
Plastics	15.87	2.20	41.05
Solidified, Inorganic Matrix	80.40	0.48	339.39
Cement (Solidified)	0.00	0.00	0.00
Vitrified	0.00	0.00	0.00
Solidified, Organic Matrix	0.00	0.00	0.00
Soils	0.00	0.00	0.00
Packaging Material, Steel	525.22		
Packaging Material, Plastic	23.87		
Packaging Material, Lead	0.00		
Packaging Material, Steel Plug	0.00		

Final Waste Form Descriptors

Category:	Defense TRU Waste
Residues:	N/A
Asbestos:	N
PCBs:	N
Source:	Waste Repackaging

TRUCON Codes

130

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m3)
Am-241	7.50E+00
Np-237	1.87E-04
Pu-238	6.73E-01
Pu-239	1.47E+01
Pu-240	3.35E+00
Pu-241	8.33E+01
Pu-242	4.88E-04
U-234	7.08E-05
U-235	2.61E-06
U-238	4.60E-05

Waste Volume Detail (Cubic meters) for TWBIR ID : RF-MT532A

As-Generated Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon POCs	0.0	0.0	0.0	0.0	0.0	18.3

As-Generated	Stored	Projected	Total
	0.0	18.3	18.3

Final Form Volumes

ContainerType	Stored End of CY 2001	Projected 2002-2006	Projected 2007-2016	Projected 2017-2026	Projected 2027-2036	Total
55 Gallon POCs	0.0	0.0	0.0	0.0	0.0	18.3

Final Form	Stored	Projected	Total
	0.0	18.3	18.3

TWBIR ID: RF-MT532A

Annex J
TRU WASTE BASELINE INVENTORY WASTE PROFILE

Waste Stream Description	"Downblended oxides, less than 10 percent, contains uranium consists of plutonium and uranium oxides blended with surrogate materials to less than 10 percent plutonium/uranium concentration. Material is particulate ranging in size from finely divided powder to granular. "
Waste Stream Source Description	N/A
Current Container Comments	N/A
EPA Comments	EPA hazardous waste numbers are assigned to this waste stream based on process knowledge and confirmed by WIPP characterization sampling and analysis.
Management Comments	New Waste Stream being added to TWBIR
Acceptance Comments	N/A
Final Form Comments	N/A