

ANNUAL TRANSURANIC WASTE INVENTORY REPORT – 2009

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Revision 0



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Carlsbad Field Office

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History of Revisions

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ACRONYMS AND ABBREVIATIONS

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

AK	Acceptable Knowledge
AMWTP	Advanced Mixed Waste Treatment Project
ANL	Argonne National Laboratory
ANL-E	Argonne National Laboratory – East (now known as Argonne National Laboratory)
ANL-W	Argonne National Laboratory – West (now known as Material and Fuels Complex (MFC))
Army	U.S. Army Materiel Command
ATWIR	Annual Transuranic Waste Inventory Report
BAPL	Bettis Atomic Power Laboratory
CCP	Central Characterization Project
CBFO	Carlsbad Field Office
CCA	Compliance Certification Application
CFR	Code of Federal Regulations
CH	Contact-handled
Ci	Curie
Ci/m ³	Curies per cubic meter
CID	Comprehensive Inventory Database
CIT	CID Import Template
CPR	Cellulosic, plastic, and rubber
CRA	Compliance Recertification Application
CY	Calendar year
DOE	U.S. Department of Energy
EDTA	Ethylenediaminetetraacetic acid
EPA	U.S. Environmental Protection Agency
GEVNC	General Electric Vallecitos Nuclear Center
Hanford-RL	Hanford (Richland Operations) Site
ICP	Idaho Cleanup Project
INL	Idaho National Laboratory
KAPL-S	Knolls Atomic Power Laboratory-Schenectady
KAPL-NFS	Knolls Atomic Power Laboratory – Nuclear Fuels Service
kg	Kilogram or kilograms

kg/m ³	Kilograms per cubic meter
LANL	Los Alamos National Laboratory
LANL-CO	Los Alamos National Laboratory – Carlsbad Operations
LBL	Lawrence Berkeley National Laboratory
LLNL	Lawrence Livermore National Laboratory
LWA	Land Withdrawal Act
m	Meter
MFC	Material and Fuels Complex (formerly Argonne National Laboratory – West)
MFP	Mixed fission product
mrem	Millirem
NEPA	National Environmental Policy Act
NQA	Nuclear Quality Assurance
NTS	Nevada Test Site
ORIGEN	Oak Ridge Isotope Generation and Depletion Code
ORNL	Oak Ridge National Laboratory
PA	Performance assessment
PABC	Performance Assessment Baseline Calculation
PAIR	Performance Assessment Inventory Report
PM	Packaging material
PVC	Polyvinyl chloride
QA	Quality Assurance
QAPD	Quality Assurance Program Document
RCRA	Resource Conservation and Recovery Act
rem	Roentgen equivalent man
RFETS	Rocky Flats Environmental Technology Site
RH	Remote-handled
RN	Radionuclide
SNL-A	Sandia National Laboratories – Albuquerque
SNL-CPG	Sandia National Laboratories – Carlsbad Programs Group
SRS	Savannah River Site
SWB	Standard waste box
TDOP	Ten-drum overpack
TRU	Transuranic
TWBIR	Transuranic Waste Baseline Inventory Report
USAMC	U.S. Army Materiel Command
WIPP	Waste Isolation Pilot Plant

WM	Waste material
WMP	Waste material parameter
WSP	Waste stream profile
WTWBIR	WIPP Transuranic Waste Baseline Inventory Report
WWIS	WIPP Waste Information System

EXECUTIVE SUMMARY

The U.S. Department of Energy's (DOE's) Waste Isolation Pilot Plant (WIPP) opened on March 26, 1999, becoming the nation's first deep geologic repository for the permanent disposal of defense-generated transuranic (TRU) waste. TRU waste generation has occurred at both large-quantity and small-quantity sites across the country. Many of these sites have emplaced their waste at WIPP, found other disposition pathways for the waste, or have transferred the waste to other sites for further disposition. As of December 31, 2008, there have been 7,063 shipments (6,868 contact-handled (CH) shipments and 195 remote-handled (RH) shipments) of TRU waste to WIPP for emplacement since WIPP's opening (DOE 2009a).

This *Annual Transuranic Waste Inventory Report – 2009* (ATWIR-2009) (hereafter referred to as “this report”) was prepared by the Los Alamos National Laboratory – Carlsbad Operations (LANL-CO). This report reflects the changes that have occurred and provides an update to the TRU waste inventory data since the last published report, the ATWIR-2008 (DOE 2008a). This report was developed from an annual inventory data update campaign from the TRU waste sites and the *WIPP Waste Information System* (WWIS) (Van Soest 2009a and DOE 2009b) using an inventory cutoff date of December 31, 2008. The information gathered from these sources was entered into the *Comprehensive Inventory Database* (CID) Version 1.00, Schema Version 1.00, Data Version D.8.00 (hereafter referred to as the CID) (LANL-CO 2009a). The CID is a DOE Carlsbad Field Office (CBFO) database qualified in accordance with the CBFO *Quality Assurance Program Document* (QAPD) (DOE 2009c). The CID includes estimates for: 1) waste volumes (stored, projected, and emplaced); 2) radionuclides (decayed to common years 2008 (executive summary, main body, and Appendices A, B, and C) and 2033, which is the WIPP proposed closure date, for comparisons in Appendix D); 3) waste material parameters (WMPs); 4) complexing agents; 5) oxyanions; 6) solidified cements; and 7) packaging materials. For specific container information, the WWIS (DOE 2009b) contains information on containers in waste streams that are emplaced or in the process of being emplaced in WIPP.

This inventory report serves to update TRU waste inventory information last reported in the ATWIR-2008 (DOE 2008a). The information contained in the CID that supports this report is the best estimate of TRU waste inventory information as of December 31, 2008, and includes waste that is emplaced in the WIPP as reported from the WWIS. The information presented in this report includes qualified rollup reports generated from the CID, as well as TRU waste characterization data obtained from the sites and reported in the WWIS.

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

The following primary differences were observed at the TRU waste sites between the ATWIR-2008 (DOE 2008a) and this report:

- TRU waste emplaced between the 1999 opening of the WIPP and December 31, 2008 (the inventory data cut-off date), is addressed in this report.
- Packaging and characterization activities were initiated in October 2008 at the General Electric Vallecitos Nuclear Center (GEVNC).
- Intersite shipments between the Nevada Test Site (NTS) and the Idaho National Laboratory (INL) were initiated.
- RH waste estimates from the Hanford Richland Operations (Hanford-RL) K-Basin sludge increased as a result of the cement they plan to use for packaging the sludge, as well as additional debris waste identified in the alpha caissons in the Hanford 300 Area.
- Soils waste increased as a result of the Idaho Cleanup Project (ICP) reassessment of WMPs, radionuclides, and chemical components for all the ICP waste streams with the addition of acreage to include in TRU waste management.

The following tables are provided to summarize the TRU waste anticipated inventory volume (stored plus projected), WMPs, and radionuclide estimates as of December 31, 2008:

- | | |
|--------------|--|
| • Table ES-1 | WIPP CH-TRU Waste Inventory by Site |
| • Table ES-2 | WIPP RH-TRU Waste Inventory by Site |
| • Table ES-3 | WIPP CH-TRU Waste Material Parameter Inventory |
| • Table ES-4 | WIPP RH-TRU Waste Material Parameter Inventory |
| • Table ES-5 | WIPP CH and RH Total Curies by Site |

Table ES-1. WIPP CH-TRU Waste Inventory by Site

Storage/Generator Site	Stored Volumes (m ³)	Projected Volumes (m ³)	Anticipated Volumes (m ³)
Argonne National Laboratory - East	1.02E+02	0.00E+00	1.02E+02
Material and Fuels Complex (ANL-W)	1.04E+01	6.76E+01	7.80E+01
Bettis Atomic Power Laboratory	1.89E+01	0.00E+00	1.89E+01
GE Vallecitos Nuclear Center	2.08E+00	0.00E+00	2.08E+00
Hanford (Richland Operations) Site	1.74E+04	0.00E+00	1.74E+04
Idaho National Laboratory	3.93E+04	0.00E+00	3.93E+04
Knolls Atomic Power Laboratory - Nuclear Fuel Services	3.20E+02	0.00E+00	3.20E+02
Lawrence Berkeley Laboratory	6.24E-01	6.24E-01	1.25E+00
Lawrence Livermore National Laboratory	2.79E+02	4.57E+02	7.36E+02
Los Alamos National Laboratory	1.05E+04	8.89E+02	1.14E+04
Nevada Test Site	1.61E+02	3.18E+02	4.78E+02
Oak Ridge National Laboratory	7.53E+02	1.16E+02	8.70E+02
Paducah Gaseous Diffusion Plant	4.99E+00	0.00E+00	4.99E+00
Sandia National Laboratories - Albuquerque	1.51E+01	4.37E+00	1.95E+01
Savannah River Site	7.26E+03	6.19E+02	7.87E+03
U.S. Army Materiel Command	2.08E-01	0.00E+00	2.08E-01
Grand Total	7.61E+04	2.47E+03	7.85E+04

Data Source: CID Data Version D.8.00, LANL-CO 2009a

Note: This table contains data for WIPP-bound waste streams reported by site only; it does not include data for potential waste streams.

Table ES-2. WIPP RH-TRU Waste Inventory by Site

Storage/Generator Site	Stored Volumes (m ³)	Projected Volumes (m ³)	Anticipated Volumes (m ³)
Argonne National Laboratory - East	4.53E+02	0.00E+00	4.53E+02
Material and Fuels Complex (ANL-W)	1.42E+01	4.90E+01	6.32E+01
Bettis Atomic Power Laboratory	3.56E+00	0.00E+00	3.56E+00
GE - Vallecitos Nuclear Center	2.14E+01	0.00E+00	2.14E+01
Hanford (Richland Operations) Site	2.37E+03	5.20E+02	2.89E+03
Idaho National Laboratory	5.16E+01	0.00E+00	5.16E+01
Knolls Atomic Power Laboratory - Schenectady	3.03E+01	8.01E+01	1.10E+02
Los Alamos National Laboratory	9.61E+01	0.00E+00	9.61E+01
Oak Ridge National Laboratory	4.43E+02	3.06E+02	7.49E+02
Sandia National Laboratories - Albuquerque	6.23E+00	0.00E+00	6.23E+00
Savannah River Site	7.12E+01	3.47E+01	1.06E+02
Grand Total	3.56E+03	9.90E+02	4.55E+03

Data Source: CID Data Version D.8.00, LANL-CO 2009a

Note: This table contains data for WIPP-bound waste streams reported by site only; it does not include data for potential waste streams.

Table ES-3. WIPP CH-TRU Waste Material Parameter Inventory

Waste Material	Average Density (kg/m³)
Aluminum-based Metals/Alloys	1.62E+00
Cellulosics	2.85E+01
Cements	5.21E+01
Inorganic Matrix	7.79E+01
Iron-based Metals/Alloys	7.17E+01
Organic Matrix	3.72E+01
Other Inorganic Materials	1.84E+01
Other Metals	3.62E+00
Plastics	3.47E+01
Rubber	5.09E+00
Soils/gravel	1.48E+01
Vitrified	0.00E+00
Package Material	
Packaging Material, Cellulosics	5.24E+00
Packaging Material, Plastic	1.51E+01
Packaging Material, Steel	1.88E+02
Packaging Material, Lead	0.00E+00

Data Source: CID Data Version D.8.00, LANL-CO 2009a

Note: This table contains data for WIPP-bound waste streams reported by site only; it does not include data for potential waste streams.

Table ES-4. WIPP RH-TRU Waste Material Parameter Inventory

Waste Material	Average Density (kg/m³)
Aluminum-based Metals/Alloys	8.23E+00
Cellulosics	8.56E+00
Cements	2.09E+02
Inorganic Matrix	3.22E+00
Iron-based Metals/Alloys	1.71E+02
Organic Matrix	1.52E+00
Other Inorganic Materials	1.19E+02
Other Metals	1.27E+01
Plastics	1.94E+01
Rubber	4.10E+00
Soils/gravel	8.44E+01
Vitrified	0.00E+00
Package Material	
Packaging Material, Cellulosics	0.00E+00
Packaging Material, Plastic	1.80E+01
Packaging Material, Steel	6.34E+02
Packaging Material, Lead	1.49E+00

Data Source: CID Data Version D.8.00, LANL-CO 2009a

Note: This table contains data for WIPP-bound waste streams reported by site only; it does not include data for potential waste streams.

Table ES-5. WIPP CH and RH Total Curies by Site

Site	Total CH Activity (Ci)	Total RH Activity (Ci)
Argonne National Laboratory - East	7.46E+02	1.00E+03
Material and Fuels Complex (ANL-W)	8.14E+02	5.79E+04
U.S. Army Materiel Command	5.13E-03	NA
Bettis Atomic Power Laboratory	8.08E+01	4.64E+04
GE - Vallecitos Nuclear Center	8.69E-02	1.07E+00
Hanford (Richland Operations) Site	9.42E+05	6.27E+05
Idaho National Laboratory	3.79E+05	4.86E+03
Knolls Atomic Power Laboratory - Nuclear Fuel Services	6.28E+02	NA
Knolls Atomic Power Laboratory - Schenectady	NA	3.04E+02
Los Alamos National Laboratory	3.59E+05	5.93E+03
Lawrence Berkeley Laboratory	2.76E-01	NA
Lawrence Livermore National Laboratory	1.10E+04	NA
Nevada Test Site	3.91E+03	NA
Oak Ridge National Laboratory	2.33E+04	6.10E+03
Paducah Gaseous Diffusion Plant	1.11E+01	NA
Rocky Flats Environmental Technology Site	9.63E+05	NA
Sandia National Laboratories - Albuquerque	1.61E+02	2.36E+03
Savannah River Site	5.98E+05	7.83E+03
Grand Total	3.28E+06	7.59E+05

Data Source: CID Data Version D.8.00, LANL-CO 2009a

NOTE: Decayed through CY 2008

INTRODUCTION

This *Annual Transuranic Waste Inventory Report – 2009* (ATWIR-2009) was prepared by the Los Alamos National Laboratory – Carlsbad Operations (LANL-CO) Transuranic (TRU) Waste Inventory Team. This inventory report is intended for general information and may be used as the basis for performance assessment (PA) analyses, as well as a tool for National TRU Program strategic planning purposes, such as the development of TRU waste site-specific work-off plans or National Environmental Policy Act (NEPA) analyses. This report includes the background and history of the TRU waste inventory, the information sources used to collect and prepare the inventory, descriptions of the ways inventory information is used, methodology used to develop the inventory, TRU waste inventory estimates, and identification of potential TRU waste that may or may not be disposed of at the Waste Isolation Pilot Plant (WIPP).

The background and history section of this report explains how the TRU waste inventory was collected and used for the initial certification of WIPP (Section 1.1). Currently, the inventory is collected on an annual basis to monitor how the TRU waste inventory is changing. Section 1.2 includes a description of all information sources used to update the Comprehensive Inventory Database (CID). Examples of sources include: Acceptable Knowledge (AK) reports, TRU waste site information, and the WIPP Waste Information System (WWIS) database. Section 1.3 includes uses of TRU waste inventory such as inventory information to support PA modeling calculations needed for WIPP recertification, NEPA analyses, and strategic planning.

Section 2.0 describes the processes and activities undertaken by the LANL-CO TRU Waste Inventory Team in order to prepare this report. These include:

- Collection, screening, and analyses of raw inventory data from the TRU waste sites
- Analysis of emplaced inventory data reported from the WWIS
- Verification and validation of data entered into the CID
- Decay correction of radionuclide data by the Oak Ridge Isotope Generation and Depletion Code (ORIGEN2), Version 2.2 to facilitate accurate comparison
- Calculations performed within the CID
- Analyses of chemical component and cement data

Section 3.0 discusses the TRU waste inventory estimates and consists of summaries of the inventory information collected from the TRU waste sites. Section 3.1 presents TRU waste volume estimates of contact-handled (CH) and remote-handled (RH) waste reported as stored, projected, anticipated (stored plus projected) and emplaced by site (see Glossary for definitions of these categories). Section 3.2 presents the inventory of TRU waste materials, packaging materials and chemical and cement components. Section 3.3 presents the TRU waste radionuclide activity inventory from each site, rolled up and decayed through the end of calendar year (CY) 2008.

Section 4.0 discusses the potential TRU waste which, at this time, cannot be shipped to WIPP. Reasons for a “potential” designation may include: insufficient information, lack

of a defense determination, or other technical or regulatory limitations that must be addressed prior to shipment of the waste to WIPP. These reasons are presented on a per-waste-stream basis in Section 4.0.

This report includes comprehensive data from each TRU waste site. All data are validated by the U.S. Department of Energy (DOE) TRU waste site representative to ensure accuracy.

1.1 Background and History

On May 18, 1998, the U.S. Environmental Protection Agency (EPA) certified that the WIPP complied with the final disposal regulations and criteria of Title 40 Code of Federal Regulations (CFR) Parts 191 and 194 (EPA 1993; EPA 1996). The DOE opened the WIPP on March 26, 1999, as the nation's first deep geologic repository for the permanent disposal of defense-generated TRU waste.

The WIPP Land Withdrawal Act (LWA) (U.S. Congress 1992, as amended in 1996) requires EPA to periodically recertify WIPP in accordance with the regulatory requirements established in Title 40 CFR, Part 194¹ (40 CFR 194) (EPA 1996). A TRU waste inventory including waste material parameters (WMPs), radionuclides, and chemical components important to WIPP PA is developed in accordance with the requirements published in 40 CFR 194.24. Under the LWA, five years after the initial receipt of TRU waste at WIPP and every five years thereafter, DOE must submit a compliance recertification application (CRA) to EPA documenting continued compliance. Once the EPA determines the application is complete, in accordance with the regulatory requirements, the EPA has six months to make a decision to approve or deny the application. DOE submitted the first recertification application, CRA-2004 (DOE 2004), to EPA in March 2004, and EPA recertified WIPP in March 2006. DOE submitted the second recertification application, CRA-2009 (DOE 2009d), to EPA in March 2009. EPA is currently reviewing the CRA-2009 application.

Since 1994, DOE complex-wide TRU waste inventory information has been collected, analyzed, and published in several reports for WIPP certification purposes. The *WIPP Transuranic Waste Baseline Inventory Report* (WTWBIR), Revision 0, published in June 1994 (DOE 1994), was the first attempt made by the DOE complex to report all of its TRU waste at the waste-stream level. The TRU waste data reported in Revision 0 were considered preliminary until the TRU waste sites completed quality checks of the data. Data changes resulting from the quality checks were contained in the WTWBIR, Revision 1 (DOE 1995a). The *Transuranic Waste Baseline Inventory Report* (TWBIR), Revisions 2 and 3 (DOE 1995b; DOE 1996a), included WIPP and potential TRU waste streams, along with waste stream information. Data from Revisions 2 and 3 provided the TRU

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

waste inventory that Sandia National Laboratories–Carlsbad Programs Group (SNL-CPG) used to perform the necessary modeling calculations for the PA for the initial certification of the WIPP (*Compliance Certification Application [CCA]*) (DOE 1996b).

The EPA requested that an update to the CCA TRU waste inventory be included in the WIPP *Compliance Recertification Application 2004* (CRA-2004) (DOE 2004) based on the availability of new inventory estimates and characterization data. In response to this request the TRU waste inventory update was provided, which contained summary data and supplemental information required for the CRA-2004. This updated TRU waste inventory was published in the CRA-2004 as Appendix DATA, Attachment F.

The primary purpose of the *Transuranic Waste Baseline Inventory Report – 2004* (TWBIR-2004) (DOE 2006), a revision of Appendix DATA, Attachment F of the CRA-2004, was done to support the Performance Assessment Baseline Calculation (PABC) for the CRA-2004. The TWBIR-2004 provided the summary data required for the PA modeling calculations that were used in the PABC (Leigh et al. 2005), including two inventory changes, one at the Idaho National Laboratory (INL) and the other at the Hanford (Richland Operations) Site (Hanford-RL), that occurred during the EPA’s review of the CRA-2004.

The *Annual Transuranic Waste Inventory Report – 2007* (ATWIR-2007) (DOE 2008b), was the first annual inventory report prepared by the inventory team after TWBIR-2004 and contained both scaled (see the Glossary for definition of scaling) and unscaled inventory data. The ATWIR-2008 (DOE 2008a) was published in December 2008 and contained only unscaled data. These inventory updates are prepared by the inventory team annually to track changes in the TRU waste inventory, and may or may not be used in the WIPP recertification process.

A separate report, the *Performance Assessment Inventory Report-2008* (PAIR), (Crawford et al. 2009) was published in 2009. The PAIR-2008 was prepared using the data from the ATWIR-2008 so that a scaled inventory would be available for use in the PA. The PAIR-2008 included data as of December 31, 2007. The table below lists the inventory reports that were used in the WIPP certification and recertification applications.

Certification/Recertification	Inventory Report Used
CCA	TWBIR, Revisions 2 and 3
CRA-2004	Compliance Recertification Application 2004, Appendix DATA, Attachment F
CRA-2004 PABC	TWBIR-2004
CRA-2009	TWBIR-2004
CRA-2009 PABC	PAIR-2008

Since the ATWIR-2008 (DOE 2008a) was published, a number of changes have occurred that affected the volume, waste material, and radiological characteristics of TRU waste streams. The primary differences observed and addressed in this report are attributed to the following (see Appendix D):

- Emplacement of waste in the WIPP during CY 2008.
- TRU waste site program management decisions. Some sites have reassessed what their final form container type will be, resulting in changes to final form volumes, radioactivity concentrations and WMP densities.
- Increased availability and confidence in characterization information or process knowledge.
- Initiated packaging and characterization activities in October 2008 at the General Electric Vallecitos Nuclear Center (GENVC).
- Increased RH-waste estimates from Hanford-RL K-Basin sludges as a result of the cement they plan to use for packaging the sludge, as well as additional debris waste identified in the alpha caissons in the Hanford-RL 300 Area.
- Intersite shipments have occurred between small quantity sites and the INL.
- Increased volumes of soils from the ICP at INL as a result of the reassessment of the WMPs, radionuclides, and chemical components for all of the ICP waste streams due to an addition of acreage included in the TRU waste management area.

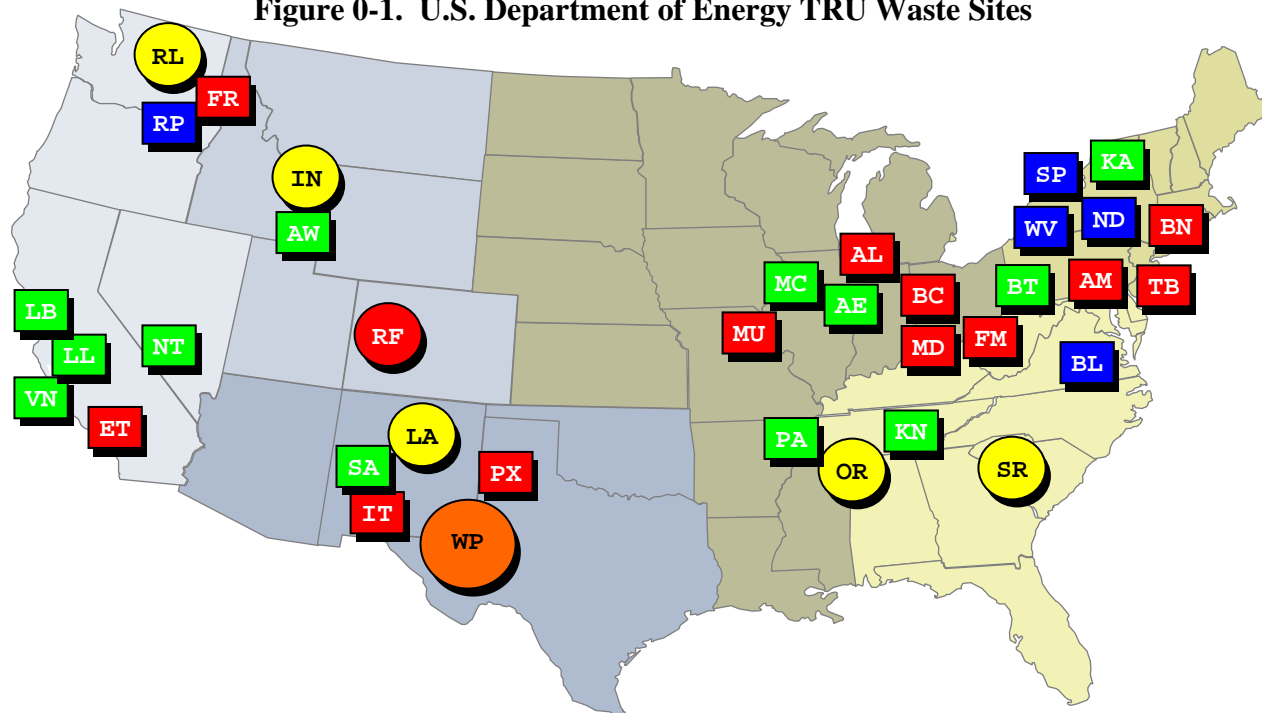
TRU waste generation has occurred at both large quantity and small quantity sites across the country. As seen in Figure 1-1, the sites identified by red boxes have totally de-inventoried the TRU waste from their sites. The sites identified by green boxes are small quantity sites having stored TRU waste that has been shipped, is being shipped, or will be shipped. The sites identified by blue boxes are sites that have potential TRU waste, meaning that there is not enough information available about the waste to determine whether it can meet all the criteria for disposal at WIPP. The sites identified by yellow circles are the large quantity sites from which TRU waste is being shipped to WIPP for disposal. The site identified by the orange circle is the WIPP.

From WIPP's opening on March 26, 1999, through December 31, 2008, 6,868 shipments of CH-TRU waste and 195 shipments of RH-TRU waste were safely characterized, transported, and disposed at WIPP (DOE 2009a). Depending on programmatic and site waste management decisions and characterization data, TRU waste inventory information changes frequently. Therefore, the TRU waste inventory is updated annually. This report, ATWIR-2009, is an update of the TRU waste inventory information as it was known on December 31, 2008. This report includes only TRU waste information on the known and projected inventory at this cut-off date and has not been scaled to model a full repository for PA purposes. A separate report known as the PAIR is prepared upon request by the Carlsbad Field Office (CBFO) or other WIPP participants and contains the pertinent information needed for PA.

The work for this report was performed under the LANL-CO Quality Assurance (QA) Program, which is fully compliant with the requirements set forth in the CBFO *Quality Assurance Program Document* (QAPD) (DOE 2009c) and is documented in LCO-QPD-01, *LANL-CO WIPP Quality Assurance Plan* (LANL-CO 2007a). The processes used by the LANL-CO TRU Waste Inventory Team to collect, maintain, and report inventory information are graded and implemented to Nuclear Quality Assurance-1 (NQA-1) standards under the LANL-CO QA Program. This includes the software QA procedures used to qualify the CID and other software used to analyze TRU waste inventory information. LANL-CO software QA is documented in LCO-QPD-02, *Software Quality Assurance Plan* (LANL-CO 2007b), and LCO-QP19-1, *Software Quality Assurance* (LANL-CO 2008a).

1.2 Sources of Transuranic Waste Information

This report includes information taken from: 1) the ATWIR-2008 (DOE 2008a), 2) AK reports, 3) updated information provided by the TRU waste sites, and 4) the WWIS database. For each subsequent year, the sites are asked to update their data from the previous year. As an example, the sites used the ATWIR-2008 data to update the data used for this report. TRU waste sites may use information obtained from site-specific AK reports that provide the most current information on waste streams being characterized and shipped to WIPP, such as chemical lists and radionuclides. All TRU waste inventory information for emplaced waste is obtained from the WWIS administrator.

Figure 0-1. U.S. Department of Energy TRU Waste Sites

Yellow – Large Quantity Site **Green – Small Quantity Site** **Red – Sites that are De-inventoried of TRU Waste** **Blue – Potential TRU Waste Site**

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

1.3 Uses of Transuranic Waste Inventory Information

The primary use for TRU waste inventory information is as input to WIPP PA modeling calculations performed by SNL-CPG. When these data are needed, CBFO will request a PAIR be prepared that provides the latest inventory data available and is scaled using a defined scaling methodology in order to model a full repository. In addition to supporting WIPP PA, the TRU waste inventory is used as a basis for strategic planning decisions for processing waste that has already been generated and is stored at the TRU waste sites. Inventory waste stream volumes are accounted for in both “current form” (current packaging) and “final form” (planned WIPP-compliant packaging) configurations. This information is useful in various waste management scenarios. As an example, CBFO management used TRU waste inventory information to plan waste retrieval, treatment, repackaging, characterization, shipment, and disposal for both stored and projected wastes in past years. In addition, site-specific work-off plans, which detail approaches for moving TRU waste to WIPP, have been developed and are updated based on current TRU waste inventory information.

The DOE has many reasons for obtaining and tracking non-radiological information about the TRU waste destined for WIPP. For example, the DOE tracks the waste materials that go into the WIPP repository, such as cellulose, plastic and rubber (CPR), because they may affect gas generation in the repository. In addition, the DOE needs to know the non-radiological properties of the waste to support PA, safe transportation of TRU waste, and operation of the WIPP facility.

Other examples where the TRU waste inventory was used for technical purposes were to:

- Provide data for CBFO analyses that support compliance with the NEPA.
- Support the development of new containers or shipping packages and planned change requests (PCRs) for other design changes in the repository.
- Create strategic plans for future waste management.
- Provide data on stored and emplaced waste to support tracking of shipping, intersite shipments, and emplacement progress.
- Provide data for actinide chemistry studies that involve the interactions of the emplaced TRU waste and other expected chemical components in the repository environment and the effects on actinide solubility.

2.0 METHODOLOGY

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

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

The following sections describe the three basic process steps leading to the issuance of this report. Section 2.1 discusses collection, compilation, verification, and validation of TRU waste inventory information. Section 2.2 describes the calculations used in the CID reports. Section 2.3 describes the supplemental analyses performed on inventory data, including transformation activities performed on the WWIS for emplaced waste data prior to input in the CID, and the analysis of the chemical and cement components used to support this report.

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

The process used to collect information from the TRU waste sites is captured in LANL-CO Procedure INV-SP-01, *Data Collection, Data Management and Control for the Comprehensive Inventory* (LANL-CO 2007c). In January, in accordance with this procedure, a letter (Patterson 2009) was sent to TRU waste sites along with their TRU waste inventory information obtained from the ATWIR– 2008 (DOE 2008a) with the request to update the data. The information that was reported in the CID Data Version D. 7.00 (LANL-CO 2008b) was downloaded into a Microsoft™ Excel spreadsheet data file (a.k.a. “template”). The sites were requested to update the existing information on the Excel data templates provided.

After the data templates were sent to the sites, the TRU Waste Inventory Team visited the large quantity sites and several small quantity sites to assist them in completing the template. After the templates were complete, the team checked the templates for accuracy and consistency.

During this data check, the inventory team verified that the inventory updates included all the requested information. The inventory team contacted the sites if any of the data checks and sources of changes appeared to be inaccurate. Examples of the data checks included were:

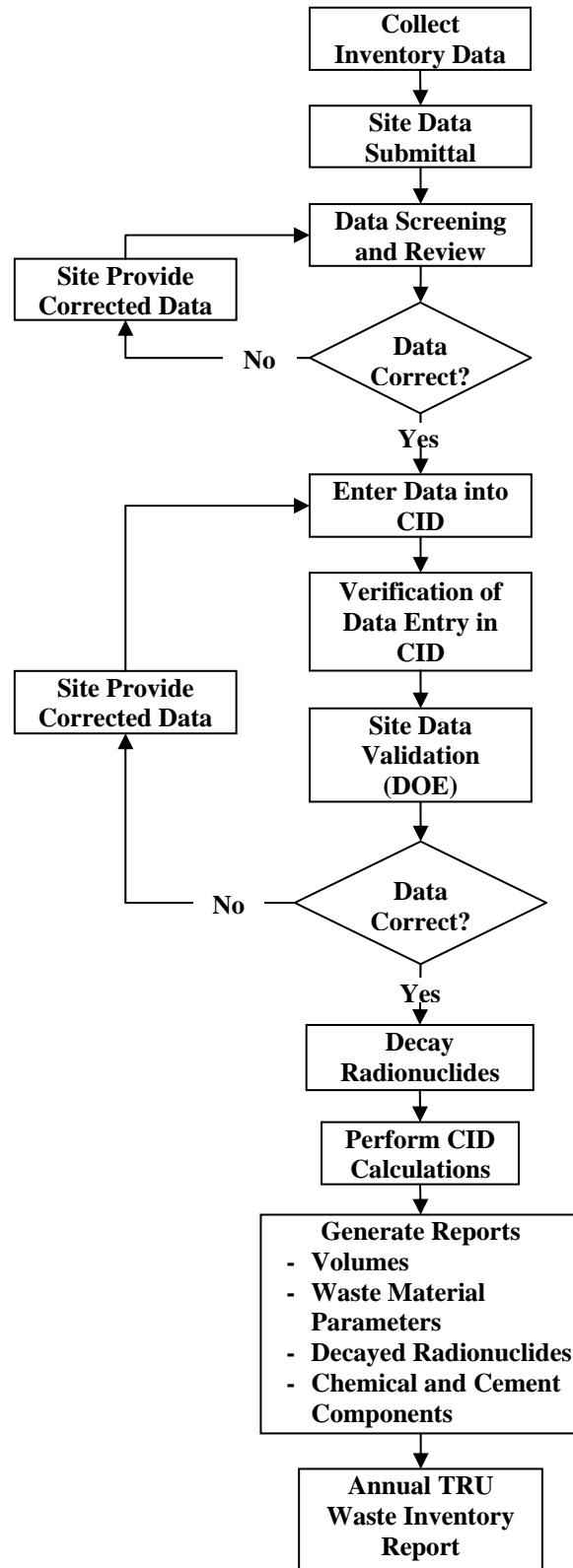
- Verification of radionuclide isotopic inputs (i.e., checked for presence of all fission products, radionuclides expected in secular equilibrium with those reported, and decay daughters);
- Verification of isotopic distribution for material type codes (e.g., plutonium [Pu]-52 and mixed fission products [MFPs]);
- Verification that Cs-137 activity is less than 0.29 curies per cubic meter (Ci/m³) for CH waste streams and greater than 0.29 Ci/m³ for RH waste streams;

- Verification that reported activity concentration did not exceed the LWA limits (i.e., waste streams reported with greater than 23,000 Ci/m³ averaged over the volume of the canister were screened out of the inventory);
- Verification that if cement was reported in a comment field, it was also reported as a WMP in kilograms per cubic meter (kg/m³);
- Verification that waste that has been assigned a hazardous waste number that is prohibited at WIPP is not assigned to final form waste, and identification of the treatment that would be applied to make the waste shippable to WIPP, if applicable, for a given waste stream;
- Verification that uranium does not exceed half of any container volume (i.e., U-238 activity does not exceed 0.65 Ci/m³);
- Check of the densities of CPR. Based on the assumption that one half of the content of a container is pure CPR, the following observations should be in effect:
 - Cellulose should not exceed 795 kg/m³
 - Plastic should not exceed 750 kg/m³
 - Rubber should not exceed 760 kg/m³; and
- Check to ensure oxyanions, complexing agents, radionuclide activity concentrations, and WMP densities have been recalculated, if the final container count has changed for a waste stream.

Another important data check that was performed for the ATWIR-2009 was a comparison of the ATWIR-2008 waste stream data to ATWIR-2009 data. The inventory team analyzed the compared data and addressed large differences with sites that reported them in the two data sets. This process helped identify the reasons for the large differences and identify erroneous data.

The process followed for entering TRU waste inventory information into the CID is captured in LANL-CO Procedure INV-SP-02, *Entry, Verification, and Validation of Inventory Information in the Comprehensive Inventory Database* (LANL-CO 2009b). In accordance with this procedure, the TRU waste inventory information was uploaded from the Excel template or entered manually into the CID, and was reviewed and verified by an inventory team member who had not been involved in the population of the template or entry of the data into the database. If discrepancies were found during this verification, the data were corrected in accordance with INV-SP-02.

After this internal, independent verification was complete, validation reports were prepared and sent to the DOE TRU waste managers at the sites. A validation letter signed by the DOE site representative and site contractor (contractor signature is optional) documented the correctness of the information as reported from the CID. Hard copies of the validation report and signed validation letters were then submitted to the LANL-CO Record Center (see Figure 2-1 for a flow chart of the TRU waste inventory process). The CID data were then labeled as data version D.8.00, and protected from further revision.

Figure 2-1. TRU Waste Inventory Process Flowchart

2.2 Calculations Used for CID Reports

Data tables included in this report were generated using the CID. The CID is a database developed by LANL-CO and qualified for use under the LANL-CO QA Program in accordance with *LANL-CO Software Quality Assurance Plan*, LCO-QPD-02 (LANL-CO 2007b), and *Software Quality Assurance*, LCO-QP19-1 (LANL-CO 2008a).

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

2.2.1 Volume Reporting

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

A standard final form container type (WIPP-compliant) list, which includes the volume that each container type occupies within the WIPP repository (i.e., the payload container volume) is maintained in the CID. Waste stream volumes were calculated within the CID using the reported counts and the respective container volumes for the container types, as shown in equation 1.

$$v_i = \sum_j ((s_{ij} + p_{ij} + e_{ij}) \cdot cv_j) \quad (1)$$

where:

v_i	is the total volume (stored + projected + emplaced) in waste stream i in m ³
s_{ij}	is the stored count for container type j in waste stream i
p_{ij}	is the projected count for container type j in waste stream i
e_{ij}	is the emplaced count for container type j in waste stream i
cv_j	is the final form volume per container for container type j in m ³
\sum_j	is the summation of all container types j volumes for waste stream i

Site- and WIPP-level roll-up reports were produced for each handling category (CH-TRU and RH-TRU) by summing the final form volumes (stored + projected + emplaced) of the applicable waste streams by site, as shown in equation 2, and by summing over all sites as shown in equation 3.

$$V_s = \sum_i v_{is} \quad (2)$$

$$V_w = \sum_s V_s \quad (3)$$

where:

- V_s is the total volume (stored + projected + emplaced) for site s in m^3
- v_{is} is the total volume (stored + projected + emplaced) in waste stream i for site s in m^3
- V_w is the total volume in all (stored + projected + emplaced) waste streams in m^3
- \sum_i is the summation of all the waste streams i volumes for site s
- \sum_s is the summation of all the sites s total volume

2.2.2 Waste Material Parameter Reporting

As part of the data call for this report, the TRU waste sites were asked to update the information about the materials contained in the waste. For each waste stream, they were asked to revisit the final waste forms and to update, if necessary, the density of each of the WMPs for the waste stream. See Section 3.2.1 for a description of these WMPs.

In many cases, waste streams are comprised of more than one container type (e.g., 55-gallon drums and standard waste boxes [SWBs]). In these instances the TRU waste site provided only one set of WMPs in kg/m^3 , which was uniformly applied to the entire waste stream, regardless of how many container types were reported. Conversely, the packaging material parameters are specific to each of the individual container types and were proportional contributors based upon their respective container counts reported. These packaging materials were based on packaging densities in kg/m^3 , determined for standard container types reported in INV-SAR-03, *Analysis of Container Material Densities* (McInroy 2008). The CID contains a single WMP list for every waste stream. However, the waste profiles in Appendices A through C include a weighted average of the packaging material densities for all of the WIPP-approved container types reported in the waste stream, calculated as shown in equations 4, 5, and 6:

$$^{PM}m_{ij} = ^{PM}d_j \cdot tv_{ij} \quad (4)$$

$$^{PM}M_i = \sum_j ^{PM}m_{ij} \quad (5)$$

$$^{PM}D_i = ^{PM}M_i / v_{is} \quad (6)$$

where:

- $^{PM}m_{ij}$ is the mass m of the packaging material PM for container type j in waste stream i in kg
- $^{PM}d_j$ is the density d of the packaging material PM for container type j in kg/m^3
- tv_{ij} is the total volume $((s_{ij} + p_{ij} + e_{ij}) \cdot cv_j)$ (see equation 1) for container type j in waste stream i in m^3
- $^{PM}M_i$ is the total mass M of packaging material PM in waste stream i in kg
- $^{PM}D_i$ is the average density D of the packaging material PM in waste streams i in kg/m^3
- v_{is} is the total volume (stored + projected + emplaced) in waste stream i for site s in m^3 (see equation 1)
- Σ_j is the summation of all container types j packaging material mass for waste stream i

The roll-up of WMP average densities for each handling category (CH and RH) required combining data from all of the WIPP-bound waste streams reported for the respective category. A weighted average value for the WMP based on the individual waste stream volumes in the total inventory was calculated in the CID from the WMP average densities provided by the sites as shown in equations 7, 8, and 9:

$$^{WM}m_i = ^{WM}d_i \cdot v_i \quad (7)$$

$$^{WM}M = \sum_i ^{WM}m_i \quad (8)$$

$$^{WM}D = ^{WM}M / V_w \quad (9)$$

where:

- $^{WM}m_i$ is the mass m of the waste material WM in waste stream i in kg
- $^{WM}d_i$ is the average density d of the waste material WM in waste stream i in kg/m^3
- v_i is the total volume (stored + projected + emplaced) in waste stream i in m^3 (see equation 1)
- ^{WM}M is the total mass M of the waste material WM in all (stored + projected + emplaced) waste streams in kg
- ^{WM}D is the average density D of the waste material WM in all (stored + projected + emplaced) waste streams in kg/m^3
- V_w is the total volume in all (stored + projected + emplaced) waste streams in m^3 (see equation 3)
- Σ_j is the summation of all waste streams i waste material mass

2.2.3 Radionuclide Reporting

The TRU waste sites were asked to update information about the radiological components in the waste they intend to ship to WIPP. For each waste stream, they were asked to assess and update, when necessary, radionuclides and their associated activity concentrations in Ci/m³. Where new radiological information was provided, the TRU waste sites provided the generation or last assay date for the updated waste stream to provide the starting date for decay calculations.

Since radionuclide data provided by the TRU waste sites consisted of radionuclide activity concentrations at the date of assay (generation or as calculated), radionuclide activity concentrations reported on a waste stream basis were decay-corrected to a common date to facilitate comparison of data. Therefore, all radionuclide data provided in this report in Tables ES-5, 3-11, 3-12, and 3-13, and in Appendices A and B are decay-corrected to the common base CY 2008 (December 31, 2008). In order to facilitate comparison to previous TRU waste inventory reports, radionuclide concentrations are also decay-corrected to the WIPP proposed closure year, CY 2033, and are presented in Appendix D of this report.

Prior to generating radionuclide tables from the CID, the radionuclide activity concentrations reported by the TRU waste sites were exported from the CID, processed through an external application, Oak Ridge National Laboratory (ORNL) Radiation Safety Information Computational Center *RSICC Computer Code Collection: ORIGEN 2.2, Isotope Generation and Depletion Code Matrix Exponential Method* (ORNL 2002), where the radionuclide decay calculations were performed, and then imported back into the CID. ORIGEN 2.2 uses a matrix exponential method to solve a large system of coupled, linear, first-order ordinary differential equations with constant coefficients. ORIGEN 2.2 is qualified for use under the LANL-CO QA Program in accordance with *LANL-CO Software Quality Assurance Plan*, LCO-QPD-02 (LANL-CO 2007b), and *Software Quality Assurance*, LCO-QP19-1 (LANL-CO 2008a). A separate analysis describing the use of TransOrigen, a pre- and post-processor Excel workbook application for interfacing with ORIGEN 2.2, is used to qualify data transfers and unit conversion. This workbook provides a user-friendly interface to process radionuclide data from ORIGEN 2.2 by facilitating the creation of input files, executing ORIGEN 2.2 in a sequential fashion for each input file, and post-processing the output files (Van Soest 2009b).

Waste stream volumes were used to calculate waste stream radionuclide activity from the decay-corrected activity concentrations as shown in equation 10.

$$^{RN}a_i = ^{RN}ac_i \cdot v_i \quad (10)$$

where:

- $^{RN}a_i$ is the activity a of the radionuclide RN in waste stream i in Ci
- $^{RN}ac_i$ is the decay-corrected activity ac concentration from ORIGEN 2.2 for radionuclide RN in waste stream i in Ci/m³
- v_i is the total volume (stored + projected + emplaced) in waste stream i in m³ (see equation 1)

The site-level roll-up radionuclide activities were calculated for both CH- and RH-TRU waste as shown in equation 11.

$${}^{\text{RN}}A_s = \sum_i {}^{\text{RN}}a_{is} \quad (11)$$

where:

- ${}^{\text{RN}}A_s$ is the total activity A for a radionuclide in CH- or RH-TRU waste for site s in Ci
- ${}^{\text{RN}}a_{is}$ is the activity a for a radionuclide RN in waste stream i for site s in Ci
- \sum_i is the summation of all the waste streams i activity for site s

2.3 Supplemental Analyses Supporting the Annual Transuranic Waste Inventory Report

In addition to collecting and processing information from the DOE TRU waste sites and securing the site information in a qualified database for future use, analyses were performed on the information to support the preparation of this report. For example, information on emplaced waste was obtained from the WWIS administrator and migrated into standardized CID Import Template (CIT) files and analyses were performed to determine the estimated masses of complexing agents, oxyanions, and cement. These analyses were performed and documented in accordance with LCO-QP9-1, *Analyses* (LANL-CO 2008c).

2.3.1 Analysis of WIPP Waste Information System/Emplaced Data

In order to account for TRU waste emplaced in the WIPP repository at the time of the inventory cut-off date, a documented request was made of the WWIS database administrator to supply data for the waste emplaced as of December 31, 2008. To update the TRU waste emplaced inventory data within the CID, the WWIS data submittal was first migrated into standardized CIT files. This migration required that the original WWIS data submittal undergo various transformations, including but not limited to calculations, aggregations, and data mapping. These activities and calculations are documented in INV-SAR-18, *WWIS Data Transformation for Insertion in the 2008 Inventory CID Import Template* (Van Soest 2009a). The CIT files were subsequently used to update the CID. The emplaced inventory information is included in Sections 3.1 through 3.3 and Appendix B of this report.

2.3.2 Analysis of Chemical and Cement Components

As part of the annual data call for TRU waste inventory information, the TRU waste sites were asked to provide information about the chemical components of the waste. The CID data version D.8.00 (LANL-CO 2009a) contains a weight percent for complexing agents

(acetate, citrate, oxalate, sodium ethylenediaminetetraacetic acid (EDTA)), and oxyanions (nitrate, sulfate, and phosphate) on a waste stream basis. Cement information is reported as part of the WMPs on a waste stream density basis in kg/m³.

In order to determine the masses of the various complexing agents, oxyanions, and cements that could potentially be emplaced in the WIPP, the CID administrator was requested to develop and perform a query to be executed using the CID, data version D.8.00. The CID administrator developed the query using the Microsoft SQL Server 2008 Management Studio. The query contains the unscaled mass of these components that are currently stored and what is projected to be generated at the sites. In order to conservatively estimate complexing agents, oxyanions, and cements, and validate the data generated by the query, an analysis was performed and documented in INV-SAR-20, *Chemical and Cement Components 2008 Inventory Estimates* (McInroy 2009). The resulting mass of the various complexing agents, oxyanions, and cements are presented in Section 3.2.3 of this report.

3.0 TRANSURANIC WASTE INVENTORY ESTIMATES

This section presents the TRU waste inventory information that was collected as of December 31, 2008. The data were collected and entered into the CID, internally reviewed and verified, validated by the TRU waste sites, and labeled as data version D.8.00, as discussed in Section 2.1.

This report of the TRU waste inventory consists of summaries of the inventory information collected from the TRU waste sites and information calculated from the data submitted by the sites. Section 3.1 presents the final form TRU waste volume information provided by the sites for CH- and RH-TRU waste and volume of emplaced waste in the WIPP repository. Data for emplaced waste were obtained from the WWIS administrator, transformed and formatted for import (Van Soest 2009a), and imported to the CID, and are included in the inventory tables below. Section 3.2 presents the non-radiological properties of the TRU waste inventory as reported by the sites and contained in the WWIS. This includes roll-ups of the waste materials (Section 3.2.1), packaging materials (Section 3.2.2), and complexing agents, oxyanions and cements (Section 3.2.3). Section 3.3 presents the TRU waste radionuclide inventory reported by the sites and the data taken from the WWIS that has been decayed through common year 2008. It should be noted that all values presented in the tables are to three significant figures for presentation purposes.

Additional TRU waste inventory estimates are provided in the Appendices of this report. The TRU waste inventory, as collected from the TRU waste sites, is presented by waste stream in Appendices A, B, and C. Appendix A presents individual waste stream profiles (WSPs) for all TRU waste streams planned for emplacement in the WIPP repository. Appendix B presents individual WSPs for all TRU waste streams that were emplaced in WIPP, as of December 31, 2008. Appendix C presents individual WSPs for potential WIPP TRU waste streams, as discussed in Section 4.0 of this report. Appendix D presents

comparisons of the data from the ATWIR-2008 to the data in this report for volume, waste and packaging materials, radionuclide data, and chemical components. Appendix E presents the crosswalk of waste streams between the ATWIR-2008 and this report.

3.1 TRU Waste Volume Estimates

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

The TRU waste volume estimates were generated from the container type and count provided by the TRU waste sites and the WWIS administrator. The sites provided both stored and projected container types and counts for both current form and final form containers. The WWIS administrator provided emplaced container types and counts. The volume for the final form was calculated using established container volumes for WIPP-approved containers so that there is consistency in the final form volume from site to site. Section 3.1.1 discusses TRU waste inventory volume information for emplaced waste by TRU waste site. Section 3.1.2 discusses stored, projected, and anticipated TRU waste final form volumes by TRU waste site.

3.1.1 Emplaced Volumes by Site

Data for waste emplaced in the WIPP repository were obtained from the WWIS administrator and uploaded to the CID after conversion using the analysis discussed in Section 2.3.1. The WWIS data were provided by container types and their respective counts per waste stream. The CID generates volumes for the emplaced waste using the same methodology and standard container volumes used for the final form containers from the TRU waste sites. This ensures consistency among all WIPP-approved containers in the inventory.

The CID differs from the WWIS in volume calculation methodology. Because of this difference, emplaced waste volumes reported by the two systems will not exactly agree. The main differences in methodology are described below:

CID	WWIS
All 55-gallon drum configurations are 0.208 m ³	All 55-gallon drum configurations are 0.21 m ³
All RH containers are tallied according to the volume of the outer container (e.g., RH canisters overpacking drums are 0.89 m ³)	All RH containers are tallied according to the volume of the inner containers (e.g., three 30-gallon drums are 0.339 m ³)

In the first difference, the slight variation seen between these two drum volumes is attributed to rounding of the container volume. This results in a small difference in CH TRU waste emplacement volumes between the two systems. The CID emplaced volume calculated for this report is 57,687 m³ as of December 31, 2008, while the official

emplaced volume calculated in the WWIS for CH TRU waste is 57,789 m³ for the same date.

The second difference shows a more significant difference between the two systems. The CID and past inventory databases have always calculated the volume of RH-TRU waste based on the outer container volume (the canister) that will be emplaced in WIPP (this is consistent with CH-TRU volume calculation methodology). However, with the first receipt of RH waste in 2007, the WWIS began tracking the emplaced volume of RH-TRU waste based on the container volume (the inner container). In the most extreme example of variation, a given RH canister containing three 30-gallon drums will be counted as 0.89 m³ in the CID and 0.339 m³ in the WWIS. For this report, the CID calculates a total of 174 m³ of emplaced RH-TRU waste as of December 31, 2008 (LANL-CO 2009a), while the RH-TRU waste volume calculated by the WWIS is 83 m³ for the same date (DOE 2009a).

It should be noted that the WWIS is the official database for emplaced waste at WIPP. Plans are currently in place for numerous modifications to the CID, one of which will address the way the database stores and reports the volume of emplaced waste, which will bring it into alignment with the WWIS methodology. Until this is accomplished, this annual report will continue to report emplaced volume using methodology consistent with previous inventory reports. The last columns of Tables 3-1 and Table 3-2 reflect the total emplaced CH- and RH-TRU waste volume, respectively, by site as calculated by the CID.

3.1.2 Stored, Projected, and Anticipated Volumes by Site

TRU waste volume information requested from the TRU waste sites falls into two categories: stored waste (waste that currently exists at the site, regardless of whether it is in its final form) and projected waste (waste that will be generated in the future at the site). The total waste stream volume information collected from the sites included stored and projected components as applicable for each TRU waste stream. The sites also reported both current form and final form waste volumes for their waste streams. The current form accounts for the current packaging configuration of the waste, while the final form volume accounts for the eventual packaging configuration suitable for WIPP emplacement. Volumes calculated in this report are reflective of the final form outer container volume (the volume the waste container occupies in the WIPP repository, e.g., 4.5 m³ for a ten-drum overpack).

Table 3-1 shows the total CH-TRU waste stored, projected, and anticipated (stored plus projected), using final form volumes estimated to be shipped to WIPP and broken out by TRU waste site. There is a total of approximately 78,550 m³ of CH-TRU waste estimated to be shipped to WIPP in the future. Approximately 98.0% of the anticipated CH-TRU waste is stored or will be generated at large quantity sites: Hanford-RL, INL, LANL, ORNL, and SRS (see Appendix D for comparisons to CH-TRU waste volumes reported last year).

Table 3-2 shows the total RH-TRU waste stored, projected, and anticipated (stored plus projected), using final form payload volumes estimated to be shipped to WIPP and broken

out by site. Approximately 4,450 m³ of RH-TRU waste is estimated to be shipped to WIPP in the future. Approximately 86.0% of the anticipated RH TRU waste is stored or will be generated from large quantity sites: Hanford-RL, INL, ORNL, LANL and SRS. At the time of inventory data cut-off, only INL and Argonne National Laboratory – East (ANL-E) had shipped RH-TRU waste to WIPP (see Appendix D for comparisons to RH-TRU waste volumes reported last year).

Table 3-1. WIPP CH-TRU Waste Inventory Volumes By Site

Storage/Generator Site	Stored Volumes (m ³)	Projected Volumes (m ³)	Anticipated Volumes (m ³)	Emplaced Volumes (m ³)
Argonne National Laboratory - East	1.02E+02	0.00E+00	1.02E+02	1.20E+02
Material and Fuels Complex (ANL-W)	1.04E+01	6.76E+01	7.80E+01	0.00E+00
Bettis Atomic Power Laboratory	1.89E+01	0.00E+00	1.89E+01	0.00E+00
GE - Vallecitos Nuclear Center	2.08E+00	0.00E+00	2.08E+00	0.00E+00
Hanford (Richland Operations) Site	1.74E+04	0.00E+00	1.74E+04	3.75E+03
Idaho National Laboratory	3.93E+04	0.00E+00	3.93E+04	2.38E+04
Knolls Atomic Power Laboratory - Nuclear Fuel Services	3.20E+02	0.00E+00	3.20E+02	0.00E+00
Lawrence Berkeley Laboratory	6.24E-01	6.24E-01	1.25E+00	0.00E+00
Lawrence Livermore National Laboratory	2.79E+02	4.57E+02	7.36E+02	1.45E+02
Los Alamos National Laboratory	1.05E+04	8.89E+02	1.14E+04	2.91E+03
Nevada Test Site	1.61E+02	3.18E+02	4.78E+02	4.02E+02
Oak Ridge National Laboratory	7.53E+02	1.16E+02	8.70E+02	2.33E+01
Paducah Gaseous Diffusion Plant	4.99E+00	0.00E+00	4.99E+00	0.00E+00
Rocky Flats Environmental Technology Site	0.00E+00	0.00E+00	0.00E+00	1.50E+04
Sandia National Laboratory - Albuquerque	1.51E+01	4.37E+00	1.95E+01	0.00E+00
Savannah River Site	7.26E+03	6.19E+02	7.87E+03	1.16E+04
U.S. Army Materiel Command	2.08E-01	0.00E+00	2.08E-01	0.00E+00
Grand Total	7.61E+04	2.47E+03	7.85E+04	5.77E+04

Data Source: CID Data Version D.8.00, LANL-CO 2009a

This table contains data for WIPP-bound waste streams only; it does not include data for potential waste streams.

Table 3-2. WIPP RH-TRU Waste Inventory Volumes By Site

Storage/Generator Site	Stored Volumes (m ³)	Projected Volumes (m ³)	Anticipated Volumes (m ³)	Emplaced Volumes (m ³)
Argonne National Laboratory - East	4.53E+02	0.00E+00	4.53E+02	9.79E+00
Material and Fuels Complex (ANL-W)	1.42E+01	4.90E+01	6.32E+01	0.00E+00
Bettis Atomic Power Laboratory	3.56E+00	0.00E+00	3.56E+00	0.00E+00
GE - Vallecitos Nuclear Center	2.14E+01	0.00E+00	2.14E+01	0.00E+00
Hanford (Richland Operations) Site	2.37E+03	5.20E+02	2.89E+03	0.00E+00
Idaho National Laboratory	5.16E+01	0.00E+00	5.16E+01	1.64E+02
Knolls Atomic Power Laboratory -	3.03E+01	8.01E+01	1.10E+02	0.00E+00

Storage/Generator Site	Stored Volumes (m ³)	Projected Volumes (m ³)	Anticipated Volumes (m ³)	Emplaced Volumes (m ³)
Schenectady				
Los Alamos National Laboratory	9.61E+01	0.00E+00	9.61E+01	0.00E+00
Oak Ridge National Laboratory	4.43E+02	3.06E+02	7.49E+02	0.00E+00
Sandia National Laboratory - Albuquerque	6.23E+00	0.00E+00	6.23E+00	0.00E+00
Savannah River Site	7.12E+01	3.47E+01	1.06E+02	0.00E+00
Grand Total	3.56E+03	9.90E+02	4.55E+03	1.74E+02

Data Source: CID Data Version D.8.00, LANL-CO 2009a

This table contains data for WIPP-bound waste streams only; it does not include data for potential waste streams.

3.2 Waste and Packaging Materials

The DOE has many reasons for obtaining and tracking non-radiological information about the TRU waste inventory destined for WIPP. For example, the DOE tracks waste materials that go into the repository (i.e., CPR materials) because they may affect gas generation in the repository. The DOE needs to know the non-radiological properties of the waste not only for PA but also to support safe and economical transportation of the waste and operation of the WIPP facility.

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

3.2.1 Waste Materials

As part of the data call for this report, the TRU waste sites were asked to provide the average density (kg/m³) of each of the WMPs in each waste stream at their sites.

The following WMP descriptions are used for this report:

- Iron-based metal/alloys – Includes iron and steel alloys in the waste, but does not include the waste container materials. Also includes an iron-based metallic phase associated with any vitrification process, if applicable.
- Aluminum-based metal/alloys – Aluminum or aluminum-based alloys in the waste materials.
- Other metal – All other metal/alloys (e.g., copper, zirconium, and tantalum) found in the waste materials, including the lead portion of leaded rubber gloves/aprons.
- Other inorganic material – Inorganic non-metal waste materials such as concrete, glass, firebrick, ceramics, graphite, sand, and inorganic sorbents.

- **Vitrified** – Waste that has been melted or fused at high temperatures with glass-forming additives, such as soil or silica, in appropriate proportions to result in a homogeneous glass-like matrix. (Note that any unoxidized metallic phases, if present, are included in the iron-based metal/alloys WMP.)
- **Cellulosic** – Materials generally derived from high-polymer plant carbohydrates such as paper, cardboard, Kimwipes[®], wood, cellophane, and cloth.
- **Rubber** – Natural or manmade elastic latex materials such as Hypalon[®], neoprene, surgical gloves, and leaded-rubber gloves (rubber part only).
- **Plastic** – Generally man-made, often derived from petroleum feedstock. Examples are polyethylene, polyvinyl chloride (PVC), Lucite[®], and Teflon[®].
- **Solidified Inorganic Material (Inorganic Matrix)** – Any homogeneous materials consisting of sludge or aqueous-based liquids that have been solidified. Examples are wastewater treatment sludge and inorganic particulates.
- **Solidified Organic Material (Organic Matrix)** – Organic resins, solidified organic liquids, and sludges.
- **Cement** – A solidifying agent used to solidify liquids, particulates, and sludge. Cement may be reacted, unreacted, or both.
- **Soil/gravel** – Generally consists of naturally occurring soils that have been contaminated with radioactive waste materials at a high enough level to be considered TRU waste.

The estimated WIPP WMP average densities for CH- and RH-TRU waste are presented in Tables 3-3 and 3-4, respectively.

3.2.2 Packaging Materials

Packaging materials (PM), such as steel, plastic, cellulose, and lead, are the materials used to construct the containers that hold TRU waste. PM densities have historically been reported by the TRU waste sites. The PM densities for the WIPP-approved payload containers are fixed values in the CID. The sites report the final form container type, and the CID generates the PM densities using consistent values associated with the container type. An analysis was performed (McInroy 2008) to calculate the PM densities to be assigned to the various WIPP-approved container types in the CID. The purpose of this analysis was to document calculations that provided the PM densities for steel, plastic, cellulose, and lead, used in the containers that package CH- and RH-TRU waste for shipment to WIPP. The WIPP packaging material average densities (kg/m³) for CH- and RH-TRU waste are presented in Tables 3-3 and 3-4, respectively.

Table 3-3. WIPP CH-TRU Waste Material Parameter Average Densities

Waste Material	Average Density (kg/m³)
Aluminum-based Metals/Alloys	1.62E+00
Cellulosics	2.85E+01
Cements	5.21E+01
Inorganic Matrix	7.79E+01
Iron-based Metals/Alloys	7.17E+01
Organic Matrix	3.72E+01
Other Inorganic Materials	1.84E+01
Other Metals	3.62E+00
Plastics	3.47E+01
Rubber	5.09E+00
Soils/gravel	1.48E+01
Vitrified	0.00E+00
Package Material	
Packaging Material, Cellulosics	5.24E+00
Packaging Material, Plastic	1.51E+01
Packaging Material, Steel	1.88E+02
Packaging Material, Lead	0.00E+00

Data Source: CID Data Version D.8.00, LANL-CO 2009a

Table 3-4. WIPP RH-TRU Waste Material Parameter Average Densities

Waste Material	Average Density (kg/m³)
Aluminum-based Metals/Alloys	8.23E+00
Cellulosics	8.56E+00
Cements	2.09E+02
Inorganic Matrix	3.22E+00
Iron-based Metals/Alloys	1.71E+02
Organic Matrix	1.52E+00
Other Inorganic Materials	1.19E+02
Other Metals	1.27E+01
Plastics	1.94E+01
Rubber	4.10E+00
Soils/gravel	8.44E+01
Vitrified	0.00E+00
Package Material	
Packaging Material, Cellulosics	0.00E+00
Packaging Material, Plastic	1.80E+01
Packaging Material, Steel	6.34E+02
Packaging Material, Lead	1.49E+00

Data Source: CID Data Version D.8.00, LANL-CO 2009a

3.2.3 Chemical and Cement Components

The DOE tracks the mass of complexing agents, oxyanions, and cement as part of the non-radiological components used for PA. These components are presented as a scaled mass, as required for PA, and are published in the PAIR-2008 (Crawford et al. 2009). EPA requested that the chemical and cement components also be published in the Annual TRU Waste Inventory Reports as unscaled masses. This annual report and all future annual reports will present the chemical and cement components' unscaled masses. The masses reported in Tables 3-5 through 3-10 represent only the amount of these components that are currently stored and projected at the sites and do not include emplaced waste stream data since these components are not tracked in the WWIS. An analysis is performed on an annual basis to account for these masses that have been emplaced in WIPP.

Each year, containers in waste streams may be shuffled between waste streams in preparation for characterization. This shuffling makes it difficult to compare waste streams from year to year. To remedy this difficulty, an analysis was performed (McInroy 2009) that contains a mapping of the ATWIR-2008's waste stream chemical and cement components to those of this year (see Appendix D).

3.2.3.1 Complexing Agents

The DOE tracks the mass of complexing agents destined for emplacement in the WIPP repository because of their potential impact on solubility of actinides in the waste. In the latest inventory request, the DOE TRU waste sites were asked to update their estimates of complexing agents in the waste streams. The sites reported the estimates of complexing agents in waste streams as a weight percent. These weight percent data were converted to masses via a query using CID data (Van Soest 2009c) and are displayed in Table 3-5. Table 3-6 presents a summary of the estimated masses of complexing agents, by site, for disposal at WIPP.

Table 3-5. Complexing Agents Mass by Waste Stream

Waste Stream	Complexing Agents						
	Acetic Acid (kg)	Citric Acid (kg)	Oxalic Acid (kg)	Sodium Acetate (kg)	Sodium Citrate (kg)	Sodium EDTA (kg)	Sodium Oxalate (kg)
IN-AE-AGHC-01	1.91E-02	1.91E-02	1.91E-02				
IN-AW-161	1.69E-03		1.69E-03			1.69E-03	
IN-BN004						1.20E+02	
IN-BN409						2.13E+00	
IN-BNINW218	5.31E+01	3.67E+01	3.67E+01	4.48E+02	1.57E+02		
IN-ID-RF-S5300-A						5.29E+00	
IN-ID-SDA-Debris	1.99E+02	4.19E+00	3.99E-01			1.99E-01	
IN-ID-SDA-Sludge	4.07E+03	8.54E+01	8.13E+00			4.07E+00	
IN-ID-SDA-Soil	1.23E+03	2.59E+01	2.47E+00			1.23E+00	
IN-TRA-150	7.93E-03	7.93E-03	7.93E-03			7.93E-03	7.93E-03
LA-CIN01.001	1.01E+00	1.12E+02	1.73E+01				
LA-CIN02.001	1.74E+00	1.92E+02	1.08E+03				

Waste Stream	Complexing Agents						
	Acetic Acid (kg)	Citric Acid (kg)	Oxalic Acid (kg)	Sodium Acetate (kg)	Sodium Citrate (kg)	Sodium EDTA (kg)	Sodium Oxalate (kg)
LA-MHD01.001	4.28E+00	4.92E+01	6.14E+02				
LA-MIN02-V.001*	6.44E-02	7.09E+00	8.82E+01				
LA-MIN03-NC.001*	2.44E-01	2.68E+01	3.35E+02				
LL-M001	2.94E+00	2.94E+00	2.94E+00			2.94E+00	
LL-W018-S5100*	1.73E+00	1.73E+00	1.73E+00			1.73E+00	
LL-W019	2.61E-01	2.61E-01	2.61E-01			2.61E-01	
RL200-01		2.84E+00	3.92E+00				
RL216Z-02			1.54E+01				
RL222S-01			8.75E+00	8.75E+00		4.30E-03	
RL233S-01	1.17E-02	2.52E-01	1.17E-02				
RL300-01		3.41E-02	1.19E+01	2.44E+01	9.83E+00	9.81E-04	5.67E+00
RL300-03		9.43E-04	9.43E-04	3.78E-03	9.43E-04	2.83E-03	9.43E-04
RL308-01		9.73E-02	9.73E-02	1.99E-01	8.05E-01	9.03E-01	9.05E-01
RL325-01	4.85E-01	2.88E+00	2.88E+00	5.76E+00	2.37E+01	3.65E-05	9.12E+00
RLBAT-01	3.01E+00	1.05E+00					
RLBW-01	7.46E-01	4.50E-01		2.87E+00			
RLBW-03	3.07E-05	1.84E-05		9.14E-05		2.98E-05	
RLBW-08	1.62E-05	1.04E-05		3.46E-05		1.62E-05	
RLESG-01		1.85E+00	1.80E+00				
RLESG-08		6.48E-03	6.29E-03			3.58E-04	
RLGEV-01		3.90E+00					
RLGEV-03*		2.66E-02					
RLHAN-01	1.17E-01		1.89E-01	8.23E-01	2.33E-01	2.33E-01	4.67E-01
RLPFP-01	3.38E+03	2.47E+00	1.33E+01	6.99E+03		1.92E+00	1.92E+00
RLPFP-02*	2.29E+00	1.67E-03	9.03E-03	4.74E+00		1.30E-03	1.30E-03
RLPFP-08	1.32E-03		4.54E-06	2.91E-03			
RLSWO-01	6.28E-01	1.65E+01	2.60E-03				
RLWAR-01		9.80E+02	3.39E+03				
RLWAR-03		1.22E-01	4.10E-01	6.12E-02			

Data Source: *Analysis of Chemical and Cement Components 2008 Inventory Estimates*, McInroy 2009

* New waste streams containing complexing agents that are reported for the first time or consolidated under a new waste stream ID

Table 3-6. Complexing Agents Total Mass by Site

Site	Acetic Acid (kg)	Citric Acid (kg)	Oxalic Acid (kg)	Sodium Acetate (kg)	Sodium Citrate (kg)	Sodium EDTA (kg)	Sodium Oxalate (kg)
Idaho National Laboratory	5.55E+03	1.52E+02	4.77E+01	4.48E+02	1.57E+02	1.33E+02	7.93E-03
Los Alamos National Laboratory	7.35E+00	3.87E+02	2.13E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Lawrence Livermore National Laboratory	4.93E+00	4.93E+00	4.93E+00	0.00E+00	0.00E+00	4.93E+00	0.00E+00
Hanford (Richland Operations) Site	3.39E+03	1.01E+03	3.44E+03	7.04E+03	3.46E+01	3.06E+00	1.81E+01
Grand Total	8.95E+03	1.56E+03	5.63E+03	7.49E+03	1.92E+02	1.41E+02	1.81E+01

Data Source: *Analysis of Chemical and Cement Components 2008 Inventory Estimates*, McInroy 2009

3.2.3.2 Oxyanions

Estimates of the masses of nitrates, sulfates, and phosphates expected in the waste to be disposed in the WIPP repository were also requested from the TRU waste sites. The weight percent data reported by the sites were converted to masses via a query using CID data (Van Soest 2009c). Table 3-7 presents all the waste streams containing oxyanions that are expected for WIPP disposal, including waste streams containing oxyanions that the TRU waste sites are reporting for the first time, and updated values from previously reported waste streams. Table 3-8 presents a summary of the estimated masses of oxyanions, by site, for disposal at WIPP.

Table 3-7. Oxyanions Total Mass Waste Stream

Waste Stream	Oxyanions		
	Nitrate (kg)	Phosphate (kg)	Sulfate (kg)
IN-AE-AGHC-01	1.91E-02	1.91E-02	1.91E-02
IN-AW-161	1.69E-03	1.69E-03	1.69E-03
IN-BN004		2.75E+03	2.75E+03
IN-BNINW216	2.21E+05		3.01E+03
IN-BNINW218	3.44E+04		8.76E+01
IN-ID-RF-S3150-A			3.57E+01
IN-ID-SDA-Debris	4.19E+03	1.59E+00	4.19E+03
IN-ID-SDA-Sludge	8.94E+04	4.47E+04	1.26E+05
IN-ID-SDA-Soil	1.36E+04	7.40E+03	1.97E+04
IN-INTEC-SFS-01*	2.86E-02		
IN-TRA-150	7.93E-03	7.93E-03	7.93E-03
IN-W315*	5.21E+02		
LA-CIN01.001	5.79E+02		1.96E+03
LA-CIN02.001*	4.88E+02		7.76E+01
LA-MHD01.001	1.01E+05		1.96E+04
LA-MHD03.001*	3.47E+02		3.23E+02
LA-MHD04.001*	3.46E+03		6.67E+02
LA-MHD08.001*	1.47E+02		2.83E+01
LA-MIN02-V.001*	1.00E+02		1.94E+01
LA-MIN03-NC.001*	1.43E+04		1.34E+04
LA-TA-03-28	9.55E+02		1.52E+02
LA-TA-21-13	2.01E+05		3.20E+04
LA-TA-21-15	1.22E+02		2.36E+01
LA-TA-21-16	6.98E+03		6.50E+03
LB-T001*	6.60E-04	1.17E-04	1.17E-04
LB-T002	8.03E-03	3.60E-04	1.07E-02
LL-M001	2.94E+00	2.94E+00	2.94E+00
LL-W018-S5100*	1.73E+00	1.73E+00	1.73E+00
LL-W019	2.61E-01	2.61E-01	2.61E-01
RL200-01	2.74E+02	2.64E+02	
RL200-02	1.20E+01	4.43E+01	9.23E+00
RL201-01			2.16E+00
RL202S-01	4.68E-01		
RL209E-01	3.50E+01	1.05E+01	8.36E+01
RL209E-08	8.61E-02		1.23E-02

Waste Stream	Oxyanions		
	Nitrate (kg)	Phosphate (kg)	Sulfate (kg)
RL216Z-02	1.42E+03	1.57E+03	6.33E+01
RL221U-01		1.97E-03	
RL222S-01	1.32E+02	1.97E+02	1.84E+01
RL231Z-01	4.18E+01	3.03E+03	5.39E+03
RL231Z-03	7.17E-02	3.37E+01	7.54E-01
RL233S-01	5.49E+01	4.25E-01	1.19E-01
RL300-01	6.12E+02	1.45E+02	1.24E+00
RL300-03	2.45E-02	6.60E-03	1.41E-02
RL308-01	4.50E+00	9.88E-01	1.73E+03
RL325-01	2.31E+02	6.56E+01	1.75E+02
RL325-03	7.16E+01		
RL325-09	1.06E-01		
RLBAT-01		4.97E+00	4.37E+00
RLBW-01	1.06E+00	5.99E-01	2.87E+02
RLBW-03	2.72E-05		1.15E-02
RLBW-08	1.50E-05		6.16E-03
RLESG-01	1.80E+00	1.14E+02	4.21E+03
RLESG-08	6.29E-03		
RLEXX-01	6.29E-02	2.08E-02	
RLGEV-01	3.54E+00	3.54E+00	4.00E+02
RLGEV-03*	2.41E-02	2.41E-02	2.72E+00
RLHAN-01	4.12E+00	1.24E+00	2.53E+00
RLPFP-01	1.28E+05	1.26E+05	5.47E+03
RLPFP-02*	8.64E+01	8.51E+01	3.70E+00
RLPFP-03	1.73E+03	1.11E+02	
RLPFP-04	2.42E-03	2.06E-02	
RLPFP-08	4.84E-02	3.66E-02	1.93E-03
RLPURX-01	2.43E+01		
RLSWO-01	2.67E+01	3.25E+02	5.21E+00
RLWAR-01	2.94E+03		5.02E+02
RLWAR-03	3.67E-01		6.12E-02

Data Source: *Analysis of Chemical and Cement Components 2008 Inventory Estimates*, McInroy 2009

* New waste streams containing oxyanions that are reported for the first time or consolidated under a new waste stream ID

Table 3-8. Oxyanions Total Mass by Site

Site	Nitrates (kg)	Phosphates (kg)	Sulfates (kg)
Idaho National Laboratory	3.63E+05	5.49E+04	1.56E+05
Los Alamos National Laboratory	3.30E+05	0.00E+00	7.47E+04
Lawrence Berkeley Laboratory	8.69E-03	4.78E-04	1.08E-02
Lawrence Livermore National Laboratory	4.93E+00	4.93E+00	4.93E+00
Hanford (Richland Operations) Site	1.35E+05	1.32E+05	1.84E+04
Grand Total	8.29E+05	1.87E+05	2.49E+05

Data Source: *Analysis of Chemical and Cement Components 2008 Inventory Estimates*, McInroy 2009

3.2.3.3 Cement

For the inventory data call for the ATWIR-2009 TRU waste inventory, the TRU waste sites were instructed to report their cements along with other WMPs. The waste material densities (kg/m^3) for cements were subsequently converted to masses via a query using CID data (Van Soest 2009c). Table 3-9 presents all the waste streams containing cements that are expected for WIPP disposal, including waste streams containing cements that the TRU waste sites are reporting for the first time, and updated values from previously reported waste streams. Table 3-9 also reports whether the state of the cements is reacted, unreacted, or both. In this report, a cement state “reacted” means cement that is hydrated by setting up under aqueous conditions; a cement state “unreacted” means that dry cement was added as an absorbent or neutralizer to a waste stream, but under dry, non-aqueous conditions, without any attempt to cause the cement to set up. Table 3-10 presents a summary of the estimated masses of cements, by site, for disposal at WIPP.

Table 3-9. Cement Total Mass and State by Waste Stream

Waste Stream	Cement (kg)	Cement State
AE-T003	8.05E+02	Reacted
AW-N026.82	2.44E+02	Reacted
IN-BN004	2.18E+05	Both
IN-BN095*	1.09E+04	Reacted
IN-BN222	2.37E+04	Reacted
IN-BN432	1.24E+04	Reacted
IN-BN806*	8.44E+02	Reacted
IN-BN817*	7.86E+02	Reacted
IN-BN823*	4.12E+02	Reacted
IN-BN836	4.47E+04	Both
IN-BN976*	1.71E+04	Reacted
IN-BN978*	4.94E+03	Reacted
IN-BNINW216	2.94E+05	Both
IN-BNINW218	1.23E+04	Both
IN-GEM-01	8.49E+02	Both
IN-ID-BTO-030	6.68E+01	Reacted
IN-ID-NTLLNL-S3900*	2.62E+02	Reacted
IN-ID-NTLLNL-S5400*	9.63E+02	Reacted
IN-ID-RF-S3150-A	1.71E+02	Reacted
IN-ID-SDA-Debris	1.42E+01	Both
IN-ID-SDA-Sludge	1.13E+03	Both
IN-ID-SDA-Soil	4.62E+02	Both
KN-B234TRU	4.58E+05	Reacted
LA-CIN01.001*	5.09E+05	Reacted
LA-TA-03-28	3.78E+03	Reacted
LA-TA-03-31	2.17E+02	Reacted
LA-TA-21-13	5.36E+06	Reacted
LA-TA-21-16	1.18E+04	Reacted
LA-TA-50-18	6.65E+03	Reacted
LA-TA-55-14	4.59E+03	Reacted

Waste Stream	Cement (kg)	Cement State
LA-TA-55-38	3.43E+02	Reacted
LL-M001	3.22E+03	Reacted
LL-W018-S5100*	4.04E+02	Reacted
NTLBL-S3900*	6.24E+00	Reacted
NTLBL-S5400*	1.87E+01	Reacted
NTLLNL-S3900*	1.06E+02	Reacted
NTLLNL-S5400*	3.49E+03	Reacted
NTLRC-S5400*	2.97E+00	Reacted
NT-W021	1.35E+02	Reacted
OR-NFS-CH-HOM	9.98E+02	Reacted
OR-RF-CH-HOM	2.50E+02	Reacted
PA-W014	5.68E+03	Reacted
RL105-03	6.37E+04	Reacted
RL105-09*	9.85E+05	Reacted
RL300-03*	1.59E+03	Reacted
RL325-03*	8.51E+03	Reacted
RLWAR-03*	2.92E+03	Reacted
SA-T001	9.53E+01	Both
SR-BCLCH-MT01	7.08E+02	Reacted
SR-BCLRH-MT01	1.65E+01	Reacted
SR-BCLRH-T001	3.00E+01	Reacted
SR-BCLRH-T002	4.50E+01	Reacted
SR-BCLRH-T003	2.19E+02	Reacted
SR-BCLRH-T004	2.06E+02	Reacted
SR-BCLRH-T005	6.41E+01	Reacted
SR-BCLRH-T006	1.50E+01	Reacted
SR-BCLRH-T008	1.50E+01	Reacted
SR-BCLRH-T009	6.25E+01	Reacted
SR-BCLRH-T011	1.01E+03	Reacted
SR-W027-999-AGNS-HOM	2.72E+03	Reacted
SR-W027-SRSG-HOM	6.30E+03	Reacted

Data Source: *Analysis of Chemical and Cement Components 2008 Inventory Estimates*, McNroy 2009

* New waste streams containing cements that are reported the first time or consolidated under a new waste stream ID

Table 3-10. Cement Total Mass by Site

Site	Mass of Cement (kg)
Argonne National Laboratory - East	8.05E+02
Material and Fuels Complex (ANL-W)	2.44E+02
Idaho National Laboratory	6.45E+05
Knolls Atomic Power Laboratory - Nuclear Fuel Services	4.58E+05
Los Alamos National Laboratory	5.90E+06
Lawrence Livermore National Laboratory	3.62E+03
Nevada Test Site	3.76E+03
Oak Ridge National Laboratory	1.25E+03
Paducah Gaseous Diffusion Plant	5.68E+03
Hanford (Richland Operations) Site	1.06E+06
Sandia National Laboratory - Albuquerque	9.53E+01
Savannah River Site	1.14E+04
Grand Total	8.09E+06

Data Source: *Analysis of Chemical and Cement Components*
2008 Inventory Estimates, McInroy 2009

3.3 TRU Waste Radionuclide Inventory

This section presents the TRU waste radionuclide activity inventory collected for this report. The sites' TRU waste stream radionuclides and respective WIPP-emplaced waste stream radionuclides are decayed through the end of CY 2008 and the data are aggregated and rolled-up into tables by site for CH-TRU and RH-TRU wastes. Also reported are total curies by site.

3.3.1 Radionuclide Inventory by Site

Tables 3-11 and 3-12 provide the comprehensive WIPP-bound and emplaced TRU waste activity (Ci) inventory estimates for CH- and RH-TRU waste, respectively. The radionuclides are decayed to a common base year of 2008 (as described in Section 2.2.3) from the reported waste stream assay or generation year.

The waste profiles in Appendices A (WIPP-bound Waste) and B (Emplaced Waste) are reported in activity concentrations for each waste stream. These radionuclide activity concentrations (Ci/m³) have been decayed from the waste stream assay/generation year through the end of CY 2008. Radionuclide activity concentrations presented in Appendix C (Potential WIPP Waste) are as reported by the TRU waste sites.

Table 3-11. CH Radionuclides (Ci) on a Site Basis Decayed Through 2008

Radionuclide	ANLE	MFC (ANL-W)	Army	BAPL	GEVNC	Hanford	INL	KAPL-NFS	LANL	LBL	LLNL	NTS	ORNL	Paducah	RFETS	SNL-A	SRS	Grand Total
Ac-225	1.01E-02	1.21E-03	6.75E-12	4.13E-13		1.15E-03	8.99E-04	3.67E-04	1.34E-01	8.19E-08	1.36E-02	9.05E-04	6.43E-01	1.45E-07	7.83E-05	5.26E-07	1.89E-03	8.07E-01
Ac-227	2.32E-07	8.77E-08	1.10E-14	3.01E-10		5.76E-07	5.05E-05	1.41E-06	3.19E+00	9.79E-05	4.36E-03	5.97E-05	8.82E-02	4.38E-07	9.74E-07	8.96E-09	1.01E-02	3.30E+00
Ac-228	3.21E-05	5.23E-07		4.87E-14		4.71E-04	2.86E-08	1.54E-02	2.30E-03	1.06E-09	9.08E-07	2.81E-15	6.66E-03		1.82E-09	3.03E-03	6.15E-03	3.41E-02
Ag-108									1.53E-06									1.53E-06
Ag-108m									5.24E-06									5.24E-06
Ag-109m	4.90E-03					6.49E-06			3.45E-04		2.29E-02		2.77E-08		3.93E-09	2.17E-09		2.81E-02
Ag-110	2.25E-06												1.20E-04					1.23E-04
Ag-110m	1.71E-04												9.13E-03					9.31E-03
Am-241	1.11E+02	9.08E+01		9.82E-03	2.58E-02	7.82E+04	1.62E+05	5.14E+01	6.39E+04	1.97E-01	1.37E+03	4.09E+02	1.67E+03	2.02E-01	1.18E+05	1.21E+01	3.74E+03	4.29E+05
Am-242						2.42E-02					3.77E+00						2.03E-01	4.00E+00
Am-242m						2.46E-02					3.84E+00						2.07E-01	4.07E+00
Am-243	1.89E+00	3.30E+00		4.02E-05		8.20E-01	8.14E-02		1.67E+00	1.21E-03	1.74E-01	2.78E-01	2.73E+00		1.08E-02	1.70E-04	8.83E+00	1.98E+01
Am-245									3.19E-15	6.63E-13			2.16E-12					2.82E-12
At-217	1.01E-02	1.21E-03	6.75E-12	4.14E-13		1.15E-03	9.00E-04	3.67E-04	1.34E-01	8.20E-08	1.36E-02	9.05E-04	6.43E-01	1.45E-07	7.83E-05	5.27E-07	1.89E-03	8.07E-01
Ba-133						3.90E-04			3.45E-05				8.61E-07		9.36E-03	3.44E-07	3.46E-05	9.82E-03
Ba-137m	3.36E+00	8.12E-01		1.77E+01		3.17E+02	1.18E+00		4.64E+00	2.42E-09	3.78E-01	4.83E-03	3.09E+00	9.30E-03	1.00E-02	2.94E+01	1.21E+02	4.98E+02
Bi-210	3.08E-04	6.16E-09		8.32E-12		1.11E-04	8.13E-03	2.28E-05	5.13E-01	4.43E-15	1.07E-09	2.38E-02	2.25E-01	2.02E-05	1.15E-05	1.90E-02	8.05E-06	7.90E-01
Bi-211	2.29E-07	8.66E-08	1.08E-14	2.97E-10		5.69E-07	4.99E-05	1.39E-06	3.16E+00	9.67E-05	4.31E-03	5.90E-05	8.71E-02	4.33E-07	9.61E-07	8.84E-09	1.00E-02	3.26E+00
Bi-212	2.32E-01	4.18E-07		1.15E-05		1.43E-01	2.27E-03	4.82E-02	2.29E+01	1.41E-09	3.42E-03	2.92E-03	1.17E+00		1.43E-09	2.88E-03	1.83E+00	3.26E+01
Bi-213	1.00E-02	1.21E-03	6.74E-12	4.13E-13		1.15E-03	8.98E-04	3.67E-04	1.34E-01	8.18E-08	1.36E-02	9.03E-04	6.42E-01	1.45E-07	7.82E-05	5.26E-07	1.89E-03	8.06E-01
Bi-214	2.05E-03	4.88E-08		1.40E-10		3.66E-03	1.64E-02	2.60E-04	8.79E-01	3.91E-14	6.96E-08	4.79E-02	4.39E-01	8.26E-05	7.96E-05	5.38E-02	5.55E-05	1.44E+00
Bk-249									2.67E-04	4.58E-08			1.49E-07					2.67E-04
Bk-250													2.12E-12					2.12E-12
C-14				5.38E-04		1.60E+00	1.67E-05					4.89E-05	9.08E-05		1.12E-05	1.41E-07	5.68E-01	2.16E+00
Cd-109	4.97E-03					6.57E-06			3.49E-04		2.31E-02		2.80E-08		3.98E-09	2.19E-09		2.85E-02
Ce-141													2.94E-04					2.94E-04
Ce-144									1.28E-07				9.40E-02				2.02E-02	1.14E-01
Cf-249	1.67E-01			7.68E-13		2.18E-02	7.40E-04		1.44E-02	2.46E-03	7.35E+00	2.25E-03	3.89E-01			8.47E-04	2.06E-03	7.95E+00
Cf-250							6.74E-03		1.10E-04	2.30E-07		1.98E-02	2.84E-02				1.82E-04	5.52E-02
Cf-251				3.63E-14					1.55E-03		9.11E-04		2.16E-04				1.34E-02	1.61E-02
Cf-252	1.01E-04						1.13E-03				5.58E-01	3.31E-03	6.67E-01		1.13E-04		4.61E-01	1.69E+00
Cl-36									2.00E-03						3.52E-08	2.02E-08		2.00E-03
Cm-242						1.94E-02			1.06E+00		2.49E+00		5.24E-02				1.70E-01	3.80E+00
Cm-243	5.14E-01			3.92E-05		7.23E-01	6.74E-05		7.45E-01	1.17E-04	5.19E-02	7.27E-03	3.73E-02			5.20E-01	1.17E-01	2.72E+00
Cm-244	1.12E-01			2.04E-03		6.82E+01	1.42E+01		8.51E+01	5.36E-04	4.27E+02	2.78E+01	8.93E+02		1.29E-07	5.51E+00	5.02E+02	2.02E+03
Cm-245	6.87E-05			2.76E-07		1.79E-06	1.36E-06		1.36E-03	1.42E-06	2.08E-02	1.07E-03	5.92E-03			3.14E-04	8.69E-02	1.16E-01
Cm-246				4.70E-08			4.09E-05		2.13E-02	4.99E-06		1.20E-04	8.22E-01				1.26E-01	9.69E-01
Cm-247				1.08E-13					2.07E-05		1.28E-06		3.78E-08				9.71E-03	9.73E-03
Cm-248	2.07E-09			1.95E-13			2.74E-06			1.60E-04	8.63E-03	8.05E-06	2.48E-02		9.18E-09		2.00E-05	3.36E-02

Table 3-11. CH Radionuclides (Ci) on a Site Basis Decayed Through 2008
Continued

Radionuclide	ANLE	MFC (ANL-W)	Army	BAPL	GEVNC	Hanford	INL	KAPL-NFS	LANL	LBL	LLNL	NTS	ORNL	Paducah	RFETS	SNL-A	SRS	Grand Total
Cm-250													3.30E-11					3.30E-11
Co-60	1.85E-01			4.29E-01		2.41E-01			2.57E-02		8.11E-04	8.36E-08	1.32E-02		4.03E-05	1.28E-02	1.07E-01	1.01E+00
Cs-134	1.65E-03					1.31E+00			4.48E-09				9.18E-02			1.68E-03	3.20E+00	4.60E+00
Cs-137	3.59E+00	8.68E-01		1.89E+01	2.79E-02	3.39E+02	1.26E+00		4.96E+00	2.59E-09	4.04E-01	5.17E-03	3.31E+00	9.95E-03	1.07E-02	3.15E+01	1.29E+02	5.32E+02
Es-254													3.09E-13					3.09E-13
Eu-152	3.19E-01			6.96E-01		4.12E-03	4.43E-02		5.83E-03	8.61E-09	4.10E-04	1.30E-01	4.45E-01		6.05E-05	9.44E-06	2.46E-04	1.65E+00
Eu-154	3.34E-03			5.83E-01		5.73E+00	1.38E-02		3.08E-03		4.03E-03	4.05E-02	2.65E-01		4.19E-07	6.00E-02	3.73E+00	1.04E+01
Eu-155						3.00E-06			1.24E-03		7.25E-05		1.58E-01		3.67E-08	8.68E-05	1.09E-01	2.69E-01
Fe-55						2.92E-03			5.00E-03						7.30E-05			7.99E-03
Fr-221	1.01E-02	1.21E-03	6.74E-12	4.13E-13		1.15E-03	8.98E-04	3.67E-04	1.34E-01	8.18E-08	1.36E-02	9.04E-04	6.42E-01	1.45E-07	7.82E-05	5.26E-07	1.89E-03	8.06E-01
Fr-223	3.16E-09	1.20E-09	1.50E-16	4.11E-12		7.86E-09	6.89E-07	1.92E-08	4.36E-02	1.34E-06	5.94E-05	8.15E-07	1.20E-03	5.98E-09	1.33E-08	1.22E-10	1.38E-04	4.50E-02
Gd-152	3.16E-15			8.50E-15		8.19E-18	3.13E-15		3.09E-17	1.89E-22	1.57E-18	9.17E-15	3.04E-14		5.99E-19	2.42E-19	9.63E-19	5.44E-14
H-3						1.49E+00	2.42E-03		7.49E+02	1.64E-04		7.11E-03	3.90E+00		6.72E+00	2.89E-03	7.21E+02	1.48E+03
Ho-166m													2.72E-05					2.72E-05
I-129				7.07E-06		1.49E-06			1.20E-06								1.63E+00	1.63E+00
In-113m																6.44E-18		6.44E-18
K-40	3.93E-03					9.52E-04	6.14E-06				2.39E-05							4.91E-03
Kr-85						2.25E+00	6.43E-03					1.89E-02			1.94E-05		5.12E+00	7.40E+00
Mn-54	5.21E-04					1.18E-04			1.41E-17	5.66E-18			1.05E-14		3.18E-12	4.35E-17		6.38E-04
Na-22	2.00E-02					1.39E-02			1.10E-01		2.70E-05		1.08E-08		2.26E-04	5.31E-08	2.18E-02	1.66E-01
Nb-93m				2.42E-04														2.42E-04
Nb-94						2.48E-03			4.40E-08		1.25E-08						1.90E-06	2.48E-03
Nb-95									1.21E-09				7.56E-03					7.56E-03
Nb-95m									3.76E-12				2.54E-05					2.54E-05
Nd-144									2.16E-20				3.09E-16				1.42E-16	4.50E-16
Ni-59				7.77E-02													6.74E-03	8.44E-02
Ni-63				3.61E+00		7.61E-02							6.94E-05		1.19E-01			3.81E+00
Np-237	5.26E-01	3.98E-01	3.95E-05	5.73E-05		1.43E+00	2.92E+00	9.83E-05	9.13E-01	3.11E-03	8.96E-02	6.82E-02	5.54E-01	2.20E+00	1.20E+00	1.63E-02	8.84E+00	1.92E+01
Np-238						1.22E-04					1.90E-02						1.02E-03	2.01E-02
Np-239	1.86E+00	3.25E+00		3.97E-05		8.04E-01	8.03E-02		1.63E+00	1.19E-03	1.71E-01	2.75E-01	2.69E+00		1.06E-02	1.67E-04	8.62E+00	1.94E+01
Np-240m	4.87E-17	2.23E-06		6.79E-13		3.00E-10	6.72E-08		1.87E-04	2.48E-05	6.69E-11	1.97E-07	2.50E-08		3.20E-16		7.75E-13	2.15E-04
Pa-231	9.49E-07	6.15E-07	4.43E-14	3.35E-09		9.07E-06	1.54E-04	1.57E-05	1.63E-02	2.45E-04	2.74E-02	1.86E-04	1.69E-01	1.82E-06	1.04E-05	5.61E-08	1.65E-03	2.15E-01
Pa-233	5.22E-01	3.94E-01	3.92E-05	5.68E-05		1.39E+00	2.61E+00	9.74E-05	9.01E-01	3.08E-03	8.88E-02	6.76E-02	5.49E-01	2.18E+00	1.19E+00	1.61E-02	8.72E+00	1.86E+01
Pa-234	9.85E-05	2.07E-06		1.57E-10		3.56E-03	2.24E-02	2.06E-05	1.86E-03	1.07E-10	1.05E-05	7.92E-05	6.28E-05	1.64E-04	1.82E-03	1.25E-06	1.13E-04	3.02E-02
Pa-234m	7.58E-02	1.59E-03		1.21E-07		2.74E+00	1.72E+01	1.58E-02	1.43E+00	8.23E-08	8.07E-03	6.09E-02	4.83E-02	1.26E-01	1.40E+00	9.59E-04	8.69E-02	2.32E+01
Pb-209	1.01E-02	1.21E-03	6.75E-12	4.13E-13		1.15E-03	8.99E-04	3.67E-04	1.34E-01	8.19E-08	1.36E-02	9.05E-04	6.42E-01	1.45E-07	7.83E-05	5.26E-07	1.89E-03	8.07E-01
Pb-210	3.12E-04	6.23E-09		8.41E-12		1.13E-04	8.22E-03	2.31E-05	5.19E-01	4.48E-15	1.08E-09	2.41E-02	2.28E-01	2.05E-05	1.17E-05	1.93E-02	8.14E-06	7.99E-01
Pb-211	2.29E-07	8.67E-08	1.09E-14	2.98E-10		5.69E-07	5.00E-05	1.39E-06	3.16E+00	9.68E-05	4.32E-03	5.91E-05	8.73E-02	4.33E-07	9.63E-07	8.86E-09	1.00E-02	3.27E+00
Pb-212	2.31E-01	4.17E-07		1.15E-05		1.42E-01	2.26E-03	4.80E-02	2.28E+01	1.40E-09	3.41E-03	2.91E-03	1.17E+00		1.42E-09	2.87E-03	1.82E+00	2.62E+01

Table 3-11. CH Radionuclides (Ci) on a Site Basis Decayed Through 2008
Continued

Radionuclide	ANLE	MFC (ANL-W)	Army	BAPL	GEVNC	Hanford	INL	KAPL-NFS	LANL	LBL	LLNL	NTS	ORNL	Paducah	RFETS	SNL-A	SRS	Grand Total
Pb-214	2.05E-03	4.89E-08		1.41E-10		3.66E-03	1.64E-02	2.61E-04	8.80E-01	3.91E-14	6.97E-08	4.80E-02	4.40E-01	8.27E-05	7.98E-05	5.39E-02	5.57E-05	1.44E+00
Pm-146									3.29E-10									3.29E-10
Pm-147				1.94E-01		2.38E+01			5.32E-05				5.53E-03		3.15E-05	1.40E-04	4.00E+00	2.80E+01
Po-210	3.12E-04	6.23E-09		8.41E-12		6.05E-05	8.22E-03	2.31E-05	5.19E-01	4.48E-15	4.48E-10	2.41E-02	2.28E-01	2.05E-05	1.17E-05	1.92E-02	7.95E-06	7.99E-01
Po-211	6.98E-10	2.64E-10	3.31E-17	9.07E-13		1.74E-09	1.52E-07	4.25E-09	9.64E-03	2.95E-07	1.32E-05	1.80E-07	2.66E-04	1.32E-09	2.93E-09	2.70E-11	3.05E-05	9.95E-03
Po-212	1.47E-01	2.66E-07		7.35E-06		9.11E-02	1.44E-03	3.07E-02	1.46E+01	8.97E-10	2.18E-03	1.86E-03	7.46E-01		9.09E-10	1.83E-03	1.16E+00	1.68E+01
Po-213	9.84E-03	1.18E-03	6.60E-12	4.04E-13		1.12E-03	8.80E-04	3.59E-04	1.31E-01	8.01E-08	1.33E-02	8.85E-04	6.28E-01	1.42E-07	7.66E-05	5.15E-07	1.85E-03	7.89E-01
Po-214	2.05E-03	4.89E-08		1.41E-10		3.66E-03	1.64E-02	2.61E-04	8.80E-01	3.91E-14	6.97E-08	4.80E-02	4.40E-01	8.27E-05	7.98E-05	5.39E-02	5.55E-05	1.44E+00
Po-215	2.29E-07	8.67E-08	1.09E-14	2.98E-10		5.69E-07	5.00E-05	1.39E-06	3.16E+00	9.69E-05	4.32E-03	5.91E-05	8.73E-02	4.33E-07	9.63E-07	8.86E-09	1.00E-02	3.27E+00
Po-216	2.31E-01	4.16E-07		1.15E-05		1.42E-01	2.26E-03	4.80E-02	2.28E+01	1.40E-09	3.40E-03	2.91E-03	1.17E+00		1.42E-09	2.86E-03	1.82E+00	2.62E+01
Po-218	2.02E-03	4.81E-08		1.38E-10		3.60E-03	1.62E-02	2.56E-04	8.65E-01	3.84E-14	6.85E-08	4.72E-02	4.32E-01	8.13E-05	7.84E-05	5.30E-02	5.46E-05	1.42E+00
Pr-144									1.25E-07				9.21E-02				1.98E-02	1.12E-01
Pu-236	1.57E-08						2.03E-05		4.33E-12		1.66E-03		2.19E-13					1.68E-03
Pu-238	7.50E+01	1.79E+02		9.01E-01	3.08E-04	2.22E+04	2.43E+04	5.80E+00	1.62E+05	4.81E-03	1.21E+03	9.87E+01	1.66E+03	2.86E-03	1.04E+04	1.29E+00	5.12E+05	7.34E+05
Pu-239	2.23E+02	1.68E+02	5.05E-03	7.37E-04	2.37E-03	1.12E+05	6.27E+04	1.83E+02	4.63E+04	4.66E-02	1.70E+03	1.13E+03	8.03E+02	5.55E-01	2.23E+05	7.84E+00	1.13E+04	4.60E+05
Pu-240	1.35E+02	3.82E+01		1.51E-03	1.00E-03	4.16E+04	1.40E+04	1.82E+02	1.20E+04	2.69E-04	4.97E+02	1.70E+02	7.17E+02		5.60E+04	1.31E+00	3.06E+03	1.28E+05
Pu-241	1.76E+02	3.19E+02		1.21E-01	1.16E-02	6.86E+05	1.16E+05	2.03E+02	7.37E+04	1.36E-02	5.78E+03	2.07E+03	1.74E+04		5.56E+05	8.80E+00	6.61E+04	1.52E+06
Pu-242	6.84E-02	1.15E-02		1.17E-05	5.93E-07	1.43E+01	2.20E+00		1.84E+01	6.78E-05	1.27E-01	3.17E-02	4.10E-01		6.08E+00	2.76E-04	2.51E+00	4.41E+01
Pu-243				1.06E-13					2.05E-05		1.26E-06		3.74E-08				9.60E-03	9.62E-03
Pu-244	4.82E-17	2.21E-06		6.73E-13		2.98E-10	6.66E-08		2.91E-04	2.45E-05	6.63E-11	1.95E-07	2.48E-08		3.17E-16		7.68E-13	3.19E-04
Ra-223	2.31E-07	8.77E-08	1.10E-14	3.01E-10		5.76E-07	5.06E-05	1.41E-06	3.20E+00	9.79E-05	4.36E-03	5.97E-05	8.82E-02	4.38E-07	9.73E-07	8.96E-09	1.01E-02	3.30E+00
Ra-224	2.30E-01	4.16E-07		1.15E-05		1.42E-01	2.25E-03	4.79E-02	2.27E+01	1.40E-09	3.40E-03	2.91E-03	1.16E+00		1.42E-09	2.86E-03	1.82E+00	2.62E+01
Ra-225	1.01E-02	1.21E-03	6.75E-12	4.13E-13		1.15E-03	9.00E-04	3.67E-04	1.34E-01	8.20E-08	1.36E-02	9.05E-04	6.43E-01	1.45E-07	7.83E-05	5.27E-07	1.89E-03	8.07E-01
Ra-226	2.07E-03	4.95E-08		1.42E-10		3.70E-03	1.66E-02	2.64E-04	8.90E-01	3.96E-14	7.05E-08	4.85E-02	4.45E-01	8.37E-05	8.07E-05	5.45E-02	5.62E-05	1.46E+00
Ra-228	3.79E-05	6.17E-07		5.75E-14		5.57E-04	3.38E-08	1.82E-02	2.71E-03	1.25E-09	1.07E-06	3.32E-15	7.86E-03		2.14E-09	3.57E-03	7.26E-03	4.02E-02
Rh-106									4.80E-11				7.50E-01				7.09E-02	8.21E-01
Rn-219	2.29E-07	8.66E-08	1.08E-14	2.97E-10		5.69E-07	4.99E-05	1.39E-06	3.16E+00	9.67E-05	4.31E-03	5.90E-05	8.72E-02	4.33E-07	9.61E-07	8.85E-09	1.00E-02	3.26E+00
Rn-220	2.31E-01	4.16E-07		1.15E-05		1.42E-01	2.26E-03	4.80E-02	2.28E+01	1.40E-09	3.40E-03	2.91E-03	1.17E+00		1.42E-09	2.86E-03	1.82E+00	2.62E+01
Rn-222	2.05E-03	4.90E-08		1.41E-10		3.67E-03	1.64E-02	2.61E-04	8.81E-01	3.92E-14	6.98E-08	4.80E-02	4.40E-01	8.28E-05	7.99E-05	5.40E-02	5.56E-05	1.45E+00
Ru-103													5.31E-04					5.31E-04
Ru-106									4.85E-11				7.58E-01				7.16E-02	8.30E-01
Sb-125	3.47E-06					1.55E+00			5.62E-05		1.79E-06		6.90E-02		7.99E-09	5.95E-08	4.17E-03	1.62E+00
Sb-126				1.36E-05		1.79E-01											9.01E-03	1.88E-01
Sb-126m				9.72E-05		1.28E+00											6.43E-02	1.34E+00
Se-75															1.55E-11			1.55E-11
Se-79				1.34E-04		1.24E-07											1.39E-02	1.40E-02
Sm-146									2.46E-16									2.46E-16
Sm-147				1.84E-11		4.06E-10			2.13E-12				5.90E-11		2.12E-15	5.94E-14	1.10E-10	5.96E-10
Sm-148	8.16E-31			2.65E-30		3.28E-34	4.03E-30		5.80E-33		3.53E-36	1.18E-29	4.11E-29			1.72E-34		6.04E-29

Table 3-11. CH Radionuclides (Ci) on a Site Basis Decayed Through 2008
Continued

Radionuclide	ANLE	MFC (ANL-W)	Army	BAPL	GEVNC	Hanford	INL	KAPL-NFS	LANL	LBL	LLNL	NTS	ORNL	Paducah	RFETS	SNL-A	SRS	Grand Total
Sm-151				9.98E-02		1.63E+00			1.00E-03				1.08E-01				1.17E+00	3.01E+00
Sn-113																6.44E-18		6.44E-18
Sn-126				9.73E-05		1.28E+00											6.44E-02	1.34E+00
Sr-85																4.50E-26		4.50E-26
Sr-89						1.50E-13												1.50E-13
Sr-90	3.11E+00	4.30E+00		1.88E+01	1.80E-02	7.14E+02	2.50E-02		3.71E+00		4.63E-01	4.05E-04	1.89E+01		3.19E-02	3.12E+01	1.82E+02	9.77E+02
Tc-99	3.41E+00			4.76E-03		2.57E+00		1.13E+00					9.19E+00	5.49E+00	6.02E-08	3.50E-08	6.14E-01	2.24E+01
Te-123													7.44E-19			1.49E-22		7.44E-19
Te-123m													1.01E-24			2.14E-17		2.14E-17
Te-125m	8.41E-07					3.76E-01			1.36E-05		4.27E-07		1.64E-02		1.94E-09	1.44E-08	1.01E-03	3.93E-01
Th-227	2.25E-07	8.54E-08	1.07E-14	2.93E-10		5.60E-07	4.92E-05	1.37E-06	3.11E+00	9.53E-05	4.25E-03	5.81E-05	8.59E-02	4.26E-07	9.48E-07	8.72E-09	9.87E-03	3.21E+00
Th-228	2.33E-01	4.21E-07		1.16E-05		1.44E-01	2.28E-03	4.84E-02	2.30E+01	1.42E-09	3.43E-03	2.95E-03	1.18E+00		1.44E-09	2.90E-03	1.84E+00	2.65E+01
Th-229	1.01E-02	1.21E-03	6.77E-12	4.14E-13		1.15E-03	9.01E-04	3.68E-04	1.34E-01	8.21E-08	1.36E-02	9.06E-04	6.44E-01	1.46E-07	7.84E-05	5.27E-07	1.89E-03	8.08E-01
Th-230	4.81E-06	1.52E-05		1.10E-07		9.01E-05	1.48E-04	1.02E-01	1.06E-01	1.70E-11	1.62E-04	8.40E-06	3.30E-03	1.02E-02	1.23E-04	4.72E-07	4.62E-03	2.26E-01
Th-231	3.24E-03	3.09E-03	1.43E-10	2.61E-05		1.77E-01	2.28E+00	1.22E-01	7.15E-02	4.57E-07	2.41E-03	9.89E-01	3.95E-03	4.68E-03	8.31E-02	2.34E-04	2.84E-02	3.77E+00
Th-232	3.62E-05	8.21E-07		1.47E-13		3.97E-03	6.09E-05	3.38E-02	2.48E-03	2.08E-09	9.36E-06	7.47E-15	7.44E-03		4.56E-09	4.01E-03	4.73E-02	9.91E-02
Th-234	7.59E-02	1.59E-03		1.21E-07		2.74E+00	1.72E+01	1.59E-02	1.43E+00	8.24E-08	8.08E-03	6.10E-02	4.84E-02	1.26E-01	1.40E+00	9.60E-04	8.70E-02	2.32E+01
Tl-204										1.39E-11			4.91E-07		8.97E-07			1.39E-06
Tl-207	2.28E-07	8.63E-08	1.08E-14	2.96E-10		5.66E-07	4.97E-05	1.39E-06	3.15E+00	9.63E-05	4.29E-03	5.87E-05	8.68E-02	4.31E-07	9.57E-07	8.81E-09	9.97E-03	3.25E+00
Tl-208	8.30E-02	1.50E-07		4.14E-06		5.13E-02	8.13E-04	1.73E-02	8.20E+00	5.05E-10	1.23E-03	1.05E-03	4.20E-01		5.12E-10	1.03E-03	6.55E-01	9.43E+00
Tl-209	2.21E-04	2.66E-05	1.48E-13	9.09E-15		2.53E-05	1.98E-05	8.07E-06	2.95E-03	1.80E-09	2.99E-04	1.99E-05	1.41E-02	3.20E-09	1.72E-06	1.16E-08	4.16E-05	1.77E-02
Tm-171									2.00E-03									2.00E-03
U-232	2.27E-01			1.28E-05		4.56E-01	4.77E-03		2.30E+01		2.58E-03	2.86E-03	1.14E+00			1.02E-04	2.73E+00	2.76E+01
U-233	1.01E-01	1.29E+00	4.98E-09	1.47E-09	1.68E-08	7.57E+00	2.81E+00	6.54E-01	4.29E+01	1.25E-04	1.35E+00	8.36E-01	4.39E+01	1.72E-04	1.07E-01	4.02E-04	1.69E+00	1.03E+02
U-234	9.01E-02	8.51E-02		2.04E-03	4.12E-06	5.05E+00	7.54E+00	6.54E-01	2.21E+01	2.32E-07	5.50E-02	1.12E-01	1.21E+01	8.82E-02	2.26E+00	4.66E-03	4.86E+01	9.87E+01
U-235	3.28E-03	3.13E-03	1.44E-10	2.65E-05	1.49E-07	1.84E-01	4.13E+00	1.24E-01	7.24E-02	4.62E-07	2.44E-03	1.00E+00	4.00E-03	4.74E-03	8.41E-02	2.37E-04	2.89E-02	5.64E+00
U-236	5.87E-05	6.57E-04		3.02E-04		4.04E-03	1.14E-03	1.24E-01	8.88E-03	7.42E-11	2.97E-05	2.88E-05	9.76E-02		1.31E-02	2.00E-04	2.88E-02	2.79E-01
U-237	4.33E-03	7.83E-03		2.96E-06		1.67E+01	1.98E+00	4.98E-03	1.81E+00	3.34E-07	1.42E-01	5.09E-02	4.28E-01		1.37E+01	2.16E-04	1.57E+00	3.64E+01
U-238	7.66E-02	1.61E-03		1.22E-07	7.59E-08	2.86E+00	2.21E+01	1.60E-02	1.45E+00	8.32E-08	8.16E-03	6.16E-02	4.88E-02	1.28E-01	1.42E+00	9.70E-04	1.24E+00	2.94E+01
U-240	4.77E-17	2.18E-06		6.66E-13		2.94E-10	6.59E-08		1.84E-04	2.43E-05	6.56E-11	1.93E-07	2.45E-08		3.14E-16		7.59E-13	2.10E-04
Y-90	3.08E+00	4.25E+00		1.86E+01		7.06E+02	2.12E-02		3.67E+00		4.57E-01	4.00E-04	1.87E+01		3.15E-02	3.09E+01	7.26E+01	8.58E+02
Zn-65	6.25E-05								1.36E-08				2.78E-17					6.25E-05
Zr-93				1.14E-03														1.14E-03
Zr-95									5.12E-10				3.46E-03					3.46E-03
Grand Total	7.46E+02	8.14E+02	5.13E-03	8.08E+01	8.69E-02	9.42E+05	3.79E+05	6.28E+02	3.59E+05	2.76E-01	1.10E+04	3.91E+03	2.33E+04	1.11E+01	9.63E+05	1.61E+02	5.98E+05	3.28E+06

Data Source: CID Data Version D.8.00, LANL-CO 2009a

Table 3-12. RH Radionuclides (Ci) on a Site Basis Decayed Through 2008

Radionuclide	ANLE	MFC (ANL-W)	BAPL	GEVNC	Hanford	INL	KAPL-S	LANL	ORNL	SNL-A	SRS	Grand Total
Ac-225	2.15E-06	2.37E-11	3.31E-02		4.63E-02	4.03E-04	1.38E-09	4.41E-13	7.66E+00	2.89E-11	3.24E-07	7.74E+00
Ac-227	1.57E-07	8.29E-09	1.15E-01		1.55E-06	3.10E-07	6.74E-08	1.98E-06	3.24E-03	2.35E-08	2.29E-08	1.18E-01
Ac-228	6.65E-15	1.07E-13	2.64E-03		1.71E-02	4.77E-05	4.37E-11	8.67E-15	5.67E-02	2.70E-17	2.77E-13	7.65E-02
Ag-109m									2.41E-08			2.41E-08
Ag-110					5.88E-10				9.03E-14			5.88E-10
Ag-110m					4.47E-08				6.86E-12			4.47E-08
Am-241	4.27E+01	3.11E+00	4.25E+00	3.61E-01	1.64E+03	7.15E+01	3.78E-02	2.25E+00	1.13E+02	2.71E+01	1.17E+02	2.02E+03
Am-242		5.18E-04	6.70E-03		1.19E+00	2.57E-04				3.62E-04	2.04E-01	1.40E+00
Am-242m		5.27E-04	6.81E-03		1.21E+00	2.62E-04				3.69E-04	2.07E-01	1.42E+00
Am-243	1.20E-04	5.58E-05	2.60E-02		4.31E+00	6.89E-04	6.14E-05		7.35E-01	4.96E-05	2.44E+00	7.52E+00
Am-245									2.62E-15			2.62E-15
At-217	2.16E-06	2.37E-11	3.31E-02		4.63E-02	4.04E-04	1.38E-09	4.41E-13	7.67E+00	2.89E-11	3.24E-07	7.75E+00
Ba-133			4.08E-07									4.08E-07
Ba-137m	2.25E+02	8.92E+03	1.09E+04		1.79E+05	1.07E+03	7.31E+01	1.42E+03	1.57E+03	6.01E+02	1.67E+03	2.06E+05
Bi-210	5.64E-10	2.73E-10	9.48E-06		3.84E-09	9.62E-11	4.67E-09	6.96E-10	4.28E+00	2.09E-10	6.25E-09	4.28E+00
Bi-211	1.55E-07	8.18E-09	1.13E-01		1.53E-06	3.06E-07	6.67E-08	1.95E-06	3.20E-03	2.32E-08	2.26E-08	1.17E-01
Bi-212	6.69E-15	4.49E-14	1.12E+01		9.08E+01	4.79E-05	3.51E-05	8.71E-15	1.51E+01	1.02E-06	4.66E-04	1.17E+02
Bi-213	2.15E-06	2.37E-11	3.30E-02		4.62E-02	4.03E-04	1.38E-09	4.40E-13	7.66E+00	2.89E-11	3.23E-07	7.74E+00
Bi-214	2.65E-09	5.49E-09	1.65E-05		4.43E-08	1.01E-09	1.55E-08	2.87E-09	8.34E+00	2.00E-09	3.34E-08	8.34E+00
Bk-249									1.81E-10			1.81E-10
Bk-250									7.30E-13			7.30E-13
C-14			3.32E-06		5.45E-04		2.16E-03		1.01E-02		1.73E-03	1.46E-02
Cd-109									2.44E-08			2.44E-08
Cd-113	1.01E-17				1.22E-18							1.13E-17
Cd-113m	1.69E+00				1.43E+00							3.12E+00
Ce-144	3.64E-11	2.06E+00			4.76E-05	2.11E-11			1.11E-09		3.08E-07	2.06E+00
Cf-249							4.59E-12		1.52E-01		9.70E-09	1.52E-01
Cf-250									5.00E-01		1.27E-07	5.00E-01
Cf-251							5.84E-14		2.43E-02		3.81E-09	2.43E-02
Cf-252							4.49E-16		5.61E-02		1.05E-02	6.66E-02
Cm-242		4.35E-04	5.63E-03		9.94E-01	2.16E-04			2.80E-16	3.04E-04	1.71E-01	1.17E+00
Cm-243		1.44E-05	1.11E-02		2.62E+01	7.21E-03	1.52E-05		1.09E-01	5.53E-05	6.41E-01	2.69E+01
Cm-244	5.63E-01	4.78E-04	5.27E-01		6.80E+02		1.40E-03		2.94E+02		1.96E+02	1.17E+03
Cm-245			8.86E-07		8.85E-02		5.68E-07		2.92E-04		3.56E-02	1.24E-01
Cm-246					3.95E-02		7.39E-08		1.38E+00		3.50E-02	1.46E+00
Cm-247					1.25E-10		1.74E-13		2.51E-08		5.84E-08	8.37E-08
Cm-248					1.89E-06		3.45E-13		5.60E-03		3.92E-06	5.60E-03
Cm-250									1.33E-11			1.33E-11

Table 3-12. RH Radionuclides (Ci) on a Site Basis Decayed Through 2008
Continued

Radionuclide	ANLE	MFC (ANL-W)	BAPL	GEVNC	Hanford	INL	KAPL-S	LANL	ORNL	SNL-A	SRS	Grand Total
Co-60	3.86E-01	6.57E+00			6.76E+01	2.42E-01		2.25E-01	2.02E+00	2.58E-02	2.06E+02	2.83E+02
Cs-134	4.45E-05	6.03E+01	4.74E-01		1.58E+02	2.40E-03			2.01E-02	2.59E+00	3.75E-02	2.22E+02
Cs-135			9.01E-03		1.16E-03		4.69E-04					1.06E-02
Cs-137	2.40E+02	9.53E+03	1.17E+04	3.82E-01	1.92E+05	1.14E+03	7.82E+01	1.52E+03	1.68E+03	6.43E+02	1.79E+03	2.20E+05
Eu-150					1.86E-06							1.86E-06
Eu-152	4.84E-04		3.82E-02		3.19E-01				4.26E+00		8.44E-03	4.62E+00
Eu-154	1.92E-02	3.13E+01	1.08E+02		5.50E+02				4.49E+00	9.58E-01	9.73E-01	6.96E+02
Eu-155	1.68E-02	7.53E+01	2.01E-01		2.65E+02			9.65E-01	6.86E-02		1.11E-02	3.42E+02
Fe-55	1.16E-01				1.14E-02	2.85E-04						1.28E-01
Fr-221	2.15E-06	2.37E-11	3.30E-02		4.62E-02	4.03E-04	1.38E-09	4.41E-13	7.66E+00	2.89E-11	3.23E-07	7.74E+00
Fr-223	2.14E-09	1.13E-10	1.56E-03		2.11E-08	4.22E-09	9.20E-10	2.70E-08	4.43E-05	3.21E-10	3.12E-10	1.61E-03
Gd-152	7.22E-17		2.15E-16		1.26E-14				3.23E-13		8.36E-17	3.36E-13
Gd-153					3.71E-10							3.71E-10
H-3		5.22E+01	1.96E+01		1.81E+03						1.03E-01	1.89E+03
Ho-166m			2.04E-07									2.04E-07
I-129			5.77E-03		2.48E-03		4.28E-05		1.15E-06		7.01E-05	8.36E-03
Kr-81			1.80E-07									1.80E-07
Kr-85	1.05E+00		1.91E+02		3.29E+02	9.38E-01					1.19E+00	5.23E+02
Mn-54	7.32E-11	5.95E-08			3.75E-01	2.14E-12						3.75E-01
Mo-93					1.43E-04							1.43E-04
Na-22					2.39E-06							2.39E-06
Nb-93m	3.20E-03		6.07E-01		1.20E-03		7.26E-04					6.12E-01
Nb-94			1.89E-05		8.50E-02							8.50E-02
Nb-95					1.94E-14							1.94E-14
Nb-95m					6.50E-17							6.50E-17
Nd-144	7.04E-14	5.85E-14	1.34E-26		6.46E-13	3.83E-19			2.91E-16		2.67E-17	7.75E-13
Ni-59					9.75E-04		2.03E-04				4.57E-03	5.75E-03
Ni-63		2.81E+00			3.05E-02	2.82E+00	2.10E-02					5.68E+00
Np-237	6.36E-03	4.00E-04	3.60E-02		3.81E-01	9.92E-04	9.93E-04	1.31E-05	2.20E-02	1.23E-03	1.97E+00	2.41E+00
Np-238		2.60E-06	3.37E-05		5.96E-03	1.29E-06				1.82E-06	1.02E-03	7.02E-03
Np-239	1.19E-04	5.51E-05	2.56E-02		4.26E+00	6.81E-04	6.06E-05		7.25E-01	4.90E-05	2.41E+00	7.42E+00
Np-240m					2.35E-06		2.02E-12		5.10E-09		3.44E-13	2.35E-06
Pa-231	4.16E-07	1.65E-07	1.74E-01		1.67E-05	1.31E-06	1.24E-07	5.70E-06	5.54E-03	1.51E-07	9.54E-08	1.80E-01
Pa-233	6.30E-03	3.97E-04	3.56E-02		3.78E-01	9.83E-04	9.84E-04	1.30E-05	2.18E-02	1.21E-03	1.95E+00	2.39E+00
Pa-234	6.16E-07	1.41E-05	7.92E-08		2.74E-04	2.26E-06	4.74E-10	5.26E-08	1.37E-04	2.84E-07	8.12E-06	4.37E-04
Pa-234m	4.73E-04	1.09E-02	6.09E-05		2.11E-01	1.74E-03	3.65E-07	4.04E-05	1.06E-01	2.18E-04	6.24E-03	3.36E-01
Pb-209	2.15E-06	2.37E-11	3.31E-02		4.62E-02	4.03E-04	1.38E-09	4.41E-13	7.66E+00	2.89E-11	3.24E-07	7.74E+00
Pb-210	5.71E-10	2.76E-10	9.59E-06		3.89E-09	9.74E-11	4.72E-09	7.04E-10	4.33E+00	2.12E-10	6.32E-09	4.33E+00

Table 3-12. RH Radionuclides (Ci) on a Site Basis Decayed Through 2008
Continued

Radionuclide	ANLE	MFC (ANL-W)	BAPL	GEVNC	Hanford	INL	KAPL-S	LANL	ORNL	SNL-A	SRS	Grand Total
Pb-211	1.55E-07	8.20E-09	1.14E-01		1.53E-06	3.06E-07	6.68E-08	1.96E-06	3.21E-03	2.33E-08	2.26E-08	1.17E-01
Pb-212	6.66E-15	4.48E-14	1.12E+01		9.05E+01	4.78E-05	3.50E-05	8.68E-15	1.50E+01	1.02E-06	4.65E-04	1.17E+02
Pb-214	2.65E-09	5.50E-09	1.66E-05		4.43E-08	1.02E-09	1.56E-08	2.88E-09	8.35E+00	2.00E-09	3.35E-08	8.35E+00
Pd-107			2.76E-04		9.32E-05		1.96E-05					3.89E-04
Pm-146			3.32E-07									3.32E-07
Pm-147	2.35E-02	5.02E+01	7.69E+00		1.39E+01	6.79E-03	1.41E-02	7.98E-02	3.00E-02	1.88E+00	9.48E-02	7.40E+01
Po-210	5.71E-10	2.76E-10	9.41E-06		3.88E-09	9.49E-11	4.72E-09	7.03E-10	4.32E+00	2.11E-10	6.32E-09	4.32E+00
Po-211	4.72E-10	2.50E-11	3.46E-04		4.66E-09	9.33E-10	2.04E-10	5.96E-09	9.78E-06	7.09E-11	6.89E-11	3.56E-04
Po-212	4.26E-15	2.86E-14	7.13E+00		5.79E+01	3.06E-05	2.24E-05	5.55E-15	9.59E+00	6.50E-07	2.97E-04	7.46E+01
Po-213	2.11E-06	2.32E-11	3.23E-02		4.52E-02	3.95E-04	1.35E-09	4.31E-13	7.50E+00	2.83E-11	3.17E-07	7.58E+00
Po-214	2.65E-09	5.50E-09	1.66E-05		4.43E-08	1.02E-09	1.56E-08	2.87E-09	8.35E+00	2.00E-09	3.34E-08	8.35E+00
Po-215	1.55E-07	8.20E-09	1.14E-01		1.53E-06	3.06E-07	6.68E-08	1.96E-06	3.21E-03	2.33E-08	2.26E-08	1.17E-01
Po-216	6.66E-15	4.47E-14	1.12E+01		9.04E+01	4.78E-05	3.50E-05	8.68E-15	1.50E+01	1.02E-06	4.64E-04	1.17E+02
Po-218	2.61E-09	5.41E-09	1.63E-05		4.36E-08	9.99E-10	1.53E-08	2.83E-09	8.21E+00	1.97E-09	3.29E-08	8.21E+00
Pr-144	3.57E-11	2.02E+00			4.66E-05	2.07E-11			1.09E-09		3.02E-07	2.02E+00
Pu-236			6.52E-08		2.15E-06							2.22E-06
Pu-238	3.96E+01	4.13E+00	2.84E+02	4.33E-03	8.15E+02	6.35E+01	3.15E+00	1.26E+00	8.97E+01	5.30E+00	7.19E+02	2.02E+03
Pu-239	6.88E+01	2.28E+01	5.02E-01	3.01E-02	3.08E+02	7.03E+01	8.82E-03	2.45E+02	1.85E+01	4.72E+00	1.29E+01	7.52E+02
Pu-240	1.61E+01	2.77E+00	5.63E-01	1.41E-02	2.31E+02	3.52E+01	2.21E-03	2.53E+00	1.12E+01	1.06E+00	1.65E+01	3.17E+02
Pu-241	1.69E+02	8.04E+00	3.39E+01	1.62E-01	1.28E+04	4.91E+02	2.35E-01	2.28E+01	8.62E+01	4.66E-02	8.39E+02	1.45E+04
Pu-242	3.32E-03	2.23E-04	3.99E-03	8.31E-06	4.20E-01	8.89E-01	8.42E-06	1.52E-03	3.22E-02	1.16E-04	4.24E-02	1.39E+00
Pu-243					1.23E-10		1.72E-13		2.48E-08		5.77E-08	8.27E-08
Pu-244					2.33E-06		2.00E-12		5.06E-09		3.41E-13	2.33E-06
Ra-223	1.57E-07	8.28E-09	1.15E-01		1.55E-06	3.09E-07	6.75E-08	1.98E-06	3.24E-03	2.35E-08	2.28E-08	1.18E-01
Ra-224	6.65E-15	4.47E-14	1.11E+01		9.04E+01	4.77E-05	3.49E-05	8.67E-15	1.50E+01	1.02E-06	4.64E-04	1.16E+02
Ra-225	2.15E-06	2.37E-11	3.31E-02		4.63E-02	4.04E-04	1.38E-09	4.41E-13	7.67E+00	2.89E-11	3.24E-07	7.75E+00
Ra-226	2.68E-09	5.56E-09	1.67E-05		4.48E-08	1.03E-09	1.57E-08	2.91E-09	8.44E+00	2.02E-09	3.38E-08	8.44E+00
Ra-228	7.86E-15	1.26E-13	3.11E-03		2.02E-02	5.64E-05	5.16E-11	1.02E-14	6.69E-02	3.19E-17	3.27E-13	9.03E-02
Rb-87			9.68E-07									9.68E-07
Rh-106	2.19E-08		3.81E-06		2.36E-03	2.14E-06		4.72E-08	7.43E-07		2.18E-08	2.37E-03
Rn-219	1.55E-07	8.19E-09	1.13E-01		1.53E-06	3.06E-07	6.67E-08	1.95E-06	3.20E-03	2.32E-08	2.26E-08	1.17E-01
Rn-220	6.66E-15	4.48E-14	1.12E+01		9.05E+01	4.78E-05	3.50E-05	8.68E-15	1.50E+01	1.02E-06	4.65E-04	1.17E+02
Rn-222	2.66E-09	5.51E-09	1.66E-05		4.44E-08	1.02E-09	1.56E-08	2.88E-09	8.36E+00	2.00E-09	3.35E-08	8.36E+00
Ru-106	2.21E-08		3.85E-06		2.39E-03	2.16E-06		4.77E-08	7.50E-07		2.20E-08	2.40E-03
Sb-125	3.11E-03	1.15E-03	3.26E-01		5.92E+01	7.03E-04		8.54E-02	9.91E-04		7.95E-04	5.96E+01
Sb-126	4.62E-04		4.61E-03		1.38E-01		5.48E-05				2.30E-07	1.43E-01
Sb-126m	3.30E-03		3.29E-02		9.85E-01		3.91E-04				1.64E-06	1.02E+00
Se-79			9.18E-02		1.45E-01		1.20E-04				5.74E-07	2.37E-01

Table 3-12. RH Radionuclides (Ci) on a Site Basis Decayed Through 2008
Continued

Radionuclide	ANLE	MFC (ANL-W)	BAPL	GEVNC	Hanford	INL	KAPL-S	LANL	ORNL	SNL-A	SRS	Grand Total
Sm-146			3.03E-15									3.03E-15
Sm-147	3.53E-09	3.38E-09	2.28E-10		4.10E-09	3.27E-11	1.86E-12	4.16E-09	3.19E-10	7.96E-10	9.15E-11	1.66E-08
Sm-148	1.51E-31		3.28E-32		1.43E-29				4.38E-28		2.16E-32	4.52E-28
Sm-151	7.24E+00	3.67E+00	5.04E+01		2.59E+01		1.29E+00				5.07E-01	8.90E+01
Sn-119m					1.47E-09							1.47E-09
Sn-121m			4.30E-02		5.17E-04		3.21E-03					4.68E-02
Sn-126	3.30E-03		3.30E-02		9.86E-01		3.92E-04				1.64E-06	1.02E+00
Sr-90	9.67E+01	1.97E+04	1.15E+04	1.15E-01	1.18E+05	9.60E+02	7.42E+01	1.36E+03	9.79E+02	5.42E+02	1.13E+03	1.55E+05
Tc-99	4.04E-02		3.02E+00		7.95E+00		2.46E-02		6.87E-03		3.74E-01	1.14E+01
Te-125m	7.53E-04	2.78E-04	7.89E-02		1.43E+01	1.70E-04		2.07E-02	2.40E-04		1.92E-04	1.44E+01
Th-227	1.53E-07	8.07E-09	1.12E-01		1.51E-06	3.01E-07	6.58E-08	1.93E-06	3.16E-03	2.29E-08	2.22E-08	1.15E-01
Th-228	6.74E-15	4.53E-14	1.13E+01		9.15E+01	4.83E-05	3.54E-05	8.78E-15	1.52E+01	1.02E-06	4.70E-04	1.18E+02
Th-229	2.16E-06	2.37E-11	3.31E-02		4.63E-02	4.04E-04	1.38E-09	4.42E-13	7.68E+00	2.90E-11	3.24E-07	7.76E+00
Th-230	6.16E-07	5.14E-06	1.31E-03		2.71E-05	1.88E-06	1.92E-06	4.69E-07	1.27E-02	8.53E-07	8.78E-06	1.41E-02
Th-231	8.12E-04	3.08E-03	8.76E-03		9.99E-03	9.11E-03	8.30E-05	9.19E-03	8.90E-03	6.40E-04	4.27E-04	5.10E-02
Th-232	1.16E-14	4.94E-13	3.02E-03		3.36E-02	5.54E-05	4.84E-11	1.32E-14	1.23E-01	9.38E-17	1.15E-12	1.60E-01
Th-234	4.74E-04	1.09E-02	6.10E-05		2.11E-01	1.74E-03	3.65E-07	4.05E-05	1.06E-01	2.19E-04	6.25E-03	3.37E-01
Tl-207	1.54E-07	8.15E-09	1.13E-01		1.52E-06	3.04E-07	6.64E-08	1.94E-06	3.19E-03	2.31E-08	2.25E-08	1.16E-01
Tl-208	2.40E-15	1.61E-14	4.02E+00		3.26E+01	1.72E-05	1.26E-05	3.13E-15	5.40E+00	3.66E-07	1.67E-04	4.20E+01
Tl-209	4.73E-08	5.21E-13	7.27E-04		1.02E-03	8.87E-06	3.03E-11	9.70E-15	1.68E-01	6.35E-13	7.12E-09	1.70E-01
U-232			1.67E+01		9.71E+01		3.75E-05		1.59E+01		5.51E-04	1.30E+02
U-233	6.99E-04	5.41E-08	1.10E+01	2.35E-07	7.08E+01	3.66E-01	4.79E-07	6.10E-10	2.52E+01	5.64E-08	2.48E-04	1.07E+02
U-234	1.09E-02	1.14E-01	1.54E+00	5.79E-05	4.46E-01	2.00E-01	5.67E-03	1.86E-03	5.71E-01	8.71E-03	8.16E-02	2.98E+00
U-235	8.22E-04	3.12E-03	8.86E-03	2.09E-06	1.01E-02	9.75E-03	8.40E-05	9.30E-03	9.01E-03	6.48E-04	4.33E-04	5.22E-02
U-236	1.43E-05	2.00E-03	1.01E-01		2.61E-01	2.65E-06	7.97E-04	1.03E-05	8.98E-03	3.45E-07	4.41E-03	3.78E-01
U-237	4.16E-03	1.98E-04	8.33E-04		3.15E-01	1.12E-02	5.77E-06	5.60E-04	2.12E-03	1.14E-06	2.06E-02	3.55E-01
U-238	4.79E-04	1.10E-02	6.16E-05	1.06E-06	2.13E-01	1.84E-03	3.69E-07	4.09E-05	1.07E-01	2.21E-04	6.31E-03	3.40E-01
U-240					2.30E-06		1.98E-12		5.00E-09		3.37E-13	2.31E-06
Y-90	9.56E+01	1.95E+04	1.14E+04		1.17E+05	9.49E+02	7.33E+01	1.35E+03	9.68E+02	5.35E+02	1.12E+03	1.53E+05
Y-91		3.72E-11										3.72E-11
Zn-65					1.57E-05				9.17E-14			1.57E-05
Zr-93	4.89E-03		7.65E-01		2.10E-03		3.01E-03					7.75E-01
Zr-95					8.85E-15							8.85E-15
Grand Total	1.00E+03	5.79E+04	4.64E+04	1.07E+00	6.27E+05	4.86E+03	3.04E+02	5.93E+03	6.10E+03	2.36E+03	7.83E+03	7.59E+05

Data Source: CID Data Version D.8.00, LANL-CO 2009a

3.3.2 WIPP Radionuclide Inventory

Four radionuclides, americium (Am)-241, plutonium (Pu)-238, Pu-239, and Pu-241, make up 95.9% of the total CH-TRU waste activity reported here. Four radionuclides, barium (Ba)-137m, cesium (Cs)-137, strontium (Sr)-90, and yttrium (Y)-90 make up 96.6% of the total RH-TRU waste activity reported here.

Table 3-13 lists the total curies by site, decayed to the end of CY 2008.

Table 3-13. Total Curies by Site

Site	Total CH Activity (Ci)	Total RH Activity (Ci)
Argonne National Laboratory - East	7.46E+02	1.00E+03
Material and Fuels Complex (ANL-W)	8.14E+02	5.79E+04
U.S. Army Materiel Command	5.13E-03	NA
Bettis Atomic Power Laboratory	8.08E+01	4.64E+04
GE - Vallecitos Nuclear Center	8.69E-02	1.07E+00
Hanford (Richland Operations) Site	9.42E+05	6.27E+05
Idaho National Laboratory	3.79E+05	4.86E+03
Knolls Atomic Power Laboratory - Nuclear Fuel Services	6.28E+02	NA
Knolls Atomic Power Laboratory - Schenectady	NA	3.04E+02
Los Alamos National Laboratory	3.59E+05	5.93E+03
Lawrence Berkeley Laboratory	2.76E-01	NA
Lawrence Livermore National Laboratory	1.10E+04	NA
Nevada Test Site	3.91E+03	NA
Oak Ridge National Laboratory	2.33E+04	6.10E+03
Paducah Gaseous Diffusion Plant	1.11E+01	NA
Rocky Flats Environmental Technology Site	9.63E+05	NA
Sandia National Laboratory - Albuquerque	1.61E+02	2.36E+03
Savannah River Site	5.98E+05	7.83E+03
Grand Total	3.28E+06	7.59E+05

Data Source: CID Data Version D.8.00, LANL-CO 2009a

NOTE: Decayed through CY 2008

As presented in Appendix D, a comparison is made between the CH- and RH-TRU activities, decay-corrected to WIPP site closure (2033) in this report to those reported in the ATWIR-2008 (DOE 2008a). The radionuclides presented in Appendix D have also been decay-corrected to WIPP site closure (2033) to facilitate comparison.

4.0 POTENTIAL WIPP TRU WASTE

Previous sections of this report have presented WIPP-bound inventory data. This section acknowledges the potential TRU waste, but it should be noted that neither WIPP-bound nor potential TRU waste will be shipped to WIPP unless it meets all the emplacement regulations and criteria for disposal.

Approximately 22% of the final form TRU waste volume reported by the TRU waste sites during this year's data collection has been identified as potential TRU waste. Potential TRU waste is waste that currently does not meet all of the regulatory or physical criteria required for disposal in WIPP. Once these criteria are met, these waste streams may be certified for shipment to and disposal in WIPP.

While a site may designate waste streams as potential for many different reasons, it is usually because of regulatory or physical constraints. Section 4.1 identifies the most significant reasons why waste might be designated as potential TRU waste.

4.1 Categories of Potential WIPP TRU Waste

As listed below, the DOE has several categories for which TRU waste sites would consider their waste stream as potential TRU waste.

- **TRU Determination** – Some sites have managed some of their TRU waste streams as high-level waste for convenience, but these waste streams need an official determination to ensure that they meet the definition of TRU waste.
- **Defense Determination** – WIPP can only accept TRU waste resulting from defense-related activities as outlined in a memorandum from Robert R. Nordhaus, General Counsel, to Al Alm, Assistant Secretary for Environmental Management (DOE 1996c).
- **Regulatory Restrictions** – There are numerous regulatory restrictions that would prevent waste in its current form from coming to WIPP. Examples include curie limits and dose rates on RH canisters, total emplacement curies on RH waste, prohibited Resource Conservation and Recovery Act (RCRA) hazardous waste, etc. Sites must treat, repack, or change the current form of such waste before it can be accepted for disposal in WIPP.
- **Incomplete Data** – Waste with insufficient data is deemed potential until necessary data are obtained.
- **Unknown** – Very little information is known about the waste. These TRU waste streams have not been characterized and the final TRU waste form and/or other significant parameters are unknown.

These waste streams may become eligible for disposal at WIPP if all of the required information is provided by the site and the waste meets all of the acceptance criteria for WIPP.

Table 4-1 identifies the current CH potential TRU waste streams and Table 4-2 identifies the current RH potential TRU waste streams.

Table 4-1. Potential WIPP CH-Transuranic Waste Streams

Waste Stream ID ¹	Final Form Anticipated Volume (m ³)	Categories of Potential WIPP CH-Transuranic Waste
BL-Parks	1.55E+01	Defense determination
BT-T006	5.09E+01	Regulatory restrictions
IN-BN050	2.08E-01	Unknown
IN-BN204	4.50E+00	Unknown
IN-BN811	1.89E+00	Unknown
IN-BN161	0.00E+00	Incomplete data
IN-BN211	0.00E+00	Incomplete data
IN-BN243	0.00E+00	Incomplete data
IN-BN252	0.00E+00	Incomplete data
IN-BN296	0.00E+00	Incomplete data
IN-BN304	0.00E+00	Incomplete data
IN-W139	8.32E-01	Unknown
IN-W170	4.16E-01	Unknown
IN-W171	1.46E+00	Unknown
IN-W172	1.96E+02	Unknown
IN-W219	9.36E+00	Unknown
IN-W259	5.10E+01	Unknown
IN-W269	2.89E+01	Unknown
IN-W283	2.43E+01	Unknown
IN-W287	5.99E+01	Unknown
IN-W302	1.65E+02	Unknown
IN-W322	5.67E+00	Unknown
IN-W323	1.51E+01	Unknown
IN-W337	2.08E-01	Unknown
IN-W338	1.25E+00	Unknown
IN-W339	8.53E+00	Unknown
IN-W345	1.91E+01	Unknown
IN-W347	3.27E+01	Unknown
IN-W350	2.08E-01	Unknown
IN-W351	1.46E+00	Unknown
IN-W358	1.25E+00	Unknown
IN-W372	1.89E+00	Unknown
LA-LA238HOR	6.66E+00	Incomplete data
LA-TA-00-04	4.16E-01	Incomplete data
LA-TA-03-17	2.08E+01	Incomplete data
LA-TA-03-20	4.16E-01	Incomplete data

Waste Stream ID ¹	Final Form Anticipated Volume (m ³)	Categories of Potential WIPP CH-Transuranic Waste
LA-TA-03-21	9.45E+01	Incomplete data
LA-TA-03-23	6.80E+01	Incomplete data
LA-TA-21-11	2.08E+01	Incomplete data
LB-T004	4.16E-01	Incomplete data
ND-T001	2.15E+01	Defense determination
RL618-01	2.49E+02	Incomplete data
RLMLL-01	1.04E+00	Incomplete data
RLPRC-01	2.10E+00	Defense determination
RLRFET-01	2.53E+02	Incomplete data
RP-TFC001	4.39E+02	Defense determination
RP-W754	3.23E+02	Defense determination
RP-W755	7.94E+02	Defense determination
SP-T001	8.32E+00	Incomplete data
SP-T002	4.18E+01	Incomplete data
SR-T001-773A-CLAS	1.25E+02	Incomplete data
SR-T001-WSB-1	4.91E+03	Projected waste from facility under construction
SR-T001-WSB-3	1.44E+02	Projected waste from facility under construction
SR-W026-MFFF-1	3.50E+03	Projected waste from facility under construction
SR-W026-PDCF-1	2.15E+03	Projected waste from facility under construction
SR-W026-WSB-2	6.26E+02	Projected waste from facility under construction
SR-W027-221H-HET-B	1.48E+01	Incomplete data
SR-W027-HBL-Box-B	1.02E+02	Incomplete data
WV-M010a	1.15E+01	Defense determination
WV-T004	2.08E-01	Defense determination
WV-T006a	3.49E+02	Defense determination
WV-T017a	7.56E+00	Defense determination
WV-W024a	1.99E+01	Defense determination
WV-Z001	1.35E+03	Defense determination
Grand Total	1.64E+04	

¹See Figure 1-1 for site designators.

Table 4-2. Potential WIPP RH-TRU Waste Streams

Waste Stream ID ¹	Final Form Anticipated Volume (m ³)	Categories of Potential WIPP RH-TRU Waste
AW-IN-TRA-BE-01	3.12E+01	Regulatory restrictions
AW-W018	4.45E+00	Regulatory restrictions
AW-W019	8.90E-01	Regulatory restrictions
AW-W020.13	2.40E+01	Regulatory restrictions
AW-W029	1.25E+01	Regulatory restrictions
AW-W048	1.07E+01	Incomplete data
BL-Parks-A	4.16E-01	Incomplete data
IN-ID-RTC-S5000	3.03E+01	Incomplete data
IN-NRF-SPC	2.76E+01	Incomplete data

Waste Stream ID ¹	Final Form Anticipated Volume (m ³)	Categories of Potential WIPP RH-TRU Waste
IN-SBW-01A	5.99E+02	TRU determination
IN-SBW-01B	8.90E+01	TRU determination
IN-W169R	1.56E+01	Unknown
IN-W197R	1.64E+01	Unknown
IN-W198R	1.04E+00	Unknown
IN-W208R	8.90E-01	Unknown
IN-W216R	5.79E+01	Unknown
IN-W228R	2.94E+01	Unknown
IN-W243R	5.34E+00	Unknown
IN-W245R	1.25E+00	Unknown
IN-W247R	1.04E+00	Unknown
IN-W252R	1.78E+01	Unknown
IN-W254R	1.78E+00	Unknown
IN-W260R	3.58E+01	Unknown
IN-W283R	4.16E-01	Unknown
IN-W294R	8.90E+00	Unknown
IN-W296R	2.49E+01	Unknown
IN-W298R	8.01E+00	Unknown
IN-W317R	2.08E+00	Unknown
IN-W342R	6.44E-01	Unknown
IN-W359R	6.24E-01	Unknown
IN-W360R	2.08E-01	Unknown
IN-W364R	3.22E-01	Unknown
IN-W365R	6.44E-01	Unknown
IN-W372R	4.45E+00	Unknown
RL105-09A	6.23E+00	TRU determination
RL300-11	1.07E+01	Regulatory restrictions
RL618-07	1.36E+03	Incomplete data
RLCH2-08	4.56E+02	TRU determination
RLGEV-08	9.79E+00	Incomplete data
RP-TFC002	1.92E+03	TRU determination
RP-TFC003	2.58E+02	TRU determination
RP-W013	4.10E+02	TRU determination
RP-W016	1.28E+03	TRU determination
WV-T006b	5.83E+02	Defense determination
WV-T017b	5.61E+01	Defense determination
WV-W024b	2.23E+02	Defense determination
Grand Total	7.63E+03	

¹See Figure 1-1 for site designators.

5.0 SUMMARY

This report is an update to the ATWIR-2008 (DOE 2008a). Like the ATWIR-2008, this report focuses on changes resulting from characterization, improved estimations, continued generation, and WIPP emplacement. The cut-off date for data collection for this report was December 31, 2008.

In CY 2008, TRU waste was shipped from Hanford-RL, INL, LANL, SRS, ORNL, and ANL. As a result of these shipments, more characterization data have been reported by these TRU waste sites and better estimates have been provided for this inventory. The most notable changes resulting from the use of this new information in the TRU waste inventory have been decreases in the densities of iron-based metal and in the activity of both the CH- and the RH-TRU waste (see Appendix D).

This report includes changes to sites' waste streams from the ATWIR-2008 and CID data version D.7.00. The information in this report was collected from the TRU waste sites, entered into the CBFO QAPD-compliant CID, and DOE TRU waste managers (or their designees) validated their sites' data to ensure completeness and accuracy. The CID includes estimates for: 1) waste volumes (stored, projected, and emplaced); 2) radionuclides (decayed to a common year of 2008); 3) waste and packaging material parameters average densities; and 4) chemical components. An analysis was performed on the chemical component data from the CID and an analysis was performed on the emplaced data from the WWIS database.

This report includes WIPP-bound waste, emplaced waste, potential TRU waste, inventory comparisons, results of inventory analyses, and a historic crosswalk of TRU waste streams and can be found in Appendices A, B, C, D, and E, respectively.

6.0 GLOSSARY

40 CFR Part 191, Protection of Environment – EPA: Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes – The EPA’s environmental standards for the storage (Subpart A) and disposal (Subpart B) of spent nuclear fuel, and high-level and TRU radioactive wastes. This is the primary post-closure standard that applies to WIPP. Subpart C of 40 CFR Part 191 establishes the requirements that apply to the performance assessments and compliance assessments that will be used to demonstrate compliance with the requirements of the disposal regulations.

Acceptable Knowledge – 40 CFR 194.2 defines Acceptable Knowledge as any information about the process used to generate waste, material inputs to the process, and the time period during which the waste was generated, as well as data resulting from the analysis of waste, conducted prior to or separate from the waste certification process authorized by EPA’s Certification Decision, to show compliance with Condition 3 of the certification decision Appendix A of 40 CFR 194.2.

Anticipated Inventory – As defined in this report, the sum of the total stored and total projected inventory volumes is the anticipated volume.

Cement – A dry powder made from silica, alumina, lime, iron oxide, and magnesia, which hardens when mixed with water. Used as an ingredient in concrete and also used to solidify liquid wastes, resulting in a homogeneous monolith.

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

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

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

Defense Waste – (1) Radioactive waste from any activity performed in whole or in part in support of DOE atomic energy defense activities. Excludes waste under the purview of the Nuclear Regulatory Commission or generated by the commercial nuclear power industry. (2) Nuclear waste derived mostly from the manufacturer of nuclear weapons, weapons-related research programs, the operation of naval reactors, and the decontamination of nuclear weapons production facilities.

Department of Energy Site – A DOE-owned or controlled tract used for DOE operations. Either a tract owned by DOE or a tract leased or otherwise made available to the federal government under terms that afford to DOE rights of access and control substantially equal to those that DOE would possess if it were the holder of the fee (or pertinent interest therein) as agent of and on behalf of the government. One or more

DOE operations/program activities are carried out within the boundaries of the described tract.

Disposal – Emplacement of waste in a manner that assures isolation from the biosphere for the foreseeable future with no intent of retrieval and that requires deliberate action to regain access to the waste. For example, disposal of waste in a mined geologic repository occurs when all of the shafts to the repository area are backfilled and sealed.

Disposal Inventory Volume – The inventory volume defined for WIPP emplacement to be used for performance assessment calculations is the “disposal inventory.” The LWA defines the total amount of TRU waste allowed in the WIPP as 6,200,000 cubic feet (approximately 175,560 cubic meters).

Emplaced Inventory – Waste that has been disposed at the WIPP as of the inventory date (December 31, 2008) for the purposes of this 2009 annual report.

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

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

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

Oxyanion - Negatively charged ionic species containing oxygen, such as sulfate, nitrate, and phosphate.

Payload Container Volume – For the purpose of this document, the payload container volume is the volume that the final form package occupies at the time it is emplaced in the repository. Examples of payload container volume used in this context are ten-drum overpacks (TDOPs) with a volume of 4.50 m³ and RH canister overpacks of three 55-gallon drums with a volume of 0.89 m³.

Performance Assessment (PA) – Performance assessment is an analysis that: (1) identifies the processes and events that might affect the disposal system; (2) examines the effects of these processes and events on the performance of the disposal system; and (3) estimates the cumulative releases of radionuclides, considering the associated uncertainties, caused by all significant processes and events. These estimates are incorporated into an overall probability distribution of cumulative release to the extent practicable.

Performance Assessment Baseline Calculations (PABC) – A PA run during the recertification that incorporates EPA requested changes. The results of this PA become

the WIPP regulatory performance baseline that demonstrates compliance with EPA's radioactive waste containment requirements.

Potential Inventory – TRU waste that may have regulatory or physical constraints that keep waste from being emplaced in WIPP. After these waste streams are brought into compliance with all the acceptance criteria, they may be certified for shipment to WIPP.

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

Radioactive – Term used to refer to an unstable atomic nucleus that decays with the spontaneous emission of ionizing radiation (see also “radionuclide”).

Radionuclide – (1) A species of atom having an unstable nucleus, that is subject to spontaneous decay or disintegration and usually accompanied by the emission of ionizing radiation. (2) Any nuclide that emits radiation. A nuclide is a species of atom characterized by the constitution of its nucleus and hence by the number of protons, the number of neutrons, and the energy content.

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

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

Retrievably Stored Waste – Stored waste that includes waste stored in buildings or berms with earthen cover since 1970, but does not include waste buried prior to 1970. Retrievably stored waste also includes waste that is stored in underground storage tanks or ponds, and as decontamination and decommissioning material identified for disposal that requires retrieval at the sites.

Scaling – The process for adjusting the CH and RH-TRU waste volumes so that the stored, projected, and emplaced inventories in WIPP apply to the “disposal inventory” or regulatory limits for performance assessment modeling purposes. Only the projected waste stream volumes are scaled.

Stored Inventory – That part of the TRU waste inventory currently in retrievable storage as of the time of the last data cut off date for inventory information. Stored inventory can be in the “current form waste” or “final form waste.”

Transuranic – Pertaining to elements that have atomic numbers greater than 92, including neptunium, plutonium, americium, and curium. All are radioactive, are not naturally occurring, and are members of the actinide group.

Transuranic (TRU) Waste – (1) Waste containing alpha-emitting radionuclides with atomic numbers greater than 92 and half-lives greater than 20 years, at concentrations of TRU isotopes greater than 100 nanocuries per gram of waste. This core definition

appears in modified form in various relevant documents including DOE M 435.1-1 and the Land Withdrawal Act. The Land Withdrawal Act definition of transuranic waste is as follows: “Transuranic waste is radioactive waste containing more than 100 nanocuries (3700 becquerels) of alpha-emitting transuranic isotopes per gram of waste, with half lives greater than 20 years, except for: (1) High-level radioactive waste; (2) waste that the Secretary of Energy has determined, with the concurrence of the Administration of the Environmental Protection Agency, does not need the degree of isolation required by 40 CFR Part 191 disposal regulations; (3) waste that the Nuclear Regulatory Commission has approved for disposal on a case-by-case basis in accordance with 10 CFR Part 61.”

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

Unreacted Cement – Dry cement that was added as an absorbent or neutralizer to a waste stream, but under dry, non-aqueous conditions, without an attempt to cause the cement to set up.

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

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

WIPP Waste Stream – A waste stream that is being planned for shipment to WIPP or is currently certified and being shipped to WIPP.

Waste Isolation Pilot Plant (WIPP) – (1) The project authorized under Section 213 of the DOE National Security and Military Applications of Nuclear Energy Authorization Act of 1980 to demonstrate the safe and environmentally sound disposal of radioactive waste materials generated by atomic energy defense activities. (2) A research and development facility located near Carlsbad, New Mexico, to be used to demonstrate a practical, long-term solution to a complex problem: the safe disposal in deep geologic repositories of TRU waste resulting from DOE activities.

Waste Material Parameter (WMP) – A waste material that occurs in TRU waste that is an input parameter into one (or more) current PA model(s). As an example, cellulose, plastic, and rubber are monitored as contributors to the generation of gas in WIPP.

Waste Stream – Waste material generated from a single process or from an activity that is similar in material, physical form, and hazardous constituents.

Waste Stream Profile (WSP) – A description of a CH-TRU or RH-TRU waste stream that has been designated as WIPP-bound, Emplaced, or Potential. The waste profile is presented in tabular format and is intended to provide a summary of the important information about a particular waste stream.

WIPP-bound TRU Waste – TRU waste that is expected to be shipped to WIPP.

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APPENDIX A: WIPP-Bound Waste

The following WSPs contain information on waste streams that are being considered for shipment to WIPP as of the inventory date, December 31, 2008. In addition, waste that has already been shipped to WIPP is identified in this appendix as separate waste streams with waste stream IDs ending in “-S.” The volumes for these waste streams are recorded in the “Shipped” category in Appendix A for tracking purposes, as well as in Appendix B: Emplaced Waste, but are not double-counted in the final inventory.

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

Argonne National Laboratory – East	AE
Material and Fuels Complex (ANL–W)	AW
Bettis Atomic Power Laboratory	BT
Idaho National Laboratory	IN
Knolls Atomic Power Laboratory – Schenectady	KA
Knolls Atomic Power Laboratory – Nuclear Fuels Service	KN
Los Alamos National Laboratory	LA
Lawrence Berkeley Laboratory	LB
Lawrence Livermore National Laboratory	LL
U. S. Army Materiel Command	MC
Nevada Test Site	NT
Oak Ridge National Laboratory	OR
Paducah Gaseous Diffusion Plant	PA
Rocky Flats Environmental Technology Site ²	RF
Hanford (Richland Operations) Site	RL
Sandia National Laboratories (Albuquerque)	SA
Savannah River Site	SR
GE - Vallecitos Nuclear Center	VN

² Although RFETS waste has been completely shipped to WIPP, the site is still represented in the WIPP-bound waste profiles. All volumes recorded on these profiles are in the “Shipped” category.

Waste Stream ID: **AECHDM-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - East	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-AECHDM	56.6
55-gal Drum Dir Ld w/o Liner	WP-AECHDM	0.2
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-AECHDM	45.0
Shipped Total		101.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	78.91
Aluminum-based Metals/Alloys	1.45
Other Metals	6.32
Other Inorganic Materials	6.55
Cellulosics	5.70
Rubber	11.27
Plastics	41.18
Cements	0.00
Inorganic Matrix	1.94
Organic Matrix	0.91
Soils/gravel	0.11
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.35E-01
Am-243	1.85E-02
Cm-244	1.10E-03
Cs-137	1.70E-02
Np-237	1.20E-03
Pu-238	6.23E-01
Pu-239	8.40E-01
Pu-240	6.35E-01
Pu-241	8.43E-01
Pu-242	2.57E-04
Pu-244	4.74E-19
Sr-90	1.77E-02
Th-229	8.39E-05
Th-230	3.48E-08
Th-232	1.16E-17
U-233	4.13E-04
U-234	7.79E-04
U-235	1.47E-05
U-236	9.41E-08
U-238	4.33E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D011, D021, D027, D028, D030, D037, F001, F002, F003, F004, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **AECHHM-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - East	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3110	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-AECHHM	9.4
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-AECHHM	4.5
Shipped Total		13.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	355.56
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.06E+00
Am-243	3.71E-04
Cs-137	9.81E-05
Np-237	1.24E-04
Pu-238	3.18E-01
Pu-239	2.98E+00
Pu-240	1.19E+00
Pu-241	8.53E-13
Pu-242	1.46E-04
Sr-90	1.02E-04
Th-229	2.32E-05
Th-230	1.74E-08
Th-232	2.18E-17
U-233	2.62E-09
U-234	3.89E-04
U-235	7.63E-06
U-236	1.76E-07
U-238	1.94E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D027, D028, D030, D035, D036, D037, F001, F002, F003, F004, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **AERHDM-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - East	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	RH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	WP-AERHDM	8.0
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	WP-AERHDM	1.8
Shipped Total		9.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	87.36
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.95E-01
Cs-137	9.19E+00
Np-237	1.26E-07
Pu-238	6.55E-01
Pu-239	2.33E-01
Pu-240	1.57E-01
Pu-241	8.65E+00
Pu-242	3.39E-04
Sr-90	5.97E+00
Th-229	3.19E-12
Th-230	6.76E-09
Th-232	1.15E-19
U-233	3.40E-08
U-234	7.52E-04
U-235	2.36E-05
U-236	4.64E-09
U-238	2.53E-05

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **AE-T001****Appendix A****TRU Waste Inventory Profile Report**

Site	Argonne National Laboratory - East	Final Waste Form	Combustible	Waste Matrix Code	S5420	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	ANL-E Contact-Handled Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	93.8	0.0	93.8
Current Form Total	93.8	0.0	93.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	91.5	0.0	91.5
Final Form Total	91.5	0.0	91.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	77.00
Aluminum-based Metals/Alloys	8.68
Other Metals	23.30
Other Inorganic Materials	4.78
Cellulosics	5.99
Rubber	7.32
Plastics	63.40
Cements	0.00
Inorganic Matrix	1.64
Organic Matrix	0.42
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.66E-01
Cs-137	2.02E-02
Np-237	4.28E-03
Pu-238	7.40E-02
Pu-239	9.11E-01
Pu-240	5.38E-01
Pu-241	7.80E-01
Pu-242	4.37E-04
Sr-90	1.42E-02
Th-229	1.24E-06
Th-230	1.12E-08
Th-232	3.96E-07
U-233	6.00E-04
U-234	5.91E-05
U-235	1.80E-05
U-236	4.78E-07
U-238	3.18E-04

Haz. Waste No(s).D005, D006, D007,
D008, D009, D011**TRUCON Code(s)**

116/216

Waste Stream Description

Organic debris, plastic, rubber, paper, cloth. Waste stream identifiers previously referred to as AE-W041 and AE-W042 are now included with waste stream AE-T001.

Waste Stream ID: **AE-T003**

Appendix A

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - East	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3110	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	ANL-E Contact-Handled Mixed Homogenous Solids	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	10.2	0.0	10.2
Current Form Total	10.2	0.0	10.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	10.2	0.0	10.2
Final Form Total	10.2	0.0	10.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	101.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	79.00
Inorganic Matrix	216.30
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.55E-01
Cs-137	2.46E-04
Np-237	6.22E-04
Pu-238	4.35E-02
Pu-239	1.24E+00
Pu-240	4.79E-01
Pu-241	1.89E+00
Pu-242	1.34E-05
Sr-90	6.21E-04
Th-229	7.67E-07
Th-230	2.92E-10
Th-232	1.41E-16
U-233	4.09E-04
U-234	2.93E-06
U-235	3.24E-06
U-236	2.84E-07
U-238	7.14E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D027, D028, D030, D035, D036, D037, F001, F002, F003, F004, F005

TRUCON Code(s)

111/211

Waste Stream Description

Solidified liquid waste from evaporator bottom and research activities. Waste stream identifiers previously referred to as AE-W038, AE-W039 and AE-W040 are now included with waste stream AE- T003.

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

Site	Argonne National Laboratory - East	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Likely Defense-Related	Inventory Date	12/31/2008		
Stream Name	RH TRU			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	172.4	0.0	172.4
Current Form Total	172.4	0.0	172.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	453.0	0.0	453.0
Final Form Total	453.0	0.0	453.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	61.60
Aluminum-based Metals/Alloys	18.60
Other Metals	79.60
Other Inorganic Materials	10.80
Cellulosics	0.90
Rubber	9.00
Plastics	21.10
Cements	0.00
Inorganic Matrix	10.40
Organic Matrix	13.20
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.56E-02
Am-243	2.65E-07
Cm-244	1.24E-03
Cs-137	3.32E-01
Np-237	1.40E-05
Pu-238	7.33E-02
Pu-239	1.47E-01
Pu-240	3.21E-02
Pu-241	1.87E-01
Sr-90	8.44E-02
Th-229	4.76E-09
Th-230	1.21E-09
Th-232	2.57E-17
U-233	1.54E-06
U-234	7.84E-06
U-235	1.30E-06
U-236	3.15E-08
U-238	5.10E-07

No Hazardous Waste Numbers Provided

TRUCON Code(s)

325

Waste Stream Description

This waste is generated primarily as a result of fuel research activities.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **MU-W002-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - East	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-MU-W002	4.5
Shipped Total		4.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	7.11
Aluminum-based Metals/Alloys	2.31
Other Metals	0.02
Other Inorganic Materials	2.91
Cellulosics	0.11
Rubber	0.00
Plastics	2.84
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.55E+00
Am-243	2.53E-04
Cs-137	3.63E-07
Np-237	8.58E-04
Pu-239	5.04E-03
Sr-90	3.78E-07
Th-229	2.44E-04
Th-230	1.20E-15
U-233	1.83E-08
U-234	5.35E-11
U-235	2.49E-11
U-238	3.85E-06

Haz. Waste No(s).

D006, D011

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **AW-N026.82**

Appendix A

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - West	Final Waste Form	Heterogeneous	Waste Matrix Code	S5440	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Likely Defense-Related	Inventory Date	12/31/2008		
Stream Name	ALHC UPGRADE DECON DEBRIS			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
5-gal Drum	0.0	0.0	0.0
SWB w/ 4 - 55-gal Drums w/o Liners	3.8	0.0	3.8
Current Form Total	3.8	0.0	3.8

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	103.89
Aluminum-based Metals/Alloys	18.49
Other Metals	3.08
Other Inorganic Materials	22.89
Cellulosics	35.66
Rubber	7.92
Plastics	29.93
Cements	130.48
Inorganic Matrix	2.20
Organic Matrix	0.44
Soils/gravel	1.32
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Cs-137	4.64E-01
Pu-239	4.09E-03
Sr-90	2.29E+00
U-235	6.06E-11

Haz. Waste No(s).

D006, D007, D008

TRUCON Code(s)

125/225

Waste Stream Description

Paint scraping debris from analytical lab hot cell refurbishment. Bags of lead-lined gloves were placed in the solidified CO2 bead blasting waste drums to fill the void spaces. The leftover gloves were placed in a separate 30-gallon drum. 1710 lbs of waste are in two TRU SWBs; Container numbers MW-S-94-02 AND MW-S-94-03. The SWB contains a mixture of debris and solidified solids (paint dust from bead blasting). The majority of the waste is debris (over 50%) and will be processed at AMWTP as debris.

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

Appendix A

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - West	Final Waste Form	Combustible	Waste Matrix Code	S5311	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Likely Defense-Related	Inventory Date	12/31/2008		
Stream Name	LEAD CONTAMINATED WASTE			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.5	5.2	6.7
Current Form Total	1.5	5.2	6.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	1.5	5.2	6.7
Final Form Total	1.5	5.2	6.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	109.00
Aluminum-based Metals/Alloys	0.20
Other Metals	50.00
Other Inorganic Materials	15.00
Cellulosics	191.00
Rubber	30.00
Plastics	59.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.09E-03
Np-237	1.17E-08
Pu-238	3.94E+00
Pu-239	3.26E+00
Pu-240	1.97E-02
Pu-241	1.03E-02
Pu-242	2.48E-07
Th-229	3.41E-10
Th-230	1.01E-08
Th-232	2.08E-18
U-233	3.03E-07
U-234	1.62E-04
U-235	2.12E-06
U-236	7.00E-09
U-238	7.73E-09

Haz. Waste No(s).

D008

TRUCON Code(s)

125/225

Waste Stream Description

This waste stream is typically lead-lined gloves removed from Casting Lab and Analytical Laboratory glove boxes.

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

Appendix A

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - West	Final Waste Form	Heterogeneous	Waste Matrix Code	S5420	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Likely Defense-Related	Inventory Date	12/31/2008		
Stream Name	FCF (RH) MISCELLANEOUS TRU WASTE			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Canister - (MFC) o/p 45-gal Drums	0.0	17.0	17.0
Liner - RSWF	1.4	0.0	1.4
Current Form Total	1.4	17.0	18.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	8.9	22.3	31.2
Final Form Total	8.9	22.3	31.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	28.30
Aluminum-based Metals/Alloys	5.08
Other Metals	0.85
Other Inorganic Materials	6.29
Cellulosics	9.78
Rubber	2.16
Plastics	8.15
Cements	0.00
Inorganic Matrix	0.57
Organic Matrix	0.09
Soils/gravel	0.36
Vitrified	0.00
Packaging Material, Steel	560.60
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.66E-02
Am-243	1.79E-06
Cm-244	1.53E-05
Cs-137	4.74E+01
Np-237	5.88E-06
Pu-238	7.74E-02
Pu-239	6.82E-01
Pu-240	6.54E-02
Pu-241	1.14E-01
Pu-242	1.82E-06
Sr-90	3.51E+02
Th-229	7.56E-13
Th-230	1.65E-07
Th-232	1.59E-14
U-233	1.68E-09
U-234	3.67E-03
U-235	1.36E-05
U-236	6.42E-05
U-238	1.92E-05

No Hazardous Waste Numbers Provided

TRUCON Code(s)

325

Waste Stream Description

Fuel Conditioning Facility (FCF) and Hot Fuel Examination Facility (HFEF) Remote-handled (RH) Radioactive Transuranic Miscellaneous waste: hot laboratory waste, filters, etc.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

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

Appendix A

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - West	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Analytical Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	ANL-752 TRU WASTE			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	6.7	31.2	37.9
Current Form Total	6.7	31.2	37.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	6.7	31.2	37.9
Final Form Total	6.7	31.2	37.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	23.60
Aluminum-based Metals/Alloys	42.00
Other Metals	7.00
Other Inorganic Materials	52.00
Cellulosics	81.00
Rubber	18.00
Plastics	68.00
Cements	0.00
Inorganic Matrix	5.00
Organic Matrix	1.00
Soils/gravel	3.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.50E+00
Am-243	8.71E-02
Np-237	1.05E-02
Pu-238	4.00E+00
Pu-239	3.60E+00
Pu-240	8.20E-01
Pu-241	5.60E+00
Pu-242	2.35E-04
Pu-244	5.83E-08
Th-229	3.20E-05
Th-230	3.99E-07
Th-232	2.17E-08
U-233	3.41E-02
U-234	2.22E-03
U-235	7.58E-05
U-236	1.73E-05
U-238	4.24E-05

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225

Waste Stream Description

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

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **AW-W026**

Appendix A

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - West	Final Waste Form	Heterogeneous	Waste Matrix Code	S5440	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Likely Defense-Related	Inventory Date	12/31/2008		
Stream Name	ALHC Upgrade Decon Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Liner - RSWF	0.2	0.0	0.7
Current Form Total	0.7	0.0	0.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	38.15
Aluminum-based Metals/Alloys	0.71
Other Metals	80.07
Other Inorganic Materials	4.40
Cellulosics	2.48
Rubber	0.16
Plastics	1.61
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	560.60
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.91E-02
Cs-137	6.42E-02
Np-237	3.40E-07
Pu-239	1.24E-02
Sr-90	2.27E-01
Th-229	5.21E-15
Th-230	4.96E-16
U-233	1.11E-11
U-234	7.34E-12
U-235	1.28E-06
U-238	1.74E-07

Haz. Waste No(s).

D006, D007, D008

TRUCON Code(s)

325

Waste Stream Description

Waste packaged for WIPP containing remote-handled radioactive cadmium contaminated debris from CH-ANL-242T and remote-handled waste similar to AW-N026.82, solidified to meet WIPP-WAC requirement for particulate immobilization. RSWF Containers SN-161 and T-46. The waste contains a mixture of debris and solidified solids (paint dust from bead blasting) and neutralized/solidified sample waste. The majority of the waste is debris (over 50%) and will be processed as debris.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **AW-W028**

Appendix A

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - West	Final Waste Form	Heterogeneous	Waste Matrix Code	S5410	Handling	RH
Source Cat.	Pollution Control or Waste Treatment Process	Defense Determination	Likely Defense-Related	Inventory Date	12/31/2008		
Stream Name	TRU Waste Used Filters.			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
45-gal Drum	0.3	8.8	9.2
Bin - Metal	3.8	0.0	3.8
Current Form Total	4.1	8.8	13.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	1.8	14.2	16.0
Final Form Total	1.8	14.2	16.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	20.13
Other Metals	50.37
Other Inorganic Materials	40.27
Cellulosics	70.50
Rubber	20.13
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	560.60
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Cs-137	1.99E-01
Pu-239	2.44E-02
Pu-240	1.28E-03
Sr-90	5.51E-01
Th-230	1.93E-15
Th-232	2.11E-19
U-234	2.86E-11
U-235	1.25E-06
U-236	5.70E-10
U-238	6.76E-07

Haz. Waste No(s).

D006, D007, D008

TRUCON Code(s)

325

Waste Stream Description

This waste stream consists of metal or wood-framed filters. Pre-Filters are 2'x2'x0.5', standard HEPA filters are 2'x2'x1'. Analytical Lab Hot Cell filters are 1'x1'x1'. The filters have screen mesh covering high efficiency filtering media. The concentration of radioisotopes and RCRA metals varies in each filter. These filters were generated from the decontamination of the analytical hot cells in 1993 and 1994, and subsequent hot cell filter changeouts in the Analytical Lab and the Fuel Conditioning Facility.

Waste Stream ID: **AW-W046**

Appendix A

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - West	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	RH
Source Cat.	Pollution Control or Waste Treatment Process	Defense Determination	Likely Defense-Related	Inventory Date	12/31/2008		
Stream Name	FCF RLWS Filters and Resin			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
45-gal Drum	0.9	4.4	5.3
Current Form Total	0.9	4.4	5.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	1.8	8.0	9.8
Final Form Total	1.8	8.0	9.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	23.59
Aluminum-based Metals/Alloys	1.72
Other Metals	1.91
Other Inorganic Materials	448.59
Cellulosics	10.05
Rubber	0.38
Plastics	20.09
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	560.60
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.63E-01
Cs-137	7.84E+02
Np-237	2.22E-05
Pu-238	1.76E-01
Pu-239	1.15E-01
Pu-240	7.27E-02
Pu-241	4.58E-01
Pu-242	1.70E-05
Sr-90	8.53E+02
Th-229	1.81E-14
Th-230	9.12E-12
Th-232	2.13E-19
U-233	1.93E-10
U-234	1.01E-06
U-235	2.73E-04
U-236	4.31E-09
U-238	1.06E-03

Haz. Waste No(s).

D006

TRUCON Code(s)

325

Waste Stream Description

The filters consist of two types. One is a depth filter made entirely of polypropylene. The other is a pleated filter made up of a glass fiber filter media with polyester support. This media is housed in a polypropylene cage with silicone O-rings. The filters are used primarily for the removal of cadmium. However, they also remove uranium and plutonium.

Waste Stream ID: **AW-W047**

Appendix A

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - West	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Likely Defense-Related	Inventory Date	12/31/2008		
Stream Name	FCF Crucible (Graphite)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
45-gal Drum	0.2	2.2	2.4
Current Form Total	0.2	2.2	2.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	0.9	4.5	5.3
Final Form Total	0.9	4.5	5.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	98.09
Aluminum-based Metals/Alloys	0.91
Other Metals	211.35
Other Inorganic Materials	5.66
Cellulosics	3.19
Rubber	0.20
Plastics	2.07
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	560.60
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Cs-137	7.07E+01
Pu-239	4.12E-04
Sr-90	7.66E+01
U-235	2.03E-12

No Hazardous Waste Numbers Provided

TRUCON Code(s)
315

Waste Stream Description

The crucible waste stream in the Fuel Conditioning Facility (FCF) has been characterized as TRU waste. Waste is loaded into 45-gallon RH-TRU inner waste cans. Containers are filled with crushed graphite crucible material, and are shipped for storage in the Radioactive Scrap and Waste Facility (RSWF). Before crushing, crucibles are cleaned to their clean tare weight. Based on samples taken on crushed crucible material, there are only a few tenths of grams of fissile material (U-235 or Pu-239) present per crucible disposed.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **AW-W049**

Appendix A

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - West	Final Waste Form	Heterogeneous	Waste Matrix Code	S5440	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Likely Defense-Related	Inventory Date	12/31/2008		
Stream Name	FMF glovebox waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	32.4	32.9
Current Form Total	0.4	32.4	32.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.4	31.2	31.6
Final Form Total	0.4	31.2	31.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	260.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	15.00
Cellulosics	150.00
Rubber	0.00
Plastics	150.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.07E+00
Np-237	3.47E-07
Pu-238	5.59E-02
Pu-239	3.12E-01
Pu-240	2.23E-01
Pu-241	3.38E+00
Pu-242	8.22E-05
Th-229	2.36E-17
Th-230	7.16E-13
Th-232	1.63E-19
U-233	7.57E-13
U-234	1.59E-07
U-235	7.63E-06
U-236	6.61E-09
U-238	8.37E-08

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225

Waste Stream Description

Fuel Manufacturing Facility experiment glovebox waste.

Waste Stream ID: **BT-T001****Appendix A****TRU Waste Inventory Profile Report**

Site	Bettis Atomic Power Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5420	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Irradiated TRU material waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
HIP	0.0	0.0	0.0
Hot Cell	1.9	0.0	1.9
Current Form Total	2.0	0.0	2.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	2.7	0.0	2.7
Final Form Total	2.7	0.0	2.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	200.00
Other Inorganic Materials	0.00
Cellulosics	10.00
Rubber	0.00
Plastics	500.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.19E+00
Am-243	7.30E-03
Cm-244	1.48E-01
Cs-137	3.28E+03
Np-237	1.01E-02
Pu-238	7.97E+01
Pu-239	1.41E-01
Pu-240	1.58E-01
Pu-241	9.52E+00
Pu-242	1.12E-03
Sr-90	3.24E+03
Th-229	9.30E-03
Th-230	3.68E-04
Th-232	8.49E-04
U-233	3.08E+00
U-234	4.32E-01
U-235	2.49E-03
U-236	2.83E-02
U-238	1.73E-05

No Hazardous Waste Numbers Provided

TRUCON Code(s)

325

Waste Stream Description

Specimen processing fines, material, and debris.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **BT-T002**

Appendix A

TRU Waste Inventory Profile Report

Site	Bettis Atomic Power Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5111	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Contaminated Piping System			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Piping	18.9	0.0	18.9
Current Form Total	18.9	0.0	18.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	18.9	0.0	18.9
Final Form Total	18.9	0.0	18.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	430.00
Aluminum-based Metals/Alloys	35.00
Other Metals	1.00
Other Inorganic Materials	1.00
Cellulosics	0.50
Rubber	7.00
Plastics	35.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	1.00
Vitrified	0.00
Packaging Material, Steel	153.50
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.19E-04
Am-243	2.13E-06
Cm-244	1.08E-04
Cs-137	1.00E+00
Np-237	3.03E-06
Pu-238	4.77E-02
Pu-239	3.90E-05
Pu-240	7.97E-05
Pu-241	6.38E-03
Pu-242	6.20E-07
Pu-244	3.56E-14
Sr-90	9.97E-01
Th-229	2.19E-14
Th-230	5.80E-09
Th-232	7.77E-15
U-233	7.79E-11
U-234	1.08E-04
U-235	1.40E-06
U-236	1.60E-05
U-238	6.46E-09

No Hazardous Waste Numbers Provided

TRUCON Code(s)

125/225

Waste Stream Description

Piping, pumps, tanks, and other metal items, and debris.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **BT-T007**

Appendix A

TRU Waste Inventory Profile Report

Site	Bettis Atomic Power Laboratory	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111	Handling	RH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Irradiated TRU material waste and debris.			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Hot Cell	0.1	0.0	0.1
Current Form Total	0.1	0.0	0.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	501.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.19E+00
Am-243	7.30E-03
Cm-244	1.48E-01
Cs-137	3.28E+03
Np-237	1.01E-02
Pu-238	7.97E+01
Pu-239	1.41E-01
Pu-240	1.58E-01
Pu-241	9.52E+00
Pu-242	1.12E-03
Sr-90	3.24E+03
Th-229	9.30E-03
Th-230	3.68E-04
Th-232	8.49E-04
U-233	3.08E+00
U-234	4.32E-01
U-235	2.49E-03
U-236	2.83E-02
U-238	1.73E-05

Haz. Waste No(s).

D008

TRUCON Code(s)

317

Waste Stream Description

Hazardous Metal debris (Lead)

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **BN004-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-BN004	7.1
SWB w/ 4 - 55-gal Drums w/ Liners	WP-BN004	253.3
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-BN004	81.0
Shipped Total		341.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.02
Aluminum-based Metals/Alloys	0.00
Other Metals	0.01
Other Inorganic Materials	2.44
Cellulosics	0.03
Rubber	0.02
Plastics	1.79
Cements	0.00
Inorganic Matrix	487.97
Organic Matrix	1.40
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.08E+00
Cm-244	4.73E-03
Cs-137	7.06E-06
Np-237	5.06E-04
Pu-238	1.46E-01
Pu-239	3.59E+00
Pu-240	8.13E-01
Pu-241	6.42E+00
Pu-242	7.40E-05
Sr-90	1.19E-05
Th-229	2.00E-07
Th-230	8.76E-10
Th-232	5.36E-18
U-233	7.12E-04
U-234	3.31E-05
U-235	7.34E-06
U-236	7.23E-08
U-238	5.68E-06

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **BN161-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-BN161	0.6
SWB w/ 4 - 55-gal Drums w/ Liners	WP-BN161	3.8
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-BN161	54.0
Shipped Total		58.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.41
Aluminum-based Metals/Alloys	0.00
Other Metals	0.08
Other Inorganic Materials	135.39
Cellulosics	10.80
Rubber	0.00
Plastics	2.19
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.42E-01
Np-237	1.07E-05
Pu-238	1.66E-01
Pu-239	4.00E+00
Pu-240	9.15E-01
Pu-241	6.00E+00
Pu-242	7.38E-05
Th-229	1.86E-14
Th-230	2.86E-11
Th-232	6.03E-18
U-233	1.34E-10
U-234	1.77E-06
U-235	5.86E-08
U-236	8.14E-08
U-238	3.34E-14

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **BN211-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Filter	Waste Matrix Code	S5410	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-BN211	8.7
SWB w/ 4 - 55-gal Drums w/ Liners	WP-BN211	54.8
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-BN211	459.0
Shipped Total		522.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.30
Aluminum-based Metals/Alloys	1.80
Other Metals	0.41
Other Inorganic Materials	77.01
Cellulosics	26.02
Rubber	0.02
Plastics	4.13
Cements	0.00
Inorganic Matrix	0.28
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.30E-01
Am-243	9.80E-09
Cs-137	2.55E-09
Np-237	4.91E-05
Pu-238	1.67E-01
Pu-239	3.96E+00
Pu-240	9.14E-01
Pu-241	5.78E+00
Pu-242	7.63E-05
Sr-90	4.31E-09
Th-229	1.64E-08
Th-230	1.67E-10
Th-232	6.02E-18
U-233	5.82E-05
U-234	6.92E-06
U-235	1.21E-06
U-236	8.13E-08
U-238	8.80E-09

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **BN243-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-BN243	2.9
SWB w/ 4 - 55-gal Drums w/ Liners	WP-BN243	7.6
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-BN243	139.5
Shipped Total		150.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.05
Aluminum-based Metals/Alloys	0.00
Other Metals	4.29
Other Inorganic Materials	93.81
Cellulosics	0.09
Rubber	0.14
Plastics	14.44
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.72E-01
Cm-244	8.07E-03
Cs-137	9.03E-10
Np-237	1.76E-05
Pu-238	3.73E-02
Pu-239	7.89E-01
Pu-240	1.77E-01
Pu-241	1.20E+00
Pu-242	1.77E-05
Sr-90	1.52E-09
Th-229	3.21E-14
Th-230	1.67E-10
Th-232	1.17E-18
U-233	2.29E-10
U-234	6.36E-06
U-235	1.61E-06
U-236	1.58E-08
U-238	8.00E-15

Haz. Waste No(s).

D005, D008, D009,
D022, D028, D029,
F001, F002, F005**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **BN252-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5311	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-BN252	16.6
SWB w/ 4 - 55-gal Drums w/ Liners	WP-BN252	58.6
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-BN252	103.5
Shipped Total		178.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.03
Aluminum-based Metals/Alloys	0.00
Other Metals	30.92
Other Inorganic Materials	2.38
Cellulosics	0.11
Rubber	237.57
Plastics	1.54
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.02E+00
Cs-137	2.39E-09
Np-237	3.44E-04
Pu-238	2.21E-01
Pu-239	6.36E+00
Pu-240	1.37E+00
Pu-241	1.19E+01
Pu-242	1.48E-04
Sr-90	3.79E-09
Th-229	6.31E-13
Th-230	9.91E-11
Th-232	9.01E-18
U-233	4.49E-09
U-234	4.62E-06
U-235	1.33E-06
U-236	1.22E-07
U-238	6.72E-14

Haz. Waste No(s).

D008, D022, D028, D029, F001, F002, F005, F006, F007, F009

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **BN296-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Lead/Cadmium Metal Wast	Waste Matrix Code	S5112	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-BN296	32.0
SWB w/ 4 - 55-gal Drums w/ Liners	WP-BN296	28.4
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-BN296	414.0
Shipped Total		474.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	81.20
Aluminum-based Metals/Alloys	0.39
Other Metals	100.88
Other Inorganic Materials	3.05
Cellulosics	2.81
Rubber	0.62
Plastics	1.55
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.46E+00
Cm-244	2.42E-03
Cs-137	1.87E-08
Np-237	8.36E-05
Pu-238	1.78E-01
Pu-239	3.75E+00
Pu-240	8.34E-01
Pu-241	5.37E+00
Pu-242	8.42E-05
Sr-90	3.36E-08
Th-229	3.35E-09
Th-230	7.52E-11
Th-232	5.50E-18
U-233	1.19E-05
U-234	3.55E-06
U-235	2.11E-03
U-236	7.42E-08
U-238	1.42E-06

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **BN304-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-BN304	4.8
SWB w/ 4 - 55-gal Drums w/ Liners	WP-BN304	20.8
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-BN304	279.0
Shipped Total		304.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	17.05
Aluminum-based Metals/Alloys	0.03
Other Metals	24.82
Other Inorganic Materials	4.74
Cellulosics	5.09
Rubber	8.27
Plastics	6.55
Cements	0.00
Inorganic Matrix	0.01
Organic Matrix	0.00
Soils/gravel	0.09
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.78E-01
Cs-137	1.33E-06
Np-237	7.98E-06
Pu-238	5.01E+01
Pu-239	1.00E-01
Pu-240	7.54E-02
Pu-241	7.81E-01
Pu-242	6.37E-05
Sr-90	2.69E-06
Th-229	1.45E-14
Th-230	6.03E-09
Th-232	4.97E-19
U-233	1.03E-10
U-234	4.38E-04
U-235	1.42E-07
U-236	6.70E-09
U-238	7.84E-05

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **BN510-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
100-gal Drum Dir Ld w/o Liner	WP-BN510	5753.6
SWB w/ 4 - 55-gal Drums w/o Liners	WP-BN510	1.9
Shipped Total		5755.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	350.56
Aluminum-based Metals/Alloys	2.01
Other Metals	3.01
Other Inorganic Materials	23.08
Cellulosics	154.14
Rubber	8.72
Plastics	154.57
Cements	0.00
Inorganic Matrix	0.04
Organic Matrix	0.07
Soils/gravel	0.03
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.56E-01
Am-243	8.94E-09
Cm-244	2.90E-04
Cs-137	1.58E-07
Np-237	1.33E-05
Pu-238	1.99E-01
Pu-239	1.47E+00
Pu-240	3.18E-01
Pu-241	2.42E+00
Pu-242	2.88E-05
Sr-90	2.86E-07
Th-229	3.15E-10
Th-230	1.63E-09
Th-232	2.33E-19
U-233	3.35E-06
U-234	1.81E-04
U-235	1.75E-04
U-236	9.44E-09
U-238	4.88E-06

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **BN835-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3113	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-BN835	18.7
SWB w/ 4 - 55-gal Drums w/ Liners	WP-BN835	15.1
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-BN835	1008.0
Shipped Total		1041.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.02
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.69
Cellulosics	0.97
Rubber	0.01
Plastics	0.54
Cements	0.00
Inorganic Matrix	239.62
Organic Matrix	0.08
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.95E-02
Cs-137	8.40E-08
Np-237	6.08E-06
Pu-238	1.64E+00
Pu-239	3.27E-03
Pu-240	2.10E-03
Pu-241	3.49E-02
Pu-242	2.12E-06
Sr-90	1.46E-07
Th-229	1.11E-14
Th-230	1.92E-10
Th-232	1.38E-20
U-233	7.93E-11
U-234	1.42E-05
U-235	1.38E-10
U-236	1.87E-10
U-238	2.06E-07

Haz. Waste No(s).

D007, D008, D009,
F001, F002**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **BN836-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-BN836	43.9
SWB w/ 4 - 55-gal Drums w/ Liners	WP-BN836	1682.1
Shipped Total		1726.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.01
Other Inorganic Materials	0.11
Cellulosics	0.09
Rubber	0.00
Plastics	0.19
Cements	0.00
Inorganic Matrix	551.74
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.36E-03
Cs-137	2.70E-07
Np-237	1.27E-06
Pu-238	1.03E+00
Pu-239	1.60E-03
Pu-240	1.08E-03
Pu-241	5.01E-03
Pu-242	1.24E-06
Sr-90	4.44E-07
Th-229	1.04E-15
Th-230	5.60E-11
Th-232	3.17E-21
U-233	1.11E-11
U-234	6.06E-06
U-235	1.90E-08
U-236	6.42E-11
U-238	7.78E-09

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **BNINW216-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-BNINW216	142.9
SWB w/ 4 - 55-gal Drums w/ Liners	WP-BNINW216	827.8
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-BNINW216	3694.5
Shipped Total		4665.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.03
Aluminum-based Metals/Alloys	0.00
Other Metals	0.06
Other Inorganic Materials	5.06
Cellulosics	0.01
Rubber	0.02
Plastics	0.49
Cements	0.00
Inorganic Matrix	394.96
Organic Matrix	0.27
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.60E+00
Cs-137	1.88E-08
Np-237	7.91E-05
Pu-238	4.01E-02
Pu-239	3.90E-01
Pu-240	9.91E-02
Pu-241	1.07E+00
Pu-242	5.34E-05
Sr-90	3.06E-08
Th-229	1.38E-13
Th-230	1.05E-09
Th-232	6.53E-19
U-233	9.94E-10
U-234	3.91E-05
U-235	6.95E-06
U-236	8.81E-09
U-238	3.92E-04

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **BNINW218-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
SWB w/ 4 - 55-gal Drums w/ Liners	WP-BNINW218	45.4
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-BNINW218	409.5
Shipped Total		454.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.03
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	33.23
Cellulosics	0.01
Rubber	0.01
Plastics	2.84
Cements	0.00
Inorganic Matrix	347.94
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.37E-02
Cs-137	2.19E-08
Np-237	5.74E-04
Pu-238	4.99E-03
Pu-239	9.94E-02
Pu-240	2.05E-02
Pu-241	1.88E-01
Pu-242	3.00E-06
Sr-90	3.57E-08
Th-229	1.83E-12
Th-230	1.67E-09
Th-232	2.40E-19
U-233	9.75E-09
U-234	4.64E-05
U-235	4.69E-06
U-236	2.43E-09
U-238	4.06E-04

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **ID-ANLE-S5000-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	RH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	WP-ID-ANLE-S5000	112.1
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	WP-ID-ANLE-S5000	51.6
Shipped Total		163.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	82.57
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.84E-01
Cs-137	3.36E+00
Np-237	5.89E-08
Pu-238	9.61E-02
Pu-239	3.46E-01
Pu-240	1.83E-01
Pu-241	2.69E+00
Pu-242	5.42E-03
Sr-90	2.52E+00
Th-229	8.59E-08
Th-230	1.00E-08
Th-232	1.34E-19
U-233	9.15E-04
U-234	1.12E-03
U-235	3.96E-05
U-236	5.42E-09
U-238	6.71E-06

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **ID-RF-BNL-ASH-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3111	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/o Liner	WP-ID-RF-BNL-ASH	0.2
Shipped Total		0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	9.62
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	37.02
Cellulosics	0.00
Rubber	0.00
Plastics	7.69
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.02E-01
Np-237	9.28E-06
Pu-238	1.17E-01
Pu-239	3.52E+00
Pu-240	8.08E-01
Pu-241	4.78E+00
Pu-242	6.47E-05
Th-229	1.62E-14
Th-230	1.36E-11
Th-232	5.33E-18
U-233	1.17E-10
U-234	1.01E-06
U-235	1.04E-08
U-236	7.19E-08
U-238	2.93E-14

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

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

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Organics	Waste Matrix Code	S3114	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
SWB Dir Ld w/o Liner	WP-ID-RF-S3114	22.7
SWB w/ 4 - 55-gal Drums w/ Liners	WP-ID-RF-S3114	35.9
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-ID-RF-S3114	670.5
Shipped Total		729.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.86
Aluminum-based Metals/Alloys	0.00
Other Metals	1.04
Other Inorganic Materials	4.11
Cellulosics	0.06
Rubber	0.65
Plastics	1.66
Cements	0.00
Inorganic Matrix	0.22
Organic Matrix	353.39
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.81E-02
Cs-137	1.08E-08
Np-237	6.58E-07
Pu-238	3.34E-03
Pu-239	9.16E-02
Pu-240	1.86E-02
Pu-241	1.77E-01
Pu-242	1.95E-06
Sr-90	1.71E-08
Th-229	5.28E-16
Th-230	6.81E-11
Th-232	5.46E-20
U-233	5.66E-12
U-234	3.80E-06
U-235	1.09E-07
U-236	1.11E-09
U-238	6.68E-06

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **ID-RF-S3150-A-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-ID-RF-S3150-A	91.1
SWB w/ 4 - 55-gal Drums w/ Liners	WP-ID-RF-S3150-A	92.6
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-ID-RF-S3150-A	18.0
Shipped Total		201.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.01
Aluminum-based Metals/Alloys	0.00
Other Metals	21.17
Other Inorganic Materials	4.29
Cellulosics	0.00
Rubber	1.93
Plastics	3.23
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	666.31
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.86E-01
Cs-137	8.56E-08
Np-237	8.67E-06
Pu-238	3.45E-02
Pu-239	7.55E-01
Pu-240	1.66E-01
Pu-241	1.52E+00
Pu-242	1.41E-05
Sr-90	1.46E-07
Th-229	1.57E-14
Th-230	7.54E-08
Th-232	1.09E-18
U-233	1.12E-10
U-234	2.79E-03
U-235	4.88E-07
U-236	1.48E-08
U-238	9.14E-07

Haz. Waste No(s).

D022, D028, D029,
D030, D032, D034,
D036, D043, F001,
F002, F005**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **ID-RF-S5100-A-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5100	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-ID-RF-S5100-A	162.7
SWB w/ 4 - 55-gal Drums w/ Liners	WP-ID-RF-S5100-A	7.6
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-ID-RF-S5100-A	459.0
Shipped Total		629.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.03
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	122.14
Cellulosics	14.92
Rubber	0.01
Plastics	8.59
Cements	0.00
Inorganic Matrix	0.97
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.43E-01
Cs-137	2.15E-08
Np-237	2.59E-06
Pu-238	3.22E-02
Pu-239	9.77E-01
Pu-240	2.07E-01
Pu-241	1.19E+00
Pu-242	1.77E-05
Sr-90	3.25E-08
Th-229	1.27E-09
Th-230	8.94E-11
Th-232	1.36E-18
U-233	4.50E-06
U-234	3.45E-06
U-235	1.42E-07
U-236	1.84E-08
U-238	7.15E-09

Haz. Waste No(s).

D008, D009, D022,
F001, F002, F005**No TRUCON
Codes Provided**

Waste Stream Description

N/A

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

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5126	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-ID-RF-S5126	79.9
55-gal Drum Dir Ld w/o Liner	WP-ID-RF-S5126	0.4
SWB w/ 4 - 55-gal Drums w/ Liners	WP-ID-RF-S5126	7.6
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-ID-RF-S5126	144.0
Shipped Total		231.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.48
Aluminum-based Metals/Alloys	0.00
Other Metals	0.03
Other Inorganic Materials	239.38
Cellulosics	5.59
Rubber	0.05
Plastics	4.80
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.79E-01
Cs-137	4.12E-03
Np-237	1.16E-05
Pu-238	1.31E-01
Pu-239	3.63E+00
Pu-240	8.46E-01
Pu-241	6.09E+00
Pu-242	7.74E-05
Sr-90	8.30E-08
Th-229	1.76E-07
Th-230	1.30E-09
Th-232	2.48E-18
U-233	9.41E-04
U-234	7.27E-05
U-235	5.98E-08
U-236	5.01E-08
U-238	6.87E-06

Haz. Waste No(s).

D008, D029, F001, F002, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **ID-RF-S5300-A-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5300	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
SWB w/ 4 - 55-gal Drums w/ Liners	WP-ID-RF-S5300-A	60.5
SWB w/ 4 - 55-gal Drums w/o Liners	WP-ID-RF-S5300-A	1.9
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-ID-RF-S5300-A	2349.0
TDOP w/ 10 - 55-gal Drums w/o Liners	WP-ID-RF-S5300-A	4.5
Shipped Total		2415.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	4.38
Aluminum-based Metals/Alloys	0.22
Other Metals	0.44
Other Inorganic Materials	6.49
Cellulosics	55.38
Rubber	5.22
Plastics	49.97
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.01
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.45E-02
Am-243	7.09E-12
Cm-244	2.03E-04
Cs-137	8.44E-09
Np-237	1.64E-06
Pu-238	3.13E-03
Pu-239	9.50E-02
Pu-240	2.13E-02
Pu-241	1.38E-01
Pu-242	2.14E-05
Sr-90	1.15E-08
Th-229	2.30E-08
Th-230	1.68E-10
Th-232	6.25E-20
U-233	1.23E-04
U-234	9.37E-06
U-235	2.46E-07
U-236	1.27E-09
U-238	3.55E-07

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **ID-SDA-DEBRIS-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-ID-SDA-DEBRIS	98.0
Shipped Total		98.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.56
Aluminum-based Metals/Alloys	0.96
Other Metals	0.00
Other Inorganic Materials	210.07
Cellulosics	86.79
Rubber	0.07
Plastics	11.48
Cements	0.00
Inorganic Matrix	0.40
Organic Matrix	0.27
Soils/gravel	3.07
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.90E-01
Cs-137	2.11E-07
Np-237	7.66E-06
Pu-238	8.32E-02
Pu-239	2.04E+00
Pu-240	4.64E-01
Pu-241	2.43E+00
Pu-242	1.13E-04
Sr-90	2.39E-07
Th-229	4.98E-09
Th-230	8.25E-10
Th-232	3.40E-19
U-233	5.31E-05
U-234	9.18E-05
U-235	2.36E-06
U-236	1.38E-08
U-238	8.20E-05

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **ID-SDA-SLUDGE-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Organics	Waste Matrix Code	S3900	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-ID-SDA-SLUDGE	170.8
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	WP-ID-SDA-SLUDGE	0.6
Shipped Total		171.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.18
Aluminum-based Metals/Alloys	0.00
Other Metals	0.05
Other Inorganic Materials	48.23
Cellulosics	0.20
Rubber	0.02
Plastics	1.83
Cements	0.00
Inorganic Matrix	358.30
Organic Matrix	270.98
Soils/gravel	0.05
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.16E+00
Cs-137	8.69E-07
Np-237	6.00E-05
Pu-238	1.55E-02
Pu-239	4.23E-01
Pu-240	9.50E-02
Pu-241	8.43E-01
Pu-242	1.55E-05
Sr-90	9.55E-07
Th-229	1.21E-14
Th-230	1.42E-09
Th-232	6.95E-20
U-233	2.59E-10
U-234	1.57E-04
U-235	3.63E-06
U-236	2.82E-09
U-238	3.64E-04

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **ID-SDA-SOIL-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Soils	Waste Matrix Code	S4200	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-ID-SDA-SOIL	182.8
Shipped Total		182.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.98
Aluminum-based Metals/Alloys	0.02
Other Metals	0.01
Other Inorganic Materials	32.05
Cellulosics	9.59
Rubber	0.14
Plastics	7.04
Cements	0.00
Inorganic Matrix	5.64
Organic Matrix	0.85
Soils/gravel	605.21
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.30E-01
Cs-137	5.71E-07
Np-237	1.25E-05
Pu-238	2.10E-02
Pu-239	4.90E-01
Pu-240	1.08E-01
Pu-241	7.30E-01
Pu-242	1.69E-05
Sr-90	6.37E-07
Th-229	2.51E-15
Th-230	1.66E-09
Th-232	7.93E-20
U-233	5.37E-11
U-234	1.85E-04
U-235	4.57E-06
U-236	3.21E-09
U-238	3.94E-04

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **IN-AE-AGHC-01****Appendix A****TRU Waste Inventory Profile Report**

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	RH-TRU Debris Waste From ANL-E Stored at the INL			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	6.9	0.0	6.9
Current Form Total	6.9	0.0	6.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	18.7	0.0	18.7
Final Form Total	18.7	0.0	18.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	43.40
Aluminum-based Metals/Alloys	10.40
Other Metals	15.70
Other Inorganic Materials	10.40
Cellulosics	13.83
Rubber	3.45
Plastics	15.70
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.46
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.19E-01
Cs-137	2.67E+00
Pu-238	6.76E-02
Pu-239	2.45E-01
Pu-240	1.29E-01
Pu-241	1.93E+00
Pu-242	4.06E-05
Sr-90	1.97E+00
U-233	4.49E-04
U-234	7.93E-04
U-235	2.81E-05
U-238	4.71E-06

Haz. Waste No(s).

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

TRUCON Code(s)

321, 322, 325

Waste Stream Description

This waste stream was generated at Argonne National Laboratory-East (ANL-E). This waste was generated during post irradiation examinations operations conducted in the ANL-E Alpha Gamma Hot Cell Facility (AGHCF) and K-1 and K-2 cells in the M-Wing hot cell Facility

Waste Stream ID: **IN-AW-161**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	RH-TRU Debris From Materials and Fuels Complex at the INL.			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	1.8	0.0	1.8
Final Form Total	1.8	0.0	1.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	16.90
Aluminum-based Metals/Alloys	0.09
Other Metals	0.09
Other Inorganic Materials	40.20
Cellulosics	12.40
Rubber	0.09
Plastics	24.30
Cements	0.00
Inorganic Matrix	5.80
Organic Matrix	5.80
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Cs-137	1.95E-01
Pu-239	1.30E+00
Pu-240	2.75E-02
Th-230	3.14E-16
Th-232	8.08E-18
U-234	3.49E-12
U-235	7.84E-07
U-236	1.64E-08
U-238	6.18E-08

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

This waste stream was generated at Argonne National Laboratory-West at the INL. The wastes consist of glassware, paper, poly, and miscellaneous hardware generated during analytical chemistry laboratory hot cell operations.

Waste Stream ID: **IN-BN004**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Special Setups Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	338.2	0.0	338.2
Box - Misc	3.2	0.0	3.2
Current Form Total	341.4	0.0	341.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	5.0	0.0	5.0
SWB w/ 4 - 55-gal Drums w/ Liners	563.2	0.0	563.2
TDOP w/ 10 - 55-gal Drums w/ Liners	184.5	0.0	184.5
Final Form Total	752.7	0.0	752.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.02
Aluminum-based Metals/Alloys	0.00
Other Metals	0.04
Other Inorganic Materials	2.50
Cellulosics	0.03
Rubber	0.01
Plastics	0.23
Cements	290.00
Inorganic Matrix	190.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	215.64
Packaging Material, Plastic	16.63
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.06E+00
Cm-244	4.66E-03
Cs-137	6.96E-06
Np-237	4.98E-04
Pu-238	1.44E-01
Pu-239	3.53E+00
Pu-240	8.01E-01
Pu-241	6.33E+00
Pu-242	7.29E-05
Sr-90	1.18E-05
Th-229	1.97E-07
Th-230	8.63E-10
Th-232	5.28E-18
U-233	7.01E-04
U-234	3.26E-05
U-235	7.23E-06
U-236	7.12E-08
U-238	5.60E-06

Haz. Waste No(s).

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

TRUCON Code(s)

111/211

Waste Stream Description

IN-BN004 (Special Setups) waste was generated from a waste treatment process (predominately laboratory waste) generated in support of plutonium operations at RFETS. Resins and electrochemical milling sludges were also solidified with the liquid waste. This waste stream is comprised of solidified waste assigned IDC ID-RF-004 and ID-RF-802. Special Setups consists of waste >50% by volume inorganic solidified waste. Specifically, small quantities of liquids solidified in large quantities of cement.

Waste Stream ID: **IN-BN095**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3122	Handling	CH
Source Cat.	Pollution Control or Waste Treatment Process	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Pond Sludge	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	32.1	0.0	32.1
TDOP w/ 10 - 55-gal Drums w/ Liners	157.5	0.0	157.5
Final Form Total	189.6	0.0	189.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	96.11
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	57.66
Inorganic Matrix	86.53
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	218.53
Packaging Material, Plastic	14.41
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.02E-02
Np-237	7.94E-08
Pu-238	2.49E-03
Pu-239	9.23E-02
Pu-240	2.04E-02
Pu-241	6.41E-02
Pu-242	3.70E-06
Th-229	4.52E-15
Th-230	5.29E-11
Th-232	2.05E-17
U-233	4.82E-12
U-234	3.04E-07
U-235	3.37E-09
U-236	2.24E-08
U-238	2.07E-14

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

"This waste stream, generated at the Rocky Flats Plant, consists of moist to dry sewer sludge generated from cleaning the stabilization ponds at the Sewer Treatment Plant (Building 995). This waste also contains a limited number of drums containing sludge generated by plutonium recovery operations. The sludge may contain fines, chunks or pieces of dried cake. Shipment of sewer sludge to the INEL stopped in 1976.

There are high levels of fines. In addition the drums may contain free liquids. The sewage sludge should contain less than 10 nCi/g TRU elements. The portion of the waste that is suspected to be TRU is addressed by this waste stream. Organic content in the sludge is not known. No free liquids should be present. No explosive, pyrophoric, or corrosive materials should be in the waste.

Waste Stream ID: **IN-BN222**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150	Handling	CH
Source Cat.	Pollution Control or Waste Treatment Process	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Solidified Plutonium Recovery Incinerator Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	110.0	0.0	110.0
Current Form Total	110.0	0.0	110.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
TDOP w/ 10 - 55-gal Drums w/ Liners	279.0	0.0	279.0
Final Form Total	279.0	0.0	279.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	4.50
Aluminum-based Metals/Alloys	0.02
Other Metals	0.13
Other Inorganic Materials	2.00
Cellulosics	0.05
Rubber	0.04
Plastics	13.00
Cements	85.00
Inorganic Matrix	100.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	231.80
Packaging Material, Plastic	17.10
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.49E+00
Pu-238	3.34E-01
Pu-239	8.24E+00
Pu-240	1.87E+00
Pu-241	1.55E+01
Pu-242	1.45E-04
U-234	1.19E-06
U-235	3.76E-07
U-238	3.16E-07

Haz. Waste No(s).

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

TRUCON Code(s)

111/211, 114/214

Waste Stream Description

The waste is comprised of solidified homogeneous solid wastes generated from the RF plutonium recovery incinerator operations. The IN-BN222 waste stream includes IDCs ID-RF-292, ID-RF-807b/696, ID-RF-818, and ID-RF-820. IN-BN222 waste stream consists of waste >50% by volume solidified homogeneous solids, i.e., particulate or sludge waste solidified by adding Portland cement.

Waste Stream ID: **IN-BN311**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Process Heels			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	11.2	0.0	11.2
Box - Misc	3.2	0.0	3.2
Current Form Total	14.4	0.0	14.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
TDOP w/ 10 - 55-gal Drums w/ Liners	27.0	0.0	27.0
Final Form Total	27.0	0.0	27.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.20
Aluminum-based Metals/Alloys	0.00
Other Metals	0.37
Other Inorganic Materials	110.00
Cellulosics	0.00
Rubber	0.00
Plastics	22.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	231.80
Packaging Material, Plastic	17.10
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.26E+00
Np-237	4.57E-05
Pu-238	1.40E+00
Pu-239	2.32E+01
Pu-240	5.45E+00
Pu-241	3.11E+01
Pu-242	4.26E-04
Th-229	2.91E-13
Th-230	6.65E-10
Th-232	1.44E-16
U-233	1.07E-09
U-234	2.44E-05
U-235	1.37E-07
U-236	9.69E-07
U-238	3.86E-13

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-BN375**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3113	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	OIL-DRI RESIDUE FROM INCINERATOR:			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	7.10
Aluminum-based Metals/Alloys	0.00
Other Metals	0.89
Other Inorganic Materials	140.00
Cellulosics	1.80
Rubber	0.04
Plastics	7.80
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	211.10
Packaging Material, Plastic	16.30
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.32E-01
Np-237	9.25E-06
Pu-238	5.70E-02
Pu-239	1.51E+00
Pu-240	3.54E-01
Pu-241	2.14E+00
Pu-242	3.20E-05
Th-229	7.27E-15
Th-230	8.09E-12
Th-232	1.04E-18
U-233	7.83E-11
U-234	6.12E-07
U-235	9.56E-08
U-236	2.10E-08
U-238	9.67E-15

Haz. Waste No(s).

F001, F002

No TRUCON
Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-BN409**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Salt Waste	Waste Matrix Code	S3141	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Chloride Salts			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	12.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.65
Other Inorganic Materials	110.00
Cellulosics	0.82
Rubber	0.00
Plastics	6.30
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	231.80
Packaging Material, Plastic	17.10
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.48E+01
Cs-137	3.68E-07
Np-237	1.38E-04
Pu-238	7.23E-01
Pu-239	1.52E+01
Pu-240	3.51E+00
Pu-241	1.92E+01
Pu-242	4.86E-04
Sr-90	4.04E-07
Th-229	8.57E-13
Th-230	3.48E-10
Th-232	9.25E-17
U-233	3.17E-09
U-234	1.27E-05
U-235	1.22E-07
U-236	6.24E-07
U-238	4.40E-13

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-BN421**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3111	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Uncemented Ash/Soot			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	28.5	0.0	28.5
Current Form Total	28.5	0.0	28.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
TDOP w/ 10 - 55-gal Drums w/ Liners	63.0	0.0	63.0
Final Form Total	63.0	0.0	63.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	4.30
Aluminum-based Metals/Alloys	0.00
Other Metals	0.11
Other Inorganic Materials	110.00
Cellulosics	0.00
Rubber	0.00
Plastics	16.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	231.80
Packaging Material, Plastic	17.10
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.25E+00
Np-237	1.23E-04
Pu-238	2.11E+00
Pu-239	3.25E+01
Pu-240	7.50E+00
Pu-241	3.90E+01
Pu-242	6.66E-04
Th-229	8.11E-13
Th-230	1.13E-09
Th-232	1.98E-16
U-233	2.95E-09
U-234	3.91E-05
U-235	9.16E-07
U-236	1.34E-06
U-238	9.00E-07

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

This waste stream, generated at the RFETS, includes ash and soot generated in the Building 771 plutonium recovery incinerator. This waste stream is comprised of IDCs ID-RF-420, ID-RF-421, and ID-RF-422

Waste Stream ID: **IN-BN425**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3111	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	FLUID BED ASH:			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.56
Cellulosics	0.00
Rubber	0.00
Plastics	1.60
Cements	0.00
Inorganic Matrix	310.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	231.80
Packaging Material, Plastic	17.10
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.28E-02
Np-237	4.55E-08
Pu-238	4.89E-03
Pu-239	1.57E-01
Pu-240	3.46E-02
Pu-241	2.60E-01
Pu-242	7.13E-06
Th-229	6.25E-16
Th-230	2.49E-11
Th-232	9.17E-18
U-233	1.34E-12
U-234	2.84E-07
U-235	2.94E-09
U-236	1.95E-08
U-238	2.04E-14

Haz. Waste No(s).

D007, F005

No TRUCON
Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-BN430**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Combustible	Waste Matrix Code	S5390	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	UNLEACHED ION COLUMN RESIN:			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	14.54
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	18.70
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	231.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.47E+00
Np-237	5.25E-06
Pu-238	5.65E-01
Pu-239	1.82E+01
Pu-240	4.01E+00
Pu-241	3.00E+01
Pu-242	5.90E-04
Th-229	7.22E-14
Th-230	2.88E-09
Th-232	1.06E-15
U-233	1.55E-10
U-234	3.29E-05
U-235	3.41E-07
U-236	2.26E-06
U-238	1.69E-12

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste, generated at the Rocky Flats Plant, consists of anionic and cationic exchange resins used in the purification and recovery of plutonium and americium, respectively. The anionic resins were DOWEX 1-X4 and the cationic resins were DOWEX 50W-X8, both being polystyrene-divinylbenzene copolymers.

Waste Stream ID: **IN-BN431**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Combustible	Waste Matrix Code	S5390	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	LEACHED RESIN:			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	8.15
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	10.48
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	211.10
Packaging Material, Plastic	16.30
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.07E-01
Np-237	1.45E-06
Pu-238	1.57E-01
Pu-239	5.02E+00
Pu-240	1.11E+00
Pu-241	8.29E+00
Pu-242	2.92E-04
Th-229	1.99E-14
Th-230	7.98E-10
Th-232	2.93E-16
U-233	4.29E-11
U-234	9.11E-06
U-235	9.40E-08
U-236	6.25E-07
U-238	8.37E-13

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste, generated at the Rocky Flats Plant, consists of anionic and cationic exchange resins used in the purification and recovery of plutonium and americium, respectively. It is believed that the resins were Content Code 430 resins that were processed by leaching to recover plutonium. Content code was used during 1972 only.

Waste Stream ID: **IN-BN432**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Organics	Waste Matrix Code	S3211	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Homogeneous Resin Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	64.3	0.0	64.3
Current Form Total	64.3	0.0	64.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
TDOP w/ 10 - 55-gal Drums w/ Liners	139.5	0.0	139.5
Final Form Total	139.5	0.0	139.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.90
Aluminum-based Metals/Alloys	0.00
Other Metals	2.90
Other Inorganic Materials	3.40
Cellulosics	0.17
Rubber	0.00
Plastics	14.00
Cements	89.00
Inorganic Matrix	0.00
Organic Matrix	75.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	231.80
Packaging Material, Plastic	17.10
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.10E+00
Cs-137	8.79E-06
Np-237	7.53E-05
Pu-238	3.48E-01
Pu-239	7.27E+00
Pu-240	1.68E+00
Pu-241	9.66E+00
Pu-242	1.29E-04
Sr-90	9.62E-06
Th-229	4.69E-13
Th-230	1.79E-10
Th-232	4.43E-17
U-233	1.73E-09
U-234	6.33E-06
U-235	1.25E-07
U-236	2.99E-07
U-238	1.17E-13

Haz. Waste No(s).

D008, F001, F002

No TRUCON
Codes Provided

Waste Stream Description

This waste stream, generated at the RFETS, consists of leached, spent anion and cation exchange resins that were cemented by mixing Portland cement, water, and washed resin into a slurry. This waste stream is comprised of IDCs ID-RF-432, and ID-RF-822

Waste Stream ID: **IN-BN510****Appendix A****TRU Waste Inventory Profile Report**

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	SUPERCOMPACTED DEBRIS WASTE			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	6777.9	0.0	6777.9
Bin - Misc	406.0	0.0	406.0
Box - Misc	14106.5	0.0	14106.5
Current Form Total	21290.4	0.0	21290.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
100-gal Drum Dir Ld w/o Liner	9166.9	0.0	9166.9
Final Form Total	9166.9	0.0	9166.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	340.00
Aluminum-based Metals/Alloys	2.00
Other Metals	2.70
Other Inorganic Materials	22.00
Cellulosics	160.00
Rubber	8.60
Plastics	160.00
Cements	0.00
Inorganic Matrix	0.03
Organic Matrix	0.06
Soils/gravel	0.02
Vitrified	0.00
Packaging Material, Steel	113.70
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.52E-01
Am-243	8.94E-09
Cm-244	3.02E-04
Cs-137	1.62E-07
Np-237	1.32E-05
Pu-238	2.00E-01
Pu-239	1.47E+00
Pu-240	3.18E-01
Pu-241	2.54E+00
Pu-242	2.88E-05
Sr-90	2.94E-07
U-233	3.35E-06
U-234	1.80E-04
U-235	1.75E-04
U-238	4.88E-06

Haz. Waste No(s).
D004, D005, D006,
D007, D008, D009,
D010, D011, D022,
D028, D029, F001,
F002, F005, F006,
F007, F009
TRUCON Code(s)

121/221

Waste Stream Description

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

Waste Stream ID: **IN-BN806**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Solidified Process Solids	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.31
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.12
Cellulosics	0.02
Rubber	0.04
Plastics	3.30
Cements	99.00
Inorganic Matrix	120.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.03E-01
Np-237	7.18E-06
Pu-238	1.42E-01
Pu-239	3.23E+00
Pu-240	7.36E-01
Pu-241	5.97E+00
Pu-242	5.28E-05
Th-229	1.27E-14
Th-230	1.66E-11
Th-232	4.85E-18
U-233	9.14E-11
U-234	1.22E-06
U-235	9.54E-09
U-236	6.55E-08
U-238	2.39E-14

Haz. Waste No(s).

D008, F001, F002, F003, F005

No TRUCON Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-BN817**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Cemented Sand, Slag, Crucible Heels	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.07
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.01
Cellulosics	0.00
Rubber	0.00
Plastics	3.70
Cements	140.00
Inorganic Matrix	160.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.85E-01
Np-237	6.80E-06
Pu-238	1.42E-01
Pu-239	3.09E+00
Pu-240	7.07E-01
Pu-241	5.56E+00
Pu-242	4.98E-05
Th-229	2.06E-14
Th-230	2.95E-11
Th-232	8.28E-18
U-233	1.11E-10
U-234	1.63E-06
U-235	1.22E-08
U-236	8.38E-08
U-238	3.01E-14

Haz. Waste No(s).

D007

No TRUCON
Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-BN823**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Cemented Miscellaneous Sludge			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.25
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	3.30
Cements	110.00
Inorganic Matrix	130.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.46E-03
Np-237	7.24E-02
Pu-238	3.61E-03
Pu-239	6.38E-02
Pu-240	1.46E-02
Pu-241	1.22E-01
Pu-242	1.60E-06
Th-229	2.30E-10
Th-230	7.53E-13
Th-232	1.71E-19
U-233	1.23E-06
U-234	4.16E-08
U-235	2.52E-10
U-236	1.73E-09
U-238	9.67E-16

Haz. Waste No(s).

D008, F001, F002, F003

No TRUCON Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-BN835**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3113	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Solidified Acid/Caustic Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	45.6	0.0	45.6
Current Form Total	45.6	0.0	45.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	5.7	0.0	5.7
TDOP w/ 10 - 55-gal Drums w/ Liners	99.0	0.0	99.0
Final Form Total	104.7	0.0	104.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.02
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.06
Cellulosics	5.60
Rubber	0.02
Plastics	0.26
Cements	0.00
Inorganic Matrix	240.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	230.68
Packaging Material, Plastic	17.06
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.72E-02
Cs-137	7.91E-08
Np-237	5.72E-06
Pu-238	1.54E+00
Pu-239	3.08E-03
Pu-240	1.97E-03
Pu-241	3.28E-02
Pu-242	1.99E-06
Sr-90	1.38E-07
Th-229	1.05E-14
Th-230	1.81E-10
Th-232	1.30E-20
U-233	7.46E-11
U-234	1.33E-05
U-235	1.30E-10
U-236	1.76E-10
U-238	1.93E-07

Haz. Waste No(s).

D007, D008, D009,
F001, F002

TRUCON Code(s)

111/211

Waste Stream Description

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

Waste Stream ID: **IN-BN836**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121	Handling	CH
Source Cat.	Pollution Control or Waste Treatment Process	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Cemented Sludge			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	84.7	0.0	84.7
Current Form Total	84.7	0.0	84.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.8	0.0	4.8
SWB w/ 4 - 55-gal Drums w/ Liners	181.4	0.0	181.4
Final Form Total	186.2	0.0	186.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.01
Aluminum-based Metals/Alloys	0.00
Other Metals	0.01
Other Inorganic Materials	0.23
Cellulosics	0.12
Rubber	0.00
Plastics	0.05
Cements	240.00
Inorganic Matrix	310.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	209.04
Packaging Material, Plastic	16.83
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.36E-03
Cs-137	2.70E-07
Np-237	1.27E-06
Pu-238	1.03E+00
Pu-239	1.60E-03
Pu-240	1.08E-03
Pu-241	5.01E-03
Pu-242	1.24E-06
Sr-90	4.44E-07
Th-229	1.04E-15
Th-230	5.60E-11
Th-232	3.17E-21
U-233	1.11E-11
U-234	6.06E-06
U-235	1.90E-08
U-236	6.42E-11
U-238	7.78E-09

Haz. Waste No(s).

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

TRUCON Code(s)

111/211

Waste Stream Description

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

Waste Stream ID: **IN-BN842**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Soils	Waste Matrix Code	S4100	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CONTAMINATED SOIL			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Misc	123.6	0.0	123.6
Current Form Total	123.6	0.0	123.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	73.7	0.0	73.7
TDOP w/ 10 - 55-gal Drums w/ Liners	90.0	0.0	90.0
Final Form Total	163.7	0.0	163.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.09
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	5.67
Cellulosics	16.82
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	542.81
Vitrified	0.00
Packaging Material, Steel	196.55
Packaging Material, Plastic	9.94
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.94E-04
Np-237	6.92E-10
Pu-238	1.26E+00
Pu-239	6.79E-02
Pu-240	1.08E-04
Pu-241	3.95E-03
Pu-242	9.44E-08
Th-229	9.51E-18
Th-230	6.40E-09
Th-232	2.85E-20
U-233	2.04E-14
U-234	7.31E-05
U-235	1.27E-09
U-236	6.08E-11
U-238	2.71E-16

Haz. Waste No(s).

D006, D007, D008,
D009, D010, D011No TRUCON
Codes Provided

Waste Stream Description

This waste, generated at Mound Laboratories, consists of soil, including small rocks and pebbles, generated from cleanup of a leak. All soil waste was dry when packaged. A few waste boxes also include picks, shovels, metal cans, rubber gloves, booties, respirators, plastic, and possibly an air hammer and chisel. Soils waste was packaged in small, plastic lined plywood boxes (42 x 20 x 39 inch) other waste was then placed on top of the soil before the box was sealed. Four of the small boxes were then packaged in a standard larger waste box (4 x 4 x 7 feet) lined with fiberglass-reinforced polyester. Assay was performed using radiochemical analysis on core samples taken from the contaminated area.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **IN-BN976**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	BLDG 776 PROCESS SLUDGE:			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	43.5	0.0	43.5
TDOP w/ 10 - 55-gal Drums w/ Liners	45.0	0.0	45.0
Final Form Total	88.5	0.0	88.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	1.46
Other Inorganic Materials	15.79
Cellulosics	6.62
Rubber	0.00
Plastics	4.10
Cements	193.25
Inorganic Matrix	289.87
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	193.33
Packaging Material, Plastic	9.29
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.20E-02
Np-237	4.80E-07
Pu-238	6.11E-03
Pu-239	1.61E-01
Pu-240	3.73E-02
Pu-241	2.11E-01
Pu-242	3.09E-06
Th-229	9.64E-17
Th-230	2.07E-12
Th-232	2.73E-20
U-233	2.06E-12
U-234	2.39E-07
U-235	4.93E-08
U-236	1.10E-09
U-238	4.66E-16

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

This waste is from Rocky Flats and consists of sludge from floor drains in a Pu process facility that have been cemented in portland. The cement is described as a poor grade. Also may be laundry sludges, material contents given are for an organic laundry sludge.

Waste Stream ID: **IN-BN978**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	LAUNDRY SLUDGE	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
TDOP w/ 10 - 55-gal Drums w/ Liners	18.0	0.0	18.0
Final Form Total	18.4	0.0	18.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	2.96
Other Inorganic Materials	30.25
Cellulosics	30.25
Rubber	40.10
Plastics	8.18
Cements	268.45
Inorganic Matrix	402.68
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	229.52
Packaging Material, Plastic	17.55
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.05E-02
Np-237	4.68E-07
Pu-238	2.75E-03
Pu-239	9.84E-02
Pu-240	2.19E-02
Pu-241	7.83E-01
Pu-242	2.84E-06
Th-229	3.58E-16
Th-230	1.14E-10
Th-232	6.41E-20
U-233	3.88E-12
U-234	6.34E-06
U-235	9.23E-07
U-236	1.30E-09
U-238	5.61E-05

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-BNINW216****Appendix A****TRU Waste Inventory Profile Report**

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	CH
Source Cat.	Pollution Control or Waste Treatment Process	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	First/Second Stage Sludge			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2808.4	0.0	2808.4
Box - Misc	22.2	0.0	22.2
Current Form Total	2830.6	0.0	2830.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	1096.2	0.0	1096.2
TDOP w/ 10 - 55-gal Drums w/ Liners	5035.5	0.0	5035.5
Final Form Total	6131.7	0.0	6131.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.05
Aluminum-based Metals/Alloys	0.00
Other Metals	0.07
Other Inorganic Materials	3.90
Cellulosics	0.03
Rubber	0.02
Plastics	0.35
Cements	48.00
Inorganic Matrix	360.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	228.10
Packaging Material, Plastic	16.96
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.28E+00
Cs-137	1.79E-08
Np-237	7.53E-05
Pu-238	3.82E-02
Pu-239	3.71E-01
Pu-240	9.43E-02
Pu-241	1.02E+00
Pu-242	5.08E-05
Sr-90	2.91E-08
Th-229	1.31E-13
Th-230	9.99E-10
Th-232	6.21E-19
U-233	9.45E-10
U-234	3.72E-05
U-235	6.61E-06
U-236	8.38E-09
U-238	3.73E-04

Haz. Waste No(s).

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

TRUCON Code(s)

111/211, 132/232

Waste Stream Description

IN-BNINW216 (aqueous sludge wastes from Building 774) were generated from a carrier precipitation and immobilization process (sludge mixed with diatomite and Portland cement) The First/Second Sludge waste stream is comprised of IDCs ID-RF-001, ID-RF-002, and ID-RF-800. The First/Second Sludge waste stream consists of >50% by volume secondary sludge or filter cake from wastewater treatment processes or heavy metal sludges from recovery processes.

Two waste matrix codes have been assigned to this waste stream because the immobilization process for this waste stream was changed in 1986. Prior to 1986 the first/second stage sludge was placed into a drum with Portland cement. The excess liquid was immobilized but a solid monolith was not formed. Subsequent to 1986 the sludge was co-fed into a drum with a diatomite and Portland cement mixture, which formed a solid monolith after curing.

Waste Stream ID: **IN-BNINW218**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Building 374 Sludge			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	245.0	0.0	245.0
Box - Misc	6.3	0.0	6.3
Current Form Total	251.4	0.0	251.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	7.6	0.0	7.6
TDOP w/ 10 - 55-gal Drums w/ Liners	526.5	0.0	526.5
Final Form Total	534.1	0.0	534.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.02
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	24.00
Cellulosics	0.00
Rubber	0.01
Plastics	2.20
Cements	23.00
Inorganic Matrix	350.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	231.51
Packaging Material, Plastic	17.09
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.86E-02
Cs-137	2.07E-08
Np-237	5.43E-04
Pu-238	4.72E-03
Pu-239	9.39E-02
Pu-240	1.93E-02
Pu-241	1.77E-01
Pu-242	2.83E-06
Sr-90	3.38E-08
Th-229	1.73E-12
Th-230	1.58E-09
Th-232	2.27E-19
U-233	9.21E-09
U-234	4.39E-05
U-235	4.44E-06
U-236	2.29E-09
U-238	3.84E-04

Haz. Waste No(s).

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

TRUCON Code(s)

111/211

Waste Stream Description

The Building 374 Sludge waste stream (BNINW218) consists of drums containing Building 374 dry sludge (IDC 007), solidified direct cementation process sludge (IDC 803), or Building 374 solidified by-pass sludge (IDC 807). The aqueous sludge wastes from Building 374 were generated from a carrier precipitation and immobilization process.

Two waste matrix codes have been assigned to this waste stream because the cementation immobilization process for this waste stream was changed in the 1986-1987 timeframe. The immobilization process at other times involved mixing the sludge with Portland cement or a Portland cement and diatomite mixture. The feed streams to the process did not change over time.

Waste Stream ID: **IN-GEM-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Soils	Waste Matrix Code	S4000	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Glovebox Excavator Method Project Soils and Sludge			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	7.3	0.0	7.3
Final Form Total	7.3	0.0	7.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.50
Other Inorganic Materials	59.40
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	116.58
Inorganic Matrix	97.88
Organic Matrix	224.00
Soils/gravel	947.70
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.83E+00
Cs-137	3.05E-07
Np-237	2.90E-05
Pu-238	1.79E-02
Pu-239	4.34E-01
Pu-240	9.78E-02
Pu-241	6.45E-01
Pu-242	1.96E-05
Sr-90	3.36E-07
Th-229	1.81E-09
Th-230	8.57E-09
Th-232	9.86E-09
U-233	3.86E-06
U-234	1.91E-04
U-235	4.83E-06
U-236	1.45E-08
U-238	5.58E-04

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

Waste consists of soils (approximately 60%) and associated sludge type wastes to be generated through environmental restoration activities at the Idaho National Engineering Laboratory's Subsurface Disposal Area (Pit 9). The sludge waste originated at the Rocky Flats Plant from various treatment processes in building 774. Sludge wastes included in the waste stream correspond to the following ID numbers: IN-W216, First Stage Sludge; IN-W228, Second Stage Sludge; IN-W309, Organic Setups Oil Solids; IN-W157, Special Setups (Cement); IN-W315, Evaporator Salts; IN-W276, Graphite. Graphite waste generated at the Rocky Flats Plant for casting plutonium metal is also included in the overall waste stream. The originally disposed sludges, graphite and surrounding soils are packaged in a single waste stream through environmental restoration retrieval and repackaging activities.

Waste Stream ID: **IN-GEM-02**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Glovebox Excavator Method Project Heterogeneous Debris.			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	17.30
Aluminum-based Metals/Alloys	1.13
Other Metals	58.00
Other Inorganic Materials	13.56
Cellulosics	41.00
Rubber	17.43
Plastics	63.27
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.54E-01
Cs-137	1.82E-07
Np-237	7.86E-06
Pu-238	7.22E-02
Pu-239	1.84E+00
Pu-240	4.18E-01
Pu-241	1.80E+00
Pu-242	3.95E-05
Sr-90	2.04E-07
Th-229	1.95E-08
Th-230	4.78E-09
Th-232	2.33E-12
U-233	4.16E-05
U-234	1.07E-04
U-235	2.68E-06
U-236	6.20E-08
U-238	8.53E-05

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

Waste consists of combustible and noncombustible heterogeneous debris generated through environmental restoration activities at the INEEL Subsurface disposal area (Pit 9). The debris includes drum remnants of sludge waste packaging material that originated at the Rocky Flats Plant from various treatment processes in building 774. Original packaging material (if still present) are segregated during retrieval operations and combined with noncombustible and combustible debris streams that originated at the Rocky Flats Plant. The original noncombustible and combustible debris streams are similar to the following ID numbers: IN-W169, dry Paper and Rags; IN-W278, Low Specific Activity Metal, Glass Etc.; and IN-W296, Non special Source Metal. The materials are combined in a single waste stream through environmental restoration retrieval repackaging activities.

Waste Stream ID: **IN-ID-BTO-030****Appendix A****TRU Waste Inventory Profile Report**

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3000	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Solidified Waste Sludge from Bettis Atomic Power Lab.			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	1.8	0.0	1.8
Final Form Total	1.8	0.0	1.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	91.82
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.09
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	37.52
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.01E-03
Am-243	3.87E-04
Cs-137	2.52E+01
Np-237	4.08E-04
Pu-238	3.23E+00
Pu-239	3.47E-03
Pu-240	3.50E-03
Pu-242	3.38E-05
Sr-90	2.45E+01
Th-229	1.50E-04
Th-230	1.83E-08
Th-232	8.30E-06
U-233	7.99E-02
U-234	1.98E-04
U-235	4.48E-05
U-236	2.08E-09
U-238	1.02E-13

Haz. Waste No(s).

D007, D008

**No TRUCON
Codes Provided****Waste Stream Description**

The inventory reported here represents best available information on this waste stream. It consists of 2 inserts (12 in Diax6 ft tall). Each insert will be repackaged into 2-55 gallon drums and 3-55 gallon drums will be placed in a RH TRU Removable Lid Canister. This waste consists of two inserts that contain solidified sludge from sectioning, drilling and grinding from metallographic and dissolution process. Concrete was used as the immobilizing matrix. This waste was shipped from BETTIS in 53 small containers to ANL-W and was repackaged at ANL-W prior to transporting to RWMC for interim storage.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

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

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	RH-TRU Debris From Materials and Fuels Complex at the INL.			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
HFEF-5 RH Insert	3.9	0.0	3.9
Current Form Total	3.9	0.0	3.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	16.9	0.0	16.9
Final Form Total	16.9	0.0	16.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	220.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	20.00
Cellulosics	15.00
Rubber	0.00
Plastics	15.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Cs-137	2.94E+01
Np-237	1.39E-06
Pu-239	3.82E-01
Pu-240	1.48E-01
Sr-90	2.75E+01
Th-229	7.31E-06
Th-230	1.97E-13
Th-232	2.40E-06
U-233	3.90E-03
U-234	2.19E-09
U-235	1.54E-04
U-236	8.76E-08
U-238	3.89E-05

Haz. Waste No(s).

D008

No TRUCON
Codes Provided

Waste Stream Description

The inventory reported here represents best available information on this waste stream. It consists of 28 inserts (12 in Diax6 ft tall). Each insert will be repackaged into 2-55 gallon drums and 3-55-gallon drums will be placed in a RH TRU Removable Lid Canister.

Waste Stream ID: **IN-ID-NTLLNL-S3900****Appendix A****TRU Waste Inventory Profile Report**

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3900	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Solidified Solids			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	8.7	0.0	8.7
Current Form Total	8.7	0.0	8.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	8.7	0.0	8.7
Final Form Total	8.7	0.0	8.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	72.20
Aluminum-based Metals/Alloys	12.30
Other Metals	5.80
Other Inorganic Materials	4.80
Cellulosics	52.50
Rubber	3.80
Plastics	50.10
Cements	30.00
Inorganic Matrix	11.80
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.86E-01
Am-243	1.99E-03
Cm-244	2.92E-03
Cs-137	3.93E-05
Np-237	1.13E-05
Pu-238	2.02E-01
Pu-239	4.53E+00
Pu-240	3.04E-02
Pu-241	1.95E-01
Pu-242	1.42E-04
Pu-244	1.63E-09
Sr-90	1.32E-07
Th-229	6.05E-06
Th-230	3.02E-09
Th-232	1.08E-17
U-233	2.93E-03
U-234	2.19E-05
U-235	2.69E-07
U-236	1.98E-08
U-238	2.51E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D040, F001, F002, F003, F004, F005

TRUCON Code(s)

111/211

Waste Stream Description

This waste stream consists of solidified sludge, some laboratory trash, contaminated equipment. Real time Radiography has been performed to show no free liquids, with the exception of less than 1% by volume in the solidified sludge. The waste is contact-handled TRU waste. The waste stream was generated at the Lawrence Livermore National Laboratory, Livermore, CA (LLNL) and shipped to the NTS from 1974 until 1990. The waste was declared as potentially mixed TRU waste by the generator in April, 1991. [In December 2008, this waste was shipped to INL as part of the Amended ROD for the small quantity site centralization. SL]

Waste Stream ID: **IN-ID-NTLLNL-S5400**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Heterogeneous Debris, Uncategorized			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	1.9	0.0	1.9
SWB Dir Ld w/ Liner	30.2	0.0	30.2
Current Form Total	32.1	0.0	32.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	1.9	0.0	1.9
SWB Dir Ld w/o Liner	30.2	0.0	30.2
Final Form Total	32.1	0.0	32.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	72.20
Aluminum-based Metals/Alloys	12.30
Other Metals	5.80
Other Inorganic Materials	4.80
Cellulosics	52.50
Rubber	3.80
Plastics	50.10
Cements	30.00
Inorganic Matrix	11.80
Organic Matrix	11.80
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	152.18
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.86E-01
Am-243	1.99E-03
Cm-244	2.92E-03
Cs-137	3.93E-05
Np-237	1.13E-05
Pu-238	2.02E-01
Pu-239	4.53E+00
Pu-240	3.04E-02
Pu-241	1.95E-01
Pu-242	1.42E-04
Pu-244	1.63E-09
Sr-90	1.32E-07
Th-229	6.05E-06
Th-230	3.02E-09
Th-232	1.08E-17
U-233	2.93E-03
U-234	2.19E-05
U-235	2.69E-07
U-236	1.98E-08
U-238	2.51E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D040, F001, F002, F003, F004, F005
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TRUCON Code(s)

125/225

Waste Stream Description

This waste stream consists of glovebox parts, laboratory trash, contaminated equipment. The waste is contact-handled TRU waste. The waste stream was generated at the Lawrence Livermore National Laboratory, Livermore, CA (LLNL) and shipped to the NTS from 1974 until 1990. The waste was declared as potentially mixed TRU waste by the generator in April, 1991.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **IN-ID-RF-S3114****Appendix A****TRU Waste Inventory Profile Report**

Site	Idaho National Laboratory	Final Waste Form	Solidified Organics	Waste Matrix Code	S3114	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Organic Setups			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1848.9	0.0	1848.9
Current Form Total	1848.9	0.0	1848.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	347.8	0.0	347.8
TDOP w/ 10 - 55-gal Drums w/ Liners	3964.5	0.0	3964.5
Final Form Total	4312.3	0.0	4312.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.92
Aluminum-based Metals/Alloys	0.00
Other Metals	1.07
Other Inorganic Materials	4.25
Cellulosics	0.06
Rubber	0.67
Plastics	1.71
Cements	0.00
Inorganic Matrix	0.23
Organic Matrix	364.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	225.49
Packaging Material, Plastic	15.82
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.65E-02
Cs-137	1.02E-08
Np-237	6.21E-07
Pu-238	3.15E-03
Pu-239	8.66E-02
Pu-240	1.76E-02
Pu-241	1.67E-01
Pu-242	1.84E-06
Sr-90	1.62E-08
Th-229	4.99E-16
Th-230	6.43E-11
Th-232	5.15E-20
U-233	5.34E-12
U-234	3.59E-06
U-235	1.03E-07
U-236	1.04E-09
U-238	6.31E-06

Haz. Waste No(s).

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

TRUCON Code(s)

112/212, 154

Waste Stream Description

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

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

Site	Idaho National Laboratory	Final Waste Form	Solidified Organics	Waste Matrix Code	S3150	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Organic and Sludge Immobilization System Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.01
Aluminum-based Metals/Alloys	0.00
Other Metals	21.14
Other Inorganic Materials	4.29
Cellulosics	0.00
Rubber	1.93
Plastics	3.22
Cements	2.69
Inorganic Matrix	0.00
Organic Matrix	665.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	180.92
Packaging Material, Plastic	24.95
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.85E-01
Cs-137	8.51E-08
Np-237	8.62E-06
Pu-238	3.43E-02
Pu-239	7.51E-01
Pu-240	1.65E-01
Pu-241	1.51E+00
Pu-242	1.40E-05
Sr-90	1.45E-07
Th-229	1.56E-14
Th-230	7.50E-08
Th-232	1.09E-18
U-233	1.12E-10
U-234	2.78E-03
U-235	4.85E-07
U-236	1.47E-08
U-238	9.09E-07

Haz. Waste No(s).

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

TRUCON Code(s)

112/212, 154

Waste Stream Description

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

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

Site	Idaho National Laboratory	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5100	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Raschig Rings			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	38.7	0.0	38.7
Current Form Total	38.7	0.0	38.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	16.8	0.0	16.8
SWB w/ 4 - 55-gal Drums w/ Liners	1.9	0.0	1.9
TDOP w/ 10 - 55-gal Drums w/ Liners	49.5	0.0	49.5
Final Form Total	68.2	0.0	68.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.03
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	118.78
Cellulosics	14.50
Rubber	0.01
Plastics	8.35
Cements	0.00
Inorganic Matrix	0.94
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	206.29
Packaging Material, Plastic	21.99
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.32E-01
Cs-137	2.05E-08
Np-237	2.48E-06
Pu-238	3.08E-02
Pu-239	9.33E-01
Pu-240	1.97E-01
Pu-241	1.13E+00
Pu-242	1.69E-05
Sr-90	3.10E-08
Th-229	1.21E-09
Th-230	8.54E-11
Th-232	1.30E-18
U-233	4.30E-06
U-234	3.30E-06
U-235	1.36E-07
U-236	1.75E-08
U-238	6.83E-09

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

125/225

Waste Stream Description

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

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

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Graphite	Waste Matrix Code	S5126	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Graphite Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	45.6	0.0	45.6
Current Form Total	45.6	0.0	45.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	24.5	0.0	24.5
SWB w/ 4 - 55-gal Drums w/ Liners	3.8	0.0	3.8
TDOP w/ 10 - 55-gal Drums w/ Liners	45.0	0.0	45.0
Final Form Total	73.3	0.0	73.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.45
Aluminum-based Metals/Alloys	0.00
Other Metals	0.03
Other Inorganic Materials	221.99
Cellulosics	5.18
Rubber	0.05
Plastics	4.45
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	196.92
Packaging Material, Plastic	23.72
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.53E-01
Cs-137	3.96E-03
Np-237	1.12E-05
Pu-238	1.26E-01
Pu-239	3.49E+00
Pu-240	8.13E-01
Pu-241	5.85E+00
Pu-242	7.44E-05
Sr-90	7.98E-08
Th-229	1.70E-07
Th-230	1.25E-09
Th-232	2.38E-18
U-233	9.04E-04
U-234	6.98E-05
U-235	5.75E-08
U-236	4.82E-08
U-238	6.60E-06

Haz. Waste No(s).

D008, D029, F001, F002, F005

TRUCON Code(s)

115/215, 154

Waste Stream Description

Graphite wastes (ID-RF-S5126) are comprised of graphite generated by production, recovery, laboratory, size reduction, and research and development activities associated with RFETS plutonium operations. ID-RF-S5126 contains more than 50% (by volume) inorganic nonmetal debris.

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

Site	Idaho National Laboratory	Final Waste Form	Combustible	Waste Matrix Code	S5300	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Combustibles and Plastics			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3807.6	0.0	3807.6
Current Form Total	3807.6	0.0	3807.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	213.6	0.0	213.6
TDOP w/ 10 - 55-gal Drums w/ Liners	8046.0	0.0	8046.0
Final Form Total	8259.6	0.0	8259.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	3.27
Aluminum-based Metals/Alloys	0.16
Other Metals	0.33
Other Inorganic Materials	4.84
Cellulosics	41.28
Rubber	3.89
Plastics	37.25
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	231.26
Packaging Material, Plastic	17.08
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.46E-02
Am-243	7.09E-12
Cm-244	2.04E-04
Cs-137	8.44E-09
Np-237	1.63E-06
Pu-238	3.13E-03
Pu-239	9.50E-02
Pu-240	2.13E-02
Pu-241	1.38E-01
Pu-242	2.14E-05
Sr-90	1.14E-08
Th-229	2.31E-08
Th-230	1.68E-10
Th-232	6.24E-20
U-233	1.23E-04
U-234	9.37E-06
U-235	2.46E-07
U-236	1.26E-09
U-238	3.55E-07

Haz. Waste No(s).

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

TRUCON Code(s)

116/216, 154

Waste Stream Description

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

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

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	ICP Retrieved Debris Waste (Filters/Graphite)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	614.2	0.0	614.2
Current Form Total	614.2	0.0	614.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	590.1	0.0	590.1
SWB w/ 4 - 55-gal Drums w/ Liners	54.8	0.0	54.8
Final Form Total	644.9	0.0	644.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.23
Aluminum-based Metals/Alloys	0.62
Other Metals	0.00
Other Inorganic Materials	182.46
Cellulosics	109.42
Rubber	0.29
Plastics	10.24
Cements	0.02
Inorganic Matrix	0.27
Organic Matrix	0.53
Soils/gravel	4.05
Vitrified	0.00
Packaging Material, Steel	137.62
Packaging Material, Plastic	35.24
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.42E-01
Cs-137	2.04E-07
Np-237	6.97E-06
Pu-238	7.52E-02
Pu-239	1.84E+00
Pu-240	4.18E-01
Pu-241	2.28E+00
Pu-242	3.95E-05
Sr-90	2.30E-07
Th-232	2.33E-12
U-233	4.16E-05
U-234	1.06E-04
U-235	2.67E-06
U-238	8.53E-05

Haz. Waste No(s).

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

TRUCON Code(s)

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

Waste Stream Description

Pre-1970 buried waste retrieved for the Idaho Completion Project

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

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3900	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	ICP Retrieved Sludge Waste (Inorganic/Organic Sludge/Roaster Oxide)				Activity Concentrations Decayed to CY	2008	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	5452.5	0.0	5452.5
Current Form Total	5452.5	0.0	5452.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	5031.5	0.0	5031.5
SWB w/ 4 - 55-gal Drums w/ Liners	956.3	0.0	956.3
Final Form Total	5987.9	0.0	5987.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.24
Aluminum-based Metals/Alloys	0.00
Other Metals	0.03
Other Inorganic Materials	38.22
Cellulosics	0.33
Rubber	0.05
Plastics	1.85
Cements	0.19
Inorganic Matrix	159.71
Organic Matrix	477.96
Soils/gravel	0.35
Vitrified	0.00
Packaging Material, Steel	143.62
Packaging Material, Plastic	33.69
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.84E+00
Cs-137	3.42E-07
Np-237	2.45E-05
Pu-238	1.86E-02
Pu-239	4.34E-01
Pu-240	9.78E-02
Pu-241	8.21E-01
Pu-242	1.96E-05
Sr-90	3.79E-07
Th-232	9.86E-09
U-233	3.86E-06
U-234	1.91E-04
U-235	4.83E-06
U-238	5.58E-04

Haz. Waste No(s).

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

TRUCON Code(s)

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

Waste Stream Description

Pre-1970 buried waste retrieved for the Idaho Completion Project

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

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Soils	Waste Matrix Code	S4200	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	ICP Retrieved Soils			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1686.5	0.0	1686.5
Current Form Total	1686.5	0.0	1686.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1575.0	0.0	1575.0
SWB w/ 4 - 55-gal Drums w/ Liners	253.3	0.0	253.3
Final Form Total	1828.2	0.0	1828.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.68
Aluminum-based Metals/Alloys	0.02
Other Metals	0.14
Other Inorganic Materials	18.68
Cellulosics	11.79
Rubber	0.09
Plastics	6.47
Cements	0.25
Inorganic Matrix	4.32
Organic Matrix	1.78
Soils/gravel	630.82
Vitrified	0.00
Packaging Material, Steel	141.92
Packaging Material, Plastic	34.13
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.60E-01
Cs-137	5.56E-07
Np-237	1.17E-05
Pu-238	2.14E-02
Pu-239	5.48E-01
Pu-240	1.23E-01
Pu-241	8.63E-01
Pu-242	1.79E-05
Sr-90	6.19E-07
Th-232	9.90E-10
U-234	2.41E-04
U-235	9.87E-05
U-238	7.13E-04

Haz. Waste No(s).

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

TRUCON Code(s)

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

Waste Stream Description

Pre-1970 buried waste retrieved for the Idaho Completion Project

Waste Stream ID: **IN-INTEC-SFS-01****Appendix A****TRU Waste Inventory Profile Report**

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	RH TRU Debris waste from Idaho Nuclear Technology and Engineering Center at the INL				Activity Concentrations Decayed to CY	2008	

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	36.40
Aluminum-based Metals/Alloys	0.09
Other Metals	298.00
Other Inorganic Materials	5.35
Cellulosics	3.92
Rubber	0.18
Plastics	7.49
Cements	0.00
Inorganic Matrix	0.02
Organic Matrix	5.35
Soils/gravel	0.09
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.71E+00
Cs-137	3.38E+00
Np-237	1.03E-05
Pu-238	1.87E+00
Pu-239	2.72E-01
Pu-240	3.14E-01
Pu-241	1.63E+01
Pu-242	1.13E-03
Sr-90	2.45E+00
Th-229	3.76E-13
Th-230	2.52E-08
Th-232	2.07E-16
U-233	5.01E-10
U-234	1.80E-04
U-235	9.67E-06
U-236	2.80E-07
U-238	5.11E-12

Haz. Waste No(s).

D008, D018

TRUCON Code(s)

321, 325

Waste Stream Description

This waste stream was generated at the Idaho Chemical Processing Plant at the INEEL, and may include both combustibles and noncombustibles. The waste includes solidified sludge of acid-dissolved fuel, absorbed into diatomaceous earth.

The waste is contained in two 30-gallon lead-lined drums. The sludge is contained in glass bottles and sealed inside metal cans. Other materials may include glass containers, plastics, metal, scraps, lead shielding, and miscellaneous laboratory equipment. The surface dose rate is limited to 30 R/hr.

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

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	RH TRU Debris Waste from the Naval Reactor Facility			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	3.1	0.0	3.1
Current Form Total	3.1	0.0	3.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	8.0	0.0	8.0
Final Form Total	8.0	0.0	8.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	3.59
Aluminum-based Metals/Alloys	0.00
Other Metals	21.52
Other Inorganic Materials	1.08
Cellulosics	2.15
Rubber	1.43
Plastics	1.79
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.36E-03
Np-237	7.95E-09
Pu-238	2.85E-02
Pu-239	4.05E-04
Pu-240	4.37E-04
Pu-241	1.38E-02
Pu-242	1.45E-06
Th-229	2.68E-16
Th-230	3.57E-10
Th-232	2.69E-19
U-233	3.71E-13
U-234	2.64E-06
U-235	5.92E-06
U-236	3.76E-10
U-238	6.34E-15

Haz. Waste No(s).

D008, F002

No TRUCON
Codes Provided

Waste Stream Description

This waste stream consists of 27 debris waste drums generated during analysis of post-irradiated nuclear fuel assemblies from naval reactor programs, using destructive examination methods.

Waste Stream ID: **IN-TRA-150****Appendix A****TRU Waste Inventory Profile Report**

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3000	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Stored RH TRU Sludge Waste From Reactor Technology Complex at the Idaho National Laboratory			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	3.6	0.0	3.6
Final Form Total	3.6	0.0	3.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	12.60
Aluminum-based Metals/Alloys	0.22
Other Metals	0.22
Other Inorganic Materials	0.22
Cellulosics	0.22
Rubber	0.49
Plastics	0.22
Cements	0.00
Inorganic Matrix	233.00
Organic Matrix	0.22
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.06E+01
Np-237	6.27E-05
Pu-238	1.09E+01
Th-229	1.38E-12
Th-230	4.97E-08
U-233	2.46E-09
U-234	6.00E-04

Haz. Waste No(s).

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

No TRUCON Codes Provided**Waste Stream Description**

This waste stream consists of 10 drums of waste generated from removal of sludge from wastewater storage tanks utilized in the storage and handling of Reactor Technology Complex radioactive waste water.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **INW161.001-S****Appendix A****TRU Waste Inventory Profile Report**

Site	Idaho National Laboratory	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-INW161.001	19.1
Shipped Total		19.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.05
Aluminum-based Metals/Alloys	0.00
Other Metals	0.43
Other Inorganic Materials	247.58
Cellulosics	24.03
Rubber	0.00
Plastics	6.05
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.34E+00
Np-237	2.45E-06
Pu-238	2.74E-01
Pu-239	8.21E+00
Pu-240	1.86E+00
Pu-241	1.55E+01
Pu-242	1.84E-04
Th-229	5.71E-15
Th-230	9.89E-10
Th-232	4.90E-17
U-233	3.08E-11
U-234	2.07E-05
U-235	4.63E-06
U-236	3.31E-07
U-238	2.90E-07

Haz. Waste No(s).

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

No TRUCON Codes Provided**Waste Stream Description**

N/A

Waste Stream ID: **INW169.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5330	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-INW169.001	19.1
Shipped Total		19.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.24
Aluminum-based Metals/Alloys	0.05
Other Metals	3.52
Other Inorganic Materials	7.37
Cellulosics	130.27
Rubber	0.73
Plastics	7.38
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.46E-01
Np-237	4.58E-07
Pu-238	3.40E-02
Pu-239	1.03E+00
Pu-240	2.30E-01
Pu-241	2.17E+00
Pu-242	3.09E-05
Th-229	1.08E-15
Th-230	8.55E-10
Th-232	6.05E-18
U-233	5.80E-12
U-234	1.61E-05
U-235	3.78E-06
U-236	4.08E-08
U-238	2.29E-07

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **INW198.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5310	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-INW198.001	49.1
Shipped Total		49.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.17
Aluminum-based Metals/Alloys	0.00
Other Metals	2.55
Other Inorganic Materials	13.60
Cellulosics	0.44
Rubber	0.53
Plastics	86.81
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.26E-01
Np-237	2.32E-07
Pu-238	2.40E-02
Pu-239	7.70E-01
Pu-240	1.72E-01
Pu-241	1.47E+00
Pu-242	1.81E-05
Th-229	2.98E-09
Th-230	1.67E-10
Th-232	4.54E-18
U-233	5.30E-06
U-234	3.30E-06
U-235	7.30E-07
U-236	3.06E-08
U-238	1.20E-06

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **INW211.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Filter	Waste Matrix Code	S5410	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-INW211.001	299.9
55-gal Drum Dir Ld w/o Liner	WP-INW211.001	0.2
SWB w/ 4 - 55-gal Drums w/ Liners	WP-INW211.001	3.8
Shipped Total		303.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.05
Aluminum-based Metals/Alloys	8.60
Other Metals	0.41
Other Inorganic Materials	22.38
Cellulosics	136.35
Rubber	0.08
Plastics	7.29
Cements	0.00
Inorganic Matrix	0.01
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.50E+00
Np-237	4.59E-06
Pu-238	4.30E-01
Pu-239	1.20E+01
Pu-240	2.67E+00
Pu-241	2.91E+01
Pu-242	4.62E-04
Th-229	2.40E-08
Th-230	8.70E-10
Th-232	7.04E-17
U-233	4.26E-05
U-234	1.99E-05
U-235	3.17E-06
U-236	4.75E-07
U-238	4.84E-06

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **INW216.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-INW216.001	1227.4
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	WP-INW216.001	0.6
SWB Dir Ld w/o Liner	WP-INW216.001	11.3
SWB w/ 4 - 55-gal Drums w/ Liners	WP-INW216.001	5.7
Shipped Total		1245.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.01
Aluminum-based Metals/Alloys	0.00
Other Metals	0.08
Other Inorganic Materials	12.65
Cellulosics	0.19
Rubber	0.01
Plastics	0.53
Cements	0.00
Inorganic Matrix	829.38
Organic Matrix	0.18
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.57E+01
Np-237	1.04E-04
Pu-238	8.87E-02
Pu-239	2.62E+00
Pu-240	5.88E-01
Pu-241	5.94E+00
Pu-242	9.49E-05
Th-229	1.77E-08
Th-230	3.15E-08
Th-232	2.11E-17
U-233	2.69E-05
U-234	5.01E-04
U-235	8.28E-05
U-236	1.22E-07
U-238	3.12E-03

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **INW218.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-INW218.001	833.0
SWB Dir Ld w/o Liner	WP-INW218.001	275.9
SWB w/ 4 - 55-gal Drums w/ Liners	WP-INW218.001	1.9
Shipped Total		1110.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.01
Other Inorganic Materials	16.30
Cellulosics	0.16
Rubber	0.01
Plastics	1.25
Cements	0.00
Inorganic Matrix	753.19
Organic Matrix	0.19
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.46E-01
Np-237	1.69E-06
Pu-238	1.48E-02
Pu-239	4.48E-01
Pu-240	1.00E-01
Pu-241	1.00E+00
Pu-242	1.53E-05
Th-229	6.58E-09
Th-230	5.24E-08
Th-232	3.59E-18
U-233	1.00E-05
U-234	8.32E-04
U-235	9.20E-05
U-236	2.08E-08
U-238	7.87E-03

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **INW222.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-INW222.001	65.1
Shipped Total		65.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.03
Other Inorganic Materials	0.76
Cellulosics	0.04
Rubber	0.00
Plastics	16.36
Cements	0.00
Inorganic Matrix	566.62
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.38E-01
Np-237	1.54E-06
Pu-238	1.50E-01
Pu-239	4.36E+00
Pu-240	9.80E-01
Pu-241	9.12E+00
Pu-242	1.14E-04
Th-229	3.61E-15
Th-230	7.81E-10
Th-232	2.59E-17
U-233	1.94E-11
U-234	1.58E-05
U-235	1.63E-06
U-236	1.74E-07
U-238	1.08E-04

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **INW243.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-INW243.001	73.8
55-gal Drum Dir Ld w/o Liner	WP-INW243.001	1.0
Shipped Total		74.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.37
Aluminum-based Metals/Alloys	0.01
Other Metals	11.00
Other Inorganic Materials	163.61
Cellulosics	0.58
Rubber	0.10
Plastics	23.80
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.01E+00
Np-237	2.20E-06
Pu-238	1.35E-01
Pu-239	3.16E+00
Pu-240	7.07E-01
Pu-241	6.98E+00
Pu-242	9.10E-05
Th-229	2.17E-08
Th-230	1.63E-09
Th-232	2.54E-17
U-233	3.30E-05
U-234	2.73E-05
U-235	6.00E-06
U-236	1.47E-07
U-238	4.24E-06

Haz. Waste No(s).

D005, D008, D009,
D022, F001, F002,
F005No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **INW247.001R1-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-INW247.001R1	112.7
55-gal Drum Dir Ld w/o Liner	WP-INW247.001R1	4.2
Shipped Total		116.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.15
Aluminum-based Metals/Alloys	0.00
Other Metals	0.01
Other Inorganic Materials	233.57
Cellulosics	19.55
Rubber	0.00
Plastics	1.28
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.58E-01
Np-237	1.61E-06
Pu-238	2.06E-01
Pu-239	3.55E+00
Pu-240	8.10E-01
Pu-241	8.15E+00
Pu-242	6.77E-05
Th-229	4.23E-08
Th-230	1.46E-10
Th-232	2.91E-17
U-233	6.45E-05
U-234	4.40E-06
U-235	7.58E-08
U-236	1.68E-07
U-238	7.16E-14

Haz. Waste No(s).

D008, F001, F002

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **INW252.001-S****Appendix A****TRU Waste Inventory Profile Report**

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5311	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-INW252.001	60.9
Shipped Total		60.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	207.33
Other Inorganic Materials	4.03
Cellulosics	0.10
Rubber	208.17
Plastics	3.38
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.15E-01
Np-237	1.62E-06
Pu-238	1.94E-01
Pu-239	4.95E+00
Pu-240	1.12E+00
Pu-241	1.58E+01
Pu-242	1.12E-04
Th-229	3.72E-15
Th-230	7.74E-10
Th-232	2.96E-17
U-233	2.02E-11
U-234	1.60E-05
U-235	3.72E-06
U-236	2.00E-07
U-238	1.01E-13

Haz. Waste No(s).

D008, D022, F001, F002, F003, F005, F006, F007, F009

No TRUCON Codes Provided**Waste Stream Description**

N/A

Waste Stream ID: **INW276.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5126	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-INW276.001	10.2
Shipped Total		10.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	329.28
Cellulosics	4.61
Rubber	0.00
Plastics	3.73
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.55E-01
Np-237	1.72E-06
Pu-238	2.22E-01
Pu-239	3.12E+00
Pu-240	7.11E-01
Pu-241	7.23E+00
Pu-242	6.42E-05
Th-229	1.29E-14
Th-230	3.64E-10
Th-232	6.30E-17
U-233	3.86E-11
U-234	7.25E-06
U-235	5.94E-08
U-236	2.32E-07
U-238	1.07E-13

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **INW276.002-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5126	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-INW276.002	16.0
Shipped Total		16.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	320.62
Cellulosics	8.74
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.56E-01
Np-237	1.59E-06
Pu-238	2.14E-01
Pu-239	2.98E+00
Pu-240	6.79E-01
Pu-241	7.22E+00
Pu-242	6.13E-05
Th-229	4.27E-08
Th-230	3.05E-10
Th-232	4.97E-17
U-233	4.56E-05
U-234	6.50E-06
U-235	7.69E-08
U-236	2.01E-07
U-238	9.25E-14

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **INW276.003-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5126	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-INW276.003	182.6
55-gal Drum Dir Ld w/o Liner	WP-INW276.003	4.0
Shipped Total		186.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.04
Aluminum-based Metals/Alloys	0.00
Other Metals	0.04
Other Inorganic Materials	329.25
Cellulosics	8.62
Rubber	0.00
Plastics	1.35
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.77E+00
Np-237	4.13E-06
Pu-238	6.80E-01
Pu-239	9.25E+00
Pu-240	2.11E+00
Pu-241	2.51E+01
Pu-242	1.96E-04
Th-229	2.10E-07
Th-230	6.45E-10
Th-232	9.88E-17
U-233	2.79E-04
U-234	1.68E-05
U-235	2.83E-07
U-236	5.00E-07
U-238	6.00E-09

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **INW276.004-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5126	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-INW276.004	42.4
55-gal Drum Dir Ld w/o Liner	WP-INW276.004	4.4
Shipped Total		46.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.25
Aluminum-based Metals/Alloys	0.00
Other Metals	0.17
Other Inorganic Materials	327.99
Cellulosics	2.14
Rubber	0.00
Plastics	3.07
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.71E+00
Np-237	4.06E-06
Pu-238	5.67E-01
Pu-239	7.84E+00
Pu-240	1.79E+00
Pu-241	2.09E+01
Pu-242	1.63E-04
Th-229	7.27E-07
Th-230	6.95E-10
Th-232	8.38E-17
U-233	9.69E-04
U-234	1.62E-05
U-235	6.67E-07
U-236	4.24E-07
U-238	1.97E-13

Haz. Waste No(s).

D008, D029, D040,
F001, F002, F005**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **INW296.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Lead/Cadmium Metal Waste	Waste Matrix Code	S5112	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-INW296.001	93.2
55-gal Drum Dir Ld w/o Liner	WP-INW296.001	4.6
Shipped Total		97.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	5.43
Aluminum-based Metals/Alloys	0.39
Other Metals	220.74
Other Inorganic Materials	11.39
Cellulosics	0.93
Rubber	1.78
Plastics	4.31
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.59E+00
Np-237	3.46E-06
Pu-238	2.89E-01
Pu-239	5.25E+00
Pu-240	1.19E+00
Pu-241	1.22E+01
Pu-242	1.13E-04
Th-229	6.81E-08
Th-230	6.20E-10
Th-232	4.27E-17
U-233	1.04E-04
U-234	1.28E-05
U-235	1.59E-06
U-236	2.47E-07
U-238	4.05E-06

Haz. Waste No(s).

D006, D007, D008,
D009, D011, D028,
F001, F002, F003,
F005, F006, F007,
F009

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **IN-W315**

Appendix A

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3143	Handling	CH
Source Cat.	Pollution Control or Waste Treatment Process	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	EVAPORATOR SALTS	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	10.8	0.0	10.8
Box - Misc	3.2	0.0	3.2
Current Form Total	14.0	0.0	14.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.2	0.0	1.2
TDOP w/ 10 - 55-gal Drums w/ Liners	22.5	0.0	22.5
Final Form Total	23.7	0.0	23.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	330.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	226.49
Packaging Material, Plastic	18.15
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.29E+01
Np-237	3.93E-04
Pu-238	2.51E-02
Pu-239	8.23E-01
Pu-240	1.87E-01
Pu-241	1.99E+00
Pu-242	1.34E-05
Th-229	9.69E-12
Th-230	1.28E-10
Th-232	4.94E-17
U-233	1.63E-08
U-234	1.46E-06
U-235	1.54E-08
U-236	1.05E-07
U-238	3.84E-14

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

"Waste is generated at Rocky Flats Plant from aqueous waste treatment in building 774. Waste consists of a salt residue generated by Building 774 evaporator system from concentrating and drying liquid waste from the solar evaporation ponds. The approximate chemical makeup of the salt is 60% sodium nitrate, 30% potassium nitrate, and 10% miscellaneous. Wastes may also contain < 50% by volume surgeons' gloves, paper, rags, and metal debris. Portland cement was added to damp or wet salt when necessary.

The majority of salt drums in storage at the INEL should contain TRU activity concentration of <10 nCi/g TRU. ☐

Waste Stream ID: **KA-T001****Appendix A****TRU Waste Inventory Profile Report**

Site	Knolls Atomic Power Laboratory - Schenectady	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Transuranic Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
5-gal Can	2.0	4.9	6.9
Current Form Total	2.0	4.9	6.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	30.3	72.1	102.4
Final Form Total	30.3	72.1	102.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	98.20
Aluminum-based Metals/Alloys	0.60
Other Metals	0.10
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.30
Plastics	64.90
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.43E-04
Am-243	5.57E-07
Cm-244	1.27E-05
Cs-137	7.09E-01
Np-237	9.00E-06
Pu-238	2.86E-02
Pu-239	7.99E-05
Pu-240	2.00E-05
Pu-241	2.13E-03
Pu-242	7.63E-08
Pu-244	1.81E-14
Sr-90	6.72E-01
Th-229	1.25E-11
Th-230	1.74E-08
Th-232	4.38E-13
U-233	4.34E-09
U-234	5.14E-05
U-235	7.61E-07
U-236	7.22E-06
U-238	3.34E-09

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 325
Waste Stream Description

Organic and inorganic particulate and debris.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **KA-W016**

Appendix A

TRU Waste Inventory Profile Report

Site	Knolls Atomic Power Laboratory - Schenectady	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Transuranic Debris	Activity Concentrations		Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
5-gal Can	0.0	0.5	0.5
Current Form Total	0.0	0.5	0.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.0	8.0	8.0
Final Form Total	0.0	8.0	8.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	98.20
Aluminum-based Metals/Alloys	0.60
Other Metals	0.10
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.30
Plastics	64.90
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.43E-04
Am-243	5.57E-07
Cm-244	1.27E-05
Cs-137	7.09E-01
Np-237	9.00E-06
Pu-238	2.86E-02
Pu-239	7.99E-05
Pu-240	2.00E-05
Pu-241	2.13E-03
Pu-242	7.63E-08
Pu-244	1.81E-14
Sr-90	6.72E-01
Th-229	1.25E-11
Th-230	1.74E-08
Th-232	4.38E-13
U-233	4.34E-09
U-234	5.14E-05
U-235	7.61E-07
U-236	7.22E-06
U-238	3.34E-09

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D035, D039, D040, F001, F002, F003, F005

TRUCON Code(s)

325

Waste Stream Description

This transuranic mixed waste has not yet been generated. Waste will be segregated to the extent possible (considering ALARA) into inorganic, organic and heterogeneous waste streams and packaged separately. Details of waste characteristics will be developed upon generation. This waste stream will not be moratorium waste.

Waste Stream ID: **KN-B234TRU****Appendix A****TRU Waste Inventory Profile Report**

Site	Knolls Atomic Power Laboratory - Nuclear Fuel Services	Final Waste Form	Soils	Waste Matrix Code	S4200	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Building 234 TRU Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	198.8	0.0	198.8
Box - Crate	2.8	0.0	2.8
Current Form Total	201.6	0.0	201.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	201.8	0.0	201.8
Final Form Total	201.8	0.0	201.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	35.70
Aluminum-based Metals/Alloys	2.60
Other Metals	0.00
Other Inorganic Materials	33.60
Cellulosics	5.10
Rubber	0.30
Plastics	31.50
Cements	2270.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	1601.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.28E-01
Np-237	4.36E-07
Pu-238	2.57E-02
Pu-239	8.10E-01
Pu-240	8.09E-01
Pu-241	8.99E-01
Th-229	1.63E-06
Th-230	4.50E-04
Th-232	1.50E-04
U-233	2.90E-03
U-234	2.90E-03
U-235	5.50E-04
U-236	5.50E-04
U-238	7.10E-05

No Hazardous Waste Numbers Provided

TRUCON Code(s)

111/211, 125/225

Waste Stream Description

This waste is non-hazardous debris and soil from Building 234. All process equipment and glove boxes were removed in the early 1990s and are not part of this waste stream. The debris consists of concrete block, metal, PPE, plywood, plexiglass, plastic, HEPA filters, piping, duct work, glass, cheese cloth, paper, rubber and small tools.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **KN-B234TRU_SS****Appendix A****TRU Waste Inventory Profile Report**

Site	Knolls Atomic Power Laboratory - Nuclear Fuel Services	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3000	Handling	CH
Source Cat.	Pollution Control or Waste Treatment Process	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Building 234 TRU Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	118.6	0.0	118.6
Current Form Total	118.6	0.0	118.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	118.6	0.0	118.6
Final Form Total	118.6	0.0	118.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	1281.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.56E-02
Np-237	8.72E-08
Pu-238	5.15E-03
Pu-239	1.62E-01
Pu-240	1.62E-01
Pu-241	1.80E-01
Th-229	3.26E-07
Th-230	9.00E-05
Th-232	3.00E-05
U-233	5.80E-04
U-234	5.80E-04
U-235	1.10E-04
U-236	1.10E-04
U-238	1.42E-05

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 111/211
Waste Stream Description

This waste is non hazardous solidified sludge/residue from ground water management processing system.

Waste Stream ID: **LA-CIN01.001****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Cemented TRU Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum w/ 1 - 55-gal Drum w/ Liner	2.9	0.0	2.9
55-gal Drum Dir Ld w/ Liner	390.4	0.0	390.4
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	235.1	0.0	235.1
Cask - Misc w/ 1 - 30-gal Drum	0.4	0.0	0.4
Other	0.6	0.0	0.6
Current Form Total	629.4	0.0	629.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	544.1	0.0	544.1
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Final Form Total	546.0	0.0	546.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	33.31
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	5.92
Cements	932.02
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.88
Packaging Material, Plastic	36.88
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.54E+01
Am-243	7.30E-04
Cs-137	1.97E-09
Np-237	4.42E-04
Pu-238	1.89E+00
Pu-239	1.66E+01
Pu-240	4.44E+00
Pu-241	2.17E+01
Pu-242	6.76E-03
Pu-244	5.51E-09
Sr-90	1.93E-09
Th-229	4.80E-07
Th-230	1.31E-07
Th-232	4.22E-06
U-233	1.77E-04
U-234	5.85E-04
U-235	1.79E-05
U-236	4.54E-06
U-238	6.17E-04

Haz. Waste No(s).

D006, D007, D008, D009, D011, D019, D021, D039, F001, F002, F003

TRUCON Code(s)

111/211, 114/214, 126/226

Waste Stream Description

Cemented TRU waste is generated by or originated from materials used during recovery, fabrication, R&D, and associated maintenance operations.

Waste Stream ID: **LA-CIN02.001****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3120	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Radioactive Aqueous Liquid Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum w/ 1 - 55-gal Drum w/ Liner	5.0	0.0	5.0
55-gal Drum Dir Ld w/ Liner	68.0	0.0	68.0
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	123.3	0.0	123.3
Current Form Total	196.3	0.0	196.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	150.4	0.0	150.4
Final Form Total	150.4	0.0	150.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	1.07
Cements	0.00
Inorganic Matrix	1070.46
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.08E+00
Am-243	6.23E-06
Cs-137	6.94E-04
Np-237	4.49E-05
Pu-238	3.42E-01
Pu-239	4.33E+00
Pu-240	1.17E-01
Pu-241	2.81E-01
Pu-242	1.93E-05
Sr-90	1.77E-05
Th-229	3.61E-07
Th-230	3.92E-08
Th-232	7.21E-17
U-233	1.33E-04
U-234	1.65E-04
U-235	1.99E-05
U-236	1.01E-07
U-238	1.27E-07

Haz. Waste No(s).

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

TRUCON Code(s)

111/211, 114/214, 125/225

Waste Stream Description

Generation during the pretreatment of radioactive aqueous liquid waste that was piped to TA-50 from TA-55

Waste Stream ID: **LA-CIN02.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-LA-CIN02.001	1.2
55-gal Drum Dir Ld w/o Liner	WP-LA-CIN02.001	15.6
TDOP w/ 10 - 55-gal Drums w/o Liners	WP-LA-CIN02.001	4.5
Shipped Total		21.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	975.69
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.55E+00
Am-243	1.04E-04
Cs-137	2.29E-05
Np-237	2.50E-04
Pu-238	9.96E-01
Pu-239	4.06E+00
Pu-240	1.24E+00
Pu-241	1.21E+01
Pu-242	3.39E-04
Sr-90	2.29E-05
Th-229	5.08E-14
Th-230	1.14E-09
Th-232	9.07E-19
U-233	1.08E-09
U-234	1.28E-04
U-235	3.11E-06
U-236	3.67E-08
U-238	5.12E-14

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **LA-LAMHD02238**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	MIXED HETEROGENEOUS DEBRIS WASTE, PU-238			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	38.3	38.5
Current Form Total	0.2	38.3	38.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	38.3	38.5
Final Form Total	0.2	38.3	38.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.68
Aluminum-based Metals/Alloys	0.00
Other Metals	0.08
Other Inorganic Materials	0.44
Cellulosics	0.06
Rubber	0.08
Plastics	0.26
Cements	0.00
Inorganic Matrix	0.01
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.16E-04
Pu-238	2.85E-01
Pu-239	1.71E-04
Pu-240	8.74E-05
Pu-241	6.40E-03
Pu-242	7.02E-08

Haz. Waste No(s).

D005, D006, D007, D008, D009, D010, D011
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TRUCON Code(s)

125/225

Waste Stream Description

MIXED HETEROGENEOUS DEBRIS WASTE, PU-238

Waste Stream ID: **LA-LAMHD03DD****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	REPACKAGED INTO THIS WASTE STREAM ARE FRP 55196, FRP 55194 AND PART OF B-25. Non-Plutonium Metals			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	4.89
Aluminum-based Metals/Alloys	0.00
Other Metals	1.60
Other Inorganic Materials	7.76
Cellulosics	6.25
Rubber	0.63
Plastics	18.35
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.12
Vitrified	0.00
Packaging Material, Steel	211.10
Packaging Material, Plastic	16.30
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.23E-04
Np-237	7.22E-10
Pu-238	1.71E-02
Pu-239	9.34E-03
Pu-241	1.83E-02
Th-229	1.09E-18
Th-230	5.60E-12
U-233	7.24E-15
U-234	2.48E-07
U-235	4.61E-11

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225
Waste Stream Description

REPACKAGED INTO THIS WASTE STREAM ARE FRP 55196, FRP 55194 AND PART OF B-25. Non-Plutonium Metals

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-LAMINO4S**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3120	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	INORGANIC HOMOGENEOUS WASTE			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.2	33.1	34.3
55-gal POC - 12" w/ Liner	1.2	0.0	1.2
Current Form Total	2.5	33.1	35.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.2	33.1	34.3
55-gal POC - 12" w/ Liner	1.2	0.0	1.2
Final Form Total	2.5	33.1	35.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.69
Aluminum-based Metals/Alloys	0.00
Other Metals	0.04
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.36
Cements	0.00
Inorganic Matrix	2.19
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	144.72
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	4.82
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.81E+00
Np-237	2.31E-06
Pu-238	1.24E-01
Pu-239	1.96E+00
Pu-240	6.19E-01
Pu-241	1.13E+01
Pu-242	1.06E-04
Th-229	2.42E-15
Th-230	2.58E-11
Th-232	7.25E-18
U-233	1.94E-11
U-234	1.43E-06
U-235	7.75E-09
U-236	7.34E-08
U-238	6.40E-14

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005

TRUCON Code(s)

124/224

Waste Stream Description

INORGANIC HOMOGENEOUS WASTE

Waste Stream ID: **LA-LA-NCD01****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Non-Mixed Combustible Debris Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	45.6	46.0
55-gal POC - 12" w/ Liner	0.2	0.0	0.2
Current Form Total	0.6	45.6	46.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	45.6	46.0
55-gal POC - 12" w/ Liner	0.2	0.0	0.2
Final Form Total	0.6	45.6	46.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.43
Aluminum-based Metals/Alloys	0.00
Other Metals	0.05
Other Inorganic Materials	0.28
Cellulosics	0.04
Rubber	0.05
Plastics	0.17
Cements	0.00
Inorganic Matrix	0.01
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	132.59
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.62
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.19E-02
Np-237	6.59E-08
Pu-238	3.32E-03
Pu-239	1.18E-01
Pu-240	2.80E-02
Pu-241	3.19E-01
Pu-242	1.58E-06
Th-229	1.08E-16
Th-230	1.09E-12
Th-232	5.12E-19
U-233	6.95E-13
U-234	4.80E-08
U-235	3.06E-07
U-236	4.15E-09
U-238	3.02E-09

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225
Waste Stream Description

Non-Mixed Combustible Debris Waste

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-LANHD02238**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	NON-MIXED HETEROGENEOUS DEBRIS WASTE, PU238			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.7	234.4	236.1
Current Form Total	1.7	234.4	236.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.7	234.4	236.1
Final Form Total	1.7	234.4	236.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.07
Aluminum-based Metals/Alloys	0.00
Other Metals	0.01
Other Inorganic Materials	0.04
Cellulosics	0.01
Rubber	0.01
Plastics	0.02
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.56E-03
Np-237	6.02E-09
Pu-238	1.78E+00
Pu-239	1.20E-03
Pu-240	6.14E-04
Pu-241	2.19E-02
Pu-242	4.94E-07
Th-229	7.76E-17
Th-230	5.54E-09
Th-232	1.01E-19
U-233	1.76E-13
U-234	8.06E-05
U-235	1.78E-11
U-236	2.73E-10
U-238	1.12E-15

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225

Waste Stream Description

NON-MIXED HETEROGENEOUS DEBRIS WASTE, PU238

Waste Stream ID: **LA-LANINO3NC**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Salt Waste	Waste Matrix Code	S3140	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	NON-CEMENTED SOLID INORGANIC (HOMOGENEOUS)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.5	115.2	117.7
55-gal POC - 12" w/ Liner	1.5	0.0	1.5
Current Form Total	4.0	115.2	119.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.5	115.2	117.7
55-gal POC - 12" w/ Liner	1.5	0.0	1.5
Final Form Total	4.0	115.2	119.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.60
Aluminum-based Metals/Alloys	0.00
Other Metals	0.07
Other Inorganic Materials	0.39
Cellulosics	0.05
Rubber	0.07
Plastics	0.23
Cements	0.00
Inorganic Matrix	0.01
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	135.65
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	1.68
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.29E-01
Np-237	9.34E-07
Pu-238	3.33E-02
Pu-239	1.02E+00
Pu-240	2.53E-01
Pu-241	3.26E+00
Pu-242	1.87E-05
Th-229	9.85E-16
Th-230	6.94E-12
Th-232	2.96E-18
U-233	7.89E-12
U-234	3.84E-07
U-235	4.04E-09
U-236	3.00E-08
U-238	1.13E-14

Haz. Waste No(s).

D005, D006, D007,
D008, D009, D010,
D011

TRUCON Code(s)

122/222, 124/224

Waste Stream Description

NON-CEMENTED SOLID INORGANIC (HOMOGENEOUS)

Waste Stream ID: **LA-MHD01.001****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Debris waste includes paper, rags, plastic, rubber, wood-based HEPA filters			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum w/ 1 - 55-gal Drum w/ Liner	1.2	0.0	1.2
55-gal Drum Dir Ld w/ Liner	1051.2	28.1	1079.3
55-gal POC - 12" w/ Liner	41.2	0.0	41.2
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	709.4	0.0	709.4
Box - Crate	1.6	0.0	213.0
Box - FRP	0.1	0.0	170.8
Other	0.7	0.0	531.1
SWB w/ 4 - 55-gal Drums w/ Liners	187.1	0.0	187.1
Current Form Total	2905.0	28.1	2933.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1510.3	28.1	1538.4
55-gal POC - 12" w/ Liner	41.2	0.0	41.2
SWB Dir Ld w/ Liner	918.5	0.0	918.5
SWB w/ 4 - 55-gal Drums w/ Liners	187.1	0.0	187.1
Final Form Total	2657.1	28.1	2685.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	81.50
Aluminum-based Metals/Alloys	0.33
Other Metals	9.77
Other Inorganic Materials	52.86
Cellulosics	6.75
Rubber	10.12
Plastics	31.21
Cements	0.00
Inorganic Matrix	1.30
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	150.24
Packaging Material, Plastic	23.31
Packaging Material, Cellulosics	2.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.78E+00
Am-243	5.19E-05
Cm-244	3.76E-04
Cs-137	4.05E-07
Np-237	3.75E-05
Pu-238	5.96E+00
Pu-239	7.05E+00
Pu-240	1.84E+00
Pu-241	7.45E+00
Pu-242	3.65E-03
Pu-244	2.75E-09
Sr-90	3.97E-07
Th-229	3.80E-07
Th-230	1.55E-07
Th-232	4.07E-11
U-233	1.38E-04
U-234	8.58E-04
U-235	2.23E-06
U-236	1.67E-06
U-238	2.75E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005

TRUCON Code(s)

111/211, 114/214, 115/215, 116/216, 117/217, 118/218, 119/219, 122/222, 123/223, 124/224, 125/225, 130/230

Waste Stream Description

Debris waste includes paper, rags, plastic, rubber, wood-based HEPA filters

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-MHD01.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-LA-MHD01.001	246.5
55-gal Drum Dir Ld w/o Liner	WP-LA-MHD01.001	347.6
55-gal POC - 12" w/ Liner	WP-LA-MHD01.001	3.5
SWB w/ 4 - 55-gal Drums w/ Liners	WP-LA-MHD01.001	621.8
SWB w/ 4 - 55-gal Drums w/o Liners	WP-LA-MHD01.001	189.0
Shipped Total		1408.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	60.00
Aluminum-based Metals/Alloys	0.18
Other Metals	6.10
Other Inorganic Materials	28.18
Cellulosics	7.72
Rubber	7.61
Plastics	25.38
Cements	0.00
Inorganic Matrix	0.53
Organic Matrix	0.02
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.10E+00
Am-243	6.60E-04
Cm-244	3.15E-03
Cs-137	9.91E-07
Np-237	1.57E-04
Pu-238	3.21E+01
Pu-239	8.45E+00
Pu-240	2.25E+00
Pu-241	2.12E+01
Pu-242	1.95E-03
Sr-90	6.78E-04
Th-229	8.39E-08
Th-230	6.11E-06
Th-232	3.21E-09
U-233	4.47E-04
U-234	5.23E-03
U-235	3.48E-06
U-236	1.33E-07
U-238	4.55E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-MHD02.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-LA-MHD02.001	5.0
55-gal Drum Dir Ld w/o Liner	WP-LA-MHD02.001	8.5
Shipped Total		13.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	78.72
Aluminum-based Metals/Alloys	0.00
Other Metals	3.17
Other Inorganic Materials	17.11
Cellulosics	3.40
Rubber	25.27
Plastics	31.33
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.33E-01
Am-243	2.96E-06
Cs-137	1.72E-07
Np-237	6.21E-06
Pu-238	1.30E+02
Pu-239	1.03E-01
Pu-240	5.19E-02
Pu-241	4.57E-01
Pu-242	5.31E-05
Sr-90	1.72E-07
Th-229	3.55E-11
Th-230	4.48E-07
Th-232	1.52E-19
U-233	1.89E-07
U-234	2.53E-02
U-235	4.70E-08
U-236	3.08E-09
U-238	1.60E-14

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-MHD03.001****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	MIXED HETEROGENEOUS DEBRIS WASTE, D&D, COMBUSTIBLE/NON COMBUSTIBLE			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.8	0.0	0.8
30-gal Drum	4.5	0.0	4.5
55-gal Drum Dir Ld w/ Liner	217.6	0.0	217.6
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	104.3	0.0	104.3
Box - Cardboard	0.0	0.0	0.0
Cask - Misc w/ 1 - 30-gal Drum	0.8	0.0	0.8
Other	0.0	0.0	15.4
SWB w/ 4 - 55-gal Drums w/ Liners	73.7	0.0	73.7
Current Form Total	417.2	0.0	417.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	290.6	0.0	290.6
SWB Dir Ld w/ Liner	17.0	0.0	17.0
SWB w/ 4 - 55-gal Drums w/ Liners	73.7	0.0	73.7
Final Form Total	381.3	0.0	381.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	26.57
Aluminum-based Metals/Alloys	0.00
Other Metals	8.69
Other Inorganic Materials	42.15
Cellulosics	33.95
Rubber	3.44
Plastics	99.68
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.67
Vitrified	0.00
Packaging Material, Steel	147.34
Packaging Material, Plastic	31.40
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.91E-01
Am-243	1.08E-04
Cm-244	1.47E-01
Cs-137	2.24E-03
Np-237	1.88E-04
Pu-238	1.70E+00
Pu-239	9.55E-01
Pu-240	2.24E-01
Pu-241	1.14E+00
Pu-242	3.35E-04
Pu-244	1.37E-10
Sr-90	2.31E-03
Th-229	4.24E-09
Th-230	4.46E-08
Th-232	2.88E-11
U-233	2.27E-08
U-234	2.50E-04
U-235	2.15E-05
U-236	4.40E-07
U-238	3.34E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D026, D027, D028, D029, D030, D035, D036, D037, D038, D039, D040, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

116/216, 117/217, 118/218, 119/219, 125/225

Waste Stream Description

MIXED HETEROGENEOUS DEBRIS WASTE, D&D, COMBUSTIBLE/NON COMBUSTIBLE

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-MHD03.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-LA-MHD03.001	5.6
55-gal Drum Dir Ld w/o Liner	WP-LA-MHD03.001	223.4
SWB w/ 4 - 55-gal Drums w/ Liners	WP-LA-MHD03.001	3.8
SWB w/ 4 - 55-gal Drums w/o Liners	WP-LA-MHD03.001	13.2
Shipped Total		246.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	13.45
Aluminum-based Metals/Alloys	0.12
Other Metals	1.47
Other Inorganic Materials	26.01
Cellulosics	20.37
Rubber	1.56
Plastics	56.07
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.30E-01
Am-243	1.22E-04
Cm-244	2.51E-03
Cs-137	2.28E-05
Np-237	6.84E-05
Pu-238	6.03E+00
Pu-239	7.25E-01
Pu-240	1.95E-01
Pu-241	2.49E+00
Pu-242	8.12E-05
Sr-90	2.26E-05
Th-229	1.08E-08
Th-230	1.60E-08
Th-232	5.71E-19
U-233	5.78E-05
U-234	9.04E-04
U-235	6.57E-07
U-236	1.16E-08
U-238	1.10E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D026, D027, D028, D029, D030, D035, D036, D037, D038, D039, D040, D043, F001, F002, F004, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **LA-MHD04.001****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Mixed heterogeneous combustible and noncombustible debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.4	0.0	0.4
30-gal Drum	0.1	0.0	0.1
55-gal Drum Dir Ld w/ Liner	3.1	0.0	3.1
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	6.1	0.0	6.1
Box - Crate	0.6	0.0	737.8
Box - FRP	1.6	0.0	397.5
Other	12.7	0.0	145.3
SWB w/ 4 - 55-gal Drums w/ Liners	17.0	0.0	17.0
Current Form Total	1307.4	0.0	1307.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	7.7	0.0	7.7
SWB Dir Ld w/ Liner	1279.5	0.0	1279.5
SWB w/ 4 - 55-gal Drums w/ Liners	17.0	0.0	17.0
Final Form Total	1304.2	0.0	1304.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	24.90
Aluminum-based Metals/Alloys	9.49
Other Metals	19.09
Other Inorganic Materials	5.43
Cellulosics	16.18
Rubber	12.50
Plastics	9.30
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	154.12
Packaging Material, Plastic	1.61
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.09E-03
Am-243	2.49E-09
Cs-137	3.64E-10
Np-237	2.99E-07
Pu-238	1.84E+00
Pu-239	3.15E-01
Pu-240	4.57E-03
Pu-241	2.15E-02
Pu-242	6.40E-07
Pu-244	1.34E-07
Sr-90	2.29E-09
Th-229	1.27E-11
Th-230	3.37E-08
Th-232	3.88E-18
U-233	4.01E-09
U-234	2.07E-04
U-235	4.28E-08
U-236	4.61E-09
U-238	1.04E-09

Haz. Waste No(s).D004, D006, D007,
D008, D009, F001,
F002**TRUCON Code(s)**

117/217, 125/225

Waste Stream Description

Mixed heterogeneous combustible and noncombustible debris

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-MHD04.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-LA-MHD04.001	0.4
55-gal Drum Dir Ld w/o Liner	WP-LA-MHD04.001	0.6
SWB w/ 4 - 55-gal Drums w/o Liners	WP-LA-MHD04.001	3.8
Shipped Total		4.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	29.83
Aluminum-based Metals/Alloys	0.19
Other Metals	0.10
Other Inorganic Materials	6.78
Cellulosics	6.20
Rubber	3.32
Plastics	7.10
Cements	0.00
Inorganic Matrix	0.04
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.25E-01
Am-243	3.55E-05
Cs-137	3.64E-08
Np-237	6.98E-05
Pu-238	9.46E+01
Pu-239	1.34E-01
Pu-240	5.40E-02
Pu-241	5.11E-01
Pu-242	4.39E-05
Sr-90	3.64E-08
U-234	1.47E-02

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **LA-MHD08.001****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Heterogeneous Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	10.0	0.0	10.0
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
Box - Cardboard	0.0	0.0	0.0
Current Form Total	10.4	0.0	10.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	10.2	0.0	10.2
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Final Form Total	12.1	0.0	12.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	4.88
Aluminum-based Metals/Alloys	0.00
Other Metals	1.62
Other Inorganic Materials	7.86
Cellulosics	6.31
Rubber	0.64
Plastics	18.57
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	134.35
Packaging Material, Plastic	31.40
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.27E-02
Am-243	1.12E-03
Cm-244	1.00E-01
Cs-137	4.67E-05
Np-237	2.65E-04
Pu-238	4.69E-02
Pu-239	9.35E-02
Pu-240	2.01E-02
Pu-241	1.93E-01
Pu-242	8.35E-03
Pu-244	8.77E-06
Sr-90	2.03E-05
Th-232	9.10E-09
U-233	7.53E-04
U-234	1.60E-06
U-235	3.66E-13
U-238	5.63E-06

Haz. Waste No(s).

D008, D011

TRUCON Code(s)111/211, 116/216,
125/225**Waste Stream Description**

Consists of mixed heterogeneous combustible and non-combustible debris generated during plutonium and uranium R&D processes in the Alpha Facility

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-MIN02-V.001****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3110	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Mixed Inorganic Homogeneous Waste, Organics on Vermiculite.			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	9.2	6.4	15.6
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	1.3	0.0	1.3
SWB w/ 4 - 55-gal Drums w/ Liners	1.9	0.0	1.9
Current Form Total	12.3	6.4	18.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	10.0	6.4	16.4
SWB w/ 4 - 55-gal Drums w/ Liners	1.9	0.0	1.9
Final Form Total	11.9	6.4	18.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	7.09
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	2.61
Cellulosics	0.00
Rubber	0.00
Plastics	11.11
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	56.53
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	139.08
Packaging Material, Plastic	34.86
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.86E-01
Am-243	7.53E-06
Cs-137	2.33E-08
Np-237	2.80E-06
Pu-238	2.27E+00
Pu-239	1.41E+00
Pu-240	3.52E-01
Pu-241	4.75E+00
Pu-242	2.62E-05
Sr-90	2.33E-08
U-234	6.77E-05
U-235	1.74E-06
U-238	6.82E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005

TRUCON Code(s)

112/212

Waste Stream Description

Mixed Inorganic Homogeneous Waste, Organics on Vermiculite.

Waste Stream ID: **LA-MIN03-NC.001****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3120	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	MIXED INORGANIC HOMOGENEOUS WASTE, NONCEMENTED			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.4	0.0	0.4
55-gal Drum Dir Ld w/ Liner	309.3	0.0	309.3
55-gal POC - 12" w/ Liner	0.2	0.0	0.2
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	294.6	0.0	294.6
Current Form Total	604.6	0.0	604.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	500.0	0.0	500.0
55-gal POC - 12" w/ Liner	0.2	0.0	0.2
Final Form Total	500.2	0.0	500.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.09
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.08
Cellulosics	0.00
Rubber	0.00
Plastics	4.61
Cements	0.00
Inorganic Matrix	865.05
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.96
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.06
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.78E-01
Am-243	1.41E-05
Cs-137	5.99E-06
Np-237	1.82E-06
Pu-238	4.87E-02
Pu-239	2.92E-01
Pu-240	2.13E-02
Pu-241	8.61E-01
Pu-242	6.22E-06
Sr-90	6.00E-06
Th-229	6.57E-08
Th-230	3.61E-09
Th-232	1.40E-19
U-233	5.32E-06
U-234	6.59E-05
U-235	1.72E-06
U-236	1.89E-09
U-238	1.73E-06

Haz. Waste No(s).D005, D006, D007,
D008, D009, D010,
D011, F001, F002**TRUCON Code(s)**

111/211, 122/222

Waste Stream Description

MIXED INORGANIC HOMOGENEOUS WASTE, NONCEMENTED

Waste Stream ID: **LA-MIN03-NC.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3120	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-LA-MIN03-NC.001	505.0
55-gal Drum Dir Ld w/o Liner	WP-LA-MIN03-NC.001	0.4
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	WP-LA-MIN03-NC.001	0.3
SWB w/ 4 - 55-gal Drums w/ Liners	WP-LA-MIN03-NC.001	22.7
Shipped Total		528.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	2.30
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.33
Cellulosics	0.00
Rubber	0.00
Plastics	5.45
Cements	0.00
Inorganic Matrix	723.11
Organic Matrix	3.31
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.47E-01
Am-243	4.67E-06
Cs-137	1.04E-04
Np-237	6.15E-06
Pu-238	2.02E-02
Pu-239	3.49E-01
Pu-240	4.97E-02
Pu-241	7.99E-01
Pu-242	3.29E-05
Sr-90	9.04E-05
Th-229	7.20E-14
Th-230	9.80E-10
Th-232	1.46E-19
U-233	4.10E-10
U-234	5.46E-05
U-235	1.37E-06
U-236	2.95E-09
U-238	1.22E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D028, D037, F001, F002, F004, F005, F006, F007, F009

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **LA-OS-00-01.001****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111	Handling	CH
Source Cat.	Discarding Excess/Expired Materials	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Metal debris from Off-Site Source Recovery (OSR) project (non-mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal POC - 12" w/ Liner	11.2	0.0	11.2
55-gal POC - 6" w/ Liner	116.7	0.0	116.7
Current Form Total	127.9	0.0	127.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal POC - 12" w/ Liner	11.2	0.0	11.2
55-gal POC - 6" w/ Liner	116.7	0.0	116.7
Final Form Total	127.9	0.0	127.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.09
Cements	0.00
Inorganic Matrix	17.52
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	338.85
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	206.92
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.06E+02
Cs-137	2.92E-02
Np-237	2.75E-04
Pu-238	2.01E+01
Pu-239	2.19E-05
Pu-240	5.17E-06
Pu-241	4.03E-05
Pu-242	2.93E-10
Th-229	1.19E-12
Th-230	1.71E-08
Th-232	2.43E-22
U-233	4.75E-09
U-234	4.71E-04
U-235	1.72E-13
U-236	1.23E-12
U-238	3.54E-19

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Off-Site Source Recovery (OSR) sealed sources are radionuclide (actinide) solids (e.g., Am, Pu, AmBe, or PuBe) that are encapsulated in metal jackets. The actinides are either metal or metal oxides.

Waste Stream ID: **LA-OS-00-01.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5100	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	WP-LA-OS-00-01.001	62.2
55-gal S100 POC - 6" w/ Liner	WP-LA-OS-00-01.001	27.9
Shipped Total		90.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	20.38
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.16E+01
Cs-137	1.66E-03
Np-237	7.52E-06
Pu-238	7.78E+01
Pu-239	7.74E+00
Pu-240	2.32E+00
Pu-241	7.21E+00
Pu-242	6.37E-04
Sr-90	2.01E-02
Th-229	7.81E-13
Th-230	1.27E-07
Th-232	6.80E-18
U-233	4.19E-09
U-234	7.26E-03
U-235	3.37E-07
U-236	1.38E-07
U-238	1.10E-08

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **LA-OS-00-01-S****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5100	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/o Liner	WP-LA-OS-00-01	0.4
Shipped Total		0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	130.77
Aluminum-based Metals/Alloys	0.00
Other Metals	0.96
Other Inorganic Materials	0.00
Cellulosics	137.50
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.33E+00
Cs-137	6.04E-04
Np-237	4.06E-05
Pu-238	4.13E+00
Pu-239	1.15E+01
Pu-240	1.17E+01
Pu-241	1.28E+01
Pu-242	2.32E-04
Sr-90	5.64E-04
Th-229	2.35E-13
Th-230	2.24E-01
Th-232	3.08E-16
U-233	8.86E-10
U-234	7.20E-05
U-235	6.80E-08
U-236	2.08E-06
U-238	2.10E-13

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **LA-OS-00-03****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111	Handling	CH
Source Cat.	Discarding Excess/Expired Materials	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Metal debris from Off-Site Source Recovery (OSR) project (non-mixed)				Activity Concentrations Decayed to CY	2008	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	14.6	0.0	14.6
Current Form Total	14.6	0.0	14.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	14.6	0.0	14.6
Final Form Total	14.6	0.0	14.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.10
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.09
Cellulosics	0.00
Rubber	0.00
Plastics	5.16
Cements	0.00
Inorganic Matrix	968.56
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.75E+00
Np-237	4.56E-06
Th-229	1.97E-14
U-233	7.85E-11

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Off-Site Source Recovery (OSR) sealed sources are radionuclide (actinide) solids (e.g., Am, Pu, AmBe, or PuBe) that are encapsulated in metal jackets. The actinides are either metal or metal oxides.

Waste Stream ID: **LA-PX-00-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5300	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Likely Defense-Related	Inventory Date	12/31/2008		
Stream Name	Combustible debris waste generated by PANTEX			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Current Form Total	0.6	0.0	0.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	45.52
Aluminum-based Metals/Alloys	6.44
Other Metals	12.13
Other Inorganic Materials	11.53
Cellulosics	40.73
Rubber	0.00
Plastics	33.39
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.72E-02
Np-237	6.18E-08
Pu-238	7.56E-03
Pu-239	8.92E-02
Pu-240	2.10E-02
Pu-241	1.21E-01
Th-229	5.73E-16
Th-230	1.48E-11
Th-232	2.21E-18
U-233	1.55E-12
U-234	2.70E-07
U-235	1.06E-09
U-236	7.47E-09

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 116/216

Waste Stream Description

Not provided

Waste Stream ID: **LA-TA-00-01****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Containers waiting assignment to waste streams			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	18.9	0.0	18.9
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	2.3	0.0	2.3
Box - Cardboard	0.2	0.0	0.2
Box - Crate	0.1	0.0	105.8
Other	0.0	0.0	8.5
Current Form Total	135.7	0.0	135.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	20.4	0.0	20.4
SWB Dir Ld w/ Liner	117.2	0.0	117.2
Final Form Total	137.6	0.0	137.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	34.03
Aluminum-based Metals/Alloys	0.00
Other Metals	11.13
Other Inorganic Materials	53.99
Cellulosics	43.49
Rubber	4.41
Plastics	127.68
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.85
Vitrified	0.00
Packaging Material, Steel	150.14
Packaging Material, Plastic	6.50
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.04E-01
Am-243	3.88E-10
Cm-244	1.60E-01
Cs-137	2.71E-09
Np-237	1.78E-05
Pu-238	2.88E-01
Pu-239	5.42E-01
Pu-240	8.86E-02
Pu-241	2.20E-01
Pu-242	4.99E-06
Sr-90	2.64E-09
Th-229	2.45E-09
Th-230	6.13E-09
Th-232	8.90E-17
U-233	7.08E-07
U-234	3.51E-05
U-235	1.98E-08
U-236	9.72E-08
U-238	5.93E-08

Haz. Waste No(s).

D008, F001, F002

**No TRUCON
Codes Provided****Waste Stream Description**

Miscellaneous Containers waiting assignment to waste streams

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-00-03****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	RH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Containers waiting assignment to waste streams	Activity Concentrations	Decayed to CY	2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Canister - (LANL-RH)	2.1	0.0	2.1
Current Form Total	2.1	0.0	2.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	2.7	0.0	2.7
Final Form Total	2.7	0.0	2.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.24
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.22
Cellulosics	0.00
Rubber	0.00
Plastics	12.97
Cements	0.00
Inorganic Matrix	2433.57
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	560.60
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-239	4.64E+00
U-235	1.69E-07

Haz. Waste No(s).

D008

**No TRUCON
Codes Provided****Waste Stream Description**

Miscellaneous Containers waiting assignment to waste streams

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-03-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Organics	Waste Matrix Code	S3200	Handling	CH
Source Cat.	Source Information Not Compiled	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Solidified Organics			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	33.80
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	12.42
Cellulosics	0.00
Rubber	0.00
Plastics	52.96
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	269.37
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.83E-01
Np-237	3.24E-05
Pu-238	2.47E-02
Pu-239	8.91E-01
Pu-240	2.11E-01
Pu-241	2.19E+00
Pu-242	1.20E-05
Th-229	3.17E-13
Th-230	1.60E-11
Th-232	7.59E-18
U-233	9.68E-10
U-234	5.03E-07
U-235	6.15E-09
U-236	4.39E-08
U-238	1.26E-14

Haz. Waste No(s).

D006, D008, D009,
D011, D019, D021,
F001, F002, F005

TRUCON Code(s)

112/212

Waste Stream Description

Solidified Organics

Waste Stream ID: **LA-TA-03-09**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Source Information Not Compiled	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	NonCombustible			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Other	11.3	0.0	11.3
Current Form Total	11.5	0.0	11.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
SWB Dir Ld w/ Liner	11.3	0.0	11.3
Final Form Total	11.5	0.0	11.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	10.32
Aluminum-based Metals/Alloys	0.00
Other Metals	3.38
Other Inorganic Materials	16.37
Cellulosics	13.19
Rubber	1.34
Plastics	38.73
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.26
Vitrified	0.00
Packaging Material, Steel	153.09
Packaging Material, Plastic	1.84
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.47E-02
Am-243	1.02E-05
Np-237	3.75E-07
Pu-238	6.00E-03
Pu-239	3.52E-02
Pu-240	8.36E-03
Pu-241	7.14E-02
Pu-242	4.73E-07
Th-229	8.36E-15
Th-230	9.82E-12
Th-232	7.41E-19
U-233	1.66E-11
U-234	1.96E-07
U-235	1.95E-06
U-236	2.73E-09
U-238	1.06E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D026, D027, D028, D029, D030, D035, D036, D037, D038, D039, D040, D043, F001, F002, F004, F005

TRUCON Code(s)

117/217, 125/225

Waste Stream Description

NonCombustible

Waste Stream ID: **LA-TA-03-10****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Source Information Not Compiled	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Combined Combustible and NonCombustible			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.0	41.2	45.1
Other	64.0	0.0	64.0
Current Form Total	68.0	41.2	109.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.0	41.2	45.1
SWB Dir Ld w/ Liner	64.3	0.0	64.3
Final Form Total	68.2	41.2	109.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.81
Aluminum-based Metals/Alloys	0.00
Other Metals	0.26
Other Inorganic Materials	1.28
Cellulosics	1.03
Rubber	0.10
Plastics	3.03
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.02
Vitrified	0.00
Packaging Material, Steel	144.13
Packaging Material, Plastic	15.97
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.84E-02
Am-243	3.09E-05
Np-237	4.57E-06
Pu-238	3.77E-01
Pu-239	2.44E-01
Pu-240	5.86E-02
Pu-241	6.25E-01
Pu-242	1.70E-04
Pu-244	2.24E-10
Th-229	5.77E-14
Th-230	3.22E-10
Th-232	2.75E-18
U-233	1.55E-10
U-234	8.84E-06
U-235	4.12E-07
U-236	1.39E-08
U-238	1.50E-06

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225
Waste Stream Description

Combined Combustible and NonCombustible

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-03-12****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Combustible debris waste from chemistry operations in wings 3, 5, and 7 of the CMR facility (mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	15.62
Aluminum-based Metals/Alloys	0.00
Other Metals	5.11
Other Inorganic Materials	24.78
Cellulosics	19.96
Rubber	2.02
Plastics	58.60
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.39
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.63E-02
Np-237	6.74E-07
Pu-238	2.00E-02
Pu-239	9.10E-01
Pu-240	2.13E-01
Pu-241	5.44E-01
Pu-242	1.23E-05
Th-229	3.85E-14
Th-230	4.26E-10
Th-232	2.14E-16
U-233	4.11E-11
U-234	2.44E-06
U-235	3.32E-08
U-236	2.34E-07
U-238	6.87E-14

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Combustible waste generated from facility and equipment operations and maintenance. This waste includes paper, rags, plastic, rubber, wood-based HEPA filters, and plastic-based and cellulose-based waste generated at the facility. Plastic-based waste includes, but may not be limited to, tape, polyethylene and vinyl; gloves; plastic vials; polystyrene; Tygon tubing; polyvinyl chloride plastic; Teflon products; Plexiglas; and dry box gloves (unleaded neoprene base). Cellulose-based waste includes, but may not be limited to, rags, wood, paper, cardboard, laboratory coats and coveralls, booties and cotton gloves, and similar materials. The waste stream may also contain a smaller fraction of non-combustible solids (e.g., scrap metal, crucibles, metal lids, zippers, discarded tools) and a small fraction of homogenous solids, salts, leached solids, ash, hydroxide cakes, crucibles, impure oxides.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-03-14**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Metals and Miscellaneous Equipment Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Crate	0.7	0.0	19.8
Current Form Total	19.8	0.0	19.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	20.8	0.0	20.8
Final Form Total	20.8	0.0	20.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	31.00
Aluminum-based Metals/Alloys	0.00
Other Metals	10.14
Other Inorganic Materials	49.17
Cellulosics	39.61
Rubber	4.02
Plastics	116.28
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.78
Vitrified	0.00
Packaging Material, Steel	153.50
Packaging Material, Plastic	1.20
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	1.31E-01
Pu-239	4.50E-02
Th-230	2.79E-09
U-234	1.60E-05
U-235	5.29E-06

Haz. Waste No(s).

D008

No TRUCON
Codes Provided

Waste Stream Description

Metals and Miscellaneous Equipment Debris

Waste Stream ID: **LA-TA-03-27****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Combined combustible and noncombustible debris waste (RH-TRU) of the CMR facility			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
1-gal Drum	0.0	0.0	0.0
2-gal Drum	0.4	0.0	0.4
Canister - (LANL-RH)	0.0	0.0	91.5
Current Form Total	91.9	0.0	91.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Fxd Lid - Dir Ld	15.1	0.0	15.1
RH Can w/ Remov Lid - Dir Ld	78.3	0.0	78.3
Final Form Total	93.5	0.0	93.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	699.72
Aluminum-based Metals/Alloys	2.83
Other Metals	83.87
Other Inorganic Materials	453.78
Cellulosics	57.91
Rubber	86.86
Plastics	267.91
Cements	0.00
Inorganic Matrix	11.15
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	540.05
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	75.12

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.40E-02
Cs-137	1.63E+01
Np-237	1.40E-07
Pu-238	1.35E-02
Pu-239	2.49E+00
Pu-240	2.70E-02
Pu-241	2.44E-01
Pu-242	1.63E-05
Sr-90	1.46E+01
Th-229	4.73E-15
Th-230	5.02E-09
Th-232	1.41E-16
U-233	6.53E-12
U-234	1.99E-05
U-235	9.96E-05
U-236	1.10E-07
U-238	4.38E-07

Haz. Waste No(s).

D008

TRUCON Code(s)

117/217

Waste Stream Description

Combined combustible and noncombustible debris waste (RH-TRU) from wing 9 of the CMR facility (mixed). Combined Combustible and non-combustible remote handled waste (RH-TRU). This waste stream contains both combustible and non-combustible waste that is classified as "remotely handled". Combustible waste is generated from facility and equipment operations and maintenance. Combustible waste includes paper, rags, plastic, rubber, and plastic-based and cellulose-based waste generated at the facility. Plastic based waste includes, but may not be limited to, tape, polyethylene, and vinyl; gloves; plastic vials; polystyrene; Tygon tubing; polyvinyl chloride plastic; Teflon products; plexiglass; and dry box gloves (unleaded Neoprene base). Cellulose-based waste includes, but may not be limited to rags, wood, paper, cardboard, laboratory coats and coveralls, booties and cotton gloves, and similar materials. Noncombustible scrap waste is also generated from facility and equipment operations and maintenance. Noncombustible waste includes items such as small tools, cans, small equipment items, and broken glass. This waste consists of glass waste including, but not limited to, discarded labware, windows, and bottles; metal waste including motors, pumps, tools, and process equipment; leaded rubber, and metal waste including lead-lined glovebox gloves discarded along with metal waste, such as motors and tools.

Waste Stream ID: **LA-TA-03-28****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3120	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Cement paste from CMR building (mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.7	0.0	3.7
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	3.2	0.0	3.2
Current Form Total	7.0	0.0	7.0

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	23.22
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	4.13
Cements	649.63
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.25E-02
Cs-137	9.42E-06
Np-237	8.70E-07
Pu-238	4.93E-01
Pu-239	6.49E-01
Pu-240	1.34E-01
Pu-241	5.11E-01
Pu-242	1.84E-05
Sr-90	9.20E-06
Th-229	1.02E-07
Th-230	2.57E-08
Th-232	1.13E-16
U-233	7.23E-11
U-234	1.10E-04
U-235	1.33E-06
U-236	1.35E-07
U-238	1.97E-05

Haz. Waste No(s).

D007, D019, F001, F002

TRUCON Code(s)

126/226

Waste Stream Description

Cement Past Solidified aqueous waste and cemented sludge generated from facility and equipment operations and maintenance. The sludge is a residue from numerous treatment and filtration operations involving aqueous liquid radioactive waste. This treatment produces a thin sludge (approximately 25 percent solids) that is alkaline and is compatible with Portland cement. Final cemented waste monoliths are produced by mixing the waste in 55-gallon steel drums containing empirically determined quantities of sludge, Portland cement, vermiculite, and sodium silicate.

Waste Stream ID: **LA-TA-03-30****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Organics	Waste Matrix Code	S3200	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Absorbed Organics on vermiculite (mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.1	0.0	0.1
SWB w/ 4 - 55-gal Drums w/ Liners	5.7	0.0	5.7
Current Form Total	5.8	0.0	5.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
SWB w/ 4 - 55-gal Drums w/ Liners	5.7	0.0	5.7
Final Form Total	5.9	0.0	5.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	12.46
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	4.58
Cellulosics	0.00
Rubber	0.00
Plastics	19.53
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	99.35
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	208.26
Packaging Material, Plastic	17.03
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.28E-03
Np-237	1.55E-07
Pu-238	9.05E-03
Pu-239	9.04E-03
Pu-240	2.11E-03
Pu-241	5.14E-03
Pu-242	1.22E-07
Th-229	2.58E-14
Th-230	1.60E-10
Th-232	1.79E-18
U-233	1.79E-11
U-234	1.00E-06
U-235	2.84E-08
U-236	2.13E-09
U-238	6.25E-16

Haz. Waste No(s).

D008, D009

TRUCON Code(s)

125/225

Waste Stream Description

Absorbed Organics on Vermiculite Organic liquids (solvents and oils) generated from facility and equipment operations and maintenance and absorbed on vermiculite.

Waste Stream ID: **LA-TA-03-31****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Cemented inorganics, leached process solids (mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	37.34
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	6.64
Cements	1044.62
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.42E-01
Np-237	1.97E-06
Pu-238	1.40E-01
Pu-239	5.71E+00
Pu-240	1.33E+00
Pu-241	6.69E+00
Pu-242	7.72E-05
Th-229	4.04E-14
Th-230	1.07E-09
Th-232	5.18E-16
U-233	7.12E-11
U-234	1.00E-05
U-235	1.30E-07
U-236	9.11E-07
U-238	2.68E-13

Haz. Waste No(s).

D008

**No TRUCON
Codes Provided****Waste Stream Description**

Cemented Inorganics (Leached Process Solids) Solidified inorganic process solids generated from facility and equipment operations and maintenance. This waste consists of process leached solids, ash, filter cakes, salts, metal oxides, fines, and evaporator bottoms stabilized in Portland or gypsum cement.

Waste Stream ID: **LA-TA-03-33**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Source Information Not Compiled	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Special Items Requiring Tracking by CST-7			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.1	0.0	0.1
Current Form Total	0.1	0.0	0.1

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	16.16
Aluminum-based Metals/Alloys	0.00
Other Metals	5.29
Other Inorganic Materials	25.63
Cellulosics	20.65
Rubber	2.09
Plastics	60.62
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.41
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Np-237	8.88E-04
Th-229	2.21E-10
U-233	1.35E-07

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Special Items Requiring Tracking by CST-7

Waste Stream ID: **LA-TA-03-34****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Inorganic Solid (Miscellaneous Glovebox Debris)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - FRP	4.0	0.0	14.8
Other	15.6	0.0	15.6
SWB w/ 4 - 55-gal Drums w/ Liners	1.9	0.0	1.9
Current Form Total	32.4	0.0	32.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	32.1	0.0	32.1
SWB w/ 4 - 55-gal Drums w/ Liners	1.9	0.0	1.9
Final Form Total	34.0	0.0	34.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	10.79
Aluminum-based Metals/Alloys	0.00
Other Metals	3.53
Other Inorganic Materials	17.11
Cellulosics	13.79
Rubber	1.40
Plastics	40.47
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.27
Vitrified	0.00
Packaging Material, Steel	156.70
Packaging Material, Plastic	2.04
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.52E-04
Cs-137	3.70E-09
Np-237	2.02E-09
Pu-238	8.55E-02
Pu-239	1.13E-03
Pu-240	1.26E-04
Pu-241	8.12E-04
Pu-242	7.29E-09
Th-229	2.65E-17
Th-230	2.30E-10
Th-232	1.81E-20
U-233	6.09E-14
U-234	3.59E-06
U-235	7.82E-08
U-236	5.24E-11
U-238	1.81E-07

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225
Waste Stream Description

Inorganic Solid (Miscellaneous Glovebox Debris)

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-03-40****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Metals debris generated from D&D activities in CMR Building	Activity Concentrations	Decayed to CY	2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Crate	0.1	0.0	27.9
Current Form Total	27.9	0.0	27.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	28.4	0.0	28.4
Final Form Total	28.4	0.0	28.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	35.33
Aluminum-based Metals/Alloys	0.00
Other Metals	11.56
Other Inorganic Materials	56.04
Cellulosics	45.14
Rubber	4.58
Plastics	132.53
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.89
Vitrified	0.00
Packaging Material, Steel	153.50
Packaging Material, Plastic	1.20
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	1.95E-02
Pu-239	2.67E-01
Th-230	2.27E-10
U-234	1.74E-06
U-235	1.09E-06

Haz. Waste No(s).

D008

No TRUCON Codes Provided**Waste Stream Description**

Metals debris generated from decontamination and decommissioning activities in Wings 2, 3, 4, and 7 of CMR Building (mix). This waste consists mostly of metals or metal equipment, either whole or sectioned, and small volumes of combustibles generated during decommissioning, sectioning, and packaging. The waste forms primarily include gloveboxes, tools, cans, motors, pumps, decommissioned process equipment, and ductwork

Waste Stream ID: **LA-TA-03-42****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Filter	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	HEPA filter debris waste from wings 2, 3, 4, 5, and 7 of CMR Building (mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Crate	3.2	0.0	6.8
Box - FRP	6.4	0.0	6.4
SWB w/ 4 - 55-gal Drums w/ Liners	11.3	0.0	11.3
Current Form Total	24.5	0.0	24.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	15.1	0.0	15.1
SWB w/ 4 - 55-gal Drums w/ Liners	11.3	0.0	11.3
Final Form Total	26.5	0.0	26.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	16.07
Aluminum-based Metals/Alloys	0.00
Other Metals	5.26
Other Inorganic Materials	25.49
Cellulosics	20.53
Rubber	2.08
Plastics	60.28
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.40
Vitrified	0.00
Packaging Material, Steel	178.19
Packaging Material, Plastic	7.67
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.65E-04
Am-243	3.37E-07
Cs-137	7.34E-07
Np-237	5.30E-08
Pu-238	1.56E-02
Pu-239	1.05E-02
Pu-240	2.76E-04
Pu-241	1.03E-03
Pu-242	1.59E-08
Th-229	8.37E-15
Th-230	1.95E-10
Th-232	1.70E-19
U-233	6.29E-12
U-234	1.44E-06
U-235	1.81E-08
U-236	2.38E-10
U-238	6.97E-17

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 119/219
Waste Stream Description

HEPA filter waste generated from facility and equipment operations and maintenance. A small fraction of combustible waste, such as plastics (mainly packaging), may also be present in this waste stream.

Waste Stream ID: **LA-TA-21-05****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Graphite	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.1	0.0	0.1
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.3	0.0	0.3

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	49.00
Aluminum-based Metals/Alloys	18.68
Other Metals	37.56
Other Inorganic Materials	10.68
Cellulosics	31.84
Rubber	24.59
Plastics	18.30
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.48E-01
Np-237	1.81E-06
Pu-238	5.97E-02
Pu-239	2.53E+00
Pu-240	6.02E-01
Pu-241	1.75E+00
Pu-242	4.05E-05
Th-229	9.17E-14
Th-230	1.12E-09
Th-232	5.42E-16
U-233	1.04E-10
U-234	6.83E-06
U-235	4.77E-05
U-236	6.26E-07
U-238	2.14E-13

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Graphite

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-21-06****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Combustible debris waste (mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	16.5	0.0	16.5
55-gal Drum Dir Ld w/ Liner	185.1	0.0	185.1
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	1.9	0.0	1.9
Cask - Misc w/ 1 - 30-gal Drum	2.5	0.0	81.4
Current Form Total	285.0	0.0	285.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	212.8	0.0	212.8
Final Form Total	212.8	0.0	212.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	40.58
Aluminum-based Metals/Alloys	15.48
Other Metals	31.11
Other Inorganic Materials	8.84
Cellulosics	26.37
Rubber	20.37
Plastics	15.16
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.71E-01
Np-237	1.25E-06
Pu-238	6.47E+01
Pu-239	9.55E-01
Pu-240	2.89E-01
Pu-241	1.21E+00
Pu-242	5.24E-05
Th-229	6.33E-14
Th-230	1.22E-06
Th-232	2.60E-16
U-233	7.17E-11
U-234	7.39E-03
U-235	4.41E-06
U-236	3.00E-07
U-238	2.77E-13

Haz. Waste No(s).

F001, F002

**No TRUCON
Codes Provided****Waste Stream Description**

Combustible waste generated from facility and equipment operations and maintenance. This waste includes paper, rags, plastic, rubber, wood-based HEPA filters, and plastic-based and cellulose-based waste generated at the facility. Plastic-based waste includes, but may not be limited to, tape, polyethylene and vinyl; gloves; plastic vials; polystyrene; Tygon tubing; polyvinyl chloride plastic; Teflon products; Plexiglas; and dry box gloves (unleaded neoprene base). Cellulose-based waste includes, but may not be limited to, rags, wood, paper, cardboard, laboratory coats and coveralls, booties and cotton gloves, and similar materials. The waste stream may also contain a smaller fraction of non-combustible solids (e.g., scrap metal, crucibles, metal lids, zippers, discarded tools) and a small fraction of homogenous solids, salts, leached solids, ash, hydroxide cakes, crucibles, impure oxides.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-21-07**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Metal			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
15-gal Drum	0.1	0.0	0.8
30-gal Drum	6.4	0.0	6.4
55-gal Drum Dir Ld w/ Liner	67.4	0.0	67.4
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
Box - Crate	0.7	0.0	482.3
Cask - Misc w/ 1 - 30-gal Drum	2.0	0.0	47.0
Other	0.0	0.0	7.9
Current Form Total	612.2	0.0	612.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	80.3	0.0	80.3
SWB Dir Ld w/ Liner	491.4	0.0	491.4
Final Form Total	571.7	0.0	571.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	43.16
Aluminum-based Metals/Alloys	16.46
Other Metals	33.09
Other Inorganic Materials	9.41
Cellulosics	28.05
Rubber	21.67
Plastics	16.12
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	150.31
Packaging Material, Plastic	6.23
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.10E-02
Am-243	7.94E-15
Np-237	2.42E-07
Pu-238	1.79E+01
Pu-239	3.24E-01
Pu-240	6.85E-02
Pu-241	1.95E-01
Pu-242	5.95E-06
Th-229	1.38E-14
Th-230	3.82E-07
Th-232	6.89E-17
U-233	1.48E-11
U-234	2.19E-03
U-235	6.23E-08
U-236	7.53E-08
U-238	3.51E-06

Haz. Waste No(s).

D008

No TRUCON
Codes Provided

Waste Stream Description

Metal

Waste Stream ID: **LA-TA-21-08**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Glass			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.3	0.0	0.3
55-gal Drum Dir Ld w/ Liner	2.5	0.0	2.5
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
Cask - Misc w/ 1 - 30-gal Drum	1.1	0.0	1.1
Current Form Total	4.3	0.0	4.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.5	0.0	3.5
Final Form Total	3.5	0.0	3.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	41.83
Aluminum-based Metals/Alloys	15.95
Other Metals	32.06
Other Inorganic Materials	9.11
Cellulosics	27.18
Rubber	21.00
Plastics	15.62
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.16E-01
Np-237	8.46E-07
Pu-238	2.52E+01
Pu-239	7.55E-01
Pu-240	2.12E-01
Pu-241	8.20E-01
Pu-242	3.17E-05
Th-229	4.29E-14
Th-230	4.74E-07
Th-232	1.91E-16
U-233	4.85E-11
U-234	2.88E-03
U-235	2.61E-08
U-236	2.21E-07
U-238	1.67E-13

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Glass

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-21-09****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Hepa Filters	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.1	0.0	0.1
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Cask - Misc w/ 1 - 30-gal Drum	3.4	0.0	7.4
Current Form Total	8.1	0.0	8.1

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	225.76
Aluminum-based Metals/Alloys	86.09
Other Metals	173.05
Other Inorganic Materials	49.19
Cellulosics	146.70
Rubber	113.32
Plastics	84.33
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.78E-02
Np-237	1.30E-07
Pu-238	7.82E+02
Pu-239	1.92E-01
Pu-240	4.48E-02
Pu-241	1.26E-01
Pu-242	2.59E-06
Th-229	6.59E-15
Th-230	1.47E-05
Th-232	4.03E-17
U-233	7.47E-12
U-234	8.94E-02
U-235	6.62E-09
U-236	4.66E-08
U-238	1.37E-14

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Hepa Filters

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-21-10****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Source Information Not Compiled	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Isotopic Source			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Crate	0.1	0.0	0.1
Current Form Total	0.1	0.0	0.1

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	14.01
Aluminum-based Metals/Alloys	5.34
Other Metals	10.74
Other Inorganic Materials	3.05
Cellulosics	9.11
Rubber	7.03
Plastics	5.23
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-239	2.44E+00
U-235	7.95E-08

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Isotopic Source

Waste Stream ID: **LA-TA-21-12****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Non-combustible and combustible debris waste (mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
15-gal Drum	0.6	0.0	0.6
30-gal Drum	3.7	0.0	3.7
55-gal Drum Dir Ld w/ Liner	113.4	0.0	113.4
Box - Crate	6.3	0.0	6.3
Cask - Misc w/ 1 - 30-gal Drum	19.3	0.0	121.8
Current Form Total	245.8	0.0	245.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	137.5	0.0	137.5
SWB Dir Ld w/ Liner	7.6	0.0	7.6
Final Form Total	145.0	0.0	145.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	61.31
Aluminum-based Metals/Alloys	23.38
Other Metals	47.00
Other Inorganic Materials	13.36
Cellulosics	39.84
Rubber	30.77
Plastics	22.90
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	131.98
Packaging Material, Plastic	35.13
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.68E-01
Np-237	3.47E-06
Pu-238	3.01E+02
Pu-239	1.90E+00
Pu-240	6.27E-01
Pu-241	3.21E+00
Pu-242	1.57E-04
Th-229	9.16E-04
Th-230	5.32E-06
Th-232	5.32E-16
U-233	2.88E-01
U-234	3.33E-02
U-235	1.42E-05
U-236	6.33E-07
U-238	8.08E-13

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Combined Combustible and NonCombustible Trash Non-combustible and combustible waste generated from facility and equipment operations and maintenance. This waste includes, but may not be limited to, small tools, small equipment, cans, motors, pumps, process equipment, gloveboxes, ventilation ductwork, HEPA filters, pipes, glass, graphite, slag and crucibles, salt, discarded lab ware, windows, and bottles. The waste stream may also contain a smaller fraction of combustible solids (e.g., paper, rags, plastic, rubber, leaded gloves) and a small fraction of homogeneous solids (e.g., leached solids, ash, hydroxide cakes, impure oxides).

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-21-13****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Cemented wastewater treatment sludge (mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	15.0	0.0	15.0
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
Other	49.4	0.0	2920.8
Current Form Total	2936.1	0.0	2936.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	15.2	0.0	15.2
SWB Dir Ld w/ Liner	2921.9	0.0	2921.9
Final Form Total	2937.1	0.0	2937.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	65.28
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	11.61
Cements	1826.24
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	153.38
Packaging Material, Plastic	1.39
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.38E+00
Np-237	5.41E-05
Pu-238	6.09E-02
Pu-239	4.20E-02
Th-229	5.10E-12
Th-230	2.00E-09
Th-232	3.74E-08
U-233	4.39E-09
U-234	9.55E-06
U-235	8.17E-06
U-238	3.80E-06

Haz. Waste No(s).

D007, F001, F002

**No TRUCON
Codes Provided****Waste Stream Description**

Cemented Wastewater Treatment Sludge Solidified aqueous waste generated from facility and equipment operations and maintenance. Solidified aqueous waste is a dewatered sludge generated by the vacuum filtration of solids from treated aqueous waste slurry. The filter media (diatomaceous earth) with the entrapped filtrate is then placed in drums with dry concreted absorbent.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-21-14****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Soils	Waste Matrix Code	S4100	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Plutonium contaminated soil (non-mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	7.9	0.0	7.9
Box - Crate	1.6	0.0	20.6
Current Form Total	28.5	0.0	28.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	7.9	0.0	7.9
SWB Dir Ld w/ Liner	20.8	0.0	20.8
Final Form Total	28.7	0.0	28.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	64.09
Aluminum-based Metals/Alloys	0.00
Other Metals	20.96
Other Inorganic Materials	101.66
Cellulosics	81.89
Rubber	8.30
Plastics	240.41
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	1.61
Vitrified	0.00
Packaging Material, Steel	147.25
Packaging Material, Plastic	11.06
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-239	3.47E-02
U-235	1.03E-09

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Plutonium Contaminated Soils contaminated with transuranic material.

Waste Stream ID: **LA-TA-21-15****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Organics	Waste Matrix Code	S3200	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Solidified organics (mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.2	0.0	0.2
55-gal Drum Dir Ld w/ Liner	3.3	0.0	3.3
Current Form Total	3.6	0.0	3.6

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	49.21
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	18.08
Cellulosics	0.00
Rubber	0.00
Plastics	77.11
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	392.20
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.60E-02
Np-237	6.06E-07
Pu-238	2.10E-02
Pu-239	1.26E+00
Pu-240	2.18E-01
Pu-241	6.44E-01
Pu-242	1.26E-05
Th-229	2.88E-14
Th-230	3.71E-10
Th-232	1.85E-16
U-233	3.37E-11
U-234	2.33E-06
U-235	4.24E-08
U-236	2.20E-07
U-238	6.48E-14

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Solidified organics (mixed)

Waste Stream ID: **LA-TA-21-16****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Cemented inorganics (mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	26.2	0.0	26.2
55-gal Drum Dir Ld w/ Liner	31.4	0.0	31.4
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
Current Form Total	57.9	0.0	57.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	58.0	0.0	58.0
Final Form Total	58.0	0.0	58.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	7.26
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	1.29
Cements	203.15
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.12E+00
Np-237	7.92E-06
Pu-238	3.53E-01
Pu-239	1.09E+01
Pu-240	2.60E+00
Pu-241	8.32E+00
Pu-242	2.14E-04
Th-229	3.80E-13
Th-230	6.24E-09
Th-232	2.21E-15
U-233	4.41E-10
U-234	3.91E-05
U-235	5.72E-05
U-236	2.63E-06
U-238	1.10E-12

Haz. Waste No(s).

D008

No TRUCON Codes Provided**Waste Stream Description**

Cemented Inorganics Solidified inorganic process solids generated from facility and equipment operations and maintenance. This waste consists of process leached solids, ash, filter cakes, salts, metal oxides, fines, or evaporator bottoms stabilized in Portland or gypsum cement.

Waste Stream ID: **LA-TA-21-17****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Source Information Not Compiled	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Special Items Requiring Tracking by CST-7			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.1	0.0	0.1
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Current Form Total	0.5	0.0	0.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	29.57
Aluminum-based Metals/Alloys	11.28
Other Metals	22.67
Other Inorganic Materials	6.44
Cellulosics	19.22
Rubber	14.84
Plastics	11.05
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.90E-03
Np-237	2.85E-08
Pu-238	9.37E-04
Pu-239	4.20E-02
Pu-240	9.80E-03
Pu-241	2.76E-02
Pu-242	5.67E-07
Th-229	1.44E-15
Th-230	1.77E-11
Th-232	8.81E-18
U-233	1.63E-12
U-234	1.07E-07
U-235	1.45E-09
U-236	1.02E-08
U-238	3.00E-15

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Special Items Requiring Tracking by CST-7

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-21-41****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Soils	Waste Matrix Code	S4100	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Plutonium-contaminated soil (non-mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Crate	3.2	0.0	22.5
Current Form Total	22.5	0.0	22.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	22.7	0.0	22.7
Final Form Total	22.7	0.0	22.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	82.13
Aluminum-based Metals/Alloys	0.00
Other Metals	26.87
Other Inorganic Materials	130.27
Cellulosics	104.94
Rubber	10.64
Plastics	308.10
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	2.06
Vitrified	0.00
Packaging Material, Steel	153.50
Packaging Material, Plastic	1.20
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-239	8.06E-01
U-235	2.30E-08

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Soils contaminated with transuranic material resulting from TA21 decontamination and decommissioning.

Waste Stream ID: **LA-TA-50-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Combustible			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	1.9	0.0	1.9
Current Form Total	1.9	0.0	1.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	20.18
Aluminum-based Metals/Alloys	0.08
Other Metals	2.42
Other Inorganic Materials	13.09
Cellulosics	1.67
Rubber	2.51
Plastics	7.73
Cements	0.00
Inorganic Matrix	0.32
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	211.10
Packaging Material, Plastic	16.30
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.49E-03
Am-243	3.79E-06
Cs-137	6.13E-04
Np-237	2.01E-08
Pu-238	1.15E-04
Pu-239	4.59E-04
Th-229	6.52E-17
Th-230	5.28E-09
U-233	3.03E-13
U-234	9.79E-05
U-235	1.80E-06

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 116/216

Waste Stream Description

Combustible

Waste Stream ID: **LA-TA-50-02**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Combustible			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Current Form Total	0.6	0.0	0.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	71.53
Aluminum-based Metals/Alloys	0.29
Other Metals	8.57
Other Inorganic Materials	46.39
Cellulosics	5.92
Rubber	8.88
Plastics	27.39
Cements	0.00
Inorganic Matrix	1.14
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.13E-02
Cs-137	4.49E-07
Np-237	4.75E-07
Pu-238	5.50E-01
Pu-239	5.58E-02
Pu-241	2.74E-01
Th-229	4.08E-15
Th-230	3.57E-10
U-233	1.29E-11
U-234	1.12E-05
U-235	5.18E-07

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 116/216, 117/217

Waste Stream Description

Combustible

Waste Stream ID: **LA-TA-50-05****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Combined Combustible and NonCombustible			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	49.52
Aluminum-based Metals/Alloys	0.20
Other Metals	5.94
Other Inorganic Materials	32.11
Cellulosics	4.10
Rubber	6.15
Plastics	18.96
Cements	0.00
Inorganic Matrix	0.79
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.26E-02
Np-237	1.60E-07
Pu-238	1.51E-01
Pu-239	7.21E-01
Pu-240	1.92E-02
Pu-241	1.44E-01
Th-229	3.84E-16
Th-230	7.17E-11
Th-232	5.07E-19
U-233	2.05E-12
U-234	2.64E-06
U-235	1.87E-08
U-236	3.42E-09

Haz. Waste No(s).D004, D006, D007,
D008, D009, D010**TRUCON Code(s)**

125/225

Waste Stream Description

Combined Combustible and NonCombustible

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-50-06****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Combined Combustible and NonCombustible			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	1.9	0.0	1.9
Current Form Total	1.9	0.0	1.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	26.24
Aluminum-based Metals/Alloys	0.11
Other Metals	3.14
Other Inorganic Materials	17.02
Cellulosics	2.17
Rubber	3.26
Plastics	10.05
Cements	0.00
Inorganic Matrix	0.42
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	211.10
Packaging Material, Plastic	16.30
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.07E+00
Np-237	6.33E-06
Pu-238	7.80E-02
Pu-239	8.15E-01
Th-229	1.40E-13
Th-230	3.55E-10
U-233	2.48E-10
U-234	4.28E-06
U-235	1.45E-08

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225
Waste Stream Description

Combined Combustible and NonCombustible

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-50-11****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Combustible debris waste from area WM 66 (mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
Current Form Total	0.7	0.0	0.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	16.81
Aluminum-based Metals/Alloys	0.07
Other Metals	2.01
Other Inorganic Materials	10.90
Cellulosics	1.39
Rubber	2.09
Plastics	6.44
Cements	0.00
Inorganic Matrix	0.27
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.72E-02
Np-237	7.17E-07
Pu-238	8.58E-03
Pu-239	1.22E-01
Pu-240	6.50E-04
Th-229	3.85E-14
Th-230	9.96E-11
Th-232	3.74E-19
U-233	4.39E-11
U-234	7.63E-07
U-235	3.38E-09
U-236	5.41E-10

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Combustible Debris waste generated from facility and equipment operations and maintenance. This waste includes paper, rags, plastic, rubber, wood-based HEPA filters, and plastic-based and cellulose-based waste generated at the facility. Plastic-based waste includes, but may not be limited to, tape, polyethylene and vinyl; gloves; plastic vials; polystyrene; Tygon tubing; polyvinyl chloride plastic; Teflon products; Plexiglas; and dry box gloves (unleaded neoprene base). Cellulose-based waste includes, but may not be limited to, rags, wood, paper, cardboard, laboratory coats and coveralls, booties and cotton gloves, and similar materials. The waste stream may also contain a smaller fraction of non-combustible solids (e.g., scrap metal, crucibles, metal lids, zippers, discarded tools) and a small fraction of homogenous solids, salts, leached solids, ash, hydroxide cakes, crucibles, impure oxides.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-50-12****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Metal			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.2	0.0	1.2
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.6	0.0	0.6
Box - Crate	2.7	0.0	8.1
Other	2.4	0.0	2.4
Current Form Total	12.4	0.0	12.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.7	0.0	1.7
SWB Dir Ld w/ Liner	13.2	0.0	13.2
Final Form Total	14.9	0.0	14.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	74.09
Aluminum-based Metals/Alloys	0.30
Other Metals	8.88
Other Inorganic Materials	48.05
Cellulosics	6.13
Rubber	9.20
Plastics	28.37
Cements	0.00
Inorganic Matrix	1.18
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	150.96
Packaging Material, Plastic	5.20
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.38E-04
Np-237	1.26E-08
Pu-238	1.55E-03
Pu-239	5.63E-03
Pu-241	1.46E-04
Th-229	1.36E-15
Th-230	8.42E-10
U-233	1.13E-12
U-234	6.04E-06
U-235	1.72E-10
U-238	6.72E-02

Haz. Waste No(s).

D008

TRUCON Code(s)

117/217

Waste Stream Description

Metal

Waste Stream ID: **LA-TA-50-13**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Glass			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
Current Form Total	0.3	0.0	0.3

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	27.98
Aluminum-based Metals/Alloys	0.11
Other Metals	3.35
Other Inorganic Materials	18.15
Cellulosics	2.32
Rubber	3.47
Plastics	10.71
Cements	0.00
Inorganic Matrix	0.45
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	4.28E-02
Th-230	2.69E-10
U-234	2.77E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Glass

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-50-14****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Hepa filters			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	311.77
Aluminum-based Metals/Alloys	1.26
Other Metals	37.37
Other Inorganic Materials	202.19
Cellulosics	25.80
Rubber	38.70
Plastics	119.37
Cements	0.00
Inorganic Matrix	4.97
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.31E-01
Np-237	1.22E-06
Pu-238	7.34E-03
Pu-239	3.77E-02
Th-229	6.55E-14
Th-230	8.52E-11
U-233	7.46E-11
U-234	6.53E-07
U-235	1.04E-09

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Hepa filters

Waste Stream ID: **LA-TA-50-15****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Non-combustible and combustible debris waste from operations at WCRRF & SRF			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	1.0	0.0	1.0
Other	3.2	0.0	29.0
SWB w/ 4 - 55-gal Drums w/ Liners	9.5	0.0	9.5
Current Form Total	39.9	0.0	39.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.0	0.0	1.0
SWB Dir Ld w/ Liner	30.2	0.0	30.2
SWB w/ 4 - 55-gal Drums w/ Liners	9.5	0.0	9.5
Final Form Total	40.7	0.0	40.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	166.52
Aluminum-based Metals/Alloys	0.67
Other Metals	19.96
Other Inorganic Materials	107.99
Cellulosics	13.78
Rubber	20.67
Plastics	63.76
Cements	0.00
Inorganic Matrix	2.65
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	166.28
Packaging Material, Plastic	5.62
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.83E-01
Cs-137	8.35E-04
Np-237	2.35E-06
Pu-238	7.53E-01
Pu-239	3.13E-01
Pu-240	6.29E-02
Pu-241	2.75E-01
Pu-242	3.76E-06
Th-229	1.07E-13
Th-230	7.45E-09
Th-232	3.12E-17
U-233	1.32E-10
U-234	6.16E-05
U-235	4.94E-07
U-236	4.85E-08
U-238	1.48E-14

Haz. Waste No(s).

D008

No TRUCON Codes Provided**Waste Stream Description**

Non-combustible and combustible debris waste from operations in the WCRRF and SRF (building 50-69) (mixed). Combined Non-combustible and combustible waste generated from facility and equipment operations and maintenance. This waste includes, but may not be limited to, small tools, small equipment, cans, motors, pumps, process equipment, gloveboxes, ventilation ductwork, HEPA filters, pipes, glass, graphite, slag and crucibles, salt, discarded lab ware, windows, and bottles. The waste stream may also contain a smaller fraction of combustible solids (e.g., paper, rags, plastic, rubber, leaded gloves) and a small fraction of homogeneous solids (e.g., leached solids, ash, hydroxide cakes, impure oxides).

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-50-16**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Combined Combustible and NonCombustible			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.7	0.0	1.7
Other	0.8	0.0	0.8
SWB w/ 4 - 55-gal Drums w/ Liners	11.3	0.0	11.3
Current Form Total	13.8	0.0	13.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.7	0.0	1.7
SWB Dir Ld w/ Liner	1.9	0.0	1.9
SWB w/ 4 - 55-gal Drums w/ Liners	11.3	0.0	11.3
Final Form Total	14.9	0.0	14.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	79.12
Aluminum-based Metals/Alloys	0.32
Other Metals	9.48
Other Inorganic Materials	51.31
Cellulosics	6.55
Rubber	9.82
Plastics	30.29
Cements	0.00
Inorganic Matrix	1.26
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	194.82
Packaging Material, Plastic	16.70
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.02E-01
Am-243	5.50E-04
Cs-137	3.97E-04
Np-237	2.43E-04
Pu-238	4.22E-01
Pu-239	1.85E-01
Pu-240	1.52E-01
Pu-241	3.81E+00
Pu-242	2.03E-04
Th-229	1.25E-11
Th-230	1.50E-09
Th-232	2.86E-17
U-233	1.67E-08
U-234	2.04E-05
U-235	2.91E-09
U-236	7.23E-08
U-238	4.90E-13

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225

Waste Stream Description

Combined Combustible and NonCombustible

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-50-18****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Cemented caustic liquid waste (mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Other	7.8	0.0	7.8
Current Form Total	8.2	0.0	8.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
SWB Dir Ld w/ Liner	9.5	0.0	9.5
Final Form Total	9.9	0.0	9.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	24.10
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	4.29
Cements	674.35
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	152.54
Packaging Material, Plastic	2.71
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.06E-02
Np-237	3.68E-07
Pu-238	4.81E-02
Pu-239	7.18E-03
Th-229	3.28E-14
Th-230	9.65E-10
U-233	2.91E-11
U-234	5.69E-06
U-235	2.55E-10

Haz. Waste No(s).

D007, F001, F002

No TRUCON Codes Provided**Waste Stream Description**

Cemented Caustic Liquid Waste Solidified (through cementation) caustic aqueous waste from TA-55. The sludge is a residue from numerous treatment and filtration operations involving aqueous liquid radioactive waste.

Waste Stream ID: **LA-TA-50-19**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3120	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Homogeneous Inorganic Solids			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum w/ 1 - 55-gal Drum w/ Liner	1.2	0.0	1.2
55-gal Drum Dir Ld w/ Liner	65.1	0.0	65.1
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	1.6	0.0	1.6
Other	5.4	0.0	67.6
Current Form Total	135.6	0.0	135.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	67.0	0.0	67.0
SWB Dir Ld w/ Liner	68.0	0.0	68.0
Final Form Total	135.0	0.0	135.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.09
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.08
Cellulosics	0.00
Rubber	0.00
Plastics	4.79
Cements	0.00
Inorganic Matrix	899.39
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	142.24
Packaging Material, Plastic	18.96
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.79E-01
Am-243	2.33E-08
Cs-137	1.40E-07
Np-237	2.22E-06
Pu-238	3.45E-01
Pu-239	5.42E-02
Pu-240	1.27E-04
Pu-241	3.05E-04
Sr-90	1.37E-07
Th-229	2.12E-13
Th-230	7.44E-09
Th-232	1.28E-19
U-233	1.82E-10
U-234	4.23E-05
U-235	4.27E-07
U-236	1.40E-10
U-238	7.38E-08

Haz. Waste No(s).

F001

No TRUCON
Codes Provided

Waste Stream Description

Consists of homogeneous dewatered sludge generated in the TA-50-01 RLWTF at LANL. This sludge was further treated by rotary drum vacuum filtration in a filter precoated with perlite or diatomaceous earth.

Waste Stream ID: **LA-TA-50-20****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Soils	Waste Matrix Code	S4000	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Plutonium contaminated soil (non-mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
Current Form Total	0.5	0.0	0.5

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	91.59
Aluminum-based Metals/Alloys	0.00
Other Metals	29.96
Other Inorganic Materials	145.28
Cellulosics	117.03
Rubber	11.87
Plastics	343.59
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	2.30
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.87E-03
Np-237	6.84E-08
Pu-239	7.21E-03
Th-229	4.23E-15
U-233	4.50E-12
U-235	2.13E-10

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Plutonium Contaminated Soils contaminated with transuranic material as a result of facility and equipment operations and maintenance.

Waste Stream ID: **LA-TA-50-40****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Metal debris waste from TA-50 decontamination and decommissioning activities (mixed)				Activity Concentrations Decayed to CY	2008	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Crate	0.6	0.0	0.6
Current Form Total	0.6	0.0	0.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	187.37
Aluminum-based Metals/Alloys	0.76
Other Metals	22.46
Other Inorganic Materials	121.51
Cellulosics	15.51
Rubber	23.26
Plastics	71.74
Cements	0.00
Inorganic Matrix	2.99
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	153.50
Packaging Material, Plastic	1.20
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-239	3.20E-04
U-235	8.85E-12

Haz. Waste No(s).

D008

No TRUCON Codes Provided**Waste Stream Description**

The waste mostly consists of metals or metal equipment, such as motors, pumps, tools, and process equipment, either whole or sectioned, and lesser amounts of combustible components. The waste also includes mixed metal scrap and incidental combustible waste generated from size reduction of equipment from various TAs throughout LANL. In addition, it contains small volumes of combustibles generated during decommissioning, sectioning, and packaging.

Waste Stream ID: **LA-TA-55-14**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Cemented Inorganics			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.5	60.9	64.5
Current Form Total	3.5	60.9	64.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.5	60.9	64.5
Final Form Total	3.5	60.9	64.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	2.55
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.45
Cements	71.22
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.65E+00
Np-237	6.99E-06
Pu-238	7.53E-03
Pu-239	1.92E-01
Pu-240	4.59E-02
Pu-241	3.80E-01
Pu-242	5.42E-05
Pu-244	5.67E-11
Th-229	8.01E-14
Th-230	1.74E-11
Th-232	5.69E-18
U-233	1.97E-10
U-234	2.93E-07
U-235	2.46E-09
U-236	1.77E-08
U-238	1.06E-13

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 114/214

Waste Stream Description

Cemented Inorganics

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-55-19****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Combustible debris waste (mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	47.2	143.1	190.3
55-gal POC - 12" w/ Liner	0.4	0.0	0.4
Cask - Misc w/ 1 - 30-gal Drum	28.4	0.0	28.4
SWB w/ 4 - 55-gal Drums w/ Liners	3.8	0.0	3.8
Current Form Total	79.8	143.1	222.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	55.3	143.1	198.4
55-gal POC - 12" w/ Liner	0.4	0.0	0.4
SWB w/ 4 - 55-gal Drums w/ Liners	3.8	0.0	3.8
Final Form Total	59.5	143.1	202.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	6.07
Aluminum-based Metals/Alloys	0.00
Other Metals	1.99
Other Inorganic Materials	9.63
Cellulosics	7.76
Rubber	0.79
Plastics	22.77
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.15
Vitrified	0.00
Packaging Material, Steel	133.11
Packaging Material, Plastic	36.61
Packaging Material, Cellulosics	0.28
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.22E-01
Np-237	1.08E-05
Pu-238	2.14E+01
Pu-239	1.46E+00
Pu-240	6.67E-01
Pu-241	5.76E+00
Pu-242	5.55E-04
Th-229	1.34E-12
Th-230	5.11E-07
Th-232	6.11E-15
U-233	1.07E-09
U-234	2.91E-03
U-235	2.94E-05
U-236	4.55E-06
U-238	6.87E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005

TRUCON Code(s)

116/216, 125/225

Waste Stream Description

Combustible waste generated from facility and equipment operations and maintenance. This waste includes paper, rags, plastic, rubber, wood-based HEPA filters, and plastic-based and cellulose-based waste generated at the facility. Plastic-based waste includes, but may not be limited to, tape, polyethylene and vinyl; gloves; plastic vials; polystyrene; Tygon tubing; polyvinyl chloride plastic; Teflon products; Plexiglas; and dry box gloves (unleaded neoprene base). Cellulose-based waste includes, but may not be limited to, rags, wood, paper, cardboard, laboratory coats and coveralls, booties and cotton gloves, and similar materials. The waste stream may also contain a smaller fraction of non-combustible solids (e.g., scrap metal, crucibles, metal lids, zippers, discarded tools) and a small fraction of homogenous solids, salts, leached solids, ash, hydroxide cakes, crucibles, impure oxides.

Waste Stream ID: **LA-TA-55-19.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-LA-TA-55-19.01	0.2
55-gal Drum Dir Ld w/o Liner	WP-LA-TA-55-19.01	5.6
SWB Dir Ld w/o Liner	WP-LA-TA-55-19.01	75.6
Shipped Total		81.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	51.12
Aluminum-based Metals/Alloys	0.03
Other Metals	0.10
Other Inorganic Materials	0.27
Cellulosics	6.20
Rubber	2.18
Plastics	26.49
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.22E-01
Am-243	5.37E-05
Cs-137	1.08E-08
Np-237	4.92E-05
Pu-238	2.45E-01
Pu-239	3.06E+00
Pu-240	7.56E-01
Pu-241	6.79E+00
Pu-242	2.05E-03
Th-229	6.18E-13
Th-230	4.45E-07
Th-232	3.54E-17
U-233	1.66E-09
U-234	1.45E-03
U-235	2.80E-06
U-236	1.79E-07
U-238	4.75E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **LA-TA-55-19.02-S****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5300	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-LA-TA-55-19.02	16.0
55-gal Drum Dir Ld w/o Liner	WP-LA-TA-55-19.02	171.4
SWB Dir Ld w/o Liner	WP-LA-TA-55-19.02	13.2
SWB w/ 4 - 55-gal Drums w/ Liners	WP-LA-TA-55-19.02	1.9
SWB w/ 4 - 55-gal Drums w/o Liners	WP-LA-TA-55-19.02	26.5
Shipped Total		229.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	10.64
Aluminum-based Metals/Alloys	0.02
Other Metals	0.66
Other Inorganic Materials	3.05
Cellulosics	39.08
Rubber	4.67
Plastics	62.20
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.03
Soils/gravel	0.18
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.67E+00
Am-243	3.38E-04
Cs-137	2.31E-06
Np-237	9.55E-05
Pu-238	8.77E-01
Pu-239	3.57E+00
Pu-240	9.96E-01
Pu-241	1.26E+01
Pu-242	5.43E-03
Sr-90	2.14E-06
Th-229	1.12E-08
Th-230	7.53E-06
Th-232	8.99E-08
U-233	1.98E-05
U-234	3.53E-03
U-235	4.18E-06
U-236	1.77E-07
U-238	6.67E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-55-20****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Combustible debris waste (non-mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	2.20
Aluminum-based Metals/Alloys	0.01
Other Metals	0.26
Other Inorganic Materials	1.43
Cellulosics	0.18
Rubber	0.27
Plastics	0.84
Cements	0.00
Inorganic Matrix	0.04
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.40E-02
Np-237	1.00E-07
Pu-238	7.55E+01
Pu-239	5.14E-02
Pu-240	2.62E-02
Pu-241	8.90E-01
Pu-242	2.11E-05
Th-229	9.57E-16
Th-230	2.68E-07
Th-232	4.92E-18
U-233	2.46E-12
U-234	3.66E-03
U-235	8.11E-10
U-236	1.24E-08
U-238	5.09E-14

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 116/216
Waste Stream Description

Combustible waste generated from facility and equipment operations and maintenance. This waste includes paper, rags, plastic, rubber, wood-based HEPA filters, and plastic-based and cellulose-based waste generated at the facility. Plastic-based waste includes, but may not be limited to, tape, polyethylene and vinyl; gloves; plastic vials; polystyrene; Tygon tubing; polyvinyl chloride plastic; Teflon products; Plexiglas; and dry box gloves (unleaded neoprene base). Cellulose-based waste includes, but may not be limited to, rags, wood, paper, cardboard, laboratory coats and coveralls, booties and cotton gloves, and similar materials. The waste stream may also contain a smaller fraction of non-combustible solids (e.g., scrap metal, crucibles, metal lids, zippers, discarded tools) and a small fraction of homogenous solids, salts, leached solids, ash, hydroxide cakes, crucibles, impure oxides.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-55-21****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Metal debris waste (mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.3	0.0	2.3
Cask - Misc w/ 1 - 30-gal Drum	13.2	0.0	13.2
Current Form Total	15.5	0.0	15.5

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	166.92
Aluminum-based Metals/Alloys	0.67
Other Metals	20.01
Other Inorganic Materials	108.25
Cellulosics	13.81
Rubber	20.72
Plastics	63.91
Cements	0.00
Inorganic Matrix	2.66
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.96E-02
Np-237	6.05E-07
Pu-238	2.00E+02
Pu-239	2.49E-01
Pu-240	8.93E-02
Pu-241	9.50E-01
Pu-242	4.39E-05
Th-229	2.19E-14
Th-230	2.70E-06
Th-232	5.90E-17
U-233	2.93E-11
U-234	1.92E-02
U-235	7.38E-09
U-236	7.96E-08
U-238	3.38E-07

Haz. Waste No(s).

D008

**No TRUCON
Codes Provided****Waste Stream Description**

Metal Noncombustible waste including small tools, small equipment, cans, motors, pumps, process equipment, gloveboxes, ventilation ductwork, and pipes. May also contain some glass, ceramic, porcelain, etc. as well as some small fraction of combustible waste (e.g., paper, rubber, plastics).

Waste Stream ID: **LA-TA-55-23****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Glass debris waste from PF-4 (mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Cask - Misc w/ 1 - 30-gal Drum	0.8	0.0	0.8
Current Form Total	0.8	0.0	0.8

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	38.92
Aluminum-based Metals/Alloys	0.16
Other Metals	4.67
Other Inorganic Materials	25.24
Cellulosics	3.22
Rubber	4.83
Plastics	14.90
Cements	0.00
Inorganic Matrix	0.62
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.37E-01
Np-237	7.34E-07
Pu-238	3.88E+02
Pu-239	2.41E-01
Pu-240	9.42E-02
Pu-241	1.58E+00
Pu-242	6.76E-05
Th-229	2.13E-14
Th-230	4.17E-06
Th-232	5.04E-17
U-233	3.16E-11
U-234	3.31E-02
U-235	6.41E-09
U-236	7.55E-08
U-238	2.76E-13

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Glass waste generated from facility and equipment operations and maintenance. This waste includes, but is not limited to, broken glass discarded labware, windows, and bottles. A small fraction of combustible waste, such as plastics (mainly packaging), may also be present in this waste stream.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-55-30****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Non-combustible and combustible debris waste (mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	73.4	143.1	216.5
55-gal POC - 12" w/ Liner	0.2	0.0	0.2
Box - Crate	3.6	0.0	7.2
Cask - Misc w/ 1 - 30-gal Drum	0.4	0.0	27.2
Other	10.9	0.0	23.2
Current Form Total	131.2	143.1	274.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	81.1	143.1	224.2
55-gal POC - 12" w/ Liner	0.2	0.0	0.2
SWB Dir Ld w/ Liner	32.1	0.0	32.1
Final Form Total	113.5	143.1	256.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	31.44
Aluminum-based Metals/Alloys	0.13
Other Metals	3.77
Other Inorganic Materials	20.39
Cellulosics	2.60
Rubber	3.90
Plastics	12.04
Cements	0.00
Inorganic Matrix	0.50
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	133.96
Packaging Material, Plastic	32.52
Packaging Material, Cellulosics	0.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.48E-01
Cs-137	1.09E-10
Np-237	4.36E-06
Pu-238	1.91E+01
Pu-239	9.43E-01
Pu-240	5.06E-01
Pu-241	5.14E+00
Pu-242	7.34E-04
Pu-244	9.23E-11
Th-229	4.74E-09
Th-230	2.74E-07
Th-232	4.78E-16
U-233	2.30E-10
U-234	1.90E-03
U-235	2.40E-06
U-236	5.48E-07
U-238	4.04E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005

TRUCON Code(s)

117/217, 122/222, 125/225

Waste Stream Description

Non-combustible and combustible waste generated from facility and equipment operations and maintenance. This waste includes, but may not be limited to, small tools, small equipment, cans, motors, pumps, process equipment, gloveboxes, ventilation ductwork, metal-based HEPA filters, pipes, glass, graphite, slag and crucibles, salt, discarded lab ware, windows, and bottles. The waste stream may also contain a smaller fraction of combustible solids (e.g., paper, rags, plastic, rubber, leaded gloves) and a small fraction of homogeneous solids (e.g., leached solids, ash, hydroxide cakes, impure oxides).

Waste Stream ID: **LA-TA-55-30-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-LA-TA-55-30	10.6
55-gal Drum Dir Ld w/o Liner	WP-LA-TA-55-30	79.0
SWB w/ 4 - 55-gal Drums w/o Liners	WP-LA-TA-55-30	5.7
Shipped Total		95.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	213.70
Aluminum-based Metals/Alloys	0.41
Other Metals	2.45
Other Inorganic Materials	18.28
Cellulosics	11.63
Rubber	1.41
Plastics	14.23
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.75
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.23E+00
Am-243	6.83E-05
Cs-137	8.24E-05
Np-237	8.36E-05
Pu-238	4.67E-01
Pu-239	2.59E+00
Pu-240	7.30E-01
Pu-241	7.86E+00
Pu-242	6.28E-04
Sr-90	8.20E-05
Th-229	6.53E-08
Th-230	6.65E-09
Th-232	3.44E-07
U-233	9.96E-05
U-234	1.10E-04
U-235	2.28E-06
U-236	1.52E-07
U-238	5.85E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-55-32****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Homogeneous inorganic solids (mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Cask - Misc w/ 1 - 30-gal Drum	0.4	0.0	0.4
SWB w/ 4 - 55-gal Drums w/ Liners	3.8	0.0	3.8
Current Form Total	4.2	0.0	4.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
SWB w/ 4 - 55-gal Drums w/ Liners	3.8	0.0	3.8
Final Form Total	4.0	0.0	4.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.01
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.01
Cellulosics	0.00
Rubber	0.00
Plastics	0.79
Cements	0.00
Inorganic Matrix	149.08
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	206.91
Packaging Material, Plastic	17.38
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.06E-02
Np-237	3.99E-07
Pu-238	1.09E+02
Pu-239	7.93E-02
Pu-240	2.77E-02
Pu-241	4.69E-01
Pu-242	1.89E-05
Th-229	2.35E-14
Th-230	1.08E-06
Th-232	1.37E-17
U-233	2.51E-11
U-234	8.92E-03
U-235	2.03E-09
U-236	2.14E-08
U-238	7.42E-14

Haz. Waste No(s).

D008

TRUCON Code(s)

125/225

Waste Stream Description

Homogeneous Inorganic Solids Solidified inorganic process solids generated from facility and equipment operations and maintenance. This waste consists of large chunks of filter cakes and salts.

Waste Stream ID: **LA-TA-55-33****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Organics	Waste Matrix Code	S3200	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Absorbed organics from all wings of PF4 (mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.03
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.02
Cellulosics	0.00
Rubber	0.00
Plastics	1.46
Cements	0.00
Inorganic Matrix	273.99
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.11E+00
Np-237	6.23E-06
Pu-238	3.20E-01
Pu-239	1.94E+00
Pu-240	1.42E+00
Pu-241	1.20E+01
Pu-242	5.32E-04
Th-229	1.95E-13
Th-230	3.71E-09
Th-232	8.19E-16
U-233	2.80E-10
U-234	2.84E-05
U-235	5.35E-08
U-236	1.18E-06
U-238	2.25E-12

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Solidified Organics (absorbed organics on vermiculite) from all wings of PF4. Organic liquids (solvents and oils) generated from facility and equipment operations and maintenance and absorbed on vermiculite. Hazardous materials such as methylene chloride and carbon tetrachloride may be present but PCB's are NOT expected.

Waste Stream ID: **LA-TA-55-38****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Cemented inorganics (mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Cask - Misc w/ 1 - 30-gal Drum	5.2	0.0	5.2
Current Form Total	5.4	0.0	5.4

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	6.56
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	1.17
Cements	183.49
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.00E-01
Np-237	1.75E-06
Pu-238	8.11E+02
Pu-239	5.11E-01
Pu-240	2.00E-01
Pu-241	3.04E+00
Pu-242	1.44E-04
Th-229	5.90E-14
Th-230	1.01E-05
Th-232	1.23E-16
U-233	8.15E-11
U-234	7.50E-02
U-235	1.46E-08
U-236	1.72E-07
U-238	6.28E-13

Haz. Waste No(s).

D008

**No TRUCON
Codes Provided****Waste Stream Description**

Cemented Inorganics and Spent Samples Solidified inorganic process solids generated from facility and equipment operations and maintenance. This waste includes process leached solids, ash, filter cakes, salts, metal oxides, fines, evaporator bottoms, and sample residues (received from the CMR building) stabilized in Portland or gypsum cement.

Waste Stream ID: **LA-TA-55-43**

Appendix A

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Combustible/noncombustible debris containing Pu-238 (non-mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	68.41
Aluminum-based Metals/Alloys	0.28
Other Metals	8.20
Other Inorganic Materials	44.36
Cellulosics	5.66
Rubber	8.49
Plastics	26.19
Cements	0.00
Inorganic Matrix	1.09
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.97E-02
Np-237	1.34E-07
Pu-238	1.64E+01
Pu-239	1.18E-02
Pu-240	5.97E-03
Pu-241	1.36E-01
Pu-242	4.90E-06
Th-229	5.37E-15
Th-230	1.77E-07
Th-232	3.19E-18
U-233	6.91E-12
U-234	1.40E-03
U-235	3.14E-10
U-236	4.78E-09
U-238	1.99E-14

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 116/216

Waste Stream Description

Combustible/noncombustible debris including paper, rags, plastic, rubber, and plastic-based and cellulose-based waste generated during 238Pu activities. Plastic-based waste includes, but may not be limited to: tape, polyethylene and vinyl; gloves; plastic vials, polystyrene; tygon tubing; polyvinyl chloride plastic; Teflon products; plexiglass; and dry box gloves (unleaded neoprene base). Cellulosebased waste includes, but may not be limited to: rags, wood, paper, and cardboard; laboratory coats and overalls; booties and cotton gloves, and similar materials. The waste may also contain HEPA filters, noncombustible glass and metallic debris. Some of this waste was packaged in small metal cans before being placed in 55 Gallon drums.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-55-43.01-S****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
SWB Dir Ld w/o Liner	WP-LA-TA-55-43.01	190.9
Shipped Total		190.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	45.68
Aluminum-based Metals/Alloys	0.11
Other Metals	0.38
Other Inorganic Materials	0.13
Cellulosics	1.22
Rubber	0.19
Plastics	8.86
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.78E-03
Am-243	7.54E-08
Np-237	2.05E-07
Pu-238	2.76E+00
Pu-239	2.44E-03
Pu-240	4.00E-03
Pu-241	2.60E-02
Pu-242	2.79E-06
Th-229	4.03E-15
Th-230	1.95E-08
Th-232	2.40E-08
U-233	8.65E-12
U-234	2.57E-04
U-235	2.41E-11
U-236	1.19E-09
U-238	4.22E-15

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **LA-TA-55-61****Appendix A****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Metal debris waste from all wings of PF-4 (mixed)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Other	3.8	0.0	15.0
Current Form Total	15.0	0.0	15.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	15.1	0.0	15.1
Final Form Total	15.1	0.0	15.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	125.52
Aluminum-based Metals/Alloys	0.51
Other Metals	15.04
Other Inorganic Materials	81.40
Cellulosics	10.39
Rubber	15.58
Plastics	48.06
Cements	0.00
Inorganic Matrix	2.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	153.50
Packaging Material, Plastic	1.20
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.09E-02
Np-237	8.59E-08
Pu-239	4.89E-02
Pu-241	3.86E-02
Th-229	3.92E-15
U-233	4.79E-12
U-235	1.30E-09

Haz. Waste No(s).

D008

**No TRUCON
Codes Provided****Waste Stream Description**

Metal waste generated from facility and equipment decontamination and decommissioning activities.. This waste includes small tools, cans, small equipment items, motors, pumps, and process equipment. This waste also includes gloveboxes and associated ducting, equipment, and construction debris associated with the removal of gloveboxes. A small fraction of combustible waste, such as plastics (mainly packaging), may also be present in this waste stream.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LB-T001****Appendix A****TRU Waste Inventory Profile Report**

Site	Lawrence Berkeley Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	LBL-Non Mixed Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
12.2-gal Drum	0.0	0.0	0.1
30-gal Drum	0.1	0.0	0.1
55-gal Drum Dir Ld w/o Liner	0.2	0.0	0.2
5-gal Drum	0.0	0.0	0.0
Current Form Total	0.4	0.0	0.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.2	0.4
Final Form Total	0.2	0.2	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	11.30
Aluminum-based Metals/Alloys	0.00
Other Metals	3.90
Other Inorganic Materials	1.71
Cellulosics	4.66
Rubber	0.00
Plastics	13.69
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.06E-02
Am-243	2.40E-03
Np-237	1.70E-04
Pu-238	1.14E-04
Pu-239	2.10E-03
Pu-240	4.80E-04
Pu-241	4.00E-03
Pu-242	4.30E-05
Pu-244	2.58E-13
Th-229	1.97E-07
Th-230	7.38E-14
Th-232	5.00E-09
U-233	3.00E-04
U-234	2.32E-09
U-235	1.20E-07
U-236	9.96E-11
U-238	1.60E-07

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225
Waste Stream Description

Heterogeneous transuranic, non mixed waste

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LB-T002****Appendix A****TRU Waste Inventory Profile Report**

Site	Lawrence Berkeley Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	LBL - Mixed Waste	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
12.2-gal Drum	0.1	0.0	0.2
2.5-gal Drum	0.0	0.0	0.0
5-gal Drum	0.2	0.0	0.2
Current Form Total	0.3	0.0	0.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.2	0.4
Final Form Total	0.2	0.2	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	1.49
Other Inorganic Materials	9.50
Cellulosics	15.20
Rubber	0.00
Plastics	13.20
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.25E-02
Am-243	4.99E-04
Cs-137	6.22E-09
Np-237	7.30E-03
Pu-238	1.15E-02
Pu-239	1.10E-01
Pu-240	1.60E-04
Pu-241	2.87E-02
Pu-242	1.20E-04
Pu-244	5.90E-05
Th-229	3.79E-10
Th-230	4.07E-11
Th-232	3.00E-20
U-233	5.06E-07
U-234	5.54E-07
U-235	9.92E-07
U-236	7.59E-11
U-238	4.00E-08

Haz. Waste No(s).

D005, D006, D007, D008, D009, D010, D011, D018, D022, D028, D035, D039, F003, F005

TRUCON Code(s)

125/225

Waste Stream Description

Heterogeneous transuranic mixed waste

Waste Stream ID: **LB-T003**

Appendix A

TRU Waste Inventory Profile Report

Site	Lawrence Berkeley Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	TRU Mixed waste sources			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
12.2-gal Drum	0.0	0.0	0.1
5-gal Drum	0.0	0.0	0.0
Current Form Total	0.1	0.0	0.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal S100 POC - 6" w/ Liner	0.2	0.2	0.4
Final Form Total	0.2	0.2	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	2.76
Aluminum-based Metals/Alloys	0.00
Other Metals	15.10
Other Inorganic Materials	0.00
Cellulosics	0.03
Rubber	0.07
Plastics	0.16
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	320.70
Packaging Material, Plastic	713.00
Packaging Material, Cellulosics	69.70
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.72E-01
Cm-244	1.29E-03
Np-237	1.70E-06
Pu-240	8.41E-06
Th-229	2.27E-14
Th-232	9.83E-22
U-233	5.18E-11
U-236	3.02E-12

Haz. Waste No(s).

D008

TRUCON Code(s)

125/225

Waste Stream Description

Mixed waste sources

Waste Stream ID: **BLCHDN.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Lawrence Livermore National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5440	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-BLCHDN.001	0.2
55-gal Drum Dir Ld w/o Liner	WP-BLCHDN.001	1.5
Shipped Total		1.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	61.42
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	13.70
Cellulosics	5.41
Rubber	1.80
Plastics	40.99
Cements	0.00
Inorganic Matrix	11.12
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.56E-02
Am-243	1.34E-03
Cm-244	1.13E-01
Np-237	5.38E-04
Pu-238	5.20E-02
Pu-239	4.31E-07
Pu-240	5.18E-05
Pu-241	2.81E-05
Th-229	1.71E-12
Th-230	1.08E-11
Th-232	2.10E-22
U-233	9.13E-09
U-234	6.00E-07
U-235	8.59E-16
U-236	3.15E-12

Haz. Waste No(s).

F005

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: LL-M001

Appendix A

TRU Waste Inventory Profile Report

Site	Lawrence Livermore National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	R&D Glovebox Waste (Form 1)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	20.2	13.9	34.1
55-gal Drum Dir Ld w/o Liner	48.9	208.0	256.9
55-gal POC - 12" w/o Liner	2.9	12.1	15.0
Current Form Total	72.0	234.0	306.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	20.2	13.9	34.1
55-gal Drum Dir Ld w/o Liner	48.9	208.0	256.9
55-gal POC - 12" w/o Liner	2.9	12.1	15.0
Final Form Total	72.0	234.0	306.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	54.80
Aluminum-based Metals/Alloys	8.71
Other Metals	11.05
Other Inorganic Materials	11.10
Cellulosics	36.60
Rubber	20.70
Plastics	34.60
Cements	10.52
Inorganic Matrix	4.00
Organic Matrix	0.07
Soils/gravel	0.10
Vitrified	0.00
Packaging Material, Steel	150.21
Packaging Material, Plastic	4.13
Packaging Material, Cellulosics	6.73
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.76E+00
Am-243	5.16E-04
Cm-244	1.30E+00
Cs-137	1.19E-03
Np-237	4.51E-05
Pu-238	2.63E+00
Pu-239	3.26E+00
Pu-240	9.81E-01
Pu-241	1.10E+01
Pu-242	2.91E-04
Pu-244	2.17E-13
Sr-90	1.19E-03
Th-229	4.42E-05
Th-230	5.27E-07
Th-232	3.06E-08
U-233	7.05E-04
U-234	8.80E-05
U-235	4.13E-06
U-236	2.91E-08
U-238	8.98E-06

Haz. Waste No(s).

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

TRUCON Code(s)

116/216

Waste Stream Description

Specific waste items in this waste stream may include paper cartons, cardboard, Kimwipes, cotton swabs, tissues, cheesecloth, grinding paper, plastic (e.g., bags, sheet, tape, containers, pipette tips, and glovebox windows), Neoprene and Hypalon gloves (leaded and non-leaded), aluminum foil, tin cans, hardware (e.g., nuts, bolts, washers, fittings, gauges, fixtures, thermocouples), metal tools (e.g., screwdrivers and pliers), metal parts, equipment (with or without circuit boards), copper (wire, tubing, flanges, rods, and molds), sealed sources, aerosol cans, glass (e.g., beakers, vials, and ion exchange columns with resin), graphite molds, crucibles (magnesium oxide, tantalum), epoxy resin chunks, lead metal (e.g., bricks, foil), Kaufman cans (lead seams), lead-lined and cadmium-lined steel cans, mercury batteries, fluorescent and incandescent light bulbs, and small quantities of pyrochemical salts and solidified aqueous or organic liquids (individual drums contain less than 50 percent, by volume, solidified liquids, and/or salts).

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

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

Appendix A

TRU Waste Inventory Profile Report

Site	Lawrence Livermore National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-LL-M001-S5400	136.4
55-gal Drum Dir Ld w/o Liner	WP-LL-M001-S5400	2.9
SWB w/ 4 - 55-gal Drums w/ Liners	WP-LL-M001-S5400	3.8
Shipped Total		143.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	88.62
Aluminum-based Metals/Alloys	2.36
Other Metals	3.76
Other Inorganic Materials	7.07
Cellulosics	5.01
Rubber	11.09
Plastics	57.87
Cements	0.00
Inorganic Matrix	14.54
Organic Matrix	3.08
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.06E+00
Am-243	9.47E-05
Cm-244	2.05E-01
Cs-137	1.40E-07
Np-237	5.12E-04
Pu-238	2.47E+00
Pu-239	4.18E+00
Pu-240	1.17E+00
Pu-241	1.37E+01
Pu-242	2.21E-04
Sr-90	1.38E-07
Th-229	1.62E-12
Th-230	5.22E-09
Th-232	1.38E-17
U-233	8.66E-09
U-234	1.59E-04
U-235	3.48E-06
U-236	1.39E-07
U-238	2.47E-05

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LL-T004****Appendix A****TRU Waste Inventory Profile Report**

Site	Lawrence Livermore National Laboratory	Final Waste Form	Salt Waste	Waste Matrix Code	S3141	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Pyrochemical salt waste (Form 4)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	20.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	290.00
Cellulosics	2.00
Rubber	0.00
Plastics	20.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.65E+01
Cm-244	1.51E-03
Np-237	6.77E-05
Pu-238	1.34E+00
Pu-239	3.42E+00
Pu-240	1.67E+00
Pu-241	2.15E+01
Pu-242	1.04E-03
Th-229	1.31E-14
Th-230	1.72E-11
Th-232	1.22E-18
U-233	2.84E-10
U-234	3.82E-06
U-235	3.37E-09
U-236	4.95E-08
U-238	1.57E-13

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 124/224
Waste Stream Description

The waste consists primarily of used chloride and fluoride salts from pyrochemical processes such as electrorefining, molten salt extraction, and direct oxide reduction. There may also be up to 20% heterogeneous organic glovebox bagout waste packaged with the salt waste. This waste does not contain any RCRA listed hazardous materials.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LL-T005****Appendix A****TRU Waste Inventory Profile Report**

Site	Lawrence Livermore National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	R&D Historical Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	3.37
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	45.80
Cellulosics	11.40
Rubber	0.00
Plastics	6.73
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	35.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.43E-03
Cs-137	1.84E-02
Np-237	2.41E-09
Pu-239	1.44E-02
Pu-240	2.25E-03
Sr-90	1.77E-03
Th-229	1.64E-19
Th-232	1.65E-21
U-233	5.25E-15
U-235	1.42E-11
U-236	6.67E-11

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 116/216
Waste Stream Description

Historical NTS shot samples and debris

Waste Stream ID: LL-W018-S5100

Appendix A

TRU Waste Inventory Profile Report

Site	Lawrence Livermore National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5100	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Combined metal scrap & incidental combust.(Form 3)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Misc	2.6	0.0	120.6
SLB2 (5' x 5' x 8) Dir Ld	0.0	101.9	101.9
SWB Dir Ld w/o Liner	20.8	117.2	138.0
Current Form Total	141.4	219.1	360.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
SLB2 (5' x 5' x 8) Dir Ld	164.1	101.9	266.0
SWB Dir Ld w/o Liner	20.8	117.2	138.0
Final Form Total	184.9	219.1	404.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	62.80
Aluminum-based Metals/Alloys	1.96
Other Metals	10.00
Other Inorganic Materials	0.66
Cellulosics	2.49
Rubber	3.27
Plastics	1.51
Cements	1.00
Inorganic Matrix	0.00
Organic Matrix	2.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	194.85
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.47E-02
Cm-244	3.85E-05
Np-237	1.99E-08
Pu-238	4.61E-03
Pu-239	3.87E-02
Pu-240	1.16E-02
Pu-241	3.27E-01
Pu-242	2.50E-06
Th-229	1.67E-18
Th-230	5.92E-14
Th-232	8.49E-21
U-233	4.84E-14
U-234	1.31E-08
U-235	3.82E-11
U-236	3.44E-10
U-238	3.77E-16

Haz. Waste No(s).

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

TRUCON Code(s)

125/225

Waste Stream Description

This waste stream is composed primarily of objects which, because of physical size, cannot be packaged in a 55-gallon drum. Typical objects include decommissioned gloveboxes, hoods, and large pieces of equipment (lathes, mills, etc.). This waste stream may contain lead metal (e.g., bricks, foil), Kaufman cans (lead seams), lead-lined and cadmium-lined steel cans, mercury batteries, fluorescent and incandescent light bulbs. The void space in boxes may be filled with other TRU waste items or with foam in plastic bags.

Waste Stream ID: **LL-W018-SS****Appendix A****TRU Waste Inventory Profile Report**

Site	Lawrence Livermore National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Sealed Sources			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	4.2	0.0	4.2
55-gal POC - 12" w/o Liner	0.0	4.2	4.2
Current Form Total	4.2	4.2	8.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal POC - 12" w/ Liner	4.2	4.2	8.3
Final Form Total	4.2	4.2	8.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	7.69
Aluminum-based Metals/Alloys	1.65
Other Metals	4.67
Other Inorganic Materials	4.09
Cellulosics	1.67
Rubber	0.00
Plastics	0.04
Cements	0.00
Inorganic Matrix	10.10
Organic Matrix	5.32
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	527.40
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	137.50
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.90E+01
Am-243	2.50E-06
Cm-244	2.10E-04
Cs-137	3.75E-03
Np-237	7.83E-06
Pu-238	3.12E+00
Pu-239	1.44E-01
Pu-240	4.61E-04
Pu-241	9.91E-02
Pu-244	2.18E-24
Sr-90	1.17E-02
Th-229	7.63E-16
Th-230	4.01E-11
Th-232	3.38E-22
U-233	2.07E-11
U-234	8.90E-06
U-235	1.03E-07
U-236	1.37E-11

No Hazardous Waste Numbers Provided

TRUCON Code(s)

117/217

Waste Stream Description

Specific waste items in this waste stream include sealed sources composed primarily of metal or metal encapsulated in a plastic or resin disk. Other waste items consist of packaging including cans, ice cream cartons, and plastic bags, sheet, and tape, bentonite clay or other inorganic absorbents such as Floor Dr

Waste Stream ID: **LL-W019****Appendix A****TRU Waste Inventory Profile Report**

Site	Lawrence Livermore National Laboratory	Final Waste Form	Solidified Organics	Waste Matrix Code	S3900	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Solidified Waste (Form 2)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	16.4	0.0	16.4
Current Form Total	16.4	0.0	16.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	16.4	0.0	16.4
Final Form Total	16.4	0.0	16.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	30.50
Aluminum-based Metals/Alloys	72.80
Other Metals	3.41
Other Inorganic Materials	10.10
Cellulosics	4.11
Rubber	6.25
Plastics	38.70
Cements	0.00
Inorganic Matrix	85.30
Organic Matrix	67.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.01E+00
Am-243	2.45E-07
Cm-244	1.09E-03
Cs-137	1.89E-06
Np-237	9.35E-05
Pu-238	1.45E+00
Pu-239	4.75E+00
Pu-240	1.34E+00
Pu-241	1.85E+01
Pu-242	2.46E-04
Sr-90	1.89E-06
Th-229	6.48E-06
Th-230	2.81E-09
Th-232	9.81E-19
U-233	6.91E-02
U-234	3.14E-04
U-235	4.11E-05
U-236	3.97E-08
U-238	1.14E-04

Haz. Waste No(s).

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

TRUCON Code(s)

113/213

Waste Stream Description

This waste stream consists of drums with 50 percent or greater by volume solidified aqueous or organic liquids. Additional waste in each container includes glovebox trash.

Waste Stream ID: MC-W001

Appendix A

TRU Waste Inventory Profile Report

Site	U.S. Army Materiel Command	Final Waste Form	Heterogeneous	Waste Matrix Code	S5110	Handling	CH
Source Cat.	Discarding Excess/Expired Materials	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	USAMC TRU Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.1	0.0	0.1
Current Form Total	0.1	0.0	0.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal S300 POC - 12" w/ Liner	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	190.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	527.40
Packaging Material, Plastic	226.90
Packaging Material, Cellulosics	137.50
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Np-237	1.90E-04
Pu-239	2.43E-02
Th-229	3.25E-11
U-233	2.39E-08
U-235	6.95E-10

No Hazardous Waste Numbers Provided

 TRUCON Code(s)
 120/220

Waste Stream Description

Army sealed sources

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **NT-JAS-01****Appendix A****TRU Waste Inventory Profile Report**

Site	Nevada Test Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Combined metal scrap and incidental combustibles			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	30.2	317.5	347.8
Current Form Total	30.2	317.5	347.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	30.2	317.5	347.8
Final Form Total	30.2	317.5	347.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	20.00
Aluminum-based Metals/Alloys	3.00
Other Metals	1.00
Other Inorganic Materials	1.00
Cellulosics	1.00
Rubber	1.00
Plastics	1.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	153.50
Packaging Material, Plastic	1.20
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.51E-01
Np-237	2.33E-07
Pu-238	6.75E-02
Pu-239	9.92E-02
Pu-240	8.02E-02
Pu-241	1.93E+00
Th-229	3.77E-16
Th-230	2.21E-11
Th-232	1.47E-18
U-233	2.43E-12
U-234	9.76E-07
U-235	4.89E-10
U-236	1.19E-08

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225
Waste Stream Description

Waste stream consists of spent Primary Target Chambers from Jasper gas gun experiments. PTCs are metal chambers used to contain debris from the impact of a sabot on a disk of plutonium metal.

Waste Stream ID: **NTLBL-S3900****Appendix A****TRU Waste Inventory Profile Report**

Site	Nevada Test Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3900	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Solidified Solids			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	72.20
Aluminum-based Metals/Alloys	12.30
Other Metals	5.80
Other Inorganic Materials	4.80
Cellulosics	52.50
Rubber	3.80
Plastics	50.10
Cements	30.00
Inorganic Matrix	11.80
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.27E-01
Cs-137	1.53E-05
Np-237	5.49E-02
Pu-238	2.14E-02
Pu-239	4.94E-01
Pu-240	1.16E-01
Pu-241	1.07E+00
Pu-242	1.51E-05
Th-229	5.40E-09
Th-230	1.49E-10
Th-232	4.11E-17
U-233	5.24E-06
U-234	1.46E-06
U-235	1.07E-08
U-236	7.56E-08
U-238	5.01E-14

No Hazardous Waste Numbers Provided

TRUCON Code(s)

111/211

Waste Stream Description

This waste stream consists of solidified sludge, some laboratory trash, contaminated equipment. Real time Radiography has been performed to show no free liquids, with the exception of less than 1% by volume in the solidified sludge. The waste is contact-handled TRU waste. The waste stream was generated at the Lawrence Berkeley National Labs and shipped to the test site around late 1970's to early 1980's.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **NTLBL-S5400**

Appendix A

TRU Waste Inventory Profile Report

Site	Nevada Test Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Heterogeneous Debris, Uncategorized			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.6	0.0	0.6
Current Form Total	0.6	0.0	0.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	72.20
Aluminum-based Metals/Alloys	12.30
Other Metals	5.80
Other Inorganic Materials	4.80
Cellulosics	52.50
Rubber	3.80
Plastics	50.10
Cements	30.00
Inorganic Matrix	11.80
Organic Matrix	11.80
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.27E-01
Cs-137	1.53E-05
Np-237	5.49E-02
Pu-238	2.14E-02
Pu-239	4.94E-01
Pu-240	1.16E-01
Pu-241	1.07E+00
Pu-242	1.51E-05
Sr-90	1.49E-05
Th-229	5.40E-09
Th-230	1.49E-10
Th-232	4.11E-17
U-233	5.24E-06
U-234	1.46E-06
U-235	1.07E-08
U-236	7.56E-08
U-238	5.01E-14

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D022,
D028, F001, F002,
F003, F005

TRUCON Code(s)

125/225

Waste Stream Description

This waste stream consists of laboratory trash, used sources, and debris waste. Real time radiography has been performed on the waste to verify that there are no free liquids present. The waste is contact-handled TRU waste. The waste stream was generated at the Lawrence Berkeley National Labs and shipped to the test site around late 1970's to early 1980's.

Waste Stream ID: **NTLBL-S5400-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Nevada Test Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-NTLBL-S5400	1.2
55-gal Drum Dir Ld w/o Liner	WP-NTLBL-S5400	0.4
Shipped Total		1.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	68.85
Aluminum-based Metals/Alloys	0.00
Other Metals	19.04
Other Inorganic Materials	35.81
Cellulosics	8.37
Rubber	4.61
Plastics	18.87
Cements	0.00
Inorganic Matrix	1.74
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.33E-01
Am-243	3.49E-03
Cm-244	5.19E-01
Cs-137	3.04E-05
Np-237	4.07E-04
Pu-238	8.72E-02
Pu-239	4.04E-01
Pu-240	9.16E-02
Pu-241	1.93E+00
Pu-242	1.27E-05
Sr-90	3.03E-05
Th-229	7.47E-13
Th-230	1.02E-11
Th-232	6.03E-19
U-233	5.31E-09
U-234	7.51E-07
U-235	1.20E-09
U-236	8.14E-09
U-238	5.76E-15

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D022,
D028, F001, F002,
F003, F005

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **NTLLNL-S3900****Appendix A****TRU Waste Inventory Profile Report**

Site	Nevada Test Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3900	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Solidified Solids			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	4.8	0.0	4.8
Current Form Total	4.8	0.0	4.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	3.5	0.0	3.5
Final Form Total	3.5	0.0	3.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	72.20
Aluminum-based Metals/Alloys	12.30
Other Metals	5.80
Other Inorganic Materials	4.80
Cellulosics	52.50
Rubber	3.80
Plastics	50.10
Cements	30.00
Inorganic Matrix	11.80
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.86E-01
Am-243	1.99E-03
Cm-244	2.92E-03
Cs-137	3.93E-05
Np-237	1.13E-05
Pu-238	2.02E-01
Pu-239	4.53E+00
Pu-240	3.04E-02
Pu-241	1.95E-01
Pu-242	1.42E-04
Pu-244	1.63E-09
Sr-90	1.32E-07
Th-229	6.05E-06
Th-230	3.02E-09
Th-232	1.08E-17
U-233	2.93E-03
U-234	2.19E-05
U-235	2.69E-07
U-236	1.98E-08
U-238	2.51E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D040, F001, F002, F003, F004, F005

TRUCON Code(s)

111/211

Waste Stream Description

This waste stream consists of solidified sludge, some laboratory trash, contaminated equipment. Real time Radiography has been performed to show no free liquids, with the exception of less than 1% by volume in the solidified sludge. The waste is contact-handled TRU waste. The waste stream was generated at the Lawrence Livermore National Laboratory, Livermore, CA (LLNL) and shipped to the NTS from 1974 until 1990. The waste was declared as potentially mixed TRU waste by the generator in April, 1991.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **NTLLNL-S5400**

Appendix A

TRU Waste Inventory Profile Report

Site	Nevada Test Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Heterogeneous Debris, Uncategorized			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.4	0.0	0.4
55-gal POC - 6" w/ Liner	0.4	0.0	0.4
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
SWB Dir Ld w/ Liner	115.3	0.0	115.3
Current Form Total	116.4	0.0	116.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	1.0	0.0	1.0
SWB Dir Ld w/o Liner	115.3	0.0	115.3
Final Form Total	116.3	0.0	116.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	72.20
Aluminum-based Metals/Alloys	12.30
Other Metals	5.80
Other Inorganic Materials	4.80
Cellulosics	52.50
Rubber	3.80
Plastics	50.10
Cements	30.00
Inorganic Matrix	11.80
Organic Matrix	11.80
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	153.30
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.86E-01
Am-243	1.99E-03
Cm-244	2.92E-03
Cs-137	3.93E-05
Np-237	1.13E-05
Pu-238	2.02E-01
Pu-239	4.53E+00
Pu-240	3.04E-02
Pu-241	1.95E-01
Pu-242	1.42E-04
Pu-244	1.63E-09
Sr-90	1.32E-07
Th-229	6.05E-06
Th-230	3.02E-09
Th-232	1.08E-17
U-233	2.93E-03
U-234	2.19E-05
U-235	2.69E-07
U-236	1.98E-08
U-238	2.51E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D040, F001, F002, F003, F004, F005
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TRUCON Code(s)

125/225

Waste Stream Description

This waste stream consists of glovebox parts, laboratory trash, contaminated equipment. The waste is contact-handled TRU waste. The waste stream was generated at the Lawrence Livermore National Laboratory, Livermore, CA (LLNL) and shipped to the NTS from 1974 until 1990. The waste was declared as potentially mixed TRU waste by the generator in April, 1991.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **NTLRC-S5400****Appendix A****TRU Waste Inventory Profile Report**

Site	Nevada Test Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Heterogeneous Debris, Uncategorized			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	34.38
Aluminum-based Metals/Alloys	5.86
Other Metals	2.76
Other Inorganic Materials	2.29
Cellulosics	25.00
Rubber	1.81
Plastics	23.86
Cements	14.29
Inorganic Matrix	5.62
Organic Matrix	5.62
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.30E-01
Np-237	4.68E-05
Pu-238	4.43E-02
Pu-239	8.91E-01
Pu-240	2.19E-01
Pu-241	2.20E+00
Pu-242	3.02E-05
Th-229	4.42E-12
Th-230	3.07E-10
Th-232	7.75E-17
U-233	4.33E-09
U-234	3.02E-06
U-235	1.27E-05
U-236	1.43E-07
U-238	1.10E-05

Haz. Waste No(s).D005, D008, D009,
D011, D019, D035,
D040, F001, F005**TRUCON Code(s)**

125/225

Waste Stream Description

This waste stream consists of laboratory trash, used sources, and debris waste. Real time radiography has been performed on the waste to verify that there are no free liquids present. The waste is contact-handled TRU waste. The waste stream was generated at the Lynchburg Research Center shipped to the test site around late 1970's to early 1980's.

Waste Stream ID: **NTLRC-S5400-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Nevada Test Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-NTLRC-S5400	3.1
Shipped Total		3.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	48.02
Aluminum-based Metals/Alloys	10.80
Other Metals	9.85
Other Inorganic Materials	18.63
Cellulosics	26.85
Rubber	31.38
Plastics	73.04
Cements	0.00
Inorganic Matrix	9.45
Organic Matrix	0.57
Soils/gravel	0.17
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.55E+00
Am-243	1.13E-05
Cs-137	3.51E-07
Np-237	7.93E-05
Pu-238	1.83E-01
Pu-239	2.31E+00
Pu-240	8.47E-01
Pu-241	1.02E+01
Pu-242	9.39E-05
Sr-90	3.50E-07
Th-229	1.44E-13
Th-230	3.84E-08
Th-232	5.58E-18
U-233	1.03E-09
U-234	1.42E-03
U-235	4.74E-05
U-236	7.53E-08
U-238	3.37E-05

Haz. Waste No(s).

D005, D008, D009,
D011, D019, D035,
D040, F001, F005No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **NT-RF-BERYLLIUM-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Nevada Test Site	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-NT-RF-BERYLLIUM	29.3
Shipped Total		29.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	3.88
Aluminum-based Metals/Alloys	4.01
Other Metals	158.30
Other Inorganic Materials	1.17
Cellulosics	8.92
Rubber	0.09
Plastics	15.77
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.33E-01
Am-243	3.13E-08
Np-237	1.44E-06
Pu-238	3.21E-02
Pu-239	8.27E-01
Pu-240	1.88E-01
Pu-241	1.39E+00
Pu-242	1.47E-05
Th-229	5.70E-08
Th-230	8.33E-10
Th-232	1.24E-18
U-233	2.03E-04
U-234	3.10E-05
U-235	6.12E-07
U-236	1.67E-08
U-238	7.89E-06

Haz. Waste No(s).

D007, F002

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **NT-RF-GRAPHITE-S****Appendix A****TRU Waste Inventory Profile Report**

Site	Nevada Test Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5126	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-NT-RF-GRAPHITE	3.7
Shipped Total		3.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.32
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	291.08
Cellulosics	2.30
Rubber	0.61
Plastics	12.55
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.25E-01
Np-237	8.95E-06
Pu-238	3.17E-01
Pu-239	1.04E+01
Pu-240	1.92E+00
Pu-241	1.64E+01
Pu-242	1.40E-04
Th-229	1.54E-14
Th-230	4.46E-10
Th-232	1.27E-17
U-233	1.11E-10
U-234	1.79E-05
U-235	3.07E-08
U-236	1.71E-07
U-238	7.58E-06

Haz. Waste No(s).

D008

**No TRUCON
Codes Provided****Waste Stream Description**

N/A

Waste Stream ID: **NT-RF-METAL-S****Appendix A****TRU Waste Inventory Profile Report**

Site	Nevada Test Site	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-NT-RF-METAL	5.6
55-gal Drum Dir Ld w/o Liner	WP-NT-RF-METAL	0.4
Shipped Total		6.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	166.64
Aluminum-based Metals/Alloys	25.59
Other Metals	4.59
Other Inorganic Materials	0.24
Cellulosics	7.26
Rubber	0.65
Plastics	21.28
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.20E-01
Am-243	4.51E-07
Np-237	1.94E-06
Pu-238	3.51E-02
Pu-239	1.12E+00
Pu-240	2.77E-01
Pu-241	2.40E+00
Pu-242	2.24E-05
Th-229	3.43E-15
Th-230	2.00E-07
Th-232	1.82E-18
U-233	2.46E-11
U-234	7.39E-03
U-235	4.54E-06
U-236	2.46E-08
U-238	3.70E-03

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **NTS54332R0-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Nevada Test Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-NTS54332R0	235.0
55-gal Drum Dir Ld w/o Liner	WP-NTS54332R0	47.6
SWB w/ 4 - 55-gal Drums w/ Liners	WP-NTS54332R0	24.6
Shipped Total		307.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	45.13
Aluminum-based Metals/Alloys	2.90
Other Metals	3.84
Other Inorganic Materials	6.28
Cellulosics	13.22
Rubber	11.05
Plastics	46.10
Cements	0.00
Inorganic Matrix	10.47
Organic Matrix	3.40
Soils/gravel	0.08
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.99E-01
Am-243	4.23E-05
Cm-244	9.21E-03
Cs-137	7.57E-07
Np-237	4.66E-05
Pu-238	8.09E-02
Pu-239	1.20E+00
Pu-240	3.14E-01
Pu-241	3.28E+00
Pu-242	3.38E-05
Sr-90	7.70E-07
Th-229	2.65E-07
Th-230	3.27E-09
Th-232	3.68E-18
U-233	7.08E-04
U-234	9.13E-05
U-235	3.25E-03
U-236	3.73E-08
U-238	3.29E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D040, F001, F002, F003, F004, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **NTS54COMR0-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Nevada Test Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-NTS54COMR0	39.5
55-gal Drum Dir Ld w/o Liner	WP-NTS54COMR0	8.9
SWB w/ 4 - 55-gal Drums w/ Liners	WP-NTS54COMR0	1.9
Shipped Total		50.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	50.86
Aluminum-based Metals/Alloys	4.45
Other Metals	5.66
Other Inorganic Materials	8.36
Cellulosics	20.52
Rubber	12.84
Plastics	55.40
Cements	0.00
Inorganic Matrix	3.71
Organic Matrix	0.66
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.83E-01
Am-243	4.16E-04
Cm-244	4.73E-01
Cs-137	1.61E-06
Np-237	9.70E-05
Pu-238	4.21E-01
Pu-239	1.02E+00
Pu-240	2.42E-01
Pu-241	2.27E+00
Pu-242	3.66E-05
Sr-90	1.60E-06
Th-229	1.95E-06
Th-230	1.54E-09
Th-232	2.84E-18
U-233	5.19E-03
U-234	4.51E-05
U-235	2.64E-07
U-236	2.87E-08
U-238	1.75E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D040, F001, F002, F003, F004, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **NTS54MIX1R0-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Nevada Test Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-NTS54MIX1R0	0.4
Shipped Total		0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	33.89
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	2.40
Cellulosics	38.46
Rubber	41.59
Plastics	38.46
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.28E-03
Am-243	2.30E-04
Cs-137	1.73E-04
Np-237	1.91E-06
Pu-238	9.60E-04
Pu-239	6.96E-02
Pu-240	1.67E-02
Pu-241	5.18E-02
Pu-242	1.64E-06
Th-229	1.37E-14
Th-230	4.56E-13
Th-232	4.41E-19
U-233	4.88E-11
U-234	1.67E-08
U-235	4.12E-10
U-236	2.98E-09
U-238	1.49E-15

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D040, F001, F002, F003, F004, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **NTS-EG&G-HET****Appendix A****TRU Waste Inventory Profile Report**

Site	Nevada Test Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Heterogeneous Debris, Uncategorized			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	69.50
Aluminum-based Metals/Alloys	0.00
Other Metals	4.20
Other Inorganic Materials	0.00
Cellulosics	30.00
Rubber	0.00
Plastics	50.10
Cements	0.00
Inorganic Matrix	11.50
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.56E-01
Cs-137	2.55E-05
Np-237	9.76E-06
Pu-238	8.90E-02
Pu-239	1.79E+00
Pu-240	4.39E-01
Pu-241	4.41E+00
Pu-242	6.07E-05
Sr-90	2.50E-05
Th-229	6.39E-13
Th-230	6.18E-10
Th-232	1.56E-16
U-233	6.95E-10
U-234	6.07E-06
U-235	8.07E-05
U-236	2.87E-07
U-238	2.45E-05

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225
Waste Stream Description

This waste stream consists of laboratory trash, used sources, and debris waste. Real time radiography has been performed on the waste to verify that there are no free liquids present. The waste is contact-handled TRU waste. The waste stream was generated at the EG&G North Las Vegas and shipped to the test site around late 1970's to early 1980's.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **NTS-TTR-HET****Appendix A****TRU Waste Inventory Profile Report**

Site	Nevada Test Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Heterogeneous Debris, Uncategorized			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	4.81
Aluminum-based Metals/Alloys	0.00
Other Metals	0.96
Other Inorganic Materials	23.56
Cellulosics	5.29
Rubber	11.54
Plastics	28.85
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.58E-02
Cs-137	1.02E-06
Np-237	9.86E-07
Pu-238	1.20E-02
Pu-239	2.42E-01
Pu-240	5.95E-02
Pu-241	5.97E-01
Pu-242	8.20E-06
Sr-90	1.00E-06
Th-229	7.09E-14
Th-230	8.33E-11
Th-232	2.11E-17
U-233	7.46E-11
U-234	8.18E-07
U-235	5.26E-09
U-236	3.88E-08
U-238	8.70E-06

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225
Waste Stream Description

This waste stream consists of laboratory trash, and debris waste. Real time radiography has been performed on the waste to verify that there are no free liquids present. The waste is contact-handled TRU waste. The waste stream was generated at the Tonopah Test Range facility and shipped to the test site around late 1970's.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **NT-W004****Appendix A****TRU Waste Inventory Profile Report**

Site	Nevada Test Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Heterogeneous Debris, Uncategorized			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	192.30
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	24.00
Cellulosics	14.40
Rubber	0.00
Plastics	14.50
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	1.61E+00
Pu-239	1.33E-01
Th-230	1.12E-08
U-234	1.10E-04
U-235	2.89E-09

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 116/216, 125/225
Waste Stream Description

ITRI waste

Waste Stream ID: **NT-W021****Appendix A****TRU Waste Inventory Profile Report**

Site	Nevada Test Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	V3XA Spheres			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Sphere - 3-ft. dia HY80 Carbon Steel	0.9	0.0	0.9
Current Form Total	0.9	0.0	0.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
TDOP Dir Ld	9.0	0.0	9.0
Final Form Total	9.0	0.0	9.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	3140.00
Aluminum-based Metals/Alloys	6.60
Other Metals	10.30
Other Inorganic Materials	0.00
Cellulosics	10.10
Rubber	0.00
Plastics	0.00
Cements	15.00
Inorganic Matrix	548.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	171.30
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.40E+01
Np-237	9.95E-05
Pu-238	1.62E-01
Pu-239	5.68E+00
Pu-240	1.30E+00
Pu-241	1.11E+01
Pu-242	1.15E-04
Th-229	3.25E-12
Th-230	6.22E-07
Th-232	4.62E-16
U-233	4.74E-09
U-234	3.15E-03
U-235	6.02E-05
U-236	8.50E-07
U-238	3.10E-03

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225
Waste Stream Description

The two steel vessels are 1-inch thick by 3-feet diameter, weighing about 2700 lbs. each. The vessels contain heterogeneous mixtures of the following materials: Plutonium, D-38, Beryllium metal, Completely burned high explosive, Stainless steel, Brass, Polystyrene foam, Aluminum, Coke (degassed coal), Water absorbed by the coke, Steel, Glass, Epoxy resin, Thermalite (aerated cement block), Plaster, Hortag (fly-ash and clay), Wood, and Krypton-85 tracer gas for leak detection. The UK has had similar vessels in storage for over ten years, but none containing plutonium have ever been opened. Vessels containing D-38 only have been opened, with small amounts of water vapor and some loose debris found inside. The bulk of the materials were found to be trapped within the thick coke layer lining the inner surface of the vessel. No more wastes of this type are planned to be generated.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **OR-CHEM-CH-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Oak Ridge National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Analytical Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	ORNL Analytical Chemistry CH-TRU Debris Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum Dir Ld	0.4	0.0	0.4
55-gal Drum Dir Ld w/o Liner	19.3	0.0	19.3
79-gal Drum Dir Ld	1.2	0.0	1.2
Box - Misc	35.5	0.0	35.5
Current Form Total	56.5	0.0	56.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	27.0	0.0	27.0
Final Form Total	27.0	0.0	27.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	96.20
Aluminum-based Metals/Alloys	0.80
Other Metals	10.65
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.40
Plastics	64.90
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	1.50
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.68E-01
Am-243	3.70E-05
Cm-244	3.56E-03
Cs-137	8.27E-03
Np-237	2.55E-06
Pu-238	3.67E+00
Pu-239	1.17E-01
Pu-240	2.10E-02
Pu-241	1.33E-01
Pu-242	3.15E-05
Pu-244	2.46E-21
Sr-90	6.81E-03
Th-229	5.13E-05
Th-230	3.63E-08
Th-232	2.49E-06
U-233	2.34E-02
U-234	3.03E-04
U-235	2.26E-06
U-236	3.20E-08
U-238	3.68E-05

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D022,
F001, F002, F004,
F005

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from analytical chemistry operations at ORNL

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **OR-GENR-CH-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Oak Ridge National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	ORNL General Research & Development CH-TRU Debris Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum Dir Ld	1.2	0.0	1.2
55-gal Drum Dir Ld w/o Liner	18.9	0.0	18.9
79-gal Drum Dir Ld	13.8	0.0	13.8
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Box - Misc	17.3	0.0	17.3
Current Form Total	51.6	0.0	51.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	27.0	0.0	27.0
Final Form Total	27.0	0.0	27.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	96.20
Aluminum-based Metals/Alloys	0.80
Other Metals	10.65
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.40
Plastics	64.90
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	1.50
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.67E-02
Am-243	1.80E-02
Cm-244	2.21E-01
Cs-137	5.76E-08
Np-237	5.25E-04
Pu-238	3.41E-01
Pu-239	9.81E-02
Pu-240	1.04E-03
Pu-241	7.26E-05
Pu-242	4.28E-03
Pu-244	3.57E-11
Sr-90	2.95E-07
Th-229	5.02E-06
Th-230	1.06E-05
Th-232	6.89E-08
U-233	2.32E-03
U-234	3.29E-05
U-235	1.76E-07
U-236	1.32E-06
U-238	2.06E-05

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D022,
F001, F002, F004,
F005

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from general R&D at ORNL

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **OR-ISTP-CH-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Oak Ridge National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	ORNL Isotopes Facilities CH-TRU Debris Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum Dir Ld	3.7	0.0	3.7
55-gal Drum Dir Ld w/o Liner	77.2	0.0	77.2
79-gal Drum Dir Ld	49.3	0.0	49.3
85-gal Drum Dir Ld w/ Liner	1.3	0.0	1.3
Box - Misc	20.4	0.0	20.4
Current Form Total	151.9	0.0	151.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	74.9	0.0	74.9
Final Form Total	74.9	0.0	74.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	96.20
Aluminum-based Metals/Alloys	0.80
Other Metals	10.65
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.40
Plastics	64.90
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	1.50
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.24E+00
Am-243	1.24E-02
Cm-244	7.94E+00
Cs-137	3.09E-04
Np-237	3.93E-03
Pu-238	1.15E+01
Pu-239	1.63E-01
Pu-240	2.26E-01
Pu-241	3.10E+00
Pu-242	1.21E-03
Pu-244	1.11E-10
Sr-90	1.85E-07
Th-229	5.04E-06
Th-230	6.77E-06
Th-232	1.91E-06
U-233	2.32E-03
U-234	8.31E-04
U-235	2.54E-06
U-236	1.85E-07
U-238	3.07E-06

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D022,
F001, F002, F004,
F005

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from isotopes production at ORNL

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **OR-NBL-CH-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Oak Ridge National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	New Brunswick Laboratory CH-TRU Debris Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum Dir Ld	0.8	0.0	0.8
55-gal Drum Dir Ld w/o Liner	7.3	0.0	7.3
79-gal Drum Dir Ld	15.0	0.0	15.0
Current Form Total	23.1	0.0	23.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	11.4	0.0	11.4
Final Form Total	11.4	0.0	11.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	96.20
Aluminum-based Metals/Alloys	0.80
Other Metals	10.65
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.40
Plastics	64.90
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	1.50
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.90E-06
Np-237	2.08E-11
Pu-238	6.23E-02
Pu-239	9.49E-02
Pu-240	3.75E-02
Pu-241	5.94E-06
Th-229	2.72E-06
Th-230	2.17E-08
Th-232	1.45E-17
U-233	1.26E-03
U-234	1.07E-04
U-235	1.41E-05
U-236	2.56E-08
U-238	8.75E-05

Haz. Waste No(s).

D008, D009

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from NBL

Waste Stream ID: **OR-NFS-CH-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Oak Ridge National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Nuclear Fuel Services CH-TRU Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	70.7	0.0	70.7
Box - Misc	15.3	0.0	15.3
Current Form Total	86.0	0.0	86.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	77.0	0.0	77.0
Final Form Total	77.0	0.0	77.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	36.01
Aluminum-based Metals/Alloys	3.18
Other Metals	2.91
Other Inorganic Materials	193.00
Cellulosics	7.41
Rubber	1.59
Plastics	20.39
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.26
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.09E+00
Cs-137	1.25E-07
Np-237	7.39E-06
Pu-238	2.19E-01
Pu-239	1.79E+00
Pu-240	1.01E+00
Pu-241	6.00E+00
Pu-242	9.60E-05
Sr-90	1.23E-07
Th-229	6.74E-07
Th-230	1.23E-05
Th-232	1.43E-06
U-233	2.73E-04
U-234	5.96E-02
U-235	4.12E-06
U-236	6.92E-07
U-238	6.79E-05

Haz. Waste No(s).

D006, D008, D009, D011

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of non-mixed CH-TRU debris from NFS

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **OR-NFS-CH-HET-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Oak Ridge National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-OR-NFS-CH-HET	1.0
55-gal Drum Dir Ld w/o Liner	WP-OR-NFS-CH-HET	22.3
Shipped Total		23.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	76.07
Aluminum-based Metals/Alloys	8.66
Other Metals	0.28
Other Inorganic Materials	2.39
Cellulosics	16.46
Rubber	1.38
Plastics	56.20
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.07E-01
Cs-137	4.58E-08
Np-237	6.52E-07
Pu-238	1.50E-02
Pu-239	1.89E-01
Pu-240	5.75E-02
Pu-241	4.84E-01
Pu-242	8.86E-06
Sr-90	4.58E-08
Th-229	1.17E-09
Th-230	1.50E-11
Th-232	4.21E-20
U-233	1.24E-05
U-234	1.69E-06
U-235	6.52E-08
U-236	1.70E-09
U-238	3.98E-05

Haz. Waste No(s).

D006, D008, D009, D011

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **OR-NFS-CH-HOM**

Appendix A

TRU Waste Inventory Profile Report

Site	Oak Ridge National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3000	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Nuclear Fuel Services CH-TRU Homogeneous Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	10.0	0.0	10.0
Current Form Total	10.0	0.0	10.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	10.0	0.0	10.0
Final Form Total	10.0	0.0	10.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	319.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	100.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.05E+01
Np-237	6.59E-05
Pu-238	2.91E+00
Pu-239	1.59E+01
Pu-240	8.56E+00
Pu-241	6.69E+01
Pu-242	1.04E-03
Th-229	2.08E-12
Th-230	9.42E-05
Th-232	3.32E-15
U-233	3.03E-09
U-234	4.56E-01
U-235	1.86E-05
U-236	5.85E-06
U-238	5.03E-04

Haz. Waste No(s).

D006, D009

TRUCON Code(s)

111/211

Waste Stream Description

Waste consists of non-mixed homogeneous waste from NFS

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **OR-NFS-CH-SOIL**

Appendix A

TRU Waste Inventory Profile Report

Site	Oak Ridge National Laboratory	Final Waste Form	Soils	Waste Matrix Code	S4200	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Nuclear Fuel Services CH-TRU Soil Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	119.8	0.0	119.8
Current Form Total	119.8	0.0	119.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	119.8	0.0	119.8
Final Form Total	119.8	0.0	119.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	2.60
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	26.00
Soils/gravel	1270.10
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.13E+00
Cs-137	1.44E-06
Np-237	8.89E-04
Pu-238	1.40E-01
Pu-239	2.45E+00
Pu-240	9.33E-01
Pu-241	3.00E+00
Pu-242	1.06E-03
Sr-90	1.41E-06
Th-229	3.78E-07
Th-230	4.78E-06
Th-232	6.72E-08
U-233	1.75E-04
U-234	2.31E-02
U-235	1.87E-06
U-236	6.37E-07
U-238	2.37E-05

Haz. Waste No(s).

F002

TRUCON Code(s)

111/211

Waste Stream Description

Waste consists of non-mixed soils from NFS

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **OR-PGDP-CH-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Oak Ridge National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Paducah Gaseous Diffusion Plant CH-TRU Debris Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	96.20
Aluminum-based Metals/Alloys	0.80
Other Metals	10.65
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.40
Plastics	64.90
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	1.50
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Np-237	2.35E-02
Pu-239	7.59E-02
Th-229	2.53E-09
Th-230	5.83E-07
U-233	2.34E-06
U-234	2.82E-03
U-235	1.13E-04
U-238	2.80E-03

Haz. Waste No(s).

D008

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from PGDP

Waste Stream ID: **OR-RADP-CH-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Oak Ridge National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	ORNL Radiochemical Processing Research & Development CH-TRU Debris Waste				Activity Concentrations Decayed to CY	2008	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum Dir Ld	0.4	0.0	0.4
55-gal Drum Dir Ld w/o Liner	60.5	0.0	60.5
79-gal Drum Dir Ld	14.4	0.0	14.4
Box - Misc	2.6	0.0	2.6
Current Form Total	77.8	0.0	77.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	45.8	0.0	45.8
Final Form Total	45.8	0.0	45.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	99.28
Aluminum-based Metals/Alloys	3.71
Other Metals	13.77
Other Inorganic Materials	11.38
Cellulosics	57.19
Rubber	14.03
Plastics	63.28
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	1.59
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.96E-01
Am-243	1.71E-03
Cm-244	2.05E+00
Cs-137	2.66E-05
Np-237	1.02E-04
Pu-238	4.26E-02
Pu-239	2.74E-01
Pu-240	5.93E-02
Pu-241	3.02E-01
Pu-242	3.67E-06
Pu-244	2.26E-10
Sr-90	2.61E-05
Th-229	1.29E-06
Th-230	9.30E-10
Th-232	1.48E-08
U-233	5.55E-04
U-234	5.97E-06
U-235	3.56E-06
U-236	3.81E-08
U-238	2.60E-07

Haz. Waste No(s).

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

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from radiochemical processing R&D at ORNL

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **OR-REDC-CH-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Oak Ridge National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Radiochemical Engineering Development Center CH-TRU Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum Dir Ld	0.4	0.0	0.4
55-gal Drum Dir Ld w/o Liner	207.2	49.9	257.1
79-gal Drum Dir Ld	8.1	0.0	8.1
85-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Box - Misc	65.3	0.0	65.3
Current Form Total	281.6	49.9	331.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	166.4	49.9	216.3
Final Form Total	166.4	49.9	216.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	87.37
Aluminum-based Metals/Alloys	4.24
Other Metals	2.38
Other Inorganic Materials	33.89
Cellulosics	12.97
Rubber	3.44
Plastics	120.46
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.81E-03
Am-243	6.87E-04
Cm-244	1.28E-01
Cs-137	4.01E-03
Np-237	2.72E-05
Pu-238	2.47E-02
Pu-239	2.45E-02
Pu-240	1.22E-02
Pu-241	1.35E-02
Pu-242	4.94E-05
Pu-244	1.48E-11
Sr-90	2.96E-02
Th-229	3.08E-08
Th-230	6.97E-10
Th-232	2.37E-08
U-233	2.86E-06
U-234	4.23E-06
U-235	1.43E-08
U-236	4.46E-04
U-238	3.69E-09

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, F002, F005
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TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from REDC at ORNL

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **OR-REDC-RH-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Oak Ridge National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Radiochemical Engineering Development Center RH-TRU Waste	Activity Concentrations	Decayed to CY	2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	13.1	0.0	13.1
Cask - Misc	11.2	0.0	427.9
Current Form Total	406.1	34.9	441.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	287.5	28.5	316.0
Final Form Total	287.5	28.5	316.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	156.55
Aluminum-based Metals/Alloys	0.03
Other Metals	15.65
Other Inorganic Materials	44.43
Cellulosics	17.69
Rubber	4.39
Plastics	22.82
Cements	0.00
Inorganic Matrix	3.20
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	560.60
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.38E-03
Am-243	2.08E-04
Cm-244	2.90E-01
Cs-137	8.49E-03
Np-237	2.38E-08
Pu-238	1.83E-03
Pu-239	4.36E-04
Pu-240	3.01E-03
Pu-241	8.63E-03
Pu-242	1.39E-05
Pu-244	1.25E-12
Sr-90	4.76E-02
Th-229	8.24E-16
Th-230	1.40E-11
Th-232	9.07E-19
U-233	1.16E-12
U-234	1.31E-07
U-235	9.89E-12
U-236	1.72E-09
U-238	4.81E-14

Haz. Waste No(s).

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

TRUCON Code(s)

325

Waste Stream Description

Waste consists of RH-TRU debris from REDC at ORNL

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **OR-RF-CH-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Oak Ridge National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	ORNL Reactor Fuels Research & Development CH-TRU Debris Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum Dir Ld	0.4	0.0	0.4
55-gal Drum Dir Ld w/o Liner	137.1	0.0	137.1
79-gal Drum Dir Ld	18.8	0.0	18.8
85-gal Drum Dir Ld w/ Liner	1.3	0.0	1.3
Box - Misc	103.4	0.0	103.4
Current Form Total	261.0	0.0	261.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	130.0	0.0	130.0
Final Form Total	130.0	0.0	130.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	58.25
Aluminum-based Metals/Alloys	10.59
Other Metals	26.48
Other Inorganic Materials	5.30
Cellulosics	45.01
Rubber	37.07
Plastics	68.84
Cements	0.00
Inorganic Matrix	13.24
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.59E-01
Am-243	7.82E-05
Cm-244	1.20E-03
Cs-137	1.71E-03
Np-237	1.62E-06
Pu-238	6.01E-01
Pu-239	6.21E-01
Pu-240	1.95E-01
Pu-241	3.47E+00
Pu-242	2.74E-04
Pu-244	2.50E-19
Sr-90	1.00E-03
Th-229	9.11E-04
Th-230	1.77E-07
Th-232	2.94E-06
U-233	3.17E-01
U-234	6.80E-05
U-235	9.33E-06
U-236	1.33E-07
U-238	2.02E-05

Haz. Waste No(s).

D006, D007, D008, D009, D011, D019, F001, F002, F005

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from reactor fuels R&D at ORNL

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **OR-RF-CH-HOM**

Appendix A

TRU Waste Inventory Profile Report

Site	Oak Ridge National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3000	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	ORNL Reactor Fuels Research & Development CH-TRU Homogeneous Waste				Activity Concentrations Decayed to CY	2008	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	2.5	0.0	2.5
Current Form Total	2.5	0.0	2.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	2.5	0.0	2.5
Final Form Total	2.5	0.0	2.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	319.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	100.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.91E-02
Cs-137	1.09E-03
Np-237	1.45E-07
Pu-238	6.78E-03
Pu-239	1.68E-02
Pu-240	1.65E-02
Sr-90	1.11E-02
Th-229	5.24E-15
Th-230	4.21E-09
Th-232	6.42E-18
U-233	7.26E-12
U-234	2.06E-05
U-235	9.22E-07
U-236	1.13E-08
U-238	3.28E-05

Haz. Waste No(s).

D006, D007, D008,
D009, D010

TRUCON Code(s)

111/211

Waste Stream Description

Waste consists of homogeneous waste from reactor fuels R&D at ORNL

Waste Stream ID: **OR-TBD-CH-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Oak Ridge National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	TBD CH-TRU Debris Waste	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum Dir Ld	0.4	0.0	0.4
55-gal Drum Dir Ld w/o Liner	25.8	16.6	42.4
79-gal Drum Dir Ld	5.1	0.0	5.1
Box - Misc	77.1	0.0	77.1
Current Form Total	108.4	16.6	125.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	56.2	16.6	72.8
Final Form Total	56.2	16.6	72.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	60.00
Aluminum-based Metals/Alloys	4.00
Other Metals	10.00
Other Inorganic Materials	10.00
Cellulosics	1.00
Rubber	8.00
Plastics	7.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.50E+01
Am-243	1.43E-02
Cm-244	1.61E+00
Cs-137	4.50E-03
Np-237	4.64E-04
Pu-238	7.42E+00
Pu-239	1.23E+00
Pu-240	5.38E+00
Pu-241	2.09E+02
Pu-242	1.08E-04
Pu-244	2.69E-11
Sr-90	1.31E-04
Th-229	7.19E-03
Th-230	2.69E-07
Th-232	9.23E-05
U-233	2.33E-02
U-234	8.32E-04
U-235	1.27E-05
U-236	1.22E-05
U-238	2.51E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, F001, F002, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

CH-TRU Debris Waste Needing Further Evaluation

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **OR-TBD-RH-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Oak Ridge National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	TBD RH-TRU Debris Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	27.9	0.0	27.9
79-gal Drum Dir Ld	1.5	0.0	1.5
Cask - Misc	14.5	0.0	157.3
Current Form Total	165.1	21.6	186.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	117.5	10.7	128.2
Final Form Total	117.5	10.7	128.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	150.00
Aluminum-based Metals/Alloys	0.03
Other Metals	15.00
Other Inorganic Materials	45.00
Cellulosics	18.00
Rubber	4.50
Plastics	23.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	560.60
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.93E-01
Am-243	5.20E-03
Cm-244	1.58E+00
Cs-137	1.23E+01
Np-237	8.70E-05
Pu-238	6.81E-01
Pu-239	1.03E-01
Pu-240	8.02E-02
Pu-241	4.78E-01
Pu-242	1.95E-04
Pu-244	3.64E-11
Sr-90	7.52E+00
Th-229	2.57E-04
Th-230	7.34E-09
Th-232	7.34E-06
U-233	1.19E-01
U-234	5.91E-05
U-235	4.86E-06
U-236	4.62E-07
U-238	2.09E-06

Haz. Waste No(s).

D005, D006, D007,
D008, D009, D011

TRUCON Code(s)

325

Waste Stream Description

RH-TRU Debris Waste Needing Further Evaluation

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **OR-W203**

Appendix A

TRU Waste Inventory Profile Report

Site	Oak Ridge National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	ORNL Newly Generated Debris - Post 2013			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	49.9	49.9
Current Form Total	0.0	49.9	49.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	49.9	49.9
Final Form Total	0.0	49.9	49.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	96.20
Aluminum-based Metals/Alloys	0.80
Other Metals	10.65
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.40
Plastics	64.90
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	1.50
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.14E-03
Am-243	6.44E-04
Cm-244	1.07E+00
Cs-137	3.28E-02
Np-237	2.95E-09
Pu-238	6.76E-03
Pu-239	1.24E-04
Pu-240	5.95E-03
Pu-241	7.72E-02
Pu-242	8.46E-05
Pu-244	1.60E-13
Sr-90	2.43E-01
Th-229	2.00E-19
Th-230	8.65E-14
Th-232	4.30E-21
U-233	6.41E-15
U-234	1.92E-08
U-235	1.22E-13
U-236	1.75E-10
U-238	1.28E-14

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225

Waste Stream Description

Hot Cell Debris Waste

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **OR-W213-RH-SOILS**

Appendix A

TRU Waste Inventory Profile Report

Site	Oak Ridge National Laboratory	Final Waste Form	Soils	Waste Matrix Code	S4200	Handling	RH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	ER RH TRU Heterogeneous Soils. Changed the Waste Stream ID to reflect soils				Activity Concentrations Decayed to CY	2008	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	187.2	187.2
Box - Misc	27.2	0.0	27.2
Current Form Total	27.2	187.2	214.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	38.3	267.0	305.3
Final Form Total	38.3	267.0	305.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	2.50
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	1300.00
Vitrified	0.00
Packaging Material, Steel	560.60
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.44E-02
Am-243	1.06E-05
Cm-244	9.59E-05
Cs-137	3.44E-01
Np-237	3.54E-05
Pu-238	6.34E-03
Pu-239	1.69E-02
Pu-240	2.07E-05
Pu-241	7.27E-02
Pu-242	9.31E-06
Sr-90	2.87E-03
Th-229	2.50E-02
Th-230	4.17E-05
Th-232	4.01E-04
U-233	3.25E-02
U-234	1.84E-03
U-235	2.75E-05
U-236	2.92E-05
U-238	3.49E-04

No Hazardous Waste Numbers Provided

TRUCON Code(s)

311

Waste Stream Description

This waste is made up of soils.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **OR-WSTR-CH-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Oak Ridge National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	ORNL-Liquid Waste Treatment CH-TRU Debris Waste	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	96.20
Aluminum-based Metals/Alloys	0.80
Other Metals	10.65
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.40
Plastics	64.90
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	1.50
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	1.07E-01
Th-230	8.17E-10
U-234	7.67E-06

Haz. Waste No(s).

D008

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from ORNL liquids waste system.

Waste Stream ID: **OR-Y12-CH-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Oak Ridge National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Oak Ridge Y-12 CH-TRU Debris Waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.6	0.0	0.6
79-gal Drum Dir Ld	0.6	0.0	0.6
Current Form Total	1.2	0.0	1.2

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	96.20
Aluminum-based Metals/Alloys	0.80
Other Metals	10.65
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.40
Plastics	64.90
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	1.50
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Np-237	5.15E-03
Pu-238	1.80E-04
Pu-239	5.04E-02
Pu-240	1.05E-05
Th-229	5.54E-10
Th-230	9.23E-08
Th-232	4.09E-21
U-233	5.14E-07
U-234	4.46E-04
U-235	1.15E-04
U-236	7.20E-12
U-238	5.08E-04

Haz. Waste No(s).

D008

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from Y-12

Waste Stream ID: **PA-A015**

Appendix A

TRU Waste Inventory Profile Report

Site	Paducah Gaseous Diffusion Plant	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Transuranic - Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum w/ 1 - 85-gal Drum w/ 1 55-gal Dru	0.8	0.0	0.8
30-gal Drum	0.3	0.0	0.3
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	1.9	0.0	1.9
Current Form Total	3.3	0.0	3.3

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	96.00
Cements	0.00
Inorganic Matrix	1950.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.94E-02
Np-237	6.28E-02
Pu-238	1.38E-03
Pu-239	1.90E-01
Th-229	4.61E-09
Th-230	4.90E-03
U-233	5.18E-06
U-234	8.03E-03
U-235	4.02E-04
U-238	8.74E-03

Haz. Waste No(s).

D007, D008

TRUCON Code(s)

125/225

Waste Stream Description

Transuranic Debris

Waste Stream ID: **PA-W014**

Appendix A

TRU Waste Inventory Profile Report

Site	Paducah Gaseous Diffusion Plant	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Transuranic Waste Liquid/Solids			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.2	0.0	0.2
5-gal Drum	0.0	0.0	0.0
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	3.2	0.0	3.2
Current Form Total	3.5	0.0	3.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.9	0.0	2.9
Final Form Total	2.9	0.0	2.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	1950.00
Inorganic Matrix	575.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.54E-02
Cs-137	3.42E-03
Np-237	7.10E-01
Pu-239	5.50E-02
Th-229	4.67E-08
Th-230	3.97E-06
U-233	5.54E-05
U-234	2.45E-02
U-235	1.34E-03
U-238	3.76E-02

Haz. Waste No(s).

D007, D008

TRUCON Code(s)

114/214

Waste Stream Description

Transuranic Aqueous Liquids and Sludges

Waste Stream ID: **RF001.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Combustible	Waste Matrix Code	S5390	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF001.01	745.1
55-gal Drum Dir Ld w/o Liner	WP-RF001.01	92.4
SWB Dir Ld w/o Liner	WP-RF001.01	100.2
SWB w/ 4 - 55-gal Drums w/ Liners	WP-RF001.01	37.8
SWB w/ 4 - 55-gal Drums w/o Liners	WP-RF001.01	3.8
Shipped Total		979.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.08
Aluminum-based Metals/Alloys	0.01
Other Metals	0.24
Other Inorganic Materials	2.65
Cellulosics	27.92
Rubber	0.74
Plastics	78.05
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.02
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.54E+00
Am-243	1.21E-06
Np-237	5.66E-05
Pu-238	1.47E-01
Pu-239	3.44E+00
Pu-240	7.99E-01
Pu-241	1.07E+01
Pu-242	1.20E-04
Th-229	5.77E-08
Th-230	1.48E-08
Th-232	3.74E-17
U-233	7.70E-05
U-234	2.07E-04
U-235	9.79E-06
U-236	1.89E-07
U-238	2.26E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF002.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF002.01	399.4
55-gal Drum Dir Ld w/o Liner	WP-RF002.01	32.2
55-gal POC - 12" w/ Liner	WP-RF002.01	13.7
SWB Dir Ld w/o Liner	WP-RF002.01	984.7
SWB w/ 4 - 55-gal Drums w/ Liners	WP-RF002.01	17.0
TDOP w/ 1 SWB w/o Liners	WP-RF002.01	13.5
Shipped Total		1460.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	230.92
Aluminum-based Metals/Alloys	1.27
Other Metals	10.50
Other Inorganic Materials	0.49
Cellulosics	7.19
Rubber	0.20
Plastics	4.85
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.01
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.86E-01
Am-243	7.25E-07
Cs-137	2.08E-07
Np-237	8.53E-06
Pu-238	1.46E-01
Pu-239	3.02E+00
Pu-240	7.11E-01
Pu-241	1.16E+01
Pu-242	8.39E-05
Th-229	9.82E-09
Th-230	5.63E-09
Th-232	2.55E-17
U-233	1.50E-05
U-234	9.09E-05
U-235	4.81E-06
U-236	1.48E-07
U-238	1.94E-04

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RF003.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5126	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF003.01	65.9
55-gal Drum Dir Ld w/o Liner	WP-RF003.01	0.4
55-gal POC - 12" w/ Liner	WP-RF003.01	275.8
SWB w/ 4 - 55-gal Drums w/ Liners	WP-RF003.01	9.5
SWB w/ 4 - 55-gal Drums w/o Liners	WP-RF003.01	3.8
Shipped Total		355.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	13.10
Aluminum-based Metals/Alloys	0.00
Other Metals	0.07
Other Inorganic Materials	70.17
Cellulosics	1.84
Rubber	0.00
Plastics	2.72
Cements	0.00
Inorganic Matrix	0.30
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.51E+00
Np-237	2.81E-05
Pu-238	1.45E+00
Pu-239	3.57E+01
Pu-240	8.63E+00
Pu-241	9.27E+01
Pu-242	8.25E-04
Th-229	2.13E-08
Th-230	4.29E-09
Th-232	4.05E-16
U-233	2.84E-05
U-234	7.65E-05
U-235	1.68E-06
U-236	2.05E-06
U-238	3.67E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF004.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF004.01	263.3
55-gal Drum Dir Ld w/o Liner	WP-RF004.01	7.9
55-gal POC - 12" w/ Liner	WP-RF004.01	2.3
SWB Dir Ld w/o Liner	WP-RF004.01	1.9
SWB w/ 4 - 55-gal Drums w/ Liners	WP-RF004.01	5.7
SWB w/ 4 - 55-gal Drums w/o Liners	WP-RF004.01	1.9
Shipped Total		283.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.60
Aluminum-based Metals/Alloys	0.02
Other Metals	0.46
Other Inorganic Materials	464.77
Cellulosics	11.91
Rubber	0.00
Plastics	4.75
Cements	0.00
Inorganic Matrix	0.04
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.51E-01
Am-243	3.12E-09
Np-237	5.60E-06
Pu-238	1.14E-01
Pu-239	2.43E+00
Pu-240	5.62E-01
Pu-241	1.01E+01
Pu-242	6.77E-05
Th-229	3.38E-14
Th-230	3.96E-09
Th-232	1.48E-17
U-233	1.26E-10
U-234	7.43E-05
U-235	2.35E-06
U-236	1.00E-07
U-238	2.66E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF005.01-S****Appendix A****TRU Waste Inventory Profile Report**

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Salt Waste	Waste Matrix Code	S3141	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	WP-RF005.01	119.4
Shipped Total		119.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	19.04
Aluminum-based Metals/Alloys	0.00
Other Metals	3.07
Other Inorganic Materials	19.27
Cellulosics	0.00
Rubber	0.00
Plastics	1.73
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.44E+01
Np-237	1.65E-04
Pu-238	1.70E+00
Pu-239	4.01E+01
Pu-240	1.03E+01
Pu-241	6.15E+01
Pu-242	8.47E-04
Th-229	1.41E-12
Th-230	2.29E-09
Th-232	7.55E-16
U-233	4.03E-09
U-234	5.02E-05
U-235	1.08E-06
U-236	3.06E-06
U-238	1.28E-12

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF005.02-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Salt Waste	Waste Matrix Code	S3141	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	WP-RF005.02	78.4
Shipped Total		78.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	13.92
Aluminum-based Metals/Alloys	0.00
Other Metals	0.23
Other Inorganic Materials	27.49
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.22E+01
Np-237	2.70E-04
Pu-238	1.53E+00
Pu-239	3.70E+01
Pu-240	9.73E+00
Pu-241	5.16E+01
Pu-242	8.23E-04
Th-229	1.80E-12
Th-230	2.28E-09
Th-232	5.77E-16
U-233	5.81E-09
U-234	4.82E-05
U-235	5.75E-07
U-236	2.60E-06
U-238	2.19E-09

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF006.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF006.01	2.7
55-gal POC - 12" w/ Liner	WP-RF006.01	233.0
Shipped Total		235.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	8.48
Aluminum-based Metals/Alloys	0.00
Other Metals	0.06
Other Inorganic Materials	32.83
Cellulosics	0.03
Rubber	0.00
Plastics	0.67
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.63E+00
Np-237	4.79E-05
Pu-238	1.92E+00
Pu-239	3.91E+01
Pu-240	9.45E+00
Pu-241	1.17E+02
Pu-242	1.26E-03
Th-229	1.36E-12
Th-230	9.79E-09
Th-232	1.77E-15
U-233	2.16E-09
U-234	1.14E-04
U-235	1.42E-06
U-236	4.49E-06
U-238	5.89E-09

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF008.01-S****Appendix A****TRU Waste Inventory Profile Report**

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF008.01	4.4
55-gal Drum Dir Ld w/o Liner	WP-RF008.01	0.2
55-gal POC - 12" w/ Liner	WP-RF008.01	90.7
SWB w/ 4 - 55-gal Drums w/ Liners	WP-RF008.01	1.9
Shipped Total		97.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	5.36
Aluminum-based Metals/Alloys	0.10
Other Metals	1.39
Other Inorganic Materials	56.30
Cellulosics	0.36
Rubber	0.00
Plastics	1.05
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.01E+01
Np-237	1.63E-04
Pu-238	2.00E+00
Pu-239	3.49E+01
Pu-240	9.58E+00
Pu-241	1.00E+02
Pu-242	1.40E-03
Th-229	2.37E-12
Th-230	2.39E-09
Th-232	5.69E-16
U-233	5.78E-09
U-234	5.56E-05
U-235	5.92E-07
U-236	2.56E-06
U-238	7.77E-10

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF009.01-S****Appendix A****TRU Waste Inventory Profile Report**

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Salt Waste	Waste Matrix Code	S3141	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF009.01	3.3
55-gal Drum Dir Ld w/o Liner	WP-RF009.01	8.5
55-gal POC - 12" w/ Liner	WP-RF009.01	1311.2
SWB w/ 4 - 55-gal Drums w/o Liners	WP-RF009.01	3.8
Shipped Total		1326.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	10.46
Aluminum-based Metals/Alloys	0.00
Other Metals	4.01
Other Inorganic Materials	17.82
Cellulosics	0.04
Rubber	0.00
Plastics	0.93
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.05E+01
Np-237	3.95E-04
Pu-238	1.45E+00
Pu-239	4.14E+01
Pu-240	1.03E+01
Pu-241	6.52E+01
Pu-242	1.03E-03
Th-229	3.97E-12
Th-230	1.75E-09
Th-232	4.82E-16
U-233	1.13E-08
U-234	4.12E-05
U-235	5.58E-07
U-236	2.44E-06
U-238	2.05E-09

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF010.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Filter	Waste Matrix Code	S5410	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF010.01	274.6
55-gal Drum Dir Ld w/o Liner	WP-RF010.01	12.9
SWB Dir Ld w/o Liner	WP-RF010.01	264.6
SWB w/ 4 - 55-gal Drums w/ Liners	WP-RF010.01	62.4
SWB w/ 4 - 55-gal Drums w/o Liners	WP-RF010.01	15.1
Shipped Total		629.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	12.18
Aluminum-based Metals/Alloys	8.77
Other Metals	0.98
Other Inorganic Materials	8.04
Cellulosics	36.45
Rubber	3.69
Plastics	9.49
Cements	0.00
Inorganic Matrix	0.29
Organic Matrix	0.03
Soils/gravel	0.13
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.32E+00
Am-243	6.52E-08
Np-237	1.36E-05
Pu-238	3.94E-01
Pu-239	9.94E+00
Pu-240	2.32E+00
Pu-241	2.69E+01
Pu-242	2.53E-04
Th-229	1.01E-13
Th-230	1.26E-08
Th-232	8.33E-17
U-233	3.33E-10
U-234	2.05E-04
U-235	6.40E-06
U-236	4.82E-07
U-238	5.68E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF011.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF011.01	49.5
55-gal Drum Dir Ld w/o Liner	WP-RF011.01	1.7
SWB w/ 4 - 55-gal Drums w/ Liners	WP-RF011.01	28.4
Shipped Total		79.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	10.77
Aluminum-based Metals/Alloys	0.01
Other Metals	0.04
Other Inorganic Materials	17.84
Cellulosics	1.61
Rubber	0.00
Plastics	1.75
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.89E+00
Np-237	8.71E-06
Pu-238	7.78E-01
Pu-239	1.87E+01
Pu-240	4.50E+00
Pu-241	4.51E+01
Pu-242	3.85E-04
Th-229	3.75E-14
Th-230	8.48E-10
Th-232	1.19E-16
U-233	1.55E-10
U-234	2.25E-05
U-235	3.97E-07
U-236	8.00E-07
U-238	5.29E-08

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF015.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF015.01	1.7
Shipped Total		1.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	19.17
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	5.05
Cellulosics	12.98
Rubber	0.00
Plastics	1.62
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.21E+00
Np-237	5.17E-05
Pu-238	5.63E-01
Pu-239	1.13E+01
Pu-240	2.63E+00
Pu-241	5.31E+01
Pu-242	3.50E-04
Th-229	3.55E-13
Th-230	2.67E-10
Th-232	6.94E-17
U-233	1.28E-09
U-234	9.81E-06
U-235	6.67E-08
U-236	4.69E-07
U-238	3.17E-13

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF029.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF029.01	13.9
55-gal Drum Dir Ld w/o Liner	WP-RF029.01	2.7
55-gal POC - 12" w/ Liner	WP-RF029.01	3.1
SWB Dir Ld w/o Liner	WP-RF029.01	4316.8
SWB w/ 4 - 55-gal Drums w/o Liners	WP-RF029.01	5.7
TDOP w/ 1 SWB w/o Liners	WP-RF029.01	4.5
Shipped Total		4346.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	168.15
Aluminum-based Metals/Alloys	1.51
Other Metals	0.58
Other Inorganic Materials	13.97
Cellulosics	17.25
Rubber	1.33
Plastics	30.02
Cements	0.00
Inorganic Matrix	0.01
Organic Matrix	0.03
Soils/gravel	0.16
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.98E-01
Am-243	3.33E-07
Cs-137	5.87E-09
Np-237	5.89E-06
Pu-238	8.38E-02
Pu-239	1.58E+00
Pu-240	3.80E-01
Pu-241	8.07E+00
Pu-242	5.09E-05
Pu-244	5.72E-21
Sr-90	4.00E-11
Th-229	2.69E-14
Th-230	8.69E-10
Th-232	6.95E-18
U-233	1.17E-10
U-234	1.99E-05
U-235	6.13E-07
U-236	5.63E-08
U-238	2.89E-07

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RF031.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5313	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF031.01	15.2
55-gal Drum Dir Ld w/o Liner	WP-RF031.01	5.0
55-gal POC - 12" w/ Liner	WP-RF031.01	0.4
Shipped Total		20.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.34
Aluminum-based Metals/Alloys	0.00
Other Metals	0.23
Other Inorganic Materials	1.10
Cellulosics	9.68
Rubber	0.00
Plastics	46.42
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	6.07
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.59E-01
Np-237	2.72E-06
Pu-238	1.12E-01
Pu-239	2.34E+00
Pu-240	5.42E-01
Pu-241	1.06E+01
Pu-242	6.42E-05
Th-229	7.47E-15
Th-230	1.58E-09
Th-232	6.35E-18
U-233	4.14E-11
U-234	4.47E-05
U-235	1.43E-06
U-236	6.43E-08
U-238	1.99E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF032.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF032.01	3.1
55-gal POC - 12" w/ Liner	WP-RF032.01	206.1
Shipped Total		209.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	15.54
Aluminum-based Metals/Alloys	0.00
Other Metals	0.23
Other Inorganic Materials	31.96
Cellulosics	0.04
Rubber	0.00
Plastics	0.06
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.11E+01
Np-237	1.25E-04
Pu-238	1.47E+00
Pu-239	4.12E+01
Pu-240	9.66E+00
Pu-241	8.24E+01
Pu-242	7.24E-04
Th-229	1.07E-12
Th-230	1.49E-09
Th-232	3.47E-16
U-233	3.39E-09
U-234	3.86E-05
U-235	5.57E-07
U-236	2.01E-06
U-238	2.41E-09

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF033.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF033.01	12.1
55-gal Drum Dir Ld w/o Liner	WP-RF033.01	1.7
55-gal POC - 12" w/ Liner	WP-RF033.01	11.9
Shipped Total		25.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	16.37
Aluminum-based Metals/Alloys	0.00
Other Metals	1.27
Other Inorganic Materials	109.77
Cellulosics	0.20
Rubber	0.00
Plastics	27.33
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.09
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.66E+00
Np-237	3.29E-05
Pu-238	1.34E+00
Pu-239	3.12E+01
Pu-240	7.28E+00
Pu-241	1.04E+02
Pu-242	7.19E-04
Th-229	1.98E-13
Th-230	1.29E-09
Th-232	1.92E-16
U-233	7.37E-10
U-234	3.55E-05
U-235	6.00E-07
U-236	1.30E-06
U-238	2.34E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF036.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5420	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF036.01	44.1
Shipped Total		44.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.12
Aluminum-based Metals/Alloys	0.79
Other Metals	0.00
Other Inorganic Materials	488.73
Cellulosics	7.07
Rubber	0.00
Plastics	12.67
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.29
Soils/gravel	4.40
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.06E+00
Am-243	1.85E-06
Np-237	8.59E-06
Pu-238	3.03E-01
Pu-239	6.00E+00
Pu-240	1.40E+00
Pu-241	3.10E+01
Pu-242	1.85E-04
Th-229	2.46E-14
Th-230	2.07E-09
Th-232	1.64E-17
U-233	1.35E-10
U-234	5.92E-05
U-235	2.53E-06
U-236	1.66E-07
U-238	6.76E-05

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF101.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Combustible	Waste Matrix Code	S5390	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF101.01	114.6
55-gal Drum Dir Ld w/o Liner	WP-RF101.01	13.1
SWB Dir Ld w/o Liner	WP-RF101.01	24.6
SWB w/ 4 - 55-gal Drums w/ Liners	WP-RF101.01	22.7
Shipped Total		175.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	2.53
Aluminum-based Metals/Alloys	0.02
Other Metals	0.39
Other Inorganic Materials	15.34
Cellulosics	62.57
Rubber	1.27
Plastics	30.20
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.84
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.04E+00
Am-243	6.04E-06
Np-237	1.41E-05
Pu-238	4.56E-01
Pu-239	9.65E+00
Pu-240	2.26E+00
Pu-241	3.70E+01
Pu-242	2.64E-04
Th-229	8.40E-14
Th-230	1.30E-08
Th-232	5.95E-17
U-233	3.14E-10
U-234	2.46E-04
U-235	7.77E-06
U-236	4.02E-07
U-238	4.88E-06

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF101.29-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Combustible	Waste Matrix Code	S5390	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF101.29	25.4
55-gal Drum Dir Ld w/o Liner	WP-RF101.29	3.1
SWB Dir Ld w/o Liner	WP-RF101.29	1.9
Shipped Total		30.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.43
Aluminum-based Metals/Alloys	0.03
Other Metals	0.00
Other Inorganic Materials	12.48
Cellulosics	51.65
Rubber	5.43
Plastics	47.43
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.06E+00
Np-237	6.77E-06
Pu-238	2.51E-01
Pu-239	5.15E+00
Pu-240	1.20E+00
Pu-241	1.84E+01
Pu-242	1.39E-04
Th-229	5.22E-14
Th-230	1.16E-08
Th-232	4.30E-17
U-233	1.70E-10
U-234	1.87E-04
U-235	5.94E-06
U-236	2.49E-07
U-238	6.71E-06

Haz. Waste No(s).

F001

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF101.30-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Combustible	Waste Matrix Code	S5390	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF101.30	79.5
55-gal Drum Dir Ld w/o Liner	WP-RF101.30	5.8
SWB Dir Ld w/o Liner	WP-RF101.30	3.8
SWB w/ 4 - 55-gal Drums w/ Liners	WP-RF101.30	24.6
SWB w/ 4 - 55-gal Drums w/o Liners	WP-RF101.30	3.8
Shipped Total		117.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.84
Aluminum-based Metals/Alloys	0.00
Other Metals	0.09
Other Inorganic Materials	2.31
Cellulosics	40.50
Rubber	0.80
Plastics	37.94
Cements	0.00
Inorganic Matrix	0.04
Organic Matrix	0.03
Soils/gravel	0.01
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.13E+00
Am-243	2.67E-06
Np-237	2.38E-05
Pu-238	3.26E-01
Pu-239	7.49E+00
Pu-240	1.76E+00
Pu-241	2.40E+01
Pu-242	2.16E-04
Th-229	1.89E-13
Th-230	9.02E-09
Th-232	6.32E-17
U-233	6.11E-10
U-234	1.47E-04
U-235	4.56E-06
U-236	3.65E-07
U-238	1.57E-06

Haz. Waste No(s).

F001, F002

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF101.31-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Combustible	Waste Matrix Code	S5390	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF101.31	43.9
55-gal Drum Dir Ld w/o Liner	WP-RF101.31	5.4
SWB Dir Ld w/o Liner	WP-RF101.31	9.5
SWB w/ 4 - 55-gal Drums w/ Liners	WP-RF101.31	3.8
Shipped Total		62.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	4.86
Aluminum-based Metals/Alloys	0.00
Other Metals	0.12
Other Inorganic Materials	2.09
Cellulosics	65.86
Rubber	0.69
Plastics	43.00
Cements	0.00
Inorganic Matrix	0.02
Organic Matrix	0.02
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.13E+00
Am-243	2.18E-07
Np-237	6.07E-06
Pu-238	1.67E-01
Pu-239	3.74E+00
Pu-240	8.88E-01
Pu-241	1.15E+01
Pu-242	1.32E-04
Th-229	5.43E-14
Th-230	6.62E-09
Th-232	4.16E-17
U-233	1.60E-10
U-234	9.39E-05
U-235	2.95E-06
U-236	2.11E-07
U-238	1.33E-06

Haz. Waste No(s).

F001, F002, F005

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF101.35-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Combustible	Waste Matrix Code	S5390	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF101.35	51.2
55-gal Drum Dir Ld w/o Liner	WP-RF101.35	17.1
SWB Dir Ld w/o Liner	WP-RF101.35	3.8
SWB w/ 4 - 55-gal Drums w/ Liners	WP-RF101.35	7.6
Shipped Total		79.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.72
Aluminum-based Metals/Alloys	0.00
Other Metals	0.57
Other Inorganic Materials	2.66
Cellulosics	48.15
Rubber	0.47
Plastics	58.97
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.06E+00
Np-237	2.73E-05
Pu-238	3.69E-01
Pu-239	8.02E+00
Pu-240	1.87E+00
Pu-241	2.97E+01
Pu-242	2.62E-04
Th-229	2.26E-13
Th-230	6.71E-08
Th-232	6.72E-17
U-233	7.20E-10
U-234	1.07E-03
U-235	3.42E-05
U-236	3.89E-07
U-238	2.75E-06

Haz. Waste No(s).

F005

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF102.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF102.01	45.3
55-gal Drum Dir Ld w/o Liner	WP-RF102.01	0.6
SWB Dir Ld w/o Liner	WP-RF102.01	175.8
SWB w/ 4 - 55-gal Drums w/ Liners	WP-RF102.01	1.9
Shipped Total		223.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	234.12
Aluminum-based Metals/Alloys	0.50
Other Metals	9.83
Other Inorganic Materials	1.88
Cellulosics	6.47
Rubber	0.25
Plastics	4.10
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.91E-01
Am-243	8.92E-07
Cs-137	4.30E-05
Np-237	6.91E-06
Pu-238	1.31E-01
Pu-239	2.56E+00
Pu-240	6.10E-01
Pu-241	1.20E+01
Pu-242	7.93E-05
Th-229	4.39E-14
Th-230	1.05E-09
Th-232	1.61E-17
U-233	1.61E-10
U-234	2.06E-05
U-235	6.24E-07
U-236	1.09E-07
U-238	1.78E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D028, D029, F001, F002, F005, F006, F007, F009, P030, P098, P099, P106, U003, U103, U108

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF102.31-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Lead/Cadmium Metal Waste	Waste Matrix Code	S5112	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF102.31	22.3
55-gal Drum Dir Ld w/o Liner	WP-RF102.31	1.0
55-gal POC - 12" w/ Liner	WP-RF102.31	0.6
SWB Dir Ld w/o Liner	WP-RF102.31	96.4
SWB w/ 4 - 55-gal Drums w/ Liners	WP-RF102.31	3.8
Shipped Total		124.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	189.33
Aluminum-based Metals/Alloys	0.36
Other Metals	147.87
Other Inorganic Materials	0.16
Cellulosics	5.66
Rubber	1.89
Plastics	3.08
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.15E+00
Am-243	1.55E-07
Np-237	9.20E-06
Pu-238	1.09E-01
Pu-239	2.21E+00
Pu-240	5.24E-01
Pu-241	9.60E+00
Pu-242	6.82E-05
Th-229	5.61E-14
Th-230	3.50E-09
Th-232	1.38E-17
U-233	2.09E-10
U-234	6.57E-05
U-235	2.23E-06
U-236	9.32E-08
U-238	1.72E-05

Haz. Waste No(s).

D008

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF104.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF104.01	35.2
55-gal Drum Dir Ld w/o Liner	WP-RF104.01	2.1
55-gal POC - 12" w/ Liner	WP-RF104.01	7.7
SWB Dir Ld w/o Liner	WP-RF104.01	5.7
SWB w/ 4 - 55-gal Drums w/ Liners	WP-RF104.01	1.9
SWB w/ 4 - 55-gal Drums w/o Liners	WP-RF104.01	1.9
Shipped Total		54.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	5.65
Aluminum-based Metals/Alloys	0.01
Other Metals	1.43
Other Inorganic Materials	213.89
Cellulosics	7.04
Rubber	0.06
Plastics	5.63
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.27E+00
Am-243	4.20E-06
Np-237	1.94E-05
Pu-238	2.93E-01
Pu-239	7.52E+00
Pu-240	1.77E+00
Pu-241	2.25E+01
Pu-242	1.72E-04
Th-229	8.52E-14
Th-230	7.92E-10
Th-232	3.25E-17
U-233	3.76E-10
U-234	1.97E-05
U-235	5.59E-07
U-236	2.63E-07
U-238	2.58E-06

Haz. Waste No(s).

D005, D008, D009,
D022, F001, F002,
F005**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **RF107.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF107.01	63.4
Shipped Total		63.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.17
Aluminum-based Metals/Alloys	0.00
Other Metals	0.73
Other Inorganic Materials	13.61
Cellulosics	0.00
Rubber	0.00
Plastics	1.11
Cements	0.00
Inorganic Matrix	776.54
Organic Matrix	11.45
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.13E+01
Np-237	2.75E-04
Pu-238	1.48E-01
Pu-239	3.01E+00
Pu-240	6.97E-01
Pu-241	1.53E+01
Pu-242	9.12E-05
Th-229	7.62E-13
Th-230	9.77E-09
Th-232	8.17E-18
U-233	4.22E-09
U-234	2.73E-04
U-235	1.75E-05
U-236	8.27E-08
U-238	9.43E-04

Haz. Waste No(s).

D006, D007, D008,
D009, D011**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **RF107.03-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF107.03	60.7
55-gal Drum Dir Ld w/o Liner	WP-RF107.03	0.2
Shipped Total		60.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.45
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	1.09
Cements	0.00
Inorganic Matrix	819.47
Organic Matrix	0.04
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.38E-01
Np-237	2.10E-06
Pu-238	1.89E-02
Pu-239	3.80E-01
Pu-240	8.83E-02
Pu-241	1.94E+00
Pu-242	1.16E-05
Th-229	6.03E-15
Th-230	4.57E-08
Th-232	1.04E-18
U-233	3.30E-11
U-234	1.27E-03
U-235	1.50E-04
U-236	1.05E-08
U-238	1.13E-02

Haz. Waste No(s).

F001, F002, F005,
F006, F007, F009**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **RF107.04-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF107.04	100.9
55-gal Drum Dir Ld w/o Liner	WP-RF107.04	1.9
SWB w/ 4 - 55-gal Drums w/ Liners	WP-RF107.04	7.6
Shipped Total		110.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.01
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.07
Rubber	0.00
Plastics	1.64
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	954.33
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.36E-01
Np-237	4.72E-06
Pu-238	3.71E-02
Pu-239	7.55E-01
Pu-240	1.75E-01
Pu-241	3.83E+00
Pu-242	2.29E-05
Th-229	1.36E-14
Th-230	6.95E-10
Th-232	2.05E-18
U-233	7.43E-11
U-234	1.95E-05
U-235	1.91E-06
U-236	2.08E-08
U-238	1.40E-04

Haz. Waste No(s).

D022, D028, D029,
D030, D032, D034,
F001, F002, F005**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **RF107.05-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF107.05	4.4
Shipped Total		4.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.63
Cellulosics	8.65
Rubber	0.00
Plastics	2.35
Cements	0.00
Inorganic Matrix	601.28
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.11E+00
Np-237	6.51E-06
Pu-238	2.31E-01
Pu-239	4.67E+00
Pu-240	1.09E+00
Pu-241	2.38E+01
Pu-242	1.42E-04
Th-229	1.78E-14
Th-230	8.12E-08
Th-232	1.27E-17
U-233	9.88E-11
U-234	2.26E-03
U-235	7.28E-05
U-236	1.29E-07
U-238	6.43E-07

Haz. Waste No(s).

D004, D005, D009,
D010, D022, D027,
D028, D029, D032,
D033, D034, D043,
F001, F002, F005,
F006, F007, F009,
P030, P098, P099,
P106, U003, U103,
U108

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **RF107.06-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF107.06	14.4
Shipped Total		14.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.49
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	8.25
Cements	0.00
Inorganic Matrix	873.52
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.07E-02
Np-237	7.08E-08
Pu-238	1.05E-02
Pu-239	2.13E-01
Pu-240	4.94E-02
Pu-241	1.08E+00
Pu-242	6.46E-06
Th-229	1.48E-16
Th-230	5.79E-09
Th-232	5.79E-19
U-233	8.89E-13
U-234	1.61E-04
U-235	1.83E-05
U-236	5.86E-09
U-238	1.40E-03

Haz. Waste No(s).

F001, F002, F005,
F006, F007, F009,
P030, P098, P099,
P106, U003, U103,
U108

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **RF107.07-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF107.07	57.0
SWB w/ 4 - 55-gal Drums w/ Liners	WP-RF107.07	1.9
Shipped Total		58.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	3.51
Cements	0.00
Inorganic Matrix	1172.21
Organic Matrix	4.62
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.91E+00
Am-243	2.88E-05
Np-237	4.32E-05
Pu-238	6.19E-01
Pu-239	1.23E+01
Pu-240	2.87E+00
Pu-241	6.34E+01
Pu-242	3.79E-04
Th-229	1.24E-13
Th-230	8.35E-08
Th-232	3.36E-17
U-233	6.81E-10
U-234	2.33E-03
U-235	7.51E-05
U-236	3.40E-07
U-238	3.74E-05

Haz. Waste No(s).

F001, F002, F005,
F006, F007, F009,
P030, P098, P099,
P106, U003, U103,
U108

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **RF110.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Filter	Waste Matrix Code	S5410	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF110.01	8.3
55-gal Drum Dir Ld w/o Liner	WP-RF110.01	0.6
55-gal POC - 12" w/ Liner	WP-RF110.01	0.2
Shipped Total		9.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	4.57
Aluminum-based Metals/Alloys	5.49
Other Metals	0.08
Other Inorganic Materials	9.72
Cellulosics	50.40
Rubber	4.90
Plastics	26.12
Cements	0.00
Inorganic Matrix	0.07
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.21E+00
Am-243	1.88E-04
Np-237	2.88E-05
Pu-238	6.71E-01
Pu-239	1.37E+01
Pu-240	3.20E+00
Pu-241	5.24E+01
Pu-242	7.16E-04
Th-229	1.42E-13
Th-230	5.47E-09
Th-232	8.43E-17
U-233	5.64E-10
U-234	1.07E-04
U-235	3.34E-06
U-236	5.69E-07
U-238	2.12E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D029, F001, F002, F005, F006, F007, F009, P030, P098, P099, P106, U003, U103, U108

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF110.05-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Filter	Waste Matrix Code	S5410	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF110.05	16.6
55-gal Drum Dir Ld w/o Liner	WP-RF110.05	1.7
SWB w/ 4 - 55-gal Drums w/ Liners	WP-RF110.05	11.3
SWB w/ 4 - 55-gal Drums w/o Liners	WP-RF110.05	1.9
Shipped Total		31.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	7.11
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	7.40
Cellulosics	6.35
Rubber	0.07
Plastics	17.62
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.23
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.58E+00
Np-237	7.78E-06
Pu-238	6.41E-01
Pu-239	1.46E+01
Pu-240	3.38E+00
Pu-241	3.48E+01
Pu-242	3.25E-04
Th-229	4.04E-14
Th-230	1.03E-08
Th-232	1.21E-16
U-233	1.50E-10
U-234	1.70E-04
U-235	5.15E-06
U-236	7.02E-07
U-238	5.28E-07

Haz. Waste No(s).

D022, F001, F002

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF113.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Organics	Waste Matrix Code	S3114	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF113.01	0.4
Shipped Total		0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	108.89
Cellulosics	0.48
Rubber	0.00
Plastics	12.02
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.48E-01
Np-237	2.45E-06
Pu-238	4.33E-02
Pu-239	8.91E-01
Pu-240	2.07E-01
Pu-241	4.12E+00
Pu-242	2.71E-05
Th-229	1.65E-14
Th-230	2.05E-11
Th-232	5.45E-18
U-233	5.96E-11
U-234	7.55E-07
U-235	5.27E-09
U-236	3.68E-08
U-238	2.45E-14

Haz. Waste No(s).

D007, D010, F005

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF115.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF115.01	17.3
55-gal Drum Dir Ld w/o Liner	WP-RF115.01	1.5
55-gal POC - 12" w/ Liner	WP-RF115.01	86.7
SWB w/ 4 - 55-gal Drums w/ Liners	WP-RF115.01	5.7
SWB w/ 4 - 55-gal Drums w/o Liners	WP-RF115.01	3.8
Shipped Total		114.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	16.78
Aluminum-based Metals/Alloys	0.01
Other Metals	11.65
Other Inorganic Materials	53.37
Cellulosics	2.41
Rubber	0.01
Plastics	3.38
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.01
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.21E+00
Np-237	1.66E-05
Pu-238	8.97E-01
Pu-239	2.20E+01
Pu-240	5.13E+00
Pu-241	4.15E+01
Pu-242	4.30E-04
Th-229	8.22E-14
Th-230	8.05E-10
Th-232	1.35E-16
U-233	3.26E-10
U-234	2.27E-05
U-235	4.04E-07
U-236	9.12E-07
U-238	5.44E-06

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF116.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	WP-RF116.01	4.0
Shipped Total		4.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	19.23
Aluminum-based Metals/Alloys	0.00
Other Metals	16.09
Other Inorganic Materials	32.79
Cellulosics	0.00
Rubber	0.00
Plastics	3.23
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.49E+00
Np-237	3.79E-05
Pu-238	6.39E-01
Pu-239	2.48E+01
Pu-240	5.75E+00
Pu-241	3.01E+01
Pu-242	3.84E-04
Th-229	2.24E-13
Th-230	3.03E-10
Th-232	1.52E-16
U-233	8.39E-10
U-234	1.11E-05
U-235	1.47E-07
U-236	1.02E-06
U-238	3.47E-13

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF117.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF117.01	1.7
55-gal Drum Dir Ld w/o Liner	WP-RF117.01	0.2
Shipped Total		1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.50
Aluminum-based Metals/Alloys	0.00
Other Metals	1.28
Other Inorganic Materials	93.11
Cellulosics	8.65
Rubber	0.00
Plastics	8.22
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.69E+00
Np-237	2.28E-05
Pu-238	6.49E-01
Pu-239	1.31E+01
Pu-240	3.04E+00
Pu-241	6.19E+01
Pu-242	3.90E-04
Th-229	1.01E-13
Th-230	3.53E-08
Th-232	5.57E-17
U-233	4.43E-10
U-234	7.89E-04
U-235	2.51E-05
U-236	4.51E-07
U-238	2.22E-07

Haz. Waste No(s).

D007

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF118.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3111	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF118.01	1.0
55-gal POC - 12" w/ Liner	WP-RF118.01	1431.0
55-gal POC - 12" w/o Liner	WP-RF118.01	0.2
Shipped Total		1432.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	11.29
Aluminum-based Metals/Alloys	0.00
Other Metals	1.26
Other Inorganic Materials	16.19
Cellulosics	0.00
Rubber	0.00
Plastics	1.32
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.39E+00
Am-243	8.75E-07
Np-237	6.00E-05
Pu-238	2.87E+00
Pu-239	4.66E+01
Pu-240	1.25E+01
Pu-241	1.30E+02
Pu-242	1.52E-03
Th-229	5.80E-13
Th-230	1.63E-08
Th-232	5.88E-16
U-233	1.67E-09
U-234	2.60E-04
U-235	6.57E-06
U-236	2.98E-06
U-238	1.40E-07

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF119.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF119.01	19.3
55-gal Drum Dir Ld w/o Liner	WP-RF119.01	3.7
55-gal POC - 12" w/ Liner	WP-RF119.01	1.0
Shipped Total		24.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	57.80
Aluminum-based Metals/Alloys	0.02
Other Metals	0.85
Other Inorganic Materials	8.24
Cellulosics	0.30
Rubber	0.00
Plastics	15.73
Cements	0.00
Inorganic Matrix	245.52
Organic Matrix	1.90
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.51E+00
Np-237	1.20E-05
Pu-238	3.04E-01
Pu-239	6.09E+00
Pu-240	1.43E+00
Pu-241	2.99E+01
Pu-242	1.85E-04
Th-229	3.44E-14
Th-230	7.65E-10
Th-232	1.68E-17
U-233	1.88E-10
U-234	2.30E-05
U-235	7.34E-07
U-236	1.70E-07
U-238	8.83E-06

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF121.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	WP-RF121.01	46.0
Shipped Total		46.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	5.55
Aluminum-based Metals/Alloys	0.00
Other Metals	6.66
Other Inorganic Materials	11.10
Cellulosics	0.00
Rubber	0.00
Plastics	1.33
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.27E+00
Np-237	9.01E-06
Pu-238	1.38E+00
Pu-239	4.29E+01
Pu-240	1.03E+01
Pu-241	6.48E+01
Pu-242	6.64E-04
Th-229	1.77E-14
Th-230	1.07E-09
Th-232	1.88E-16
U-233	1.04E-10
U-234	3.38E-05
U-235	6.56E-07
U-236	1.52E-06
U-238	3.94E-09

Haz. Waste No(s).

D007, D008

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF122.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF122.01	0.2
55-gal Drum Dir Ld w/o Liner	WP-RF122.01	1.5
55-gal POC - 12" w/ Liner	WP-RF122.01	33.9
Shipped Total		35.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	10.47
Aluminum-based Metals/Alloys	0.00
Other Metals	12.08
Other Inorganic Materials	21.10
Cellulosics	0.00
Rubber	0.00
Plastics	2.56
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.91E+00
Np-237	1.59E-03
Pu-238	1.74E+00
Pu-239	3.86E+01
Pu-240	9.28E+00
Pu-241	7.36E+01
Pu-242	9.78E-04
Th-229	1.15E-11
Th-230	8.26E-10
Th-232	2.45E-16
U-233	4.08E-08
U-234	3.04E-05
U-235	2.28E-07
U-236	1.65E-06
U-238	8.86E-13

Haz. Waste No(s).

D006, D007, D008,
D009, F001, F002,
F005No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF122.03-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF122.03	4.4
Shipped Total		4.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	424.32
Cellulosics	0.00
Rubber	0.00
Plastics	6.64
Cements	0.00
Inorganic Matrix	163.06
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.63E+00
Np-237	9.55E-05
Pu-238	1.59E-01
Pu-239	3.25E+00
Pu-240	7.54E-01
Pu-241	1.65E+01
Pu-242	9.85E-05
Th-229	2.83E-13
Th-230	7.44E-08
Th-232	8.84E-18
U-233	1.54E-09
U-234	2.07E-03
U-235	1.39E-04
U-236	8.95E-08
U-238	7.77E-03

Haz. Waste No(s).

D004, D005, D009,
D010, F001, F002,
F005, F006, F007,
F009

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **RF122.04-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF122.04	54.1
Shipped Total		54.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	662.72
Cellulosics	0.28
Rubber	0.00
Plastics	8.45
Cements	0.00
Inorganic Matrix	1.50
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.74E+00
Np-237	7.07E-05
Pu-238	1.47E-01
Pu-239	2.98E+00
Pu-240	6.92E-01
Pu-241	1.51E+01
Pu-242	9.06E-05
Th-229	2.09E-13
Th-230	2.20E-08
Th-232	8.11E-18
U-233	1.14E-09
U-234	6.13E-04
U-235	6.47E-05
U-236	8.21E-08
U-238	4.33E-03

Haz. Waste No(s).

D006, D007, D008,
D009, D011**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **RF122.05-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF122.05	16.2
Shipped Total		16.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.15
Other Inorganic Materials	519.58
Cellulosics	0.00
Rubber	0.00
Plastics	49.09
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.83E-01
Np-237	8.91E-07
Pu-238	1.68E-02
Pu-239	3.37E-01
Pu-240	7.83E-02
Pu-241	1.72E+00
Pu-242	1.03E-05
Th-229	2.35E-15
Th-230	4.45E-08
Th-232	9.18E-19
U-233	1.32E-11
U-234	1.24E-03
U-235	6.46E-05
U-236	9.29E-09
U-238	2.40E-03

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF122.06-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF122.06	0.4
55-gal POC - 12" w/ Liner	WP-RF122.06	6.9
Shipped Total		7.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	9.30
Aluminum-based Metals/Alloys	0.00
Other Metals	12.03
Other Inorganic Materials	48.94
Cellulosics	0.00
Rubber	0.00
Plastics	2.65
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.90E+00
Np-237	5.90E-05
Pu-238	1.36E+00
Pu-239	3.47E+01
Pu-240	8.19E+00
Pu-241	6.49E+01
Pu-242	8.75E-04
Th-229	3.54E-13
Th-230	3.02E-09
Th-232	2.16E-16
U-233	1.32E-09
U-234	6.76E-05
U-235	1.98E-06
U-236	1.46E-06
U-238	3.86E-05

Haz. Waste No(s).

D006, D007, D008,
D009, D011**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **RF123.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	WP-RF123.01	7.5
SWB w/ 4 - 55-gal Drums w/ Liners	WP-RF123.01	1.9
Shipped Total		9.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	5.09
Aluminum-based Metals/Alloys	0.00
Other Metals	5.89
Other Inorganic Materials	9.14
Cellulosics	0.00
Rubber	0.00
Plastics	1.18
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.83E+00
Np-237	1.98E-05
Pu-238	1.07E+00
Pu-239	3.23E+01
Pu-240	7.51E+00
Pu-241	6.28E+01
Pu-242	5.30E-04
Th-229	8.10E-14
Th-230	2.48E-09
Th-232	1.98E-16
U-233	3.42E-10
U-234	5.52E-05
U-235	1.60E-06
U-236	1.34E-06
U-238	1.06E-08

Haz. Waste No(s).

D006, D007, D008,
D009, D018, D019,
D022, D028, D029,
D043, F001, F002,
F005

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **RF123.02-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF123.02	0.6
55-gal Drum Dir Ld w/o Liner	WP-RF123.02	0.2
Shipped Total		0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	29.16
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	128.43
Cellulosics	6.49
Rubber	0.00
Plastics	2.51
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.84E-02
Np-237	2.17E-08
Pu-238	5.00E-03
Pu-239	9.99E-02
Pu-240	2.33E-02
Pu-241	5.13E-01
Pu-242	3.07E-06
Th-229	2.18E-17
Th-230	1.01E-08
Th-232	2.73E-19
U-233	1.77E-13
U-234	2.81E-04
U-235	3.24E-05
U-236	2.76E-09
U-238	2.52E-03

Haz. Waste No(s).

D010, F001, F002,
F005, F006, F007,
F009**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **RF123.03-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF123.03	11.9
55-gal Drum Dir Ld w/o Liner	WP-RF123.03	0.2
Shipped Total		12.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	5.34
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	25.98
Cellulosics	11.41
Rubber	0.00
Plastics	2.72
Cements	0.00
Inorganic Matrix	0.96
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.49E+01
Np-237	2.25E-04
Pu-238	8.45E-01
Pu-239	1.71E+01
Pu-240	3.97E+00
Pu-241	8.33E+01
Pu-242	5.23E-04
Th-229	9.89E-13
Th-230	8.89E-10
Th-232	7.27E-17
U-233	4.36E-09
U-234	2.58E-05
U-235	1.66E-06
U-236	5.89E-07
U-238	1.22E-04

Haz. Waste No(s).

D006, D007, D008, D009

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF123.04-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF123.04	44.5
Shipped Total		44.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.39
Aluminum-based Metals/Alloys	0.00
Other Metals	0.01
Other Inorganic Materials	17.76
Cellulosics	1.10
Rubber	0.00
Plastics	0.27
Cements	0.00
Inorganic Matrix	0.76
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.25E+00
Np-237	2.34E-05
Pu-238	9.04E-01
Pu-239	1.81E+01
Pu-240	4.23E+00
Pu-241	8.90E+01
Pu-242	5.59E-04
Th-229	1.01E-13
Th-230	1.10E-09
Th-232	7.74E-17
U-233	4.47E-10
U-234	3.10E-05
U-235	7.20E-07
U-236	6.27E-07
U-238	5.86E-06

Haz. Waste No(s).

D007, D008, F005

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF124.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5311	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF124.01	91.5
55-gal Drum Dir Ld w/o Liner	WP-RF124.01	0.8
SWB Dir Ld w/o Liner	WP-RF124.01	1.9
Shipped Total		94.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.02
Aluminum-based Metals/Alloys	0.01
Other Metals	223.31
Other Inorganic Materials	0.82
Cellulosics	0.75
Rubber	129.33
Plastics	8.27
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.33E-01
Am-243	4.78E-08
Np-237	1.57E-05
Pu-238	1.18E-01
Pu-239	2.62E+00
Pu-240	6.04E-01
Pu-241	1.03E+01
Pu-242	6.99E-05
Th-229	1.48E-13
Th-230	4.75E-09
Th-232	2.17E-17
U-233	4.56E-10
U-234	7.67E-05
U-235	1.33E-06
U-236	1.25E-07
U-238	1.51E-06

Haz. Waste No(s).

D008

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF124.02-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5311	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF124.02	13.1
55-gal Drum Dir Ld w/o Liner	WP-RF124.02	0.2
Shipped Total		13.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.26
Aluminum-based Metals/Alloys	0.00
Other Metals	207.17
Other Inorganic Materials	2.78
Cellulosics	0.98
Rubber	123.26
Plastics	8.93
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.73E-01
Np-237	1.12E-05
Pu-238	2.37E-01
Pu-239	5.01E+00
Pu-240	1.15E+00
Pu-241	2.03E+01
Pu-242	1.38E-04
Th-229	9.69E-14
Th-230	1.61E-09
Th-232	4.12E-17
U-233	3.05E-10
U-234	2.79E-05
U-235	7.79E-07
U-236	2.38E-07
U-238	6.59E-09

Haz. Waste No(s).

D008, D022, D028,
F001, F002**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **RF125.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Organics	Waste Matrix Code	S3900	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF125.01	3.3
55-gal Drum Dir Ld w/o Liner	WP-RF125.01	1.0
55-gal POC - 12" w/ Liner	WP-RF125.01	6.2
SWB w/ 4 - 55-gal Drums w/ Liners	WP-RF125.01	3.8
Shipped Total		14.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	10.07
Aluminum-based Metals/Alloys	0.00
Other Metals	2.84
Other Inorganic Materials	2.40
Cellulosics	0.76
Rubber	0.00
Plastics	1.35
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	11.23
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.55E+01
Np-237	3.23E-04
Pu-238	1.07E+00
Pu-239	2.69E+01
Pu-240	6.22E+00
Pu-241	7.09E+01
Pu-242	5.32E-04
Th-229	1.53E-12
Th-230	2.76E-08
Th-232	1.14E-16
U-233	6.63E-09
U-234	6.22E-04
U-235	2.00E-05
U-236	9.21E-07
U-238	4.37E-05

Haz. Waste No(s).

D004, D005, D009, D010, D022, D027, D028, D029, D032, D033, D034, D043, F001, F002, F005, F006, F007, F009, P030, P098, P099, P106, U003, U103, U108

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF126.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Organics	Waste Matrix Code	S3229	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	WP-RF126.01	1.0
Shipped Total		1.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	8.65
Aluminum-based Metals/Alloys	0.00
Other Metals	11.54
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	2.31
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	13.94
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.41E+00
Np-237	6.62E-06
Pu-238	1.44E+00
Pu-239	3.73E+01
Pu-240	8.35E+00
Pu-241	7.76E+01
Pu-242	5.23E-04
Th-229	1.06E-14
Th-230	2.20E-09
Th-232	1.53E-16
U-233	6.87E-11
U-234	5.92E-05
U-235	1.42E-06
U-236	1.24E-06
U-238	1.10E-08

Haz. Waste No(s).

D007

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF126.04-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Organics	Waste Matrix Code	S3229	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	WP-RF126.04	2.1
Shipped Total		2.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	6.06
Aluminum-based Metals/Alloys	0.00
Other Metals	8.08
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	1.62
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	11.15
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.50E+00
Np-237	8.48E-06
Pu-238	1.19E+00
Pu-239	3.40E+01
Pu-240	7.85E+00
Pu-241	6.58E+01
Pu-242	6.09E-04
Th-229	1.38E-14
Th-230	3.19E-09
Th-232	1.44E-16
U-233	8.88E-11
U-234	7.95E-05
U-235	1.80E-06
U-236	1.16E-06
U-238	1.51E-08

Haz. Waste No(s).

D007, D008, F001, F002

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF128.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	WP-RF128.01	198.2
Shipped Total		198.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	4.71
Aluminum-based Metals/Alloys	0.00
Other Metals	5.88
Other Inorganic Materials	9.14
Cellulosics	0.00
Rubber	0.00
Plastics	1.18
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.02E+00
Np-237	2.15E-05
Pu-238	1.88E+00
Pu-239	4.29E+01
Pu-240	1.04E+01
Pu-241	8.56E+01
Pu-242	7.61E-04
Th-229	1.43E-13
Th-230	1.25E-09
Th-232	3.73E-16
U-233	4.86E-10
U-234	3.88E-05
U-235	3.13E-07
U-236	2.16E-06
U-238	1.47E-10

Haz. Waste No(s).

D005, D006, D007,
D008, D010, D011No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF129.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF129.01	8.3
55-gal Drum Dir Ld w/o Liner	WP-RF129.01	0.6
55-gal POC - 12" w/ Liner	WP-RF129.01	3.3
SWB Dir Ld w/o Liner	WP-RF129.01	455.5
Shipped Total		467.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	151.84
Aluminum-based Metals/Alloys	1.45
Other Metals	23.51
Other Inorganic Materials	20.31
Cellulosics	14.40
Rubber	2.70
Plastics	26.27
Cements	0.00
Inorganic Matrix	0.22
Organic Matrix	0.61
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.69E-01
Am-243	2.19E-07
Cs-137	2.18E-07
Np-237	4.88E-06
Pu-238	9.59E-02
Pu-239	1.86E+00
Pu-240	4.44E-01
Pu-241	9.09E+00
Pu-242	5.81E-05
Pu-244	2.21E-23
Th-229	2.15E-14
Th-230	3.77E-09
Th-232	8.13E-18
U-233	9.46E-11
U-234	8.44E-05
U-235	2.93E-06
U-236	6.59E-08
U-238	1.33E-06

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF129.05-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF129.05	2.1
55-gal Drum Dir Ld w/o Liner	WP-RF129.05	0.2
SWB Dir Ld w/o Liner	WP-RF129.05	446.0
Shipped Total		448.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	182.14
Aluminum-based Metals/Alloys	0.66
Other Metals	61.87
Other Inorganic Materials	6.36
Cellulosics	8.09
Rubber	2.72
Plastics	22.28
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.26
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.70E-01
Am-243	7.64E-07
Np-237	2.28E-05
Pu-238	9.03E-02
Pu-239	1.68E+00
Pu-240	4.04E-01
Pu-241	8.79E+00
Pu-242	5.51E-05
Th-229	1.10E-13
Th-230	6.05E-10
Th-232	7.40E-18
U-233	4.74E-10
U-234	1.41E-05
U-235	4.22E-07
U-236	6.00E-08
U-238	1.41E-07

Haz. Waste No(s).

D008

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF130.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF130.01	25.4
55-gal Drum Dir Ld w/o Liner	WP-RF130.01	1.9
SWB w/ 4 - 55-gal Drums w/ Liners	WP-RF130.01	11.3
Shipped Total		38.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	13.34
Aluminum-based Metals/Alloys	1.41
Other Metals	6.65
Other Inorganic Materials	8.05
Cellulosics	0.81
Rubber	0.13
Plastics	7.57
Cements	0.00
Inorganic Matrix	2.91
Organic Matrix	7.06
Soils/gravel	0.03
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.35E+00
Cm-244	3.35E-09
Cs-137	1.70E-05
Np-237	2.15E-04
Pu-238	6.40E-01
Pu-239	1.28E+01
Pu-240	2.99E+00
Pu-241	6.30E+01
Pu-242	3.95E-04
Pu-244	7.58E-18
Sr-90	8.26E-04
Th-229	1.03E-12
Th-230	1.47E-07
Th-232	1.18E-10
U-233	4.45E-09
U-234	1.05E-03
U-235	4.11E-05
U-236	4.44E-07
U-238	5.93E-05

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF134.02-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Soils	Waste Matrix Code	S4200	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
SWB Dir Ld w/o Liner	WP-RF134.02	11.3
Shipped Total		11.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	3.35
Aluminum-based Metals/Alloys	2.23
Other Metals	0.00
Other Inorganic Materials	0.63
Cellulosics	10.66
Rubber	0.00
Plastics	10.56
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	666.10
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.93E-02
Np-237	2.87E-08
Pu-238	4.01E-03
Pu-239	8.16E-02
Pu-240	1.90E-02
Pu-241	3.97E-01
Pu-242	2.49E-06
Th-229	4.54E-17
Th-230	1.31E-12
Th-232	3.47E-19
U-233	2.96E-13
U-234	5.81E-08
U-235	4.03E-10
U-236	2.81E-09
U-238	1.88E-15

Haz. Waste No(s).

F001, F002, F005

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF135.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Organics	Waste Matrix Code	S3290	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF135.01	2.3
Shipped Total		2.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	5.51
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	802.10
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.20E+00
Np-237	2.33E-05
Pu-238	7.02E-02
Pu-239	1.45E+00
Pu-240	3.35E-01
Pu-241	6.97E+00
Pu-242	4.38E-05
Th-229	1.05E-13
Th-230	6.35E-09
Th-232	6.14E-18
U-233	4.59E-10
U-234	1.42E-04
U-235	1.63E-05
U-236	4.97E-08
U-238	1.26E-03

Haz. Waste No(s).

D022, D026, D027,
D029, D030, D032,
D034, D036, D037,
F001, F002**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **RF135.02-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Organics	Waste Matrix Code	S3290	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF135.02	10.4
Shipped Total		10.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.82
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.61
Rubber	0.00
Plastics	0.42
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	446.57
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.36E-01
Np-237	1.31E-06
Pu-238	2.93E-02
Pu-239	5.94E-01
Pu-240	1.38E-01
Pu-241	3.02E+00
Pu-242	1.80E-05
Th-229	3.81E-15
Th-230	1.42E-08
Th-232	1.61E-18
U-233	2.08E-11
U-234	3.96E-04
U-235	1.28E-05
U-236	1.63E-08
U-238	1.13E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D026, D027, D028, D029, D030, D032, D034, D036, D043, F001, F002, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF137.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF137.01	0.4
Shipped Total		0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	29.18
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	240.94
Cellulosics	0.00
Rubber	1.49
Plastics	20.22
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.42E-01
Np-237	8.72E-06
Pu-238	7.86E-02
Pu-239	1.64E+00
Pu-240	3.79E-01
Pu-241	7.83E+00
Pu-242	4.92E-05
Th-229	4.03E-14
Th-230	2.57E-11
Th-232	6.94E-18
U-233	1.75E-10
U-234	1.14E-06
U-235	8.08E-09
U-236	5.62E-08
U-238	3.71E-14

Haz. Waste No(s).

D007, D008

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF139.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF139.01	11.6
Shipped Total		11.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	44.57
Cellulosics	0.00
Rubber	0.00
Plastics	4.14
Cements	0.00
Inorganic Matrix	744.45
Organic Matrix	14.88
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.13E+01
Np-237	2.96E-04
Pu-238	1.40E-01
Pu-239	2.87E+00
Pu-240	6.66E-01
Pu-241	1.45E+01
Pu-242	8.68E-05
Th-229	8.58E-13
Th-230	7.57E-09
Th-232	7.80E-18
U-233	4.69E-09
U-234	2.11E-04
U-235	1.71E-05
U-236	7.89E-08
U-238	1.11E-03

Haz. Waste No(s).

D004, D005, D009,
D010, F001, F002,
F005, F006, F007,
F009**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **RF140.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5420	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RF140.01	4.0
SWB Dir Ld w/o Liner	WP-RF140.01	168.2
Shipped Total		172.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	149.72
Aluminum-based Metals/Alloys	2.38
Other Metals	60.72
Other Inorganic Materials	47.21
Cellulosics	4.14
Rubber	1.58
Plastics	5.57
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.02
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.01E-01
Am-243	7.90E-08
Np-237	2.53E-06
Pu-238	7.75E-02
Pu-239	1.44E+00
Pu-240	3.49E-01
Pu-241	7.52E+00
Pu-242	4.72E-05
Th-229	1.12E-14
Th-230	5.75E-11
Th-232	6.39E-18
U-233	4.92E-11
U-234	1.83E-06
U-235	3.01E-08
U-236	5.17E-08
U-238	2.03E-10

Haz. Waste No(s).

D005, D008, D009,
D011, F001, F002,
F005, F006, F007,
F009**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **RF141.01-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	WP-RF141.01	45.6
Shipped Total		45.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	7.30
Aluminum-based Metals/Alloys	0.00
Other Metals	8.83
Other Inorganic Materials	14.35
Cellulosics	0.00
Rubber	0.00
Plastics	1.77
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.01
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.93E+00
Np-237	5.77E-06
Pu-238	1.55E+00
Pu-239	3.99E+01
Pu-240	9.35E+00
Pu-241	8.98E+01
Pu-242	6.16E-04
Th-229	9.08E-15
Th-230	2.63E-07
Th-232	1.71E-16
U-233	5.93E-11
U-234	5.86E-03
U-235	1.88E-04
U-236	1.39E-06
U-238	1.66E-06

Haz. Waste No(s).

D006, D007, D008

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RF141.02-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	WP-RF141.02	176.0
Shipped Total		176.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	5.27
Aluminum-based Metals/Alloys	0.01
Other Metals	6.35
Other Inorganic Materials	11.00
Cellulosics	0.00
Rubber	0.00
Plastics	1.27
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.32E+00
Np-237	1.39E-03
Pu-238	1.57E+00
Pu-239	4.22E+01
Pu-240	1.01E+01
Pu-241	8.49E+01
Pu-242	8.65E-04
Th-229	6.92E-12
Th-230	7.51E-08
Th-232	1.84E-16
U-233	2.96E-08
U-234	1.68E-03
U-235	5.37E-05
U-236	1.49E-06
U-238	4.73E-07

Haz. Waste No(s).

D007, D008

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RL105-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	105-C, 105KE, and 105-N Bldg TRU Mixed Debris	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	22.7	0.0	22.7
Box - Misc	74.7	0.0	74.7
Uncontained	17.5	0.0	17.5
Current Form Total	114.9	0.0	114.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	28.1	0.0	28.1
SWB Dir Ld w/ Liner	113.4	0.0	113.4
Final Form Total	141.5	0.0	141.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	561.55
Aluminum-based Metals/Alloys	130.85
Other Metals	0.00
Other Inorganic Materials	32.22
Cellulosics	16.25
Rubber	3.57
Plastics	25.82
Cements	0.00
Inorganic Matrix	4.36
Organic Matrix	0.00
Soils/gravel	1.35
Vitrified	0.00
Packaging Material, Steel	148.99
Packaging Material, Plastic	8.31
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.81E-01
Am-243	6.13E-04
Cm-244	1.08E-02
Cs-137	1.49E+00
Np-237	2.70E-04
Pu-238	4.69E-02
Pu-239	1.49E-01
Pu-240	5.69E-02
Pu-241	6.11E+00
Pu-242	1.98E-05
Sr-90	5.26E-01
Th-229	2.20E-13
Th-230	7.69E-10
Th-232	8.43E-16
U-233	2.35E-09
U-234	4.29E-05
U-235	2.42E-05
U-236	8.54E-06
U-238	3.96E-04

No Hazardous Waste Numbers Provided

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris from Hanford production reactor storage basin operations. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RL105-03**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	NLOP sludge			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	68.4	0.0	68.4
Current Form Total	68.4	0.0	68.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	68.4	0.0	68.4
Final Form Total	68.4	0.0	68.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	36.09
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	12.59
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	930.62
Inorganic Matrix	620.41
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.11E-01
Cs-137	1.66E+00
Np-237	7.33E-06
Pu-238	6.82E-02
Pu-239	3.39E-01
Pu-240	1.86E-01
Pu-241	8.08E+00
Pu-242	8.88E-05
Sr-90	8.47E+00
Th-229	5.82E-15
Th-230	1.08E-08
Th-232	5.46E-19
U-233	6.25E-11
U-234	5.99E-04
U-235	2.26E-05
U-236	1.11E-08
U-238	4.83E-04

No Hazardous Waste Numbers Provided

TRUCON Code(s)

111/211

Waste Stream Description

Solidified inorganic CH TRU waste generated from Facility/Equipment Operation and Maintenance activities at the Reactor facility.

Waste Stream ID: **RL105-07**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	105-KE Bldg TRU RH Nonmixed Debris	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.8	0.0	4.8
85-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Box - Misc	108.7	0.0	108.7
Current Form Total	114.2	0.0	114.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	204.7	0.0	204.7
Final Form Total	204.7	0.0	204.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	549.16
Aluminum-based Metals/Alloys	127.96
Other Metals	0.00
Other Inorganic Materials	31.51
Cellulosics	15.89
Rubber	3.49
Plastics	25.25
Cements	0.00
Inorganic Matrix	4.27
Organic Matrix	0.00
Soils/gravel	1.32
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.95E-02
Am-243	3.49E-08
Cm-244	8.71E-04
Cs-137	7.67E-02
Np-237	7.64E-07
Pu-238	4.99E-03
Pu-239	1.25E-02
Pu-240	6.34E-03
Pu-241	3.13E-01
Pu-242	7.73E-07
Sr-90	6.32E-02
Th-229	1.29E-14
Th-230	7.49E-10
Th-232	4.63E-08
U-233	5.09E-11
U-234	2.78E-05
U-235	1.40E-06
U-236	5.26E-06
U-238	3.39E-05

Haz. Waste No(s).

D006, D007, F001, F002, F003, F005

TRUCON Code(s)

325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters. The waste stream ranges from contaminated clothing to process equipment. The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the REACTOR FACILITY.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RL105-09****Appendix A****TRU Waste Inventory Profile Report**

Site	Hanford (Richland) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	105KE TRU RH mixed solidified inorganics	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
85-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Uncontained	203.2	0.0	203.2
Current Form Total	203.8	0.0	203.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	1266.5	0.0	1266.5
Final Form Total	1266.5	0.0	1266.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	211.78
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	7.90
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	777.38
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.13E-01
Cs-137	3.23E-01
Np-237	1.88E-05
Pu-238	1.41E-02
Pu-239	7.14E-02
Pu-240	3.92E-02
Pu-241	1.50E+00
Pu-242	1.89E-05
Sr-90	1.21E-01
Th-229	1.84E-13
Th-230	7.91E-09
Th-232	6.62E-14
U-233	5.61E-10
U-234	1.26E-04
U-235	4.73E-06
U-236	1.91E-04
U-238	1.02E-04

No Hazardous Waste Numbers Provided

TRUCON Code(s)

311

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the REACTOR FACILITY.

Waste Stream ID: **RL200-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Misc 200 Area TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	52.4	0.0	52.4
85-gal Drum Dir Ld w/ Liner	12.6	0.0	12.6
Box - Misc	141.4	0.0	141.4
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Uncontained	19.3	0.0	19.3
Current Form Total	227.6	0.0	227.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	75.7	0.0	75.7
SWB Dir Ld w/ Liner	200.3	0.0	200.3
Final Form Total	276.1	0.0	276.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	571.32
Aluminum-based Metals/Alloys	129.26
Other Metals	0.00
Other Inorganic Materials	33.83
Cellulosics	24.79
Rubber	8.55
Plastics	33.85
Cements	0.00
Inorganic Matrix	5.43
Organic Matrix	0.00
Soils/gravel	2.92
Vitrified	0.00
Packaging Material, Steel	147.27
Packaging Material, Plastic	11.02
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.16E-01
Cs-137	5.17E-04
Np-237	2.64E-07
Pu-238	7.08E-02
Pu-239	2.74E-01
Pu-240	1.54E-01
Pu-241	5.40E+00
Pu-242	6.22E-06
Pu-244	1.08E-12
Sr-90	1.72E-07
Th-229	7.12E-17
Th-230	3.65E-12
Th-232	4.52E-19
U-233	1.14E-12
U-234	4.05E-07
U-235	5.40E-10
U-236	9.16E-09
U-238	1.88E-15

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RL200-02**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Soils	Waste Matrix Code	S4000	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Soil from Groundwater project.			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	8.7	0.0	8.7
85-gal Drum Dir Ld w/ Liner	3.5	0.0	3.5
Current Form Total	12.3	0.0	12.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	11.6	0.0	11.6
Final Form Total	11.6	0.0	11.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	69.44
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	30.42
Cellulosics	0.00
Rubber	0.00
Plastics	6.61
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	554.87
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.91E-01
Cs-137	9.20E-02
Np-237	5.29E-07
Pu-238	3.90E-03
Pu-239	6.15E-02
Pu-240	2.48E-02
Pu-241	6.55E-02
Pu-242	4.37E-06
Sr-90	2.79E-02
Th-229	1.76E-10
Th-230	1.83E-08
Th-232	4.99E-08
U-233	9.37E-07
U-234	3.72E-06
U-235	1.22E-07
U-236	1.80E-07
U-238	3.41E-06

Haz. Waste No(s).

D005, D006, D007, D008, D009, D011, D018, D019, D021, D022, D027, D028, D030, D039, D040, D043, F001, F002, F003, F005

TRUCON Code(s)

125/225

Waste Stream Description

Crib and soil characterization and remediation wastes

Waste Stream ID: **RL200-10**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Soils	Waste Matrix Code	S4000	Handling	RH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Soil from Groundwater project.			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Uncontained	0.9	0.0	0.9
Current Form Total	0.9	0.0	0.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	1.8	0.0	1.8
Final Form Total	1.8	0.0	1.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	69.44
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	30.42
Cellulosics	0.00
Rubber	0.00
Plastics	6.61
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	554.87
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.49E+01
Am-243	1.95E-07
Cs-137	8.05E+03
Np-237	5.97E-05
Pu-238	2.99E+00
Pu-239	1.00E+00
Pu-240	9.89E-01
Pu-241	2.69E+01
Pu-242	1.64E-03
Sr-90	4.26E+03
Th-229	2.53E-13
Th-230	1.83E-09
Th-232	3.31E-17
U-233	1.60E-09
U-234	1.10E-04
U-235	1.23E-08
U-236	3.65E-07
U-238	3.17E-12

No Hazardous Waste Numbers Provided

TRUCON Code(s)

325

Waste Stream Description

Crib and soil characterization and remediation wastes

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RL201-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	201C TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	11.6	0.0	11.6
Current Form Total	11.6	0.0	11.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	11.6	0.0	11.6
Final Form Total	11.6	0.0	11.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	28.57
Other Inorganic Materials	9.47
Cellulosics	66.67
Rubber	123.40
Plastics	33.33
Cements	0.00
Inorganic Matrix	0.96
Organic Matrix	0.00
Soils/gravel	325.10
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.41E+00
Cs-137	1.62E-01
Np-237	1.26E-05
Pu-238	1.16E-05
Pu-239	1.59E-01
Pu-240	3.91E-02
Pu-241	1.92E-05
Pu-242	3.42E-09
Sr-90	4.15E+00
Th-229	2.20E-13
Th-230	2.01E-12
Th-232	7.34E-18
U-233	4.40E-10
U-234	2.80E-08
U-235	2.51E-09
U-236	1.86E-08
U-238	6.08E-04

Haz. Waste No(s).

D007, D010

TRUCON Code(s)

125/225

Waste Stream Description

"The waste is generated from Remediation/D&D Waste activities at the PROCESS BUILDING, 3 HOT CELLS (DEMO'D). □ □ THE STREAM CONTAINS PLASTIC/POLYURETHANE, STAINLESS STEEL, PAPER/CARDBOARD, RUBBER, CLOTH/RAGS/NYLON."

Waste Stream ID: **RL202S-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	202S TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	2.74
Aluminum-based Metals/Alloys	0.91
Other Metals	0.77
Other Inorganic Materials	0.00
Cellulosics	3.34
Rubber	0.77
Plastics	53.09
Cements	0.00
Inorganic Matrix	3.59
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.50E-02
Np-237	4.14E-07
Pu-238	3.53E-03
Pu-239	7.33E-02
Pu-240	1.76E-02
Pu-241	1.23E-01
Pu-242	8.11E-07
Th-229	5.35E-15
Th-230	3.83E-12
Th-232	1.05E-18
U-233	1.35E-11
U-234	9.35E-08
U-235	6.50E-10
U-236	4.71E-09
U-238	1.10E-15

Haz. Waste No(s).

D006, D007, D008, D009

TRUCON Code(s)

125/225

Waste Stream Description

The waste is generated from Remediation/D&D Waste activities at the REDOX CANYON AND SERVICE FACILITY.

Waste Stream ID: **RL209E-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	209E TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	23.3	0.0	23.3
85-gal Drum Dir Ld w/ Liner	5.5	0.0	5.5
Box - Misc	40.8	0.0	40.8
Current Form Total	69.6	0.0	69.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	30.6	0.0	30.6
SWB Dir Ld w/ Liner	51.0	0.0	51.0
Final Form Total	81.6	0.0	81.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	38.25
Aluminum-based Metals/Alloys	0.00
Other Metals	0.29
Other Inorganic Materials	6.64
Cellulosics	37.64
Rubber	15.97
Plastics	29.24
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	144.99
Packaging Material, Plastic	14.61
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.07E+00
Cs-137	7.35E-09
Np-237	8.42E-05
Pu-238	9.98E-01
Pu-239	8.26E+00
Pu-240	3.01E+00
Pu-241	1.34E+01
Pu-242	4.41E-04
Sr-90	6.57E-09
Th-229	4.76E-12
Th-230	3.57E-08
Th-232	8.83E-16
U-233	5.63E-09
U-234	2.28E-04
U-235	6.27E-06
U-236	1.79E-06
U-238	1.56E-05

Haz. Waste No(s).

D006, D007, D008,
D009, F002, F003,
F005

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated during operations, cleanout, and D&D of the 209-E Critical Mass Laboratory (CML) at Hanford. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RL209E-08**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	209E TRU RH Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.69
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.56
Cellulosics	16.85
Rubber	2.25
Plastics	15.73
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.07E+00
Np-237	3.96E-05
Pu-238	5.19E-01
Pu-239	3.92E+00
Pu-240	1.37E+00
Pu-241	6.45E+00
Pu-242	1.71E-04
Th-229	2.16E-12
Th-230	2.95E-09
Th-232	4.02E-16
U-233	2.59E-09
U-234	3.19E-05
U-235	7.74E-08
U-236	8.14E-07
U-238	5.16E-13

Haz. Waste No(s).

D006, D007, D008, D009, F002, F003, F005
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TRUCON Code(s)

325

Waste Stream Description

Combustible and noncombustible debris waste generated during operations, cleanout, and D&D of the 209-E CML. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RL216Z-02**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Soils	Waste Matrix Code	S4000	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	216-Z-9 TRU Mixed Soil			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	73.0	0.0	73.0
85-gal Drum Dir Ld w/ Liner	115.0	0.0	115.0
Box - Misc	12.7	0.0	12.7
Current Form Total	200.7	0.0	200.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	292.9	0.0	292.9
SWB Dir Ld w/ Liner	17.0	0.0	17.0
Final Form Total	309.9	0.0	309.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	52.96
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	23.20
Cellulosics	0.00
Rubber	0.00
Plastics	5.04
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	423.18
Vitrified	0.00
Packaging Material, Steel	132.05
Packaging Material, Plastic	35.03
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.07E+01
Np-237	1.39E-05
Pu-238	2.39E+00
Pu-239	1.64E+01
Pu-240	5.79E+00
Pu-241	1.40E+02
Pu-242	2.79E-04
Th-229	1.59E-14
Th-230	4.98E-10
Th-232	6.79E-17
U-233	1.22E-10
U-234	2.75E-05
U-235	6.48E-08
U-236	6.87E-07
U-238	1.68E-13

Haz. Waste No(s).

D005, D006, D007, D008, D009, D011, F001, F002, F003, F005

TRUCON Code(s)

125/225

Waste Stream Description

RLM216Z9S waste consists of soil contaminated with large quantities of plutonium, americium, organics, and partially neutralized acid waste solutions that were removed from the 216-Z-9 Crib. Some of the original packaging material (e.g., 10-L stainless steel slip-lid cans, plastic bags, and vermiculite) is not considered waste due to deterioration and potential TRU contamination.

Waste Stream ID: **RL221T-01****Appendix A****TRU Waste Inventory Profile Report**

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	221-T TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	5.0	0.0	5.0
85-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Current Form Total	5.6	0.0	5.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	6.9	0.0	6.9
Final Form Total	6.9	0.0	6.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	435.40
Aluminum-based Metals/Alloys	68.62
Other Metals	0.00
Other Inorganic Materials	33.92
Cellulosics	82.82
Rubber	35.49
Plastics	84.40
Cements	0.00
Inorganic Matrix	11.83
Organic Matrix	0.00
Soils/gravel	14.20
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.11E-03
Np-237	1.09E-08
Pu-238	1.35E-04
Pu-239	6.69E-04
Pu-240	3.77E-04
Pu-241	2.84E-03
Pu-242	1.53E-08
Th-229	7.84E-16
Th-230	2.38E-12
Th-232	3.20E-19
U-233	7.65E-13
U-234	1.49E-08
U-235	2.24E-11
U-236	3.81E-10
U-238	7.82E-17

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D034, D037, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RL221U-01****Appendix A****TRU Waste Inventory Profile Report**

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	221U moved from RL200-01			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	214.60
Aluminum-based Metals/Alloys	29.89
Other Metals	8.98
Other Inorganic Materials	39.85
Cellulosics	22.91
Rubber	5.44
Plastics	20.21
Cements	0.00
Inorganic Matrix	3.79
Organic Matrix	0.01
Soils/gravel	4.02
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.05E-04
Cs-137	1.11E-01
Np-237	5.72E-09
Pu-238	4.34E-04
Pu-239	5.96E-04
Pu-240	5.65E-05
Sr-90	4.39E-02
Th-229	1.46E-11
Th-230	1.33E-07
Th-232	8.48E-14
U-233	4.58E-09
U-234	4.34E-04
U-235	1.45E-05
U-236	5.05E-05
U-238	3.18E-04

Haz. Waste No(s).

D006, D007, D008, D009, D011, D027, D030, D032, D033, D034, D036, D037, F001, F002

TRUCON Code(s)

125/225

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RL222S-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	222S TRU Mixed Debris	Activity Concentrations		Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	43.5	0.0	43.5
85-gal Drum Dir Ld w/ Liner	27.4	0.0	27.4
Box - Misc	44.0	0.0	44.0
Current Form Total	114.8	0.0	114.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	76.3	0.0	76.3
SWB Dir Ld w/ Liner	56.7	0.0	56.7
Final Form Total	133.0	0.0	133.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	520.79
Aluminum-based Metals/Alloys	103.32
Other Metals	0.01
Other Inorganic Materials	34.67
Cellulosics	52.68
Rubber	20.80
Plastics	58.46
Cements	0.00
Inorganic Matrix	8.69
Organic Matrix	0.00
Soils/gravel	8.40
Vitrified	0.00
Packaging Material, Steel	140.47
Packaging Material, Plastic	21.74
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.66E-01
Am-243	7.21E-07
Cs-137	8.40E-05
Np-237	1.96E-05
Pu-238	1.38E-02
Pu-239	5.40E-02
Pu-240	2.92E-02
Pu-241	9.96E-01
Pu-242	1.18E-06
Sr-90	4.55E-05
Th-229	3.69E-06
Th-230	3.96E-12
Th-232	1.49E-08
U-233	1.97E-02
U-234	2.60E-07
U-235	6.30E-09
U-236	1.73E-09
U-238	9.69E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D026, D030, D039, F001, F002, F003, F005

TRUCON Code(s)

125/225

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters. This waste is generated from Analytical laboratory Waste activities at the CONTROL LABORATORY.

Waste Stream ID: **RL222S-08**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	222S TRU RH Mixed Debris	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.8	0.0	0.8
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Box - Misc	0.1	0.0	0.1
Current Form Total	1.3	0.0	1.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	3.6	0.0	3.6
Final Form Total	3.6	0.0	3.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	266.20
Aluminum-based Metals/Alloys	42.03
Other Metals	0.00
Other Inorganic Materials	20.55
Cellulosics	50.50
Rubber	21.55
Plastics	51.72
Cements	0.00
Inorganic Matrix	7.40
Organic Matrix	0.00
Soils/gravel	8.72
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.00E-02
Am-243	7.15E-03
Cs-137	8.60E-02
Np-237	3.27E-03
Pu-238	1.84E-02
Pu-239	1.80E+00
Pu-240	6.07E-02
Pu-241	5.31E+00
Pu-242	1.61E-04
Pu-244	6.53E-07
Sr-90	1.35E-01
Th-229	2.35E-05
Th-230	9.53E-13
Th-232	1.78E-19
U-233	1.26E-01
U-234	1.06E-07
U-235	6.55E-06
U-236	3.60E-09
U-238	1.10E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D039, F001, F002, F003, F004, F005

TRUCON Code(s)

325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters. The waste is generated from Analytical Laboratory Waste activities at the CONTROL LABORATORY.

Waste Stream ID: **RL231Z-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	231-Z TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	71.6	0.0	71.6
85-gal Drum Dir Ld w/ Liner	71.5	0.0	71.5
Box - Misc	1157.5	0.0	1157.5
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Current Form Total	1302.4	0.0	1302.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	146.6	0.0	146.6
SWB Dir Ld w/ Liner	1449.6	0.0	1449.6
Final Form Total	1596.3	0.0	1596.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	116.41
Aluminum-based Metals/Alloys	0.81
Other Metals	0.92
Other Inorganic Materials	9.09
Cellulosics	21.98
Rubber	5.47
Plastics	24.35
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	151.41
Packaging Material, Plastic	4.49
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.71E-01
Am-243	3.24E-06
Cs-137	4.00E-05
Np-237	1.47E-05
Pu-238	4.62E-02
Pu-239	3.93E-01
Pu-240	1.05E-01
Pu-241	1.34E+00
Pu-242	1.25E-05
Sr-90	3.64E-05
U-234	5.56E-05
U-235	1.48E-06
U-238	9.22E-06

Haz. Waste No(s).

D006, D007, D008, D009, F001, F002, F003, F005
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TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated during operations, cleanout, and D&D activities of the 231-Z Building at Hanford. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. The 231-Z Building has also been called the 231-W Building, the Concentration Building, the Isolation Building, the Plutonium Metallurgical Laboratory, and the 231-Z Materials Engineering Laboratory.

Waste Stream ID: **RL231Z-03**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	231Z TRU Mixed Solid Inorganic	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
85-gal Drum Dir Ld w/ Liner	1.6	0.0	1.6
Current Form Total	1.6	0.0	1.6

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	78.74
Other Inorganic Materials	0.14
Cellulosics	4.93
Rubber	1.17
Plastics	15.44
Cements	0.00
Inorganic Matrix	70.03
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.92E-04
Np-237	2.44E-09
Pu-238	3.74E-05
Pu-239	1.79E-04
Pu-240	1.01E-04
Pu-241	9.63E-04
Pu-242	4.07E-09
Th-229	1.28E-16
Th-230	4.68E-13
Th-232	6.22E-20
U-233	1.46E-13
U-234	3.46E-09
U-235	5.11E-12
U-236	8.68E-11
U-238	1.78E-17

Haz. Waste No(s).

D006, D007, D008,
D009, F001, F002,
F003, F005

TRUCON Code(s)

122/222

Waste Stream Description

Solidified inorganic waste generated during operations, cleanout, and D&D activities of the 231-Z Building, which has also been called the 231-W Building, the Concentration Building, the Isolation Building, the Plutonium Metallurgical Laboratory, and the 231-Z Materials Engineering Laboratory.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RL233S-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	233S TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.8	0.0	4.8
85-gal Drum Dir Ld w/ Liner	10.0	0.0	10.0
SWB Dir Ld w/ Liner	49.1	0.0	49.1
Current Form Total	63.9	0.0	63.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	13.1	0.0	13.1
SWB Dir Ld w/ Liner	49.1	0.0	49.1
Final Form Total	62.2	0.0	62.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	229.43
Aluminum-based Metals/Alloys	0.96
Other Metals	2.09
Other Inorganic Materials	5.23
Cellulosics	15.69
Rubber	3.39
Plastics	18.24
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.61
Vitrified	0.00
Packaging Material, Steel	148.72
Packaging Material, Plastic	8.74
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.92E-01
Cs-137	4.18E-05
Np-237	2.06E-04
Pu-238	9.65E-02
Pu-239	7.34E-01
Pu-240	2.39E-01
Pu-241	2.03E+00
Pu-242	7.21E-05
Sr-90	3.80E-05
Th-229	6.55E-13
Th-230	1.58E-10
Th-232	2.80E-18
U-233	3.49E-09
U-234	4.96E-06
U-235	1.32E-07
U-236	2.84E-08
U-238	1.93E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, F002, F003

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated during cleanout, stabilization, and D&D activities of the 233-S Building (Plutonium Concentration Facility) at Hanford. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RL233S-03**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	233S solidified inorganic waste			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.6	0.0	4.6
Current Form Total	4.6	0.0	4.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.8	0.0	4.8
Final Form Total	4.8	0.0	4.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.04
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	616.46
Cellulosics	0.00
Rubber	0.04
Plastics	0.74
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.94E-01
Cs-137	2.14E-06
Np-237	2.19E-04
Pu-238	5.11E-02
Pu-239	1.67E-01
Pu-240	6.93E-02
Pu-241	6.40E-01
Pu-242	6.03E-05
Sr-90	3.97E-07
Th-229	4.77E-14
Th-230	2.79E-11
Th-232	1.90E-17
U-233	9.85E-10
U-234	3.18E-06
U-235	9.25E-08
U-236	3.87E-07
U-238	2.42E-06

Haz. Waste No(s).

D004, D006, D007, D008, D009, D010, D011
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TRUCON Code(s)

122/222

Waste Stream Description

Solidified inorganic CH TRU waste generated from Facility/Equipment Operation and Maintenance activities

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RL300-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	300 Area TRU Mixed Debris	Activity Concentrations		Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	37.2	0.0	37.2
85-gal Drum Dir Ld w/ Liner	39.9	0.0	39.9
Box - Misc	88.9	0.0	88.9
SWB Dir Ld w/ Liner	3.8	0.0	3.8
Current Form Total	169.8	0.0	169.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	74.3	0.0	74.3
SWB Dir Ld w/ Liner	115.3	0.0	115.3
Final Form Total	189.5	0.0	189.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	70.99
Aluminum-based Metals/Alloys	0.26
Other Metals	13.29
Other Inorganic Materials	31.98
Cellulosics	21.35
Rubber	5.38
Plastics	38.13
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	144.61
Packaging Material, Plastic	15.22
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.93E+00
Am-243	3.09E-05
Cs-137	1.54E-04
Np-237	4.06E-05
Pu-238	5.42E-01
Pu-239	2.80E+00
Pu-240	1.26E+00
Pu-241	1.77E+01
Pu-242	2.39E-04
Sr-90	1.40E-04
Th-229	3.25E-14
Th-230	1.11E-08
Th-232	2.07E-06
U-233	3.48E-10
U-234	6.17E-04
U-235	2.68E-05
U-236	7.49E-08
U-238	5.58E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D037, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated from operations, including fuel fabrication, reactor operations, research and development, maintenance, and laboratory operations in the Hanford 300 Area. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RL300-03**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	300 area solidified inorganics			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.5	0.0	2.5
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Current Form Total	2.8	0.0	2.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.1	0.0	3.1
Final Form Total	3.1	0.0	3.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	2.59
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	27.02
Cements	508.48
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.65E+00
Np-237	9.44E-06
Pu-238	6.23E-01
Pu-239	3.07E+00
Pu-240	1.65E+00
Pu-241	3.17E+01
Pu-242	2.39E-04
Th-229	1.81E-15
Th-230	2.58E-10
Th-232	1.21E-18
U-233	3.93E-11
U-234	2.96E-05
U-235	9.33E-07
U-236	4.88E-08
U-238	1.40E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D034, D037, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

122/222

Waste Stream Description

Solidified inorganic CH TRU waste generated from operations, including fuel fabrication, reactor operations, research and development, maintenance, and laboratory operations in the Hanford 300 Area.

Waste Stream ID: **RL300-08**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	300 Area TRU RH Mixed Debris	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	28.7	0.0	28.7
85-gal Drum Dir Ld w/ Liner	9.0	0.0	9.0
Box - Misc	201.6	0.0	201.6
SWB Dir Ld w/ Liner	3.8	0.0	3.8
Current Form Total	243.1	0.0	243.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	413.0	0.0	413.0
Final Form Total	413.0	0.0	413.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	61.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	467.03
Cellulosics	15.25
Rubber	0.00
Plastics	3.81
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.63E+00
Am-243	9.23E-03
Cm-244	1.41E+00
Cs-137	4.19E+02
Np-237	6.85E-05
Pu-238	6.82E-01
Pu-239	1.77E-01
Pu-240	2.05E-01
Pu-241	1.37E+01
Pu-242	7.09E-04
Pu-244	7.99E-14
Sr-90	2.50E+02
Th-229	1.12E-04
Th-230	3.63E-08
Th-232	8.13E-05
U-233	1.70E-01
U-234	5.83E-04
U-235	3.93E-06
U-236	4.24E-05
U-238	1.21E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D027, D028, D029, D030, D033, D034, D036, D039, D040, D043, F001, F002, F003
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TRUCON Code(s)

325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RL308-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	308 TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	17.5	0.0	17.5
85-gal Drum Dir Ld w/ Liner	5.5	0.0	5.5
Box - Misc	456.3	0.0	456.3
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Current Form Total	481.1	0.0	481.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	25.4	0.0	25.4
SWB Dir Ld w/ Liner	572.7	0.0	572.7
Final Form Total	598.0	0.0	598.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	105.51
Aluminum-based Metals/Alloys	0.25
Other Metals	16.44
Other Inorganic Materials	16.67
Cellulosics	18.56
Rubber	5.92
Plastics	39.78
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	152.54
Packaging Material, Plastic	2.72
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.36E+01
Am-243	3.15E-06
Cs-137	3.16E-04
Np-237	1.64E-05
Pu-238	1.01E+01
Pu-239	1.61E+01
Pu-240	1.04E+01
Pu-241	2.16E+02
Pu-242	9.86E-03
Sr-90	2.87E-04
Th-229	1.19E-08
Th-230	2.27E-09
Th-232	9.00E-07
U-233	1.27E-04
U-234	2.66E-04
U-235	2.37E-05
U-236	3.09E-07
U-238	3.43E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D011, F001, F002, F003

TRUCON Code(s)

125/225

Waste Stream Description

The RLM308D waste stream is a debris waste stream associated with the 308 Bldg. fuel development laboratory, fuel fabrication capabilities, and deactivation. Examples of waste items in this waste stream include plutonium alloys, casting skulls, clad plates, plastic mounts, plutonium-aluminum scrap, metal mounts, Pu pellets, rags, wipes, HEPA filters, batteries, stainless steel tubing, tape, thermometers, electrical wire, and a variety of other solid debris items.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RL325-01****Appendix A****TRU Waste Inventory Profile Report**

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	325 TRU Mixed Debris	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	477.8	0.0	477.8
85-gal Drum Dir Ld w/ Liner	316.2	0.0	316.2
Box - Misc	286.6	0.0	286.6
SWB Dir Ld w/ Liner	17.0	0.0	17.0
Uncontained	50.5	0.0	50.5
Current Form Total	1148.1	0.0	1148.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	838.7	0.0	838.7
SWB Dir Ld w/ Liner	427.1	0.0	427.1
Final Form Total	1265.8	0.0	1265.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	92.91
Aluminum-based Metals/Alloys	0.23
Other Metals	3.27
Other Inorganic Materials	25.75
Cellulosics	18.00
Rubber	5.51
Plastics	26.51
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.44
Vitrified	0.00
Packaging Material, Steel	138.46
Packaging Material, Plastic	24.92
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.74E+00
Am-243	4.32E-04
Cm-244	7.21E-03
Cs-137	9.17E-04
Np-237	1.93E-04
Pu-238	8.28E-01
Pu-239	1.67E+00
Pu-240	6.79E-01
Pu-241	1.20E+01
Pu-242	1.94E-04
Sr-90	9.15E-04
Th-229	4.84E-09
Th-230	2.70E-09
Th-232	1.76E-06
U-233	5.16E-05
U-234	3.01E-04
U-235	1.04E-05
U-236	2.01E-08
U-238	1.02E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D034, D037, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

RLM325D waste stream is a debris waste stream containing waste materials associated with the 325 Bldg. laboratory operations, sample analysis, facility cleanout, and facility waste treatment. Operations waste includes any discarded item used in laboratory analysis (e.g., glass beakers, tweezers, latex gloves, plastic tape, glass pipettes) and facility cleanout (e.g., glassware, wipes, and equipment). Maintenance waste may include filters, wipes, and various types of gloves. Small amounts of solid sample residues (unused samples) generated during lab operations are present in the waste.

Waste Stream ID: **RL325-03**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	325 TRU Mixed Solid Inorganic			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.6	0.0	4.6
85-gal Drum Dir Ld w/ Liner	11.6	0.0	11.6
Current Form Total	16.2	0.0	16.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	14.4	0.0	14.4
Final Form Total	14.4	0.0	14.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	102.71
Aluminum-based Metals/Alloys	0.00
Other Metals	0.01
Other Inorganic Materials	0.00
Cellulosics	2.33
Rubber	1.06
Plastics	12.11
Cements	592.92
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	46.31
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.20E+00
Am-243	8.44E-03
Cm-244	4.01E+00
Cs-137	8.24E-03
Np-237	3.05E-04
Pu-238	1.18E+00
Pu-239	3.06E+00
Pu-240	1.48E+00
Pu-241	4.93E+01
Pu-242	3.56E-04
Sr-90	8.89E-02
Th-229	1.14E-06
Th-230	1.04E-09
Th-232	2.26E-08
U-233	6.08E-03
U-234	6.10E-05
U-235	2.19E-06
U-236	8.77E-08
U-238	2.97E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D034, D037, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

122/222

Waste Stream Description

The mixed solid inorganic portion of the 325 waste stream is from liquid laboratory samples that were neutralized and solidified using nonhazardous absorbents. Small amounts of neutralized and solidified liquids from hazardous waste treatment may also be present in the waste. Corrosive liquids, such as hydrochloric acid and sodium hydroxide were neutralized and solidified in cement before being packaged as waste.

Waste Stream ID: **RL325-08**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	325 TRU RH Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	25.2	0.0	25.2
85-gal Drum Dir Ld w/ Liner	2.9	0.0	2.9
Box - Misc	97.4	0.0	97.4
SWB Dir Ld w/ Liner	28.4	0.0	28.4
Uncontained	35.2	0.0	35.2
Current Form Total	189.0	0.0	189.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	324.9	0.0	324.9
Final Form Total	324.9	0.0	324.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	83.19
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	706.13
Cellulosics	0.00
Rubber	0.00
Plastics	16.64
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.84E-01
Am-243	1.38E-03
Cm-244	2.43E-01
Cs-137	2.28E+00
Np-237	9.61E-04
Pu-238	1.52E+00
Pu-239	2.04E-01
Pu-240	2.14E-01
Pu-241	1.42E+01
Pu-242	2.91E-04
Sr-90	1.62E+01
Th-229	2.03E-10
Th-230	9.93E-10
Th-232	5.38E-10
U-233	1.16E-07
U-234	3.12E-05
U-235	3.52E-06
U-236	4.66E-08
U-238	1.07E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D033, D034, D036, D037, D038, D039, D040, D043, F001, F002, F003, F004, F005
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TRUCON Code(s)

325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters. The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Waste Stream ID: **RL325-09**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	325 TRU RH mixed solidified inorganics	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	67.42
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	572.25
Cellulosics	0.00
Rubber	0.00
Plastics	13.48
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.25E-02
Cm-244	7.58E-01
Cs-137	1.73E-03
Np-237	4.39E-08
Pu-238	4.67E-05
Pu-239	6.18E-05
Pu-240	6.02E-04
Pu-241	1.58E-03
Pu-242	2.25E-08
Sr-90	6.61E-04
Th-229	1.06E-16
Th-230	2.22E-14
Th-232	6.65E-21
U-233	5.65E-13
U-234	8.15E-10
U-235	1.13E-10
U-236	6.09E-11
U-238	5.62E-08

Haz. Waste No(s).

D006, D008, D030,
F001, F002, F003,
F004, F005

TRUCON Code(s)

322

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Waste Stream ID: **RLARG-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Argonne Nat Lab TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	21.4	0.0	21.4
Final Form Total	21.4	0.0	21.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	478.23
Aluminum-based Metals/Alloys	64.88
Other Metals	7.99
Other Inorganic Materials	32.07
Cellulosics	78.30
Rubber	33.56
Plastics	79.80
Cements	0.00
Inorganic Matrix	21.13
Organic Matrix	0.00
Soils/gravel	13.42
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.60E+00
Np-237	4.39E-05
Pu-238	9.13E-01
Pu-239	4.16E+00
Pu-240	2.35E+00
Pu-241	2.99E+01
Pu-242	9.48E-05
Th-229	1.45E-12
Th-230	6.96E-09
Th-232	6.78E-07
U-233	2.08E-09
U-234	6.53E-05
U-235	9.43E-08
U-236	1.60E-06
U-238	3.29E-13

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters. The waste is generated from R&D/R&D Laboratory Waste activities at the Argonne National Laboratory - East (IL).

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RLARG-08**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Argonne Nat Lab TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Current Form Total	0.3	0.0	0.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	478.23
Aluminum-based Metals/Alloys	64.88
Other Metals	7.99
Other Inorganic Materials	32.07
Cellulosics	78.30
Rubber	33.56
Plastics	79.80
Cements	0.00
Inorganic Matrix	21.13
Organic Matrix	0.00
Soils/gravel	13.42
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Cs-137	3.68E+01
Sr-90	3.83E+01
Th-229	1.59E-04
Th-230	1.27E-06
Th-232	4.39E-05
U-233	7.36E-02
U-234	6.14E-03
U-235	3.83E-07
U-236	9.16E-07
U-238	8.93E-09

Haz. Waste No(s).

D006, D007, D008

TRUCON Code(s)

325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. Drums may be used for disposal of high-efficiency particulate air filters. The waste is generated from R&D/R&D Laboratory Waste activities at the Argonne National Laboratory - East (IL).

Waste Stream ID: **RLBART-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Bartlesville TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	375.08
Aluminum-based Metals/Alloys	59.12
Other Metals	0.00
Other Inorganic Materials	29.22
Cellulosics	71.35
Rubber	30.58
Plastics	72.71
Cements	0.00
Inorganic Matrix	10.19
Organic Matrix	0.00
Soils/gravel	12.23
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedTRUCON Code(s)
125/225

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RLBART-08**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Bartlesville RH-TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	177.41
Aluminum-based Metals/Alloys	28.01
Other Metals	0.00
Other Inorganic Materials	13.70
Cellulosics	33.66
Rubber	14.36
Plastics	34.47
Cements	0.00
Inorganic Matrix	4.93
Organic Matrix	0.00
Soils/gravel	5.81
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.03E-01
Np-237	4.51E-06
Pu-238	4.92E-07
Pu-239	3.80E-06
Pu-240	1.84E-06
Pu-241	5.75E-06
Pu-242	5.31E-10
Th-229	2.26E-13
Th-230	5.28E-15
Th-232	9.83E-22
U-233	2.66E-10
U-234	4.20E-11
U-235	1.01E-13
U-236	1.47E-12
U-238	2.16E-18

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RLBAT-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Battelle Columbus TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	7.3	0.0	7.3
85-gal Drum Dir Ld w/ Liner	10.9	0.0	10.9
Box - Misc	20.4	0.0	20.4
Current Form Total	38.6	0.0	38.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	18.1	0.0	18.1
SWB Dir Ld w/ Liner	26.5	0.0	26.5
Final Form Total	44.6	0.0	44.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	561.11
Aluminum-based Metals/Alloys	118.24
Other Metals	0.00
Other Inorganic Materials	35.60
Cellulosics	42.97
Rubber	16.03
Plastics	50.31
Cements	0.00
Inorganic Matrix	7.58
Organic Matrix	0.00
Soils/gravel	6.35
Vitrified	0.00
Packaging Material, Steel	144.28
Packaging Material, Plastic	15.74
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.94E-01
Am-243	7.74E-08
Cs-137	5.22E-08
Np-237	2.61E-05
Pu-238	2.15E+00
Pu-239	1.88E-01
Pu-240	1.06E-01
Pu-241	1.48E+00
Pu-242	4.55E-06
Sr-90	4.78E-08
Th-229	2.23E-12
Th-230	2.88E-08
Th-232	1.07E-07
U-233	2.29E-09
U-234	2.20E-04
U-235	2.67E-06
U-236	6.61E-08
U-238	8.79E-06

Haz. Waste No(s).

D005, D006, D007, D008, D009, D011, F001, F002, F003, F005
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TRUCON Code(s)

125/225

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RLBAT-08**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	BATCO TRU RH Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.2	0.0	4.2
Box - Misc	0.6	0.0	0.6
Current Form Total	4.7	0.0	4.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	9.8	0.0	9.8
Final Form Total	9.8	0.0	9.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1046.51
Aluminum-based Metals/Alloys	0.00
Other Metals	9.35
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.46E-01
Am-243	2.93E-03
Cm-244	2.53E-01
Cs-137	6.88E+00
Np-237	8.21E-07
Pu-238	3.64E-01
Pu-239	4.90E-02
Pu-240	7.99E-02
Pu-241	4.81E+00
Pu-242	2.13E-04
Sr-90	4.49E+00
Th-229	7.33E-13
Th-230	2.42E-09
Th-232	2.39E-15
U-233	1.31E-09
U-234	4.80E-05
U-235	1.93E-06
U-236	8.08E-06
U-238	3.75E-05

Haz. Waste No(s).

D006, D008, P015

TRUCON Code(s)

325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RLBET-08**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Bettis TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	278.65
Aluminum-based Metals/Alloys	43.92
Other Metals	0.00
Other Inorganic Materials	21.71
Cellulosics	53.00
Rubber	22.72
Plastics	54.01
Cements	0.00
Inorganic Matrix	7.57
Organic Matrix	0.00
Soils/gravel	9.09
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.48E-03
Cs-137	9.04E-05
Np-237	2.56E-08
Pu-238	2.45E-03
Pu-239	1.13E-02
Pu-240	6.37E-03
Pu-241	7.72E-02
Pu-242	2.55E-07
Th-229	5.76E-16
Th-230	2.05E-11
Th-232	2.69E-18
U-233	9.70E-13
U-234	1.84E-07
U-235	8.97E-06
U-236	4.54E-09
U-238	9.24E-16

No Hazardous Waste Numbers Provided

TRUCON Code(s)

325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. Drums may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RLBW-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Babcock and Wilcox TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	64.5	0.0	64.5
85-gal Drum Dir Ld w/ Liner	133.6	0.0	133.6
Box - Misc	127.5	0.0	127.5
Current Form Total	325.6	0.0	325.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	174.3	0.0	174.3
SWB Dir Ld w/ Liner	160.7	0.0	160.7
Final Form Total	335.0	0.0	335.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	65.04
Aluminum-based Metals/Alloys	0.29
Other Metals	6.78
Other Inorganic Materials	44.76
Cellulosics	25.80
Rubber	6.66
Plastics	28.13
Cements	0.00
Inorganic Matrix	1.48
Organic Matrix	0.23
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	141.69
Packaging Material, Plastic	19.83
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.72E+00
Am-243	1.01E-07
Cs-137	4.06E-04
Np-237	1.07E-05
Pu-238	4.04E-01
Pu-239	2.28E+00
Pu-240	1.09E+00
Pu-241	1.52E+01
Pu-242	1.95E-04
Sr-90	3.69E-04
Th-229	1.69E-08
Th-230	4.38E-10
Th-232	7.97E-19
U-233	1.80E-04
U-234	4.93E-05
U-235	1.28E-06
U-236	3.23E-08
U-238	2.78E-05

Haz. Waste No(s).

D005, D006, D007, D008, D009, D011, F001, F002, F003, F005

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated from operations and decontamination and decommissioning of the Babcock and Wilcox Parks Township Site Plutonium Facility. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLBW-03****Appendix A****TRU Waste Inventory Profile Report**

Site	Hanford (Richland) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3000	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Babcock & Wilcox solidified inorganics			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
85-gal Drum Dir Ld w/ Liner	2.3	0.0	2.3
Current Form Total	2.9	0.0	2.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.7	0.0	2.7
Final Form Total	2.7	0.0	2.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	5.13
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	731.62
Cellulosics	0.00
Rubber	0.00
Plastics	20.52
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.17E+00
Cs-137	2.65E-07
Np-237	9.28E-06
Pu-238	1.18E+00
Pu-239	4.61E+00
Pu-240	2.58E+00
Pu-241	8.14E+01
Pu-242	2.00E-04
Sr-90	2.46E-07
Th-229	1.67E-15
Th-230	3.21E-10
Th-232	1.89E-18
U-233	3.68E-11
U-234	3.74E-05
U-235	1.15E-06
U-236	7.65E-08
U-238	1.71E-05

Haz. Waste No(s).

D005, D006, D007, D008, D009, D011, D035, F001, F002, F003, F005

TRUCON Code(s)

122/222

Waste Stream Description

Solidified inorganic CH TRU waste generated from operations and decontamination and decommissioning of the Babcock and Wilcox Parks Township Site Plutonium Facility.

Waste Stream ID: **RLBW-08**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Babcock and Wilcox TRU RH Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Current Form Total	0.5	0.0	0.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	1.8	0.0	1.8
Final Form Total	1.8	0.0	1.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	2.86
Aluminum-based Metals/Alloys	0.00
Other Metals	0.14
Other Inorganic Materials	1.43
Cellulosics	19.17
Rubber	0.21
Plastics	12.88
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.05E-01
Np-237	1.62E-07
Pu-238	1.11E-01
Pu-239	4.27E-01
Pu-240	2.41E-01
Pu-241	8.85E+00
Pu-242	9.72E-06
Th-229	1.09E-17
Th-230	1.43E-12
Th-232	1.77E-19
U-233	3.51E-13
U-234	3.17E-07
U-235	4.21E-10
U-236	7.15E-09
U-238	1.47E-15

Haz. Waste No(s).

D005, D006, D007, D008, D009, D011, F001, F002, F003, F005
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TRUCON Code(s)

325

Waste Stream Description

Combustible and noncombustible debris waste generated from operations and decontamination and decommissioning of the Babcock and Wilcox Parks Township Site Plutonium Facility. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLCBWD.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RLCBWD.001	41.8
55-gal Drum Dir Ld w/o Liner	WP-RLCBWD.001	45.6
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-RLCBWD.001	4.5
TDOP w/ 10 - 55-gal Drums w/o Liners	WP-RLCBWD.001	67.5
Shipped Total		159.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	54.67
Aluminum-based Metals/Alloys	0.31
Other Metals	4.10
Other Inorganic Materials	39.54
Cellulosics	19.45
Rubber	4.87
Plastics	21.88
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.58E+00
Am-243	1.29E-07
Cs-137	7.48E-05
Np-237	1.08E-05
Pu-238	3.77E-01
Pu-239	2.10E+00
Pu-240	1.01E+00
Pu-241	1.43E+01
Pu-242	1.78E-04
Sr-90	6.80E-05
Th-229	1.83E-08
Th-230	4.20E-10
Th-232	7.36E-19
U-233	1.95E-04
U-234	4.72E-05
U-235	1.23E-06
U-236	2.98E-08
U-238	2.31E-05

Haz. Waste No(s).

D005, D006, D007, D008, D009, D011, F001, F002, F003, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RLCFF-01****Appendix A****TRU Waste Inventory Profile Report**

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Kerr McGee TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	6.2	0.0	6.2
85-gal Drum Dir Ld w/ Liner	2.9	0.0	2.9
Current Form Total	9.1	0.0	9.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	8.7	0.0	8.7
Final Form Total	8.7	0.0	8.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	435.15
Aluminum-based Metals/Alloys	2.03
Other Metals	0.90
Other Inorganic Materials	44.03
Cellulosics	48.93
Rubber	10.59
Plastics	69.29
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.11
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.66E+00
Cs-137	8.10E-08
Np-237	8.87E-07
Pu-238	3.35E-01
Pu-239	2.03E+00
Pu-240	1.03E+00
Pu-241	1.43E+01
Pu-242	1.67E-04
Sr-90	7.36E-08
Th-229	1.08E-16
Th-230	1.23E-10
Th-232	4.42E-09
U-233	2.70E-12
U-234	1.41E-05
U-235	4.61E-07
U-236	3.05E-08
U-238	1.23E-05

Haz. Waste No(s).D007, D008, D009,
F001, F002, F003,
F005**TRUCON Code(s)**

125/225

Waste Stream Description

The CFFD (KM) waste stream consists of heterogeneous debris waste generated at the Cimarron Plutonium Fuel Fabrication Facility, operated by the Kerr-McGee Nuclear Corporation. This facility was a MOX fuel fabrication facility. The waste was generated during D&D activities at the facility. The waste includes typical D&D waste, e.g., paper, plastic, leaded rubber gloves, rags, glass, equipment, disassembled gloveboxes, and HEPA filters.

Waste Stream ID: **RLCFF-03**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3000	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Kerr McGee TRU Mixed Solid Inorganic			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.6	0.0	4.6
Current Form Total	4.6	0.0	4.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.8	0.0	4.8
Final Form Total	4.8	0.0	4.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	31.66
Aluminum-based Metals/Alloys	0.00
Other Metals	0.08
Other Inorganic Materials	460.88
Cellulosics	8.57
Rubber	1.03
Plastics	35.60
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.36E+00
Np-237	8.76E-06
Pu-238	1.99E-01
Pu-239	1.50E+00
Pu-240	7.34E-01
Pu-241	3.82E+00
Pu-242	9.30E-05
Th-229	2.52E-13
Th-230	3.31E-09
Th-232	2.38E-16
U-233	3.90E-10
U-234	2.38E-05
U-235	5.09E-07
U-236	4.58E-07
U-238	1.02E-05

Haz. Waste No(s).

D007, D008, D009,
F001, F002, F003,
F005

TRUCON Code(s)

122/222

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the Kerr McGee.

Waste Stream ID: **RLCFFD.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RLCFFD.001	200.1
55-gal Drum Dir Ld w/o Liner	WP-RLCFFD.001	14.8
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-RLCFFD.001	63.0
Shipped Total		277.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	373.15
Aluminum-based Metals/Alloys	1.87
Other Metals	0.37
Other Inorganic Materials	37.28
Cellulosics	41.88
Rubber	9.06
Plastics	58.97
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.06
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.81E+00
Cs-137	7.13E-08
Np-237	2.08E-06
Pu-238	3.50E-01
Pu-239	2.17E+00
Pu-240	1.10E+00
Pu-241	1.40E+01
Pu-242	1.68E-04
Sr-90	6.46E-08
Th-229	1.69E-15
Th-230	4.35E-10
Th-232	4.70E-09
U-233	1.58E-11
U-234	1.76E-05
U-235	4.90E-07
U-236	9.76E-08
U-238	1.08E-05

Haz. Waste No(s).

D007, D008, D009,
F001, F002, F003,
F005No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RLCH2-01****Appendix A****TRU Waste Inventory Profile Report**

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Tank Farms TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	67.95
Aluminum-based Metals/Alloys	0.00
Other Metals	60.07
Other Inorganic Materials	34.97
Cellulosics	5.08
Rubber	0.03
Plastics	6.01
Cements	0.00
Inorganic Matrix	0.01
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.64E-02
Np-237	1.06E-07
Th-229	3.49E-16
U-233	1.59E-12

Haz. Waste No(s).

D008, D009

TRUCON Code(s)

125/225

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RLESG-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Energy Systems Group TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	21.0	0.0	21.0
85-gal Drum Dir Ld w/ Liner	10.0	0.0	10.0
Box - Misc	14.9	0.0	14.9
Current Form Total	45.9	0.0	45.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	30.2	0.0	30.2
SWB Dir Ld w/ Liner	18.9	0.0	18.9
Final Form Total	49.1	0.0	49.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	240.93
Aluminum-based Metals/Alloys	0.71
Other Metals	8.28
Other Inorganic Materials	32.32
Cellulosics	30.76
Rubber	20.13
Plastics	39.76
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	139.55
Packaging Material, Plastic	23.21
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.06E-01
Cs-137	2.84E-03
Np-237	8.01E-06
Pu-238	1.11E-01
Pu-239	7.02E-01
Pu-240	3.19E-01
Pu-241	3.91E+00
Pu-242	5.96E-05
Sr-90	2.29E-03
Th-229	5.04E-14
Th-230	6.00E-08
Th-232	2.68E-07
U-233	1.86E-10
U-234	1.11E-03
U-235	2.84E-05
U-236	5.68E-08
U-238	2.77E-05

Haz. Waste No(s).

D005, D006, D007, D008, F001, F002, F003, F005
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TRUCON Code(s)

125/225

Waste Stream Description

RLETECD waste is composed of heterogeneous debris consisting of organic and inorganic debris material generated from glove box operations at the Energy Technology Engineering Center. Examples of waste items in this waste stream include cardboard tubes, cladding material, plastic, paper, glove port flanges, rubber air hoses, electrical connectors, wooden broom handles, plexiglass windows, steel plates, glove box ventilation piping and valves, lead, stainless steel, nickel-cadmium batteries, paint brushes and rollers, full-face respirators, sphincter cans, tools, copper, poly bottles, shoe covers, aluminum, vermiculite, soda ash, mixer components, glass, rags, molybdenum plates, drying ovens, MOX ash, gloves, fittings, gas line hookups, balance weights, cloth, pumps, castings, small quantities of neutralized/solidified liquids, and concrete.

Waste Stream ID: **RLESG-08**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Energy Systems Group RH TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	13.1	0.0	13.1
85-gal Drum Dir Ld w/ Liner	9.7	0.0	9.7
Current Form Total	22.8	0.0	22.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	41.8	0.0	41.8
Final Form Total	41.8	0.0	41.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	4.10
Aluminum-based Metals/Alloys	0.00
Other Metals	19.54
Other Inorganic Materials	1.85
Cellulosics	48.90
Rubber	5.80
Plastics	25.30
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.00E-01
Cs-137	3.48E-02
Np-237	1.84E-07
Pu-238	1.70E-02
Pu-239	7.72E-02
Pu-240	4.12E-02
Pu-241	1.14E+00
Pu-242	1.55E-06
Sr-90	5.89E-04
Th-229	4.29E-16
Th-230	8.06E-12
Th-232	1.09E-18
U-233	2.31E-12
U-234	2.96E-07
U-235	4.57E-10
U-236	7.32E-09
U-238	1.40E-15

Haz. Waste No(s).

D006, D007, D008, F001, F002, F003

TRUCON Code(s)

325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters. The waste is generated from R&D/R&D Laboratory Waste activities at the Rockwell International, Energy Systems Group (CA).

Waste Stream ID: **RLEXX-01****Appendix A****TRU Waste Inventory Profile Report**

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Exxon TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	49.1	0.0	49.1
85-gal Drum Dir Ld w/ Liner	1.9	0.0	1.9
Current Form Total	51.0	0.0	51.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	51.4	0.0	51.4
Final Form Total	51.4	0.0	51.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	116.67
Aluminum-based Metals/Alloys	0.47
Other Metals	23.06
Other Inorganic Materials	75.63
Cellulosics	13.85
Rubber	3.19
Plastics	14.69
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.33E+00
Np-237	7.87E-05
Pu-238	2.25E+00
Pu-239	1.73E+00
Pu-240	1.47E+00
Pu-241	1.31E+01
Pu-242	1.80E-03
Th-229	5.31E-12
Th-230	6.16E-08
Th-232	7.30E-16
U-233	5.48E-09
U-234	3.53E-04
U-235	2.26E-06
U-236	1.14E-06
U-238	8.86E-05

Haz. Waste No(s).

D006, D007, D008, D011

TRUCON Code(s)

125/225

Waste Stream Description

RLEXXOD waste is comprised of heterogeneous debris consisting of organic and inorganic debris material generated from processing, cleanout, and D&D of the Mixed Oxide Fuel Fabrication Plant. Examples of waste items in this waste stream include unirradiated MOX fuel pellets, MOX powder and scrap, cladding material, MOX standards, plastic, paper, gloves and glove rings, filters, cans, HEPA filters, cardboard, electrical components, tools, scales and scale parts, screens, paint brushes, bags, floor sweepings, pots and pans, tool boxes, steel plates and racks, grinder parts, pellet trays, conduit pipe, motors, filter and vacuum hoses, and rags.

Waste Stream ID: **RLFFTF-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	FFTF TRU Mixed Debris	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.8	0.0	0.8
Uncontained	1.0	0.0	1.0
Current Form Total	1.9	0.0	1.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.8	0.0	0.8
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Final Form Total	2.7	0.0	2.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	116.67
Aluminum-based Metals/Alloys	0.47
Other Metals	23.06
Other Inorganic Materials	75.63
Cellulosics	13.85
Rubber	3.19
Plastics	14.69
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	146.56
Packaging Material, Plastic	12.14
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.66E-02
Cs-137	1.70E-02
Pu-238	1.44E-02
Pu-239	4.37E-02
Pu-240	3.77E-02
Pu-241	4.05E-01

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225

Waste Stream Description

Combustible and noncombustible debris from Fast Flux Test Reactor operations, maintenance, and clean out. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLGEV-01****Appendix A****TRU Waste Inventory Profile Report**

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	GE San Jose and Vallecitos TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	17.5	0.0	17.5
85-gal Drum Dir Ld w/ Liner	14.2	0.0	14.2
Box - Misc	262.8	0.0	262.8
Current Form Total	294.5	0.0	294.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	30.2	0.0	30.2
SWB Dir Ld w/ Liner	328.9	0.0	328.9
Final Form Total	359.0	0.0	359.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	233.45
Aluminum-based Metals/Alloys	0.23
Other Metals	5.58
Other Inorganic Materials	21.84
Cellulosics	18.96
Rubber	4.64
Plastics	49.67
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	151.59
Packaging Material, Plastic	4.21
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.46E-01
Cs-137	1.34E-07
Np-237	2.01E-06
Pu-238	1.12E-01
Pu-239	5.82E-01
Pu-240	2.52E-01
Pu-241	4.38E+00
Pu-242	3.97E-05
Sr-90	1.22E-07
U-234	2.92E-04
U-235	6.26E-06
U-238	2.11E-04

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

125/225

Waste Stream Description

Combustible and noncombustible debris waste from decontamination and decommissioning of Building 102 at the GE-Vallecitos Nuclear Center. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RLGEV-03**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3000	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	GE Vallecitos TRU Homogeneous Solids			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	4.72
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.24
Cellulosics	5.42
Rubber	0.04
Plastics	9.41
Cements	0.00
Inorganic Matrix	427.04
Organic Matrix	6.56
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.94E+00
Cs-137	2.27E-08
Np-237	4.30E-05
Pu-238	8.00E-01
Pu-239	3.70E+00
Pu-240	2.09E+00
Pu-241	2.42E+01
Pu-242	8.44E-05
Sr-90	2.08E-08
Th-229	1.69E-12
Th-230	7.97E-09
Th-232	9.57E-16
U-233	2.22E-09
U-234	6.58E-05
U-235	1.93E-07
U-236	1.55E-06
U-238	1.53E-06

Haz. Waste No(s).

D006, D007, D008,
D011, D035

TRUCON Code(s)

122/222

Waste Stream Description

Homogeneous solids from decontamination and decommissioning of Building 102 at the GE-Vallecitos Nuclear Center.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RLHAN-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Trench Designation waste stream			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	77.6	0.0	77.6
85-gal Drum Dir Ld w/ Liner	124.3	0.0	124.3
Box - Misc	108.7	0.0	108.7
Current Form Total	310.6	0.0	310.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	195.3	0.0	195.3
SWB Dir Ld w/ Liner	136.1	0.0	136.1
Final Form Total	331.4	0.0	331.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	22.83
Aluminum-based Metals/Alloys	0.08
Other Metals	5.32
Other Inorganic Materials	7.53
Cellulosics	19.86
Rubber	6.72
Plastics	23.99
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	140.12
Packaging Material, Plastic	22.30
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.42E-01
Cs-137	7.26E-08
Np-237	1.80E-06
Pu-238	6.37E-02
Pu-239	6.89E-01
Pu-240	2.40E-01
Pu-241	1.83E+00
Pu-242	3.62E-05
Sr-90	6.57E-08
Th-229	1.13E-14
Th-230	4.13E-11
Th-232	8.62E-18
U-233	3.93E-11
U-234	1.30E-06
U-235	4.76E-09
U-236	4.99E-08
U-238	3.82E-14

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D034, D037, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible TRU debris waste retrieved from the Hanford low-level burial grounds that cannot be identified or assigned to an original generator. Combustible waste may include wood, plastics, paper, absorbents, rubber, and rags. Noncombustible waste may include failed machinery, tools, glass, concrete, plumbing, and fixtures.

Waste Stream ID: **RLHMOX.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5120	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	WP-RLHMOX.001	182.6
55-gal POC - 12" w/o Liner	WP-RLHMOX.001	11.2
Shipped Total		193.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	17.10
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.67E+01
Am-243	2.22E-06
Cs-137	3.12E-06
Np-237	2.15E-03
Pu-238	8.60E+00
Pu-239	4.00E+01
Pu-240	2.03E+01
Pu-241	2.92E+02
Pu-242	1.01E-02
Sr-90	2.80E-06
Th-229	1.05E-11
Th-230	1.77E-07
Th-232	3.71E-16
U-233	4.50E-08
U-234	4.00E-03
U-235	2.50E-04
U-236	3.01E-06
U-238	3.07E-03

Haz. Waste No(s).

D005, D006, D007,
D008, D011No TRUCON
Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RLIAEA-01****Appendix A****TRU Waste Inventory Profile Report**

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	International Atomic Energy Agency TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	552.00
Aluminum-based Metals/Alloys	87.00
Other Metals	0.00
Other Inorganic Materials	43.00
Cellulosics	105.00
Rubber	45.00
Plastics	107.00
Cements	0.00
Inorganic Matrix	15.00
Organic Matrix	0.00
Soils/gravel	18.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.82E+00
Cs-137	2.00E-04
Np-237	5.85E-05
Pu-238	2.13E+00
Pu-239	1.08E+00
Pu-240	1.40E+00
Pu-241	1.05E+01
Pu-242	2.06E-03
Th-229	4.03E-12
Th-230	1.48E-08
Th-232	4.97E-16
U-233	4.32E-09
U-234	1.46E-04
U-235	2.35E-08
U-236	9.14E-07
U-238	6.84E-12

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225
Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RLM231ZD.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/o Liner	WP-RLM231ZD.001	1.2
TDOP w/ 10 - 55-gal Drums w/o Liners	WP-RLM231ZD.001	4.5
Shipped Total		5.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	118.69
Aluminum-based Metals/Alloys	0.00
Other Metals	0.97
Other Inorganic Materials	6.65
Cellulosics	17.28
Rubber	2.81
Plastics	17.04
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.62E-01
Am-243	3.31E-06
Cs-137	5.18E-05
Np-237	2.02E-05
Pu-238	4.60E-02
Pu-239	3.84E-01
Pu-240	1.00E-01
Pu-241	1.20E+00
Pu-242	9.87E-06
Sr-90	4.71E-05
Th-229	1.65E-14
Th-230	5.36E-10
Th-232	2.94E-19
U-233	1.76E-10
U-234	2.99E-05
U-235	2.93E-07
U-236	5.95E-09
U-238	1.18E-05

Haz. Waste No(s).

D006, D007, D008,
D009, F001, F002,
F003, F005No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RLM233SD.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RLM233SD.001	0.6
55-gal Drum Dir Ld w/o Liner	WP-RLM233SD.001	14.8
SWB Dir Ld w/o Liner	WP-RLM233SD.001	5.7
Shipped Total		21.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	367.61
Aluminum-based Metals/Alloys	1.33
Other Metals	0.07
Other Inorganic Materials	130.92
Cellulosics	10.45
Rubber	1.40
Plastics	24.38
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	1.66
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.73E-01
Cs-137	1.19E-05
Np-237	2.07E-04
Pu-238	6.94E-02
Pu-239	5.81E-01
Pu-240	1.69E-01
Pu-241	1.36E+00
Pu-242	4.70E-05
Sr-90	1.08E-05
Th-229	1.69E-13
Th-230	2.65E-11
Th-232	4.94E-19
U-233	1.80E-09
U-234	1.67E-06
U-235	4.35E-08
U-236	1.00E-08
U-238	6.36E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, F002, F003

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RLM308D.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/o Liner	WP-RLM308D.001	19.8
55-gal POC - 12" w/ Liner	WP-RLM308D.001	24.8
TDOP w/ 10 - 55-gal Drums w/o Liners	WP-RLM308D.001	31.5
Shipped Total		76.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	60.49
Aluminum-based Metals/Alloys	0.18
Other Metals	7.71
Other Inorganic Materials	8.97
Cellulosics	10.34
Rubber	3.28
Plastics	21.81
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.57E+01
Am-243	1.54E-05
Cs-137	5.36E-04
Np-237	2.73E-04
Pu-238	7.50E+00
Pu-239	1.32E+01
Pu-240	8.26E+00
Pu-241	1.53E+02
Pu-242	7.65E-03
Sr-90	4.85E-04
Th-229	5.69E-08
Th-230	2.06E-08
Th-232	2.37E-06
U-233	2.02E-04
U-234	7.94E-04
U-235	2.56E-05
U-236	7.34E-07
U-238	3.43E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D011, F001, F002, F003

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RLM325D.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RLM325D.001	14.1
55-gal Drum Dir Ld w/o Liner	WP-RLM325D.001	35.2
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-RLM325D.001	4.5
TDOP w/ 10 - 55-gal Drums w/o Liners	WP-RLM325D.001	9.0
Shipped Total		62.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	70.11
Aluminum-based Metals/Alloys	0.13
Other Metals	3.13
Other Inorganic Materials	44.92
Cellulosics	15.64
Rubber	6.44
Plastics	31.01
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.49E+00
Am-243	5.87E-04
Cs-137	8.90E-04
Np-237	1.46E-04
Pu-238	1.17E+00
Pu-239	2.06E+00
Pu-240	8.49E-01
Pu-241	1.53E+01
Pu-242	2.67E-04
Sr-90	8.08E-04
Th-229	4.14E-09
Th-230	2.48E-09
Th-232	3.00E-06
U-233	4.41E-05
U-234	2.77E-04
U-235	1.05E-05
U-236	2.52E-08
U-238	8.96E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D034, D037, D043, F001, F002, F003, F004, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RLMHASH.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3111	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	WP-RLMHASH.001	62.0
55-gal POC - 12" w/o Liner	WP-RLMHASH.001	0.2
Shipped Total		62.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	16.75
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.22E+01
Cs-137	5.75E-08
Np-237	2.76E-05
Pu-238	1.23E+00
Pu-239	3.93E+01
Pu-240	9.73E+00
Pu-241	5.16E+01
Pu-242	1.31E-03
Sr-90	2.72E-08
Th-229	1.83E-08
Th-230	7.98E-10
Th-232	3.49E-16
U-233	2.78E-05
U-234	2.51E-05
U-235	2.82E-07
U-236	2.02E-06
U-238	1.39E-12

Haz. Waste No(s).

D005, D006, D007,
D008, D011No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RLMLB-08****Appendix A****TRU Waste Inventory Profile Report**

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Lawrence Berkeley Nat Lab TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	281.31
Aluminum-based Metals/Alloys	44.34
Other Metals	0.00
Other Inorganic Materials	21.91
Cellulosics	53.51
Rubber	22.93
Plastics	54.53
Cements	0.00
Inorganic Matrix	7.64
Organic Matrix	0.00
Soils/gravel	9.17
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.42E-02
Cm-244	1.67E+01
Np-237	7.08E-07
Pu-238	1.25E-02
Pu-239	5.85E-02
Pu-240	1.11E-01
Pu-241	3.64E-01
Pu-242	1.33E-06
Th-229	2.98E-14
Th-230	1.24E-10
Th-232	3.26E-17
U-233	3.79E-11
U-234	1.03E-06
U-235	1.50E-09
U-236	6.06E-08
U-238	5.23E-15

Haz. Waste No(s).

D005, D007, D008, D009, D011, D019, F002, F003, F005

TRUCON Code(s)

325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. Drums may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RLMPDT.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RLMPDT.001	152.9
55-gal Drum Dir Ld w/o Liner	WP-RLMPDT.001	443.2
55-gal POC - 12" w/ Liner	WP-RLMPDT.001	40.6
SWB Dir Ld w/o Liner	WP-RLMPDT.001	500.9
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-RLMPDT.001	27.0
TDOP w/ 10 - 55-gal Drums w/o Liners	WP-RLMPDT.001	747.0
Shipped Total		1911.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	52.14
Aluminum-based Metals/Alloys	0.26
Other Metals	5.79
Other Inorganic Materials	8.29
Cellulosics	12.86
Rubber	9.56
Plastics	19.80
Cements	0.00
Inorganic Matrix	0.16
Organic Matrix	0.02
Soils/gravel	0.21
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.16E+00
Am-243	2.03E-06
Cs-137	1.37E-05
Np-237	7.39E-05
Pu-238	6.01E-01
Pu-239	4.17E+00
Pu-240	1.37E+00
Pu-241	1.91E+01
Pu-242	2.64E-04
Sr-90	1.24E-05
Th-229	6.69E-08
Th-230	6.47E-10
Th-232	5.20E-09
U-233	2.38E-04
U-234	2.66E-05
U-235	7.01E-07
U-236	1.22E-07
U-238	6.55E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D030

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RLMPURX.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RLMPURX.001	9.2
55-gal Drum Dir Ld w/o Liner	WP-RLMPURX.001	44.3
TDOP w/ 10 - 55-gal Drums w/o Liners	WP-RLMPURX.001	81.0
Shipped Total		134.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	44.10
Aluminum-based Metals/Alloys	0.25
Other Metals	0.84
Other Inorganic Materials	7.59
Cellulosics	10.19
Rubber	23.02
Plastics	23.35
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.09
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.04E+00
Am-243	8.60E-07
Cs-137	1.38E-04
Np-237	1.69E-05
Pu-238	1.62E+00
Pu-239	8.82E+00
Pu-240	3.36E+00
Pu-241	8.94E+01
Pu-242	7.92E-04
Sr-90	1.21E-04
Th-229	9.21E-07
Th-230	4.79E-10
Th-232	3.94E-17
U-233	2.45E-03
U-234	2.26E-05
U-235	1.62E-07
U-236	3.99E-07
U-238	1.94E-06

Haz. Waste No(s).

D005, D006, D008,
D009, D011No TRUCON
Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RLMSSC.001-S****Appendix A****TRU Waste Inventory Profile Report**

Site	Hanford (Richland) Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A	Activity Concentrations Decayed to CY			2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	WP-RLMSSC.001	64.7
Shipped Total		64.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	49.32
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.05E+01
Np-237	2.07E-05
Pu-238	3.25E+00
Pu-239	4.31E+01
Pu-240	9.58E+00
Pu-241	1.58E+02
Pu-242	1.12E-03
Th-229	5.64E-14
Th-230	1.70E-09
Th-232	2.53E-16
U-233	2.81E-10
U-234	5.96E-05
U-235	3.55E-07
U-236	1.70E-06
U-238	6.08E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RLMWARD.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RLMWARD.001	20.4
55-gal Drum Dir Ld w/o Liner	WP-RLMWARD.001	36.2
Shipped Total		56.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	74.04
Aluminum-based Metals/Alloys	0.14
Other Metals	3.30
Other Inorganic Materials	13.00
Cellulosics	28.94
Rubber	7.87
Plastics	36.86
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.01E+00
Cs-137	8.03E-08
Np-237	6.66E-06
Pu-238	3.80E-01
Pu-239	4.46E-01
Pu-240	3.02E-01
Pu-241	7.77E+00
Pu-242	2.46E-04
Sr-90	7.30E-08
Th-229	1.32E-15
Th-230	1.26E-09
Th-232	3.40E-08
U-233	2.83E-11
U-234	1.40E-04
U-235	4.93E-06
U-236	8.94E-09
U-238	2.93E-05

Haz. Waste No(s).

D007, D008, D009,
F001, F002, F003,
F005No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RLNPDT.002-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A	Activity Concentrations Decayed to CY			2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-RLNPDT.002	62.4
55-gal Drum Dir Ld w/o Liner	WP-RLNPDT.002	267.9
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-RLNPDT.002	4.5
TDOP w/ 10 - 55-gal Drums w/o Liners	WP-RLNPDT.002	103.5
Shipped Total		438.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	55.24
Aluminum-based Metals/Alloys	0.93
Other Metals	0.79
Other Inorganic Materials	25.15
Cellulosics	19.19
Rubber	8.43
Plastics	42.96
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.05
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.41E+00
Am-243	7.95E-06
Cs-137	3.13E-06
Np-237	6.98E-06
Pu-238	4.50E-01
Pu-239	4.59E+00
Pu-240	1.10E+00
Pu-241	1.52E+01
Pu-242	1.91E-04
Sr-90	2.16E-06
Th-229	4.88E-14
Th-230	9.22E-10
Th-232	1.42E-10
U-233	1.64E-10
U-234	1.92E-05
U-235	3.91E-07
U-236	2.27E-07
U-238	9.91E-07

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RLNPURX.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/o Liner	WP-RLNPURX.001	34.3
TDOP w/ 10 - 55-gal Drums w/o Liners	WP-RLNPURX.001	4.5
Shipped Total		38.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	52.54
Aluminum-based Metals/Alloys	1.02
Other Metals	1.00
Other Inorganic Materials	18.32
Cellulosics	5.92
Rubber	8.89
Plastics	25.30
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.28E+00
Am-243	1.07E-06
Cs-137	4.86E-05
Np-237	8.71E-06
Pu-238	2.54E+00
Pu-239	1.06E+01
Pu-240	4.13E+00
Pu-241	1.56E+02
Pu-242	1.29E-03
Sr-90	3.10E-05
Th-229	1.90E-14
Th-230	1.20E-09
Th-232	1.09E-16
U-233	1.05E-10
U-234	4.42E-05
U-235	6.28E-08
U-236	7.34E-07
U-238	1.17E-12

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RLPFP-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	2345Z TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	995.5	0.0	995.5
85-gal Drum Dir Ld w/ Liner	567.0	0.0	567.0
Box - Misc	5027.0	0.0	5027.0
SWB Dir Ld w/ Liner	34.0	0.0	34.0
Uncontained	2157.9	0.0	2157.9
Current Form Total	8781.5	0.0	8781.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1623.0	0.0	1623.0
SWB Dir Ld w/ Liner	8476.7	0.0	8476.7
Final Form Total	10099.7	0.0	10099.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	57.83
Aluminum-based Metals/Alloys	0.34
Other Metals	1.67
Other Inorganic Materials	11.39
Cellulosics	19.54
Rubber	10.94
Plastics	26.94
Cements	0.00
Inorganic Matrix	0.03
Organic Matrix	0.00
Soils/gravel	0.18
Vitrified	0.00
Packaging Material, Steel	149.85
Packaging Material, Plastic	6.95
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.65E+00
Am-243	4.98E-07
Cs-137	1.29E-05
Np-237	4.36E-05
Pu-238	7.53E-01
Pu-239	5.36E+00
Pu-240	1.76E+00
Pu-241	2.44E+01
Pu-242	3.35E-04
Sr-90	1.17E-05
Th-229	2.24E-08
Th-230	2.17E-09
Th-232	3.78E-08
U-233	2.39E-04
U-234	2.43E-04
U-235	6.87E-06
U-236	5.25E-08
U-238	1.26E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D030, F001, F002, F003, F005

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated from operations, maintenance, and D&D activities at the Plutonium Finishing Plant (PFP), which includes the 234-5Z, 232-Z, 236-Z, 2736-ZB, 242-Z, and 291-Z Buildings. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RLPFP-02**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Soils	Waste Matrix Code	S4000	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	PFP Contaminated Soil			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	3.79
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	541.55
Cellulosics	3.85
Rubber	1.44
Plastics	6.78
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.76E-01
Cs-137	3.14E-04
Np-237	1.49E-05
Pu-238	9.27E-02
Pu-239	2.06E+00
Pu-240	5.40E-01
Pu-241	3.49E+00
Pu-242	4.10E-05
Sr-90	2.86E-04
Th-229	3.01E-15
Th-230	1.19E-12
Th-232	3.95E-19
U-233	6.44E-11
U-234	2.64E-07
U-235	2.04E-09
U-236	1.60E-08
U-238	6.18E-15

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D030, F001, F002, F003, F005

TRUCON Code(s)

125/225

Waste Stream Description

Soil characterization and remediation wastes.

Waste Stream ID: **RLPFP-03**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	PFP Absorbed Plutonium Nitrate Solutions			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	14.1	0.0	14.1
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Current Form Total	14.5	0.0	14.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	14.6	0.0	14.6
Final Form Total	14.6	0.0	14.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	4.72
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.24
Cellulosics	5.42
Rubber	0.04
Plastics	9.41
Cements	0.00
Inorganic Matrix	427.04
Organic Matrix	6.56
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.10E+00
Cs-137	3.62E-06
Np-237	4.89E-05
Pu-238	2.01E+00
Pu-239	1.47E+01
Pu-240	4.69E+00
Pu-241	5.59E+01
Pu-242	9.35E-04
Sr-90	3.28E-06
Th-229	8.29E-08
Th-230	3.94E-08
Th-232	5.49E-17
U-233	2.21E-04
U-234	1.11E-03
U-235	5.83E-06
U-236	5.56E-07
U-238	4.89E-05

Haz. Waste No(s).

D007

TRUCON Code(s)

114/214

Waste Stream Description

Solidified inorganic waste generated from operations, maintenance, and D&D activities at the 325 Laboratory, the 209-E Critical Mass Laboratory, and the Plutonium Reclamation Facility (Bldg 236-Z) at the Plutonium Finishing Plant (PFP).

Waste Stream ID: **RLPFP-04**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3900	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	PFP Comprehensive Homogenous Solids			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	11.9	0.0	11.9
85-gal Drum Dir Ld w/ Liner	2.6	0.0	2.6
Current Form Total	14.4	0.0	14.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	14.8	0.0	14.8
Final Form Total	14.8	0.0	14.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	24.91
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	109.67
Cellulosics	24.57
Rubber	0.15
Plastics	33.49
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.16E-03
Np-237	3.97E-09
Pu-238	1.29E-03
Pu-239	1.69E-02
Pu-240	3.98E-03
Pu-241	2.59E-02
Pu-242	2.31E-07
Th-229	1.08E-18
Th-230	6.65E-14
Th-232	1.17E-20
U-233	1.73E-14
U-234	7.38E-09
U-235	3.33E-11
U-236	2.36E-10
U-238	6.96E-17

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D030, F001, F002, F003, F005

TRUCON Code(s)

112/212

Waste Stream Description

Homogenous solids generated from operations, maintenance, and D&D activities at the Plutonium Finishing Plant (PFP), which includes the 234-5Z, 232-Z, 236-Z, 2736-ZB, 242-Z, and 291-Z Buildings.

Waste Stream ID: **RLPFP-08**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	2345Z RH-TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	13.9	0.0	13.9
85-gal Drum Dir Ld w/ Liner	7.1	0.0	7.1
Current Form Total	21.0	0.0	21.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	38.3	0.0	38.3
Final Form Total	38.3	0.0	38.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	23.59
Aluminum-based Metals/Alloys	0.00
Other Metals	13.47
Other Inorganic Materials	11.43
Cellulosics	2.31
Rubber	6.43
Plastics	16.23
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.67E-01
Cs-137	3.34E-06
Np-237	2.75E-06
Pu-238	2.25E-01
Pu-239	1.41E+00
Pu-240	4.94E-01
Pu-241	1.00E+01
Pu-242	7.77E-05
Sr-90	3.04E-06
Th-229	5.24E-16
Th-230	5.27E-11
Th-232	3.85E-19
U-233	1.14E-11
U-234	6.17E-06
U-235	1.86E-07
U-236	1.51E-08
U-238	3.65E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D030, F001, F002, F003, F005

TRUCON Code(s)

325

Waste Stream Description

Combustible and noncombustible debris waste generated from operations, maintenance, and D&D activities at the Plutonium Finishing Plant (PFP), which includes the 234-5Z, 232-Z, 236-Z, 2736-ZB, 242-Z, and 291-Z Buildings. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLPURX-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	202A and 202AL TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	148.1	0.0	148.1
85-gal Drum Dir Ld w/ Liner	21.9	0.0	21.9
Box - Misc	315.2	0.0	315.2
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Current Form Total	487.1	0.0	487.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	199.3	0.0	199.3
SWB Dir Ld w/ Liner	396.9	0.0	396.9
Final Form Total	596.2	0.0	596.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	38.50
Aluminum-based Metals/Alloys	0.14
Other Metals	0.43
Other Inorganic Materials	8.85
Cellulosics	15.87
Rubber	14.85
Plastics	24.93
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.02
Vitrified	0.00
Packaging Material, Steel	145.91
Packaging Material, Plastic	13.17
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.03E+00
Am-243	6.32E-07
Cs-137	1.52E-02
Np-237	1.08E-05
Pu-238	1.92E+00
Pu-239	9.93E+00
Pu-240	3.79E+00
Pu-241	1.18E+02
Pu-242	8.89E-04
Sr-90	1.38E-02
Th-229	2.19E-07
Th-230	7.34E-11
Th-232	2.78E-18
U-233	2.33E-03
U-234	1.09E-05
U-235	1.89E-07
U-236	1.12E-07
U-238	2.94E-06

Haz. Waste No(s).

D005, D006, D008,
D009, D011

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated from facility/equipment operation and maintenance, and analytical laboratory waste activities at the Plutonium Uranium Extraction Facility. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLPURX-07****Appendix A****TRU Waste Inventory Profile Report**

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	202A & 202AL TRU RH Non-mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	20.0	0.0	20.0
Box - Misc	11.5	0.0	11.5
Current Form Total	31.5	0.0	31.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	57.9	0.0	57.9
Final Form Total	57.9	0.0	57.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	14.84
Aluminum-based Metals/Alloys	0.00
Other Metals	0.37
Other Inorganic Materials	11.13
Cellulosics	7.42
Rubber	25.23
Plastics	18.55
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.50E-02
Np-237	2.73E-07
Pu-238	2.07E-03
Pu-239	6.42E-03
Pu-240	1.53E-03
Pu-241	4.29E-01
Pu-242	8.34E-08
Th-229	9.92E-15
Th-230	2.78E-11
Th-232	1.01E-18
U-233	1.32E-11
U-234	1.98E-07
U-235	1.90E-10
U-236	1.36E-09
U-238	3.78E-16

Haz. Waste No(s).

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

TRUCON Code(s)

325

Waste Stream Description

Combustible and noncombustible debris waste generated from facility/equipment operation and maintenance, and analytical laboratory waste activities at the Plutonium Uranium Extraction Facility. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RLRFETS.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3111	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	WP-RLRFETS.001	63.9
Shipped Total		63.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	17.91
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.77E+00
Cs-137	2.91E-07
Np-237	1.89E-05
Pu-238	1.25E+00
Pu-239	5.97E+01
Pu-240	9.92E+00
Pu-241	7.48E+01
Pu-242	1.02E-03
Sr-90	2.97E-08
Th-229	7.72E-08
Th-230	5.70E-09
Th-232	3.56E-16
U-233	1.18E-04
U-234	1.03E-04
U-235	3.16E-06
U-236	2.06E-06
U-238	1.08E-12

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RLSAN-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	GE San Jose TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.5	0.0	2.5
Current Form Total	2.5	0.0	2.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.1	0.0	3.1
Final Form Total	3.1	0.0	3.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	233.45
Aluminum-based Metals/Alloys	0.23
Other Metals	5.58
Other Inorganic Materials	21.84
Cellulosics	18.96
Rubber	4.64
Plastics	49.67
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.27E+01
Np-237	9.19E-05
Pu-238	1.71E+00
Pu-239	7.93E+00
Pu-240	4.48E+00
Pu-241	5.18E+01
Pu-242	1.79E-04
Th-229	3.58E-12
Th-230	1.56E-08
Th-232	2.05E-15
U-233	4.73E-09
U-234	1.34E-04
U-235	1.96E-07
U-236	3.32E-06
U-238	6.77E-13

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225

Waste Stream Description

Combustible and noncombustible debris waste from decontamination and decommissioning at the GE-San Jose Nuclear Center. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RLSWO-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	SWOC TRU Mixed Debris	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	17.5	0.0	17.5
85-gal Drum Dir Ld w/ Liner	8.4	0.0	8.4
Box - Misc	18.2	0.0	18.2
SWB Dir Ld w/ Liner	7.6	0.0	7.6
Uncontained	153.4	0.0	153.4
Current Form Total	205.0	0.0	205.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	23.5	0.0	23.5
SWB Dir Ld w/ Liner	187.1	0.0	187.1
Final Form Total	210.6	0.0	210.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	26.70
Aluminum-based Metals/Alloys	0.40
Other Metals	0.70
Other Inorganic Materials	5.55
Cellulosics	15.62
Rubber	52.91
Plastics	56.04
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	150.97
Packaging Material, Plastic	5.20
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.65E-01
Am-243	7.24E-08
Cs-137	3.82E-05
Np-237	5.69E-06
Pu-238	1.37E-01
Pu-239	1.04E+00
Pu-240	3.42E-01
Pu-241	4.97E+00
Pu-242	5.17E-05
Sr-90	3.47E-05
Th-229	1.14E-15
Th-230	7.16E-11
Th-232	2.51E-19
U-233	2.45E-11
U-234	8.15E-06
U-235	2.86E-07
U-236	1.02E-08
U-238	2.08E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D030, D034, D037, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated from operations, maintenance, and clean up at the Hanford Solid Waste Operations Complex facilities. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLSWOCD.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/o Liner	WP-RLSWOCD.001	18.9
TDOP w/ 10 - 55-gal Drums w/o Liners	WP-RLSWOCD.001	4.5
Shipped Total		23.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	26.56
Aluminum-based Metals/Alloys	0.60
Other Metals	0.72
Other Inorganic Materials	4.94
Cellulosics	12.62
Rubber	49.59
Plastics	49.33
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.63E-01
Am-243	2.38E-07
Cs-137	5.71E-05
Np-237	5.94E-06
Pu-238	9.64E-02
Pu-239	1.07E+00
Pu-240	3.09E-01
Pu-241	3.34E+00
Pu-242	3.09E-05
Sr-90	5.18E-05
Th-229	1.20E-15
Th-230	1.62E-11
Th-232	2.26E-19
U-233	2.56E-11
U-234	1.94E-06
U-235	6.23E-08
U-236	9.16E-09
U-238	6.47E-10

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D030, D034, D037, D043, F001, F002, F003, F004, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RLVIPAC.001-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
SWB Dir Ld w/o Liner	WP-RLVIPAC.001	155.0
Shipped Total		155.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	15.18
Aluminum-based Metals/Alloys	1.69
Other Metals	1.35
Other Inorganic Materials	5.42
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.33E+00
Am-243	1.10E-07
Cs-137	1.23E-05
Np-237	2.11E-05
Pu-238	9.92E-01
Pu-239	6.31E+00
Pu-240	1.93E+00
Pu-241	9.26E+00
Pu-242	5.69E-04
Sr-90	1.11E-05
Th-229	1.88E-08
Th-230	6.05E-08
Th-232	5.65E-18
U-233	1.00E-04
U-234	3.37E-03
U-235	8.81E-05
U-236	1.14E-07
U-238	1.69E-03

Haz. Waste No(s).

D005, D006, D007,
D008, D011No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **RLWAR-01**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Ward TRU Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	65.5	0.0	65.5
85-gal Drum Dir Ld w/ Liner	13.8	0.0	13.8
Box - Misc	328.3	0.0	328.3
Current Form Total	407.7	0.0	407.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	80.5	0.0	80.5
SWB Dir Ld w/ Liner	412.0	0.0	412.0
Final Form Total	492.5	0.0	492.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	89.74
Aluminum-based Metals/Alloys	0.10
Other Metals	2.04
Other Inorganic Materials	14.85
Cellulosics	20.55
Rubber	5.88
Plastics	29.59
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	149.79
Packaging Material, Plastic	7.05
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.40E-01
Cs-137	4.27E-08
Np-237	4.10E-06
Pu-238	2.72E-01
Pu-239	3.39E-01
Pu-240	2.16E-01
Pu-241	5.55E+00
Pu-242	1.69E-04
Sr-90	3.88E-08
Th-229	8.06E-16
Th-230	1.31E-09
Th-232	1.36E-08
U-233	1.74E-11
U-234	1.46E-04
U-235	5.56E-06
U-236	6.39E-09
U-238	2.67E-05

Haz. Waste No(s).

D007, D008, D009,
F001, F002, F003,
F005

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated during decontamination and decommissioning of the Westinghouse Advanced Reactors Division facility in Cheswick, PA. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLWAR-03****Appendix A****TRU Waste Inventory Profile Report**

Site	Hanford (Richland) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	WARD solidified inorganics			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.8	0.0	4.8
85-gal Drum Dir Ld w/ Liner	1.6	0.0	1.6
Current Form Total	6.4	0.0	6.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	7.3	0.0	7.3
Final Form Total	7.3	0.0	7.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.80
Aluminum-based Metals/Alloys	0.00
Other Metals	0.11
Other Inorganic Materials	0.00
Cellulosics	3.20
Rubber	0.00
Plastics	41.39
Cements	401.34
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.07E-01
Cs-137	1.09E-07
Np-237	1.76E-06
Pu-238	1.68E-01
Pu-239	5.44E-01
Pu-240	2.64E-01
Pu-241	5.91E+00
Pu-242	1.03E-04
Th-229	3.33E-16
Th-230	9.59E-10
Th-232	1.93E-19
U-233	7.24E-12
U-234	1.07E-04
U-235	5.22E-06
U-236	7.83E-09
U-238	5.00E-06

Haz. Waste No(s).D007, D008, D009,
F001, F002, F003,
F005**TRUCON Code(s)**

122/222

Waste Stream Description

Solidified inorganic waste generated during decontamination and decommissioning of the Westinghouse Advanced Reactors Division facility in Cheswick, PA.

Waste Stream ID: **RLWTP-08**

Appendix A

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Waste Treatment Plant TRU RH Mixed Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Uncontained	0.0	399.1	399.1
Current Form Total	0.0	399.1	399.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.0	519.8	519.8
Final Form Total	0.0	519.8	519.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	315.08
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	83.55
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.40E-02
Am-243	1.69E-06
Cs-137	5.93E+00
Np-237	9.34E-06
Pu-238	5.92E-04
Pu-239	9.60E-03
Pu-240	1.64E-03
Pu-241	1.51E-02
Pu-242	1.12E-07
Sr-90	4.00E+00
Th-229	1.31E-08
Th-230	8.19E-10
Th-232	7.21E-17
U-233	6.97E-05
U-234	4.55E-05
U-235	1.95E-06
U-236	7.29E-07
U-238	4.35E-05

No Hazardous Waste Numbers Provided

TRUCON Code(s)

325

Waste Stream Description

RH debris waste generated from future WTP operations

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SA-T001****Appendix A****TRU Waste Inventory Profile Report**

Site	Sandia National Laboratory - Albuquerque	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Lovelace ITRI Debris Waste Stream	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	6.0	0.0	6.0
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
Current Form Total	6.4	0.0	6.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	6.0	0.0	6.0
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
Final Form Total	6.4	0.0	6.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	100.00
Aluminum-based Metals/Alloys	3.00
Other Metals	6.00
Other Inorganic Materials	15.00
Cellulosics	3.00
Rubber	5.00
Plastics	5.00
Cements	15.00
Inorganic Matrix	40.00
Organic Matrix	5.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	134.23
Packaging Material, Plastic	36.34
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.07E-01
Am-243	9.55E-06
Cm-244	8.66E-01
Cs-137	1.35E-06
Np-237	1.23E-04
Pu-238	1.44E-01
Pu-239	6.75E-01
Pu-240	9.72E-02
Pu-241	5.56E-01
Pu-242	2.32E-05
Sr-90	1.34E-06
Th-229	8.29E-08
Th-230	9.72E-09
Th-232	6.28E-04
U-233	6.32E-05
U-234	8.01E-05
U-235	2.78E-06
U-236	3.14E-05
U-238	9.02E-05

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225
Waste Stream Description

Heterogeneous CH debris laboratory waste from Pu aerosol preparation experiments

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SA-W134**

Appendix A

TRU Waste Inventory Profile Report

Site	Sandia National Laboratory - Albuquerque	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Transuranic Debris Waste from Hot Cell Facility	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
10-gal Drum	0.0	0.0	0.0
14-gal Drum	0.1	0.0	0.1
15-gal Drum	0.1	0.0	0.1
30-gal Drum	0.1	0.0	0.1
55-gal Drum Dir Ld w/o Liner	3.1	0.0	3.1
5-gal Drum	0.1	0.0	0.1
85-gal Drum w/ 1 - 55-gal Drum w/o Liner	0.3	0.0	0.3
Box - 7' x 4' x 4'	3.2	0.0	3.2
Current Form Total	6.9	0.0	6.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	6.9	0.0	6.9
Final Form Total	6.9	0.0	6.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	80.00
Aluminum-based Metals/Alloys	5.00
Other Metals	10.00
Other Inorganic Materials	1.00
Cellulosics	2.00
Rubber	2.00
Plastics	5.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.46E+00
Am-243	1.59E-05
Cm-244	2.15E-04
Cs-137	4.58E+00
Np-237	2.26E-03
Pu-238	3.03E-02
Pu-239	9.76E-02
Pu-240	4.71E-03
Pu-241	2.76E-02
Pu-242	7.68E-06
Sr-90	4.54E+00
Th-229	5.62E-11
Th-230	5.39E-08
Th-232	2.97E-06
U-233	1.08E-07
U-234	5.45E-04
U-235	2.86E-05
U-236	1.53E-09
U-238	5.48E-05

No Hazardous Waste Numbers Provided

TRUCON Code(s)

125/225

Waste Stream Description

Heterogeneous CH Debris from SNL/NM Hot Cell Facility D&D project and other miscellaneous waste generators.

Waste Stream ID: **SA-W134M****Appendix A****TRU Waste Inventory Profile Report**

Site	Sandia National Laboratory - Albuquerque	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Mixed-TRU Debris Waste from SNL/NM - Contact Handled			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
2-gallon can	0.0	0.0	0.0
55-gal Drum Dir Ld w/o Liner	1.0	0.0	1.0
5-gal Drum	0.1	0.0	0.1
Current Form Total	1.1	0.0	1.1

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	80.00
Aluminum-based Metals/Alloys	5.00
Other Metals	10.00
Other Inorganic Materials	1.00
Cellulosics	2.00
Rubber	2.00
Plastics	5.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.60E-02
Cs-137	6.06E-02
Np-237	3.55E-06
Pu-238	2.27E-03
Pu-239	2.77E-02
Pu-240	2.36E-03
Pu-241	3.72E-02
Pu-242	3.45E-07
Sr-90	3.97E-02
Th-229	8.34E-14
Th-230	3.27E-08
Th-232	3.30E-08
U-233	1.63E-10
U-234	3.31E-04
U-235	1.81E-05
U-236	7.69E-10
U-238	1.63E-05

Haz. Waste No(s).

D006, D009, D011

TRUCON Code(s)

125/225

Waste Stream Description

Heterogeneous CH mixed debris from SNL/NM Hot Cell Facility D&D project and other Miscellaneous waste generators.

Waste Stream ID: **SA-W135**

Appendix A

TRU Waste Inventory Profile Report

Site	Sandia National Laboratory - Albuquerque	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	TRU Waste from SNL/NM - Remote Handled			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gallon lever lock drum	0.2	0.0	0.2
55-gal Drum Dir Ld w/o Liner	0.4	0.0	0.4
Cask - Lead Lined	6.5	0.0	6.5
Lead Pig	0.2	0.0	0.2
Current Form Total	7.3	0.0	7.3

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	80.00
Aluminum-based Metals/Alloys	5.00
Other Metals	10.00
Other Inorganic Materials	1.00
Cellulosics	2.00
Rubber	2.00
Plastics	5.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.35E+00
Am-243	7.96E-06
Cs-137	1.03E+02
Np-237	1.97E-04
Pu-238	8.51E-01
Pu-239	7.58E-01
Pu-240	1.70E-01
Pu-241	7.48E-03
Pu-242	1.87E-05
Sr-90	8.70E+01
Th-229	4.65E-12
Th-230	1.37E-07
Th-232	1.51E-17
U-233	9.05E-09
U-234	1.40E-03
U-235	1.04E-04
U-236	5.54E-08
U-238	3.54E-05

No Hazardous Waste Numbers Provided

TRUCON Code(s)

325

Waste Stream Description

Heterogeneous RH debris from SNL/NM Hot Cell Facility D&D Project and other miscellaneous waste generators.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SA-W136****Appendix A****TRU Waste Inventory Profile Report**

Site	Sandia National Laboratory - Albuquerque	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5110	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH TRU Debris waste from Z-machine	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.6	4.4	5.0
Current Form Total	0.6	4.4	5.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.6	4.4	5.0
Final Form Total	0.6	4.4	5.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1830.00
Aluminum-based Metals/Alloys	0.00
Other Metals	45.00
Other Inorganic Materials	0.44
Cellulosics	0.00
Rubber	2.05
Plastics	1.57
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	2.55
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.15E-03
Np-237	1.62E-09
Pu-238	3.33E-02
Pu-239	5.71E-01
Pu-240	1.31E-01
Pu-241	1.01E+00
Pu-242	1.52E-05
Th-229	2.93E-19
Th-230	1.72E-12
Th-232	3.84E-19
U-233	5.49E-15
U-234	1.90E-07
U-235	1.13E-09
U-236	7.77E-09
U-238	4.59E-15

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225
Waste Stream Description

CH debris waste from the Z-machine, Pu ICE experiments. Waste generated at SNL/NM, but is LANL waste

Waste Stream ID: **SR2001.001.00-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5300	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-SR2001.001.00	61.2
Shipped Total		61.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	11.89
Aluminum-based Metals/Alloys	0.00
Other Metals	0.29
Other Inorganic Materials	8.37
Cellulosics	7.74
Rubber	1.00
Plastics	86.03
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.34E-02
Cs-137	8.00E-08
Np-237	2.46E-08
Pu-238	1.74E-02
Pu-239	1.58E-01
Pu-240	3.14E-02
Pu-241	4.23E-01
Pu-242	3.16E-06
Th-229	7.05E-17
Th-230	1.13E-11
Th-232	1.13E-18
U-233	3.39E-13
U-234	3.55E-07
U-235	1.09E-09
U-236	6.52E-09
U-238	3.34E-15

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **SR2002.002.00-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5440	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-SR2002.002.00	69.9
Shipped Total		69.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	8.65
Aluminum-based Metals/Alloys	0.40
Other Metals	0.32
Other Inorganic Materials	6.82
Cellulosics	6.82
Rubber	1.36
Plastics	81.40
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.04E-02
Cs-137	2.40E-07
Np-237	8.93E-08
Pu-238	6.62E-03
Pu-239	1.62E-01
Pu-240	3.75E-02
Pu-241	8.83E-01
Pu-242	5.11E-06
Sr-90	2.02E-08
Th-229	7.13E-07
Th-230	3.14E-12
Th-232	9.89E-19
U-233	1.27E-03
U-234	1.15E-07
U-235	9.61E-10
U-236	6.68E-09
U-238	4.63E-15

Haz. Waste No(s).

D008, F001, F002,
F003, F005No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **SR-AGNS-HET-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-SR-AGNS-HET	4.6
55-gal Drum Dir Ld w/o Liner	WP-SR-AGNS-HET	3.7
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-SR-AGNS-HET	36.0
TDOP w/ 10 - 55-gal Drums w/o Liners	WP-SR-AGNS-HET	4.5
Shipped Total		48.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	35.32
Aluminum-based Metals/Alloys	0.20
Other Metals	5.09
Other Inorganic Materials	12.17
Cellulosics	6.01
Rubber	2.93
Plastics	26.60
Cements	0.00
Inorganic Matrix	0.14
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.25E-02
Am-243	2.13E-07
Cs-137	2.31E-06
Np-237	4.13E-05
Pu-238	2.10E-01
Pu-239	5.25E-02
Pu-240	3.45E-02
Pu-241	7.39E-01
Pu-242	1.47E-05
Sr-90	2.31E-06
Th-229	7.89E-10
Th-230	3.22E-10
Th-232	1.85E-08
U-233	8.41E-06
U-234	3.60E-05
U-235	4.65E-07
U-236	1.02E-09
U-238	9.56E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D011, D019, D022, D029, F002, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SR-BCLCH-MT01****Appendix A****TRU Waste Inventory Profile Report**

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	JN-4 D&D Debris Waste	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	11.3	0.0	11.3
Current Form Total	11.3	0.0	11.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	11.3	0.0	11.3
Final Form Total	11.3	0.0	11.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	60.00
Aluminum-based Metals/Alloys	60.00
Other Metals	60.00
Other Inorganic Materials	72.00
Cellulosics	204.50
Rubber	122.41
Plastics	240.60
Cements	62.41
Inorganic Matrix	0.00
Organic Matrix	36.05
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	153.50
Packaging Material, Plastic	1.20
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.72E+00
Np-237	2.42E-06
Pu-238	3.27E+02
Pu-239	5.49E+00
Pu-240	1.44E+00
Pu-241	5.40E+01
Pu-242	2.34E-04
Th-229	3.70E-15
Th-230	1.07E-07
Th-232	2.64E-17
U-233	2.44E-11
U-234	4.73E-03
U-235	2.71E-08
U-236	2.13E-07
U-238	1.77E-13

Haz. Waste No(s).

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

No TRUCON Codes Provided**Waste Stream Description**

JN-1 D&D Debris Waste consists of heterogeneous debris waste generated by the activities conducted in Building JN-1. The waste includes paper, plastic, rubber, paint chips, crushed metal cans, prefilters, glass, concrete, grout, lead shot, and miscellaneous laboratory equipment

Waste Stream ID: **SR-BCLRH-MT01**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Combustible	Waste Matrix Code	S5390	Handling	RH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Hazardous organic debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Current Form Total	0.6	0.0	0.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	28.60
Aluminum-based Metals/Alloys	8.40
Other Metals	101.00
Other Inorganic Materials	10.10
Cellulosics	204.00
Rubber	27.00
Plastics	101.00
Cements	18.50
Inorganic Matrix	0.00
Organic Matrix	1.70
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.18E+00
Am-243	2.15E-02
Cm-244	1.91E+00
Cs-137	5.10E+01
Np-237	2.64E-04
Pu-238	2.65E+00
Pu-239	3.55E-01
Pu-240	5.79E-01
Pu-241	3.66E+01
Pu-242	1.73E-03
Sr-90	3.34E+01
Th-229	1.57E-11
Th-230	4.53E-08
Th-232	4.72E-14
U-233	3.64E-08
U-234	1.03E-03
U-235	1.44E-05
U-236	1.91E-04
U-238	2.80E-04

Haz. Waste No(s).

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

TRUCON Code(s)

321

Waste Stream Description

Hazardous organic debris consists of the materials generated during repackaging of the waste materials generated from research and development activities conducted in Building JN-1. This waste consists primarily of iron based metals, paper, plastic, cloth, aluminum, cellulosics, rubber, and lead items (bricks, shot, apron, and gloves).

Waste Stream ID: **SR-BCLRH-T001**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Solidified Organics	Waste Matrix Code	S3211	Handling	RH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Pool Water Filter Resin			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	5.60
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	5.60
Cellulosics	6.70
Rubber	5.60
Plastics	6.70
Cements	33.70
Inorganic Matrix	0.00
Organic Matrix	129.20
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.20E-02
Am-243	1.49E-04
Cm-244	1.32E-02
Cs-137	3.54E-01
Np-237	1.82E-06
Pu-238	1.85E-02
Pu-239	2.46E-03
Pu-240	4.02E-03
Pu-241	2.54E-01
Pu-242	1.20E-05
Sr-90	2.31E-01
Th-229	1.09E-13
Th-230	3.15E-10
Th-232	3.29E-16
U-233	2.52E-10
U-234	7.14E-06
U-235	1.00E-07
U-236	1.33E-06
U-238	1.94E-06

Haz. Waste No(s).

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

TRUCON Code(s)

326

Waste Stream Description

Pool Water Filter Resin consists of ion-exchange resin (nuclear grade), which was used for deionizing the Transfer/Storage Pool water. The CM-2 Regenerated Mixed Bed Resin used was contained in muslin bags (cotton bags). The matrix will also include Floor Dry (diatomaceous earth) used as an absorbent during the original packaging of this waste and 10 lbs. of absorbent (50:50 Floor Dry and Radsorb) added during repackaging to absorb any water from condensation or dewatering

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SR-BCLRH-T002**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Filter	Waste Matrix Code	S5410	Handling	RH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Pool Water Prefilters and Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	1.8	0.0	1.8
Final Form Total	1.8	0.0	1.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	8.40
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	379.30
Cellulosics	8.40
Rubber	8.40
Plastics	8.40
Cements	25.30
Inorganic Matrix	0.00
Organic Matrix	18.50
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.29E-01
Cm-244	2.30E-01
Cs-137	4.17E-01
Np-237	8.60E-07
Pu-238	5.99E-01
Pu-239	6.58E-02
Pu-240	1.07E-01
Sr-90	1.68E+01
Th-229	4.24E-12
Th-230	1.33E-08
Th-232	1.42E-14
U-233	9.05E-09
U-234	3.01E-04
U-235	4.38E-06
U-236	5.76E-05
U-238	8.34E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D011, D019, F002, F005
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TRUCON Code(s)

321

Waste Stream Description

Pool Water Prefilters and Debris consists of the cartridge prefilters and debris generated during the change-out of resin used for filtering the Transfer/Storage Pool water. The filter matrix is composed of glass and cellulose fibers combined with melamine resin. The end caps are polypropylene and the filters are placed in the canisters with rubber gaskets (butyl/nitrile). Other debris that may be present from the original packaging may include paper (blotter paper and Floor Dry bags), plastic liners, rubber gaskets, muslin resin bags, rubber gloves, and other miscellaneous plastic, cellulosics, and metal materials. The waste matrix will also include Floor Dry and Radsorb added during repackaging to absorb any water from condensation or dewatering.

Waste Stream ID: **SR-BCLRH-T003**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Combustible	Waste Matrix Code	S5390	Handling	RH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Organic Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	8.3	0.0	8.3
Current Form Total	8.3	0.0	8.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	12.5	0.0	12.5
Final Form Total	12.5	0.0	12.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	8.00
Aluminum-based Metals/Alloys	8.00
Other Metals	1.60
Other Inorganic Materials	9.60
Cellulosics	31.90
Rubber	23.90
Plastics	95.60
Cements	17.60
Inorganic Matrix	0.00
Organic Matrix	1.60
Soils/gravel	1.60
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.58E-01
Am-243	1.07E-03
Cm-244	9.50E-02
Cs-137	2.54E+00
Np-237	1.31E-05
Pu-238	1.32E-01
Pu-239	1.77E-02
Pu-240	2.88E-02
Pu-241	1.82E+00
Pu-242	8.63E-05
Sr-90	1.66E+00
Th-229	7.82E-13
Th-230	2.26E-09
Th-232	2.36E-15
U-233	1.81E-09
U-234	5.11E-05
U-235	7.17E-07
U-236	9.56E-06
U-238	1.39E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D011, D019, F002, F005
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TRUCON Code(s)

321

Waste Stream Description

Organic Debris consists of the materials generated during repackaging of the waste materials generated from research and development activities conducted in Building JN-1. This waste consists primarily of rubber debris material including polyethylene, polyvinyl chloride, nylon, Styrofoam, Tygon, plexiglass, and neoprene. Wood debris with no signs of hazardous waste contamination may also be included. Waste items may include non-deteriorated sheeting, hose/tubing, respirators, boots, rain suits, o-rings, electrical cords, safety glasses, plexiglass panels, plywood, and pallets. The waste matrix will also include Floor Dry and Radsorb added during repackaging to absorb any water from condensation or dewatering.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SR-BCLRH-T004**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129	Handling	RH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Inorganic Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	8.1	0.0	8.1
Current Form Total	8.1	0.0	8.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	11.6	0.0	11.6
Final Form Total	11.6	0.0	11.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	267.10
Aluminum-based Metals/Alloys	121.60
Other Metals	1.60
Other Inorganic Materials	113.20
Cellulosics	17.80
Rubber	3.20
Plastics	97.00
Cements	17.80
Inorganic Matrix	0.00
Organic Matrix	1.60
Soils/gravel	40.40
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.09E+00
Am-243	3.44E-02
Cm-244	3.06E+00
Cs-137	8.16E+01
Np-237	4.23E-04
Pu-238	4.26E+00
Pu-239	5.69E-01
Pu-240	9.31E-01
Pu-241	5.88E+01
Pu-242	2.78E-03
Sr-90	5.35E+01
Th-229	2.52E-11
Th-230	7.24E-08
Th-232	7.58E-14
U-233	5.83E-08
U-234	1.64E-03
U-235	2.32E-05
U-236	3.07E-04
U-238	4.50E-04

Haz. Waste No(s).

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

TRUCON Code(s)

321

Waste Stream Description

Inorganic Debris consists of glass and metal debris generated during repackaging of the waste materials generated from research and development activities conducted in Building JN-1. Glass debris includes laboratory glassware, windows, and various glass apparatus. Metal debris may include deteriorated berry cans, cable wire, plannets, sign, valves, piping, strapping, tools, foil, sheeting, fixtures, equipment, hardware, fuel rod cladding, and Metmounts (sectioned metal material embedded in a plastic matrix). Metals of construction include stainless steel, aluminum, iron, copper, beryllium, and zirconium alloy (Zr-2, Zr-4). The waste matrix will also include Floor Dry and Radsorb added during repackaging to absorb any water from condensation or dewatering.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SR-BCLRH-T005**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Filter	Waste Matrix Code	S5410	Handling	RH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Tri-Nuc Filters			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	61.70
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	22.50
Cellulosics	5.60
Rubber	0.00
Plastics	39.30
Cements	72.00
Inorganic Matrix	0.00
Organic Matrix	12.40
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.53E+00
Am-243	3.05E-02
Cm-244	2.72E+00
Cs-137	7.24E+01
Np-237	3.75E-04
Pu-238	3.79E+00
Pu-239	5.05E-01
Pu-240	8.24E-01
Pu-241	5.22E+01
Pu-242	2.47E-03
Sr-90	4.73E+01
Th-229	2.24E-11
Th-230	6.46E-08
Th-232	6.74E-14
U-233	5.17E-08
U-234	1.46E-03
U-235	2.06E-05
U-236	2.73E-04
U-238	4.00E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D011, D019, F002, F005
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TRUCON Code(s)

321

Waste Stream Description

Tri-Nuc Filters consists of filter cartridges used in the underwater vacuum system for cleaning the surfaces and filtering the water of the Transfer/Storage Pool. The cartridges are 30" long and 6" in diameter and consist of media enclosed within a stainless steel screen shroud, and aluminum screen reinforced plastisol end caps. The filter media is composed of polypropylene, melt brown reinforced tyvar, and is available in 0.3, 1, 5, 10, and 20-micron mesh sizes. The waste matrix will also include Floor Dry (diatomaceous earth) and Radsorb (50:50 mix) added to each liner.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SR-BCLRH-T006**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150	Handling	RH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Slugs			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	3.40
Cements	16.80
Inorganic Matrix	0.00
Organic Matrix	154.50
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.06E+00
Am-243	7.17E-03
Cm-244	6.37E-01
Cs-137	1.70E+01
Np-237	8.81E-05
Pu-238	8.87E-01
Pu-239	1.19E-01
Pu-240	1.94E-01
Pu-241	1.23E+01
Pu-242	5.80E-04
Sr-90	1.12E+01
Th-229	5.27E-12
Th-230	1.51E-08
Th-232	1.58E-14
U-233	1.22E-08
U-234	3.43E-04
U-235	4.84E-06
U-236	6.40E-05
U-238	9.37E-05

Haz. Waste No(s).

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

TRUCON Code(s)

314

Waste Stream Description

Slugs were produced in Alpha-Gamma Cell 7 by dissolving irradiated (burnup) fuel in an acid solution, which was then diluted several times and mixed with cement and water and allowed to solidify in Styrofoam cups. The slugs will contain only limited amounts of dissolved fuel because of the dilution. The Styrofoam cups will be segregated from the slugs prior to final packaging. The waste matrix will also include Floor Dry and Radsorb added during repackaging to absorb any water from condensation or dewatering.

Waste Stream ID: **SR-BCLRH-T007**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129	Handling	RH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Laundry Sludge	Activity Concentrations		Decayed to CY	2008		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	59.00
Cellulosics	10.10
Rubber	0.00
Plastics	3.40
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	10.10
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.77E-03
Am-243	5.91E-05
Cm-244	5.27E-03
Cs-137	1.41E-01
Np-237	7.27E-07
Pu-238	7.32E-03
Pu-239	9.79E-04
Pu-240	1.60E-03
Pu-241	1.01E-01
Pu-242	4.77E-06
Sr-90	9.23E-02
Th-229	4.33E-14
Th-230	1.25E-10
Th-232	1.30E-16
U-233	1.00E-10
U-234	2.84E-06
U-235	4.00E-08
U-236	5.28E-07
U-238	7.74E-07

Haz. Waste No(s).

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

TRUCON Code(s)

321

Waste Stream Description

Laundry sludge consists of a particulate sludge (dirt, debris, and lint) generated when the laundry system still box requires cleaning. The box is heated to boil off the water contained in the particulate material. The resulting sludge is raked into plastic bags containing Radsorb (10%-20% by weight) to absorb any water from condensation or dewatering.

Waste Stream ID: **SR-BCLRH-T008**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Filter	Waste Matrix Code	S5410	Handling	RH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Laundry Sock Filters and Lint			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Current Form Total	0.6	0.0	0.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	6.70
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	39.30
Cellulosics	134.80
Rubber	0.00
Plastics	39.30
Cements	16.90
Inorganic Matrix	0.00
Organic Matrix	12.40
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.05E-01
Am-243	7.06E-04
Cm-244	6.29E-02
Cs-137	1.68E+00
Np-237	8.67E-06
Pu-238	8.76E-02
Pu-239	1.17E-02
Pu-240	1.91E-02
Pu-241	1.21E+00
Pu-242	5.70E-05
Sr-90	1.10E+00
Th-229	5.16E-13
Th-230	1.49E-09
Th-232	1.56E-15
U-233	1.19E-09
U-234	3.39E-05
U-235	4.77E-07
U-236	6.31E-06
U-238	9.25E-06

Haz. Waste No(s).

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

TRUCON Code(s)

321

Waste Stream Description

Laundry Sock Filters and Lint are generated during the operation of the BCLDP TRU waste laundry system in the JN-1 Pump Room. This stream includes Rosedale polypropylene high-efficiency liquid filter bags and cotton lint from laundered mop heads and rags. No RCRA waste was processed through the laundry

Waste Stream ID: **SR-BCLRH-T009****Appendix A****TRU Waste Inventory Profile Report**

Site	Savannah River Site	Final Waste Form	Filter	Waste Matrix Code	S5410	Handling	RH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Pressure Wash Filters			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	1.8	0.0	1.8
Final Form Total	1.8	0.0	1.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	22.50
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	168.60
Cellulosics	42.10
Rubber	8.40
Plastics	15.50
Cements	35.10
Inorganic Matrix	0.00
Organic Matrix	91.20
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.52E-01
Am-243	2.38E-03
Cm-244	2.11E-01
Cs-137	5.68E+00
Np-237	2.92E-05
Pu-238	2.95E-01
Pu-239	3.94E-02
Pu-240	6.44E-02
Pu-241	4.06E+00
Pu-242	1.92E-04
Sr-90	3.70E+00
Th-229	1.75E-12
Th-230	5.04E-09
Th-232	5.26E-15
U-233	4.04E-09
U-234	1.14E-04
U-235	1.60E-06
U-236	2.13E-05
U-238	3.11E-05

Haz. Waste No(s).

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

TRUCON Code(s)

321

Waste Stream Description

Pressure Wash Filters used in the pressure wash water recovery system for filtering wash water transferred for evaporation. Three types of filter/cartridges were used. Cotton media filters consisting of cotton yarn and cotton media wound around a polypropylene core. Resin media type cartridges composed of glass and cellulose fibers combined with melamine resin, and a polypropylene sock filter consisting of polypropylene material supported by a carbon steel ring. Small quantities of sludge collected in the filter housings and settling tank bottoms are included in this waste stream. The waste matrix also includes Radsorb added to each liner.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SR-BCLRH-T010****Appendix A****TRU Waste Inventory Profile Report**

Site	Savannah River Site	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111	Handling	RH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Sabotage Pieces			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	129.20
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	14.60
Rubber	0.00
Plastics	14.60
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.57E+00
Am-243	7.83E-02
Cm-244	3.39E+00
Cs-137	7.16E+02
Np-237	5.03E-03
Pu-238	1.74E-02
Pu-239	1.45E-03
Pu-240	1.95E-02
Pu-241	1.55E-01
Pu-242	1.09E-05
Sr-90	3.86E+02
Th-229	2.53E-10
Th-230	2.77E-10
Th-232	2.92E-16
U-233	5.93E-07
U-234	6.29E-06
U-235	5.45E-08
U-236	1.18E-06
U-238	1.45E-06

Haz. Waste No(s).

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

TRUCON Code(s)

321

Waste Stream Description

Sabotage Pieces consist of materials generated during repackaging of waste generated during research and development activities conducted on sabotage testing of model casks using simulated vitrified high-level waste. This waste stream consists primarily of iron-based metals.

Waste Stream ID: **SR-BCLRH-T011****Appendix A****TRU Waste Inventory Profile Report**

Site	Savannah River Site	Final Waste Form	Solidified Organics	Waste Matrix Code	S3212	Handling	RH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Hydraulic Room Sludge and Debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	3.6	0.0	3.6
Final Form Total	3.6	0.0	3.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	7.90
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	23.60
Cellulosics	40.80
Rubber	7.90
Plastics	40.80
Cements	283.00
Inorganic Matrix	0.00
Organic Matrix	141.30
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.33E-02
Cm-244	4.43E-03
Cs-137	1.43E-01
Np-237	2.16E-08
Pu-238	7.61E-03
Pu-239	2.98E-03
Pu-240	2.59E-06
Sr-90	7.72E-02
Th-229	3.61E-17
Th-230	2.58E-10
Th-232	1.65E-23
U-233	2.31E-13
U-234	5.79E-06
U-235	1.47E-11
U-236	1.98E-13

Haz. Waste No(s).

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

TRUCON Code(s)

321

Waste Stream Description

Hydraulic Room Sludge and Debris waste consists of rubble, sludge, and absorbent materials as well as the plastic bags that the waste is in. The hydraulic sludge was absorbed using a greater than 50% No Char and Radsorb polymers. Then the hydraulic sludge was packed in plastic bags with additional No Char, Radsorb, and Floor Dry. Prior to packaging, 10 pounds of absorbent (50:50 Floor Dry and Radsorb) was added to the liner to absorb and water from condensation or dewatering

Waste Stream ID: **SR-MD-HET-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-SR-MD-HET	17.7
55-gal Drum Dir Ld w/o Liner	WP-SR-MD-HET	4.4
Shipped Total		22.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	43.88
Aluminum-based Metals/Alloys	1.12
Other Metals	7.21
Other Inorganic Materials	21.58
Cellulosics	33.50
Rubber	24.05
Plastics	40.96
Cements	0.00
Inorganic Matrix	0.09
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.50E-02
Am-243	2.84E-08
Cs-137	4.02E-05
Np-237	3.65E-05
Pu-238	1.58E+01
Pu-239	2.67E-01
Pu-240	3.44E-02
Pu-241	9.73E-01
Pu-242	7.73E-06
Sr-90	4.02E-05
Th-229	2.85E-08
Th-230	2.51E-08
Th-232	1.81E-03
U-233	3.04E-04
U-234	2.82E-03
U-235	7.70E-07
U-236	1.02E-09
U-238	6.58E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D030, D032, D034, D037, D043, F002, F003, F004, F005, F007, F009

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SR-SWMF-HET-A**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Mixed TRU Debris (S5000)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	58.2	25.0	83.2
Box - Steel	165.0	0.0	165.0
SLB2 (5' x 5' x 8) Dir Ld	5.7	0.0	5.7
SWB Dir Ld w/ Liner	9.5	0.0	9.5
Current Form Total	238.4	25.0	263.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	43.7	25.0	68.6
SLB2 (5' x 5' x 8) Dir Ld	503.7	0.0	503.7
SWB Dir Ld w/o Liner	9.5	0.0	9.5
TDOP w/ 10 - 55-gal Drums w/ Liners	31.5	0.0	31.5
Final Form Total	588.4	25.0	613.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.60
Aluminum-based Metals/Alloys	0.45
Other Metals	7.17
Other Inorganic Materials	0.07
Cellulosics	16.44
Rubber	3.81
Plastics	45.42
Cements	0.00
Inorganic Matrix	0.60
Organic Matrix	0.15
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	206.56
Packaging Material, Plastic	5.02
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.29E-01
Am-243	1.65E-04
Cm-244	2.04E-02
Cs-137	3.08E-02
Np-237	5.65E-05
Pu-238	1.22E+00
Pu-239	5.27E-01
Pu-240	1.16E-01
Pu-241	3.71E+00
Pu-242	1.60E-03
Sr-90	1.77E-01
U-233	1.07E-06
U-234	1.25E-03
U-235	2.17E-07
U-236	3.82E-07
U-238	1.88E-03

Haz. Waste No(s).

D008, F001, F002, F004, F005, F007, F009, U133, U151

TRUCON Code(s)

125/225

Waste Stream Description

CH Mixed TRU waste resulting from remediation and re-packaging of Mixed "defense related" TRU waste.

Waste Stream ID: **SR-SWMF-HET-A-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-SR-SWMF-HET-A	3.3
55-gal Drum Dir Ld w/o Liner	WP-SR-SWMF-HET-A	3.7
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-SR-SWMF-HET-A	9.0
TDOP w/ 10 - 55-gal Drums w/o Liners	WP-SR-SWMF-HET-A	18.0
Shipped Total		34.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	8.27
Aluminum-based Metals/Alloys	1.09
Other Metals	0.00
Other Inorganic Materials	1.74
Cellulosics	3.44
Rubber	11.46
Plastics	40.10
Cements	0.00
Inorganic Matrix	0.01
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.70E-02
Am-243	4.63E-06
Cs-137	7.85E-06
Np-237	1.66E-05
Pu-238	3.21E-01
Pu-239	4.95E-02
Pu-240	6.75E-03
Pu-241	2.00E-01
Pu-242	2.17E-06
Sr-90	7.85E-06
Th-232	3.88E-09
U-234	5.11E-05
U-235	2.45E-08

Haz. Waste No(s).

D008, F001, F002, F004, F005, F007, F009, U133, U151

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **SR-SWMF-HET-RH**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Remote Handled (RH) Mixed TRU Debris (S5000)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	1.8	0.0	1.8
Final Form Total	1.8	0.0	1.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	1260.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	99.20
Cements	0.00
Inorganic Matrix	20.70
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.28E-02
Am-243	5.19E-02
Cm-244	3.15E+00
Cs-137	4.10E-02
Np-237	5.30E-04
Pu-238	4.05E-01
Pu-239	2.59E-01
Pu-240	8.54E-02
Pu-241	1.41E+00
Pu-242	2.90E-05
Pu-244	1.83E-15
Sr-90	3.06E-02
Th-229	1.81E-11
Th-230	4.20E-09
Th-232	2.99E-16
U-233	2.98E-08
U-234	4.36E-05
U-235	7.47E-07
U-236	4.81E-07
U-238	1.60E-05

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

RH Mixed TRU waste resulting from solvent tank emptying and closure in the E-Area of SRS.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SR-SWMF-SOIL**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Soils	Waste Matrix Code	S4000	Handling	CH
Source Cat.	Spill Clean-ups/Emergency Response Actions	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Mixed TRU Waste Soil & Gravel			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.9	0.0	2.9
Current Form Total	2.9	0.0	2.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.9	0.0	2.9
Final Form Total	2.9	0.0	2.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.31
Cements	0.00
Inorganic Matrix	273.56
Organic Matrix	6.05
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.34E+00
Am-243	1.68E+00
Cm-244	5.55E+01
Np-237	1.27E-05
Pu-238	2.17E+00
Pu-239	4.83E-03
Pu-240	8.90E-01
Pu-241	3.00E-01
Pu-242	5.35E-04
Pu-244	1.33E-13
Th-229	7.31E-13
Th-230	2.72E-08
Th-232	4.39E-16
U-233	8.05E-10
U-234	2.01E-04
U-235	1.18E-10
U-236	6.57E-07
U-238	2.34E-12

No Hazardous Waste Numbers Provided

TRUCON Code(s)

111/211

Waste Stream Description

Burial Ground Soil and Gravel from spill cleanup / remediation activities.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SR-T003-773A-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	RH TRU Heterogeneous Debris from 773A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	8.5	15.0	23.5
Cask - Misc	5.2	0.0	5.2
Current Form Total	13.7	15.0	28.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	16.0	21.4	37.4
Final Form Total	16.0	21.4	37.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	229.83
Aluminum-based Metals/Alloys	0.00
Other Metals	29.25
Other Inorganic Materials	56.41
Cellulosics	31.34
Rubber	0.00
Plastics	52.23
Cements	0.00
Inorganic Matrix	0.29
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.99E-01
Am-243	4.84E-02
Cm-244	3.88E+00
Cs-137	1.03E+00
Np-237	9.48E-06
Pu-238	1.54E+00
Pu-239	1.57E-02
Pu-240	2.90E-02
Pu-241	1.13E-01
Pu-242	1.67E-05
Pu-244	9.02E-15
Sr-90	7.22E-01
Th-229	3.20E-10
Th-230	6.08E-09
Th-232	1.95E-15
U-233	2.44E-07
U-234	8.00E-05
U-235	2.25E-07
U-236	2.82E-06
U-238	8.94E-09

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225

Waste Stream Description

This waste consists of miscellaneous job control waste such as laboratory supplies used in research programs in the shielded cells, e.g. glassware, paper wipes, stainless steel samples vials, poly bottles, pipettes and small lab equipment (stirrers, heaters). In addition to the job control waste, this stream contains shavings from the cuttings of a Mark 16 fuel element.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SR-W026-221F-HEPA**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Filter	Waste Matrix Code	S5410	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Mixed TRU HEPA Filters (S5000)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - SRS Poly Box	65.3	0.0	65.3
SWB Dir Ld w/o Liner	230.6	0.0	230.6
Current Form Total	295.9	0.0	295.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	417.7	0.0	417.7
Final Form Total	417.7	0.0	417.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	16.88
Aluminum-based Metals/Alloys	29.82
Other Metals	0.00
Other Inorganic Materials	3.38
Cellulosics	0.00
Rubber	0.00
Plastics	6.19
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	153.50
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.76E-01
Cs-137	3.68E-07
Np-237	5.97E-07
Pu-238	4.25E-01
Pu-239	8.70E-01
Pu-240	2.01E-01
Pu-241	3.84E+00
Pu-242	6.66E-05
Sr-90	1.64E-12
Th-229	7.49E-15
Th-230	1.93E-09
Th-232	4.78E-17
U-233	1.68E-11
U-234	2.33E-05
U-235	1.55E-08
U-236	1.08E-07
U-238	3.54E-11

Haz. Waste No(s).

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

TRUCON Code(s)

119/219

Waste Stream Description

HEPA Filters in Filtered Polyethylene Boxes

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SR-W026-221F-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Mixed TRU/Thirds Heterogeneous debris from 221F			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	34.1	0.0	34.1
Box - SRS B-25 OP	43.2	0.0	43.2
Box - SRS Black Box	683.2	0.0	683.2
SLB2 (5' x 5' x 8) Dir Ld	84.9	0.0	84.9
SWB Dir Ld w/ Liner	88.8	0.0	88.8
TDOP Dir Ld	22.5	0.0	22.5
Current Form Total	956.7	0.0	956.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	25.6	0.0	25.6
SLB2 (5' x 5' x 8) Dir Ld	696.2	0.0	696.2
SWB Dir Ld w/o Liner	88.8	0.0	88.8
TDOP Dir Ld	22.5	0.0	22.5
TDOP w/ 10 - 55-gal Drums w/ Liners	40.5	0.0	40.5
Final Form Total	873.6	0.0	873.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	34.10
Aluminum-based Metals/Alloys	0.57
Other Metals	1.14
Other Inorganic Materials	5.93
Cellulosics	2.68
Rubber	8.61
Plastics	27.28
Cements	0.00
Inorganic Matrix	0.08
Organic Matrix	0.57
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	206.97
Packaging Material, Plastic	1.88
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.04E-01
Am-243	5.35E-07
Cm-244	3.82E-05
Cs-137	9.27E-04
Np-237	3.36E-07
Pu-238	1.49E-01
Pu-239	3.53E-01
Pu-240	7.85E-02
Pu-241	2.24E+00
Pu-242	1.17E-04
Sr-90	2.62E-04
Th-229	3.48E-08
Th-230	4.76E-10
Th-232	1.16E-17
U-233	9.27E-05
U-234	1.41E-05
U-235	4.10E-07
U-236	6.34E-08
U-238	1.54E-07

Haz. Waste No(s).

D006, D007, D008, D009, D022, D028, D029, F001, F002, F003, F005

TRUCON Code(s)

125/225

Waste Stream Description

200 Areas (F and H Separations Facilities). This waste is primarily solids consisting of mainly booties, lab coats, floor sweepings, rags, labware, and other job control wastes. Small HEPAs, liquids, sludges and resins may also be found in this stream. The waste is generated primarily through separation activities in the course of plutonium production, includes small amounts of TRU waste from on site laboratories.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SR-W026-221F-HET-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5300	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-SR-W026-221F-HE	0.4
55-gal Drum Dir Ld w/o Liner	WP-SR-W026-221F-HE	4.2
SWB w/ 4 - 55-gal Drums w/ Liners	WP-SR-W026-221F-HE	28.4
SWB w/ 4 - 55-gal Drums w/o Liners	WP-SR-W026-221F-HE	3.8
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-SR-W026-221F-HE	558.0
Shipped Total		594.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	30.03
Aluminum-based Metals/Alloys	0.55
Other Metals	0.27
Other Inorganic Materials	6.74
Cellulosics	2.41
Rubber	8.31
Plastics	24.32
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.03
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.11E-01
Am-243	9.42E-08
Cm-244	1.24E-04
Cs-137	5.18E-07
Np-237	9.57E-06
Pu-238	5.47E-01
Pu-239	2.11E+00
Pu-240	5.88E-01
Pu-241	8.30E+00
Pu-242	2.45E-04
Sr-90	5.50E-07
Th-229	2.91E-14
Th-230	9.25E-09
Th-232	7.21E-08
U-233	1.57E-10
U-234	2.60E-04
U-235	3.06E-06
U-236	6.98E-08
U-238	2.20E-05

Haz. Waste No(s).

D006, D007, D008, D009, D022, D028, D029, F001, F002, F003, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SR-W026-221F-HOM**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3113	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Mixed TRU Solids (S3000)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	5.2	0.0	5.2
Current Form Total	5.2	0.0	5.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.0	0.0	4.0
TDOP w/ 10 - 55-gal Drums w/ Liners	4.5	0.0	4.5
Final Form Total	8.5	0.0	8.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	2.71
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	2.71
Rubber	0.00
Plastics	8.12
Cements	0.00
Inorganic Matrix	229.96
Organic Matrix	27.05
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	184.57
Packaging Material, Plastic	26.40
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.58E-02
Cs-137	1.09E-06
Np-237	2.02E-07
Pu-238	7.96E-02
Pu-239	3.05E-01
Pu-240	5.91E-02
Pu-241	6.92E-01
Pu-242	7.22E-06
Sr-90	4.11E-12
Th-229	3.95E-15
Th-230	4.24E-10
Th-232	1.40E-17
U-233	7.17E-12
U-234	4.75E-06
U-235	5.95E-09
U-236	3.15E-08
U-238	1.41E-10

Haz. Waste No(s).

D005, D006, D007, D008, D009, D011, D019, D022, D028, D029, D043, F002, F005, U151

TRUCON Code(s)

127/227

Waste Stream Description

Absorbed oil, neutralized acids / bases and water

Waste Stream ID: **SR-W026-772F-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Mixed TRU/Thirds Heterogeneous debris from 772F			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	52.4	21.6	74.0
Box - SRS B-25 OP	10.8	0.0	10.8
Box - Steel	37.6	0.0	37.6
SWB Dir Ld w/ Liner	11.3	0.0	11.3
Current Form Total	112.2	21.6	133.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	39.3	21.6	60.9
SLB2 (5' x 5' x 8) Dir Ld	175.5	0.0	175.5
SWB Dir Ld w/o Liner	11.3	0.0	11.3
TDOP w/ 10 - 55-gal Drums w/ Liners	27.0	0.0	27.0
Final Form Total	253.1	21.6	274.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	7.89
Aluminum-based Metals/Alloys	0.58
Other Metals	1.59
Other Inorganic Materials	15.93
Cellulosics	3.98
Rubber	2.97
Plastics	39.46
Cements	0.00
Inorganic Matrix	0.07
Organic Matrix	0.07
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	196.27
Packaging Material, Plastic	9.89
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.15E-02
Cm-244	7.33E-05
Cs-137	7.33E-03
Np-237	2.34E-04
Pu-238	6.22E+00
Pu-239	7.94E-02
Pu-240	2.09E-02
Pu-241	6.70E-01
Pu-242	1.07E-05
Sr-90	4.25E-03
Th-229	2.28E-09
Th-230	4.37E-08
Th-232	2.61E-16
U-233	6.07E-06
U-234	1.25E-03
U-235	2.96E-06
U-236	1.32E-06
U-238	9.16E-06

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D022, D028, D029,
F002, F003, F005

TRUCON Code(s)

125/225, 154

Waste Stream Description

Combined waste from former W027-772F-HET and T001-772F-HET. This waste stream is defense related, contact handled TRU waste and is composed of Job Control waste, sludges and resins, HEPA filters and metal equipment.

Waste Stream ID: **SR-W026-772F-HET-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5300	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-SR-W026-772F-HE	9.6
55-gal Drum Dir Ld w/o Liner	WP-SR-W026-772F-HE	20.2
SWB w/ 4 - 55-gal Drums w/ Liners	WP-SR-W026-772F-HE	34.0
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-SR-W026-772F-HE	1516.5
Shipped Total		1580.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	4.28
Aluminum-based Metals/Alloys	0.32
Other Metals	0.38
Other Inorganic Materials	9.42
Cellulosics	2.55
Rubber	1.95
Plastics	21.64
Cements	0.00
Inorganic Matrix	0.03
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.37E-01
Am-243	1.14E-06
Cm-244	6.03E-05
Cs-137	8.46E-05
Np-237	1.25E-04
Pu-238	4.84E+00
Pu-239	2.45E-01
Pu-240	6.35E-02
Pu-241	1.18E+00
Pu-242	2.29E-05
Sr-90	8.00E-05
Th-229	1.68E-08
Th-230	2.27E-08
Th-232	3.50E-07
U-233	4.78E-05
U-234	8.61E-04
U-235	9.58E-07
U-236	5.65E-09
U-238	6.88E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D028, D029, F002, F003, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **SR-W027-221F-HET****Appendix A****TRU Waste Inventory Profile Report**

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 221F				Activity Concentrations Decayed to CY	2008	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	49.1	0.0	49.1
Box - SRS Black Box	384.3	0.0	384.3
Box - Steel	52.8	0.0	52.8
Current Form Total	486.2	0.0	486.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	36.8	0.0	36.8
SLB2 (5' x 5' x 8) Dir Ld	464.1	0.0	464.1
TDOP w/ 10 - 55-gal Drums w/ Liners	27.0	0.0	27.0
Final Form Total	527.9	0.0	527.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	10.87
Aluminum-based Metals/Alloys	0.63
Other Metals	0.82
Other Inorganic Materials	4.40
Cellulosics	3.71
Rubber	9.30
Plastics	32.87
Cements	0.00
Inorganic Matrix	0.19
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	211.13
Packaging Material, Plastic	3.45
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.25E-01
Np-237	6.11E-07
Pu-238	7.16E-01
Pu-239	1.26E+00
Pu-240	2.99E-01
Pu-241	1.14E+01
Pu-242	1.73E-04
Th-229	9.50E-16
Th-230	2.35E-10
Th-232	5.48E-18
U-233	6.23E-12
U-234	1.04E-05
U-235	6.23E-09
U-236	4.44E-08
U-238	1.30E-13

Haz. Waste No(s).

D005, D006, D007, D008, D009, D011, D018, D019, D022, D029, D039, D040, D043, F001, F002, F003, F005, U002, U151

TRUCON Code(s)

125/225, 133/233, 154

Waste Stream Description

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste. This stream differs from SR-W026 because solvent rags are suspected to be in the waste.

Waste Stream ID: **SR-W027-221F-HETA-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5440	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-SR-W027-221F-HE	169.5
55-gal Drum Dir Ld w/o Liner	WP-SR-W027-221F-HE	13.7
SWB w/ 4 - 55-gal Drums w/ Liners	WP-SR-W027-221F-HE	228.7
SWB w/ 4 - 55-gal Drums w/o Liners	WP-SR-W027-221F-HE	1.9
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-SR-W027-221F-HE	1750.5
Shipped Total		2164.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	9.07
Aluminum-based Metals/Alloys	0.41
Other Metals	0.08
Other Inorganic Materials	4.87
Cellulosics	4.97
Rubber	3.58
Plastics	34.07
Cements	0.00
Inorganic Matrix	0.01
Organic Matrix	0.01
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.49E-01
Am-243	4.88E-08
Cm-244	2.64E-06
Cs-137	1.01E-03
Np-237	4.93E-06
Pu-238	2.99E-01
Pu-239	1.07E+00
Pu-240	3.32E-01
Pu-241	5.75E+00
Pu-242	5.34E-05
Sr-90	2.46E-07
Th-229	3.39E-08
Th-230	5.30E-09
Th-232	5.71E-08
U-233	7.24E-05
U-234	1.20E-04
U-235	7.01E-08
U-236	4.93E-08
U-238	1.03E-06

Haz. Waste No(s).

D008, F001, F002,
F003, F005No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **SR-W027-221F-HOM**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3000	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Mixed TRU Absorbed / Stabilized Liquids	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.69
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	1.69
Rubber	0.00
Plastics	5.08
Cements	0.00
Inorganic Matrix	143.92
Organic Matrix	16.93
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.57E+00
Np-237	1.91E-05
Pu-238	2.40E+00
Pu-239	5.07E+00
Pu-240	1.19E+00
Pu-241	1.40E+01
Pu-242	2.06E-04
Th-229	8.63E-13
Th-230	2.78E-08
Th-232	6.84E-16
U-233	1.05E-09
U-234	2.13E-04
U-235	1.40E-07
U-236	9.88E-07
U-238	8.69E-13

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 133/233

Waste Stream Description

CH Mixed TRU Absorbed / Stabilized Liquids

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SR-W027-221H-HEPA**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Filter	Waste Matrix Code	S5410	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH TRU HEPA filters			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - SRS Poly Box	53.9	0.0	53.9
SWB Dir Ld w/o Liner	92.6	0.0	92.6
Current Form Total	146.5	0.0	146.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	247.6	0.0	247.6
Final Form Total	247.6	0.0	247.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	19.51
Aluminum-based Metals/Alloys	34.47
Other Metals	0.00
Other Inorganic Materials	3.90
Cellulosics	0.00
Rubber	0.00
Plastics	7.15
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	153.50
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.41E-03
Am-243	7.49E-07
Cs-137	3.02E-02
Np-237	6.10E-04
Pu-238	2.17E+01
Pu-239	2.75E-02
Pu-240	1.23E-02
Pu-241	5.63E-01
Pu-242	1.73E-05
Sr-90	7.19E-03
Th-229	1.07E-08
Th-230	1.48E-09
Th-232	2.53E-16
U-233	5.69E-05
U-234	1.44E-04
U-235	2.26E-07
U-236	2.56E-06
U-238	1.59E-06

Haz. Waste No(s).

D006, D008, D009, D019, D022, D029, D035, D039, D040, D043

TRUCON Code(s)

119/219

Waste Stream Description

This waste stream is defense related, contact handled mixed TRU and is composed of HEPA filters

Waste Stream ID: **SR-W027-221H-HET****Appendix A****TRU Waste Inventory Profile Report**

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 221H			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	166.2	138.3	304.5
Box - FRP	10.7	0.0	10.7
Box - Steel	32.9	0.0	32.9
Cask - Misc	14.3	0.0	14.3
Cask - SRS CMISC	1.2	0.0	1.2
SWB Dir Ld w/ Liner	66.2	24.6	90.7
Current Form Total	291.4	162.9	454.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	124.6	138.3	262.9
SLB2 (5' x 5' x 8) Dir Ld	283.0	84.9	367.9
SWB Dir Ld w/o Liner	66.2	9.5	75.6
TDOP w/ 10 - 55-gal Drums w/ Liners	90.0	0.0	90.0
Final Form Total	563.7	232.7	796.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.18
Aluminum-based Metals/Alloys	0.25
Other Metals	4.45
Other Inorganic Materials	2.77
Cellulosics	10.88
Rubber	19.53
Plastics	48.16
Cements	0.00
Inorganic Matrix	2.73
Organic Matrix	2.23
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	183.86
Packaging Material, Plastic	14.15
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.76E-02
Am-243	3.66E-07
Cs-137	1.17E-02
Np-237	5.32E-03
Pu-238	1.65E+02
Pu-239	7.47E-01
Pu-240	2.13E-01
Pu-241	3.78E+00
Pu-242	8.88E-05
Sr-90	5.99E-03
Th-229	2.42E-09
Th-230	6.17E-08
Th-232	5.50E-15
U-233	6.51E-06
U-234	2.66E-03
U-235	2.15E-05
U-236	2.78E-05
U-238	2.00E-06

Haz. Waste No(s).

D006, D008, D009, D019, D022, D029, D039, D040, D043, F001, F002, F003, F005, U133

TRUCON Code(s)

125/225

Waste Stream Description

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste. This stream differs from SR-W026 because solvent rags are suspected to be in the waste. Small HEPA filters, sludges, resins, absorbed liquids, and large metal equipment are also in these waste streams.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SR-W027-221H-HET-RH**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Remote Handled (RH) Mixed TRU Debris (S5000)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.5	0.0	2.5
Cask - Misc	2.6	0.0	2.6
Current Form Total	5.1	0.0	5.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	7.1	0.0	7.1
Final Form Total	7.1	0.0	7.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	4.91
Aluminum-based Metals/Alloys	1.04
Other Metals	18.54
Other Inorganic Materials	11.52
Cellulosics	45.30
Rubber	81.34
Plastics	200.57
Cements	0.00
Inorganic Matrix	11.36
Organic Matrix	9.29
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.45E-02
Np-237	2.74E-01
Pu-238	5.83E+01
Pu-239	6.30E-02
Pu-240	3.15E-02
Pu-241	4.16E-01
Pu-242	3.58E-05
Th-229	4.38E-08
Th-230	6.80E-07
Th-232	2.72E-15
U-233	3.34E-05
U-234	5.20E-03
U-235	1.38E-05
U-236	1.98E-06
U-238	6.21E-09

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

RH Mixed TRU waste resulting from maintenance / D&D operations from the HBL and H-Canyon facilities

Waste Stream ID: **SR-W027-221H-HET-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5440	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-SR-W027-221H-HE	31.8
55-gal Drum Dir Ld w/o Liner	WP-SR-W027-221H-HE	28.9
SWB w/ 4 - 55-gal Drums w/ Liners	WP-SR-W027-221H-HE	317.5
SWB w/ 4 - 55-gal Drums w/o Liners	WP-SR-W027-221H-HE	1.9
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-SR-W027-221H-HE	2686.5
TDOP w/ 10 - 55-gal Drums w/o Liners	WP-SR-W027-221H-HE	18.0
Shipped Total		3084.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	10.66
Aluminum-based Metals/Alloys	0.53
Other Metals	0.17
Other Inorganic Materials	4.18
Cellulosics	2.80
Rubber	7.83
Plastics	25.31
Cements	0.00
Inorganic Matrix	0.05
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.65E-02
Am-243	7.96E-06
Cm-244	2.59E-06
Cs-137	4.98E-06
Np-237	4.10E-04
Pu-238	2.58E+01
Pu-239	6.67E-02
Pu-240	2.01E-02
Pu-241	3.06E+00
Pu-242	1.25E-05
Sr-90	4.96E-06
Th-229	8.75E-08
Th-230	1.73E-07
Th-232	1.76E-06
U-233	2.33E-04
U-234	4.97E-03
U-235	1.16E-06
U-236	2.38E-09
U-238	1.47E-06

Haz. Waste No(s).

D006, D008, D009,
D019, D022, D029,
D039, D040, D043,
F001, F002, F003,
F005, U133

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **SR-W027-221H-HOM**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3000	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Mixed TRU Absorbed / Stabilized Liquids			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	12.19
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	12.19
Cements	0.00
Inorganic Matrix	219.38
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.47E-02
Cs-137	8.71E-03
Np-237	8.24E-07
Pu-238	1.26E+00
Pu-239	1.94E-01
Pu-240	1.01E-01
Pu-241	3.68E-01
Pu-242	3.14E-05
Sr-90	8.54E-03
Th-229	2.38E-13
Th-230	6.52E-07
Th-232	1.36E-15
U-233	1.32E-10
U-234	2.64E-03
U-235	3.02E-05
U-236	1.02E-06
U-238	2.89E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

CH Mixed TRU Absorbed / Stabilized Liquids

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SR-W027-235F-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 235F			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	95.3	0.0	95.3
Box - SRS Black Box	42.7	0.0	42.7
Box - SRS Poly Box	14.5	0.0	14.5
Box - Steel	28.2	0.0	28.2
Cask - SRS CMISC	1.2	0.0	1.2
MSMS	13.3	0.0	13.3
SWB Dir Ld w/ Liner	28.4	0.0	28.4
Current Form Total	223.5	0.0	223.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	71.6	0.0	71.6
SLB2 (5' x 5' x 8) Dir Ld	277.3	0.0	277.3
SWB Dir Ld w/o Liner	69.9	0.0	69.9
TDOP w/ 10 - 55-gal Drums w/ Liners	49.5	0.0	49.5
Final Form Total	468.3	0.0	468.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	31.89
Aluminum-based Metals/Alloys	0.46
Other Metals	0.57
Other Inorganic Materials	5.35
Cellulosics	7.40
Rubber	14.47
Plastics	53.08
Cements	0.00
Inorganic Matrix	0.01
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	195.50
Packaging Material, Plastic	7.46
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.91E-02
Np-237	3.29E-03
Pu-238	1.39E+02
Pu-239	1.27E-01
Pu-240	6.62E-02
Pu-241	6.23E+00
Pu-242	6.82E-05
Th-229	1.23E-11
Th-230	1.83E-08
Th-232	4.36E-19
U-233	6.53E-08
U-234	1.27E-03
U-235	7.21E-08
U-236	5.89E-09
U-238	1.28E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, F002, F003

TRUCON Code(s)

125/225, 154

Waste Stream Description

This waste stream is defense related contact handled mixed TRU waste. This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste, small HEPAs, liquids, sludges and resins may also be found in this stream..

Waste Stream ID: **SR-W027-235F-HET-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-SR-W027-235F-HE	14.1
55-gal Drum Dir Ld w/o Liner	WP-SR-W027-235F-HE	6.4
SWB w/ 4 - 55-gal Drums w/ Liners	WP-SR-W027-235F-HE	34.0
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-SR-W027-235F-HE	459.0
Shipped Total		513.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	19.55
Aluminum-based Metals/Alloys	0.82
Other Metals	0.40
Other Inorganic Materials	4.72
Cellulosics	3.94
Rubber	14.07
Plastics	28.06
Cements	0.00
Inorganic Matrix	0.05
Organic Matrix	0.01
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.25E-01
Am-243	1.97E-07
Cm-244	1.07E-05
Cs-137	8.66E-07
Np-237	1.46E-03
Pu-238	4.31E+01
Pu-239	8.78E-02
Pu-240	4.68E-02
Pu-241	3.14E+00
Pu-242	2.76E-05
Sr-90	8.65E-07
Th-229	3.78E-10
Th-230	1.46E-07
Th-232	1.65E-06
U-233	2.02E-06
U-234	8.27E-03
U-235	2.90E-06
U-236	2.77E-09
U-238	1.03E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, F002, F003

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **SR-W027-235F-HOMO**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S3000	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH mixed TRU S3000 solids from 235F			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	3.50
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	3.50
Cellulosics	3.50
Rubber	3.50
Plastics	10.51
Cements	0.00
Inorganic Matrix	325.87
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.21E-01
Np-237	9.93E-07
Pu-238	2.27E+02
Pu-239	1.82E-01
Pu-240	9.89E-02
Pu-241	2.36E+00
Pu-242	1.17E-04
Th-229	1.68E-14
Th-230	9.15E-07
Th-232	2.10E-17
U-233	3.34E-11
U-234	1.17E-02
U-235	3.05E-09
U-236	4.99E-08
U-238	3.00E-13

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

This waste consists of sludge from tank cleanout.

Waste Stream ID: **SR-W027-773A-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 773A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	43.1	190.5	233.6
Box - FRP	3.3	0.0	3.3
Box - Misc	6.2	0.0	6.2
Box - SRS B-25 OP	7.2	0.0	7.2
Box - SRS Poly Box	2.9	0.0	2.9
Box - Steel	47.0	0.0	47.0
Cask - Misc	52.0	0.0	52.0
Cask - SRS CMISC	2.4	0.0	2.4
PMISC	4.9	0.0	4.9

Current Form Total	168.9	190.5	359.4
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Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	32.2	190.5	222.8
SLB2 (5' x 5' x 8) Dir Ld	486.8	0.0	486.8
SWB Dir Ld w/o Liner	7.6	0.0	7.6
TDOP w/ 10 - 55-gal Drums w/ Liners	22.5	0.0	22.5
Final Form Total	549.1	190.5	739.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	38.62
Aluminum-based Metals/Alloys	1.84
Other Metals	4.80
Other Inorganic Materials	19.06
Cellulosics	11.32
Rubber	6.64
Plastics	40.46
Cements	0.00
Inorganic Matrix	0.12
Organic Matrix	0.12
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	190.38
Packaging Material, Plastic	11.66
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.90E-02
Am-243	4.51E-03
Cm-244	4.01E-01
Cs-137	1.19E-01
Np-237	7.23E-05
Pu-238	2.51E+00
Pu-239	4.16E-02
Pu-240	1.15E-02
Pu-241	2.20E-01
Pu-242	3.45E-06
Pu-244	5.14E-16
Sr-90	8.57E-02
Th-229	3.04E-09
Th-230	4.94E-10
Th-232	2.02E-16
U-233	1.08E-05
U-234	2.91E-05
U-235	2.38E-07
U-236	1.36E-06
U-238	4.38E-08

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D043, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

This waste stream is defense related contact handled mixed TRU waste. This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, other job control waste, small HEPAs liquids, sludges and resins may also be found in this waste.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SR-W027-773A-HET-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-SR-W027-773A-HE	7.1
55-gal Drum Dir Ld w/o Liner	WP-SR-W027-773A-HE	17.7
SWB w/ 4 - 55-gal Drums w/ Liners	WP-SR-W027-773A-HE	3.8
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-SR-W027-773A-HE	535.5
TDOP w/ 10 - 55-gal Drums w/o Liners	WP-SR-W027-773A-HE	13.5
Shipped Total		577.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	15.42
Aluminum-based Metals/Alloys	0.22
Other Metals	0.75
Other Inorganic Materials	9.20
Cellulosics	4.59
Rubber	4.02
Plastics	16.98
Cements	0.00
Inorganic Matrix	0.06
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.00E-01
Am-243	7.97E-04
Cm-244	5.05E-02
Cs-137	1.79E-04
Np-237	3.12E-04
Pu-238	6.69E+00
Pu-239	2.33E-01
Pu-240	5.43E-02
Pu-241	1.18E+00
Pu-242	6.07E-06
Sr-90	1.79E-04
Th-229	8.26E-09
Th-230	2.17E-08
Th-232	4.70E-07
U-233	4.40E-05
U-234	1.23E-03
U-235	6.34E-07
U-236	3.22E-09
U-238	9.54E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D043, F002, F003, F004, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SR-W027-999-AGNS-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	SR-AGNS-HET Debris	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	8.9	0.0	8.9
Current Form Total	8.9	0.0	8.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	6.7	0.0	6.7
TDOP w/ 10 - 55-gal Drums w/ Liners	4.5	0.0	4.5
Final Form Total	11.2	0.0	11.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	43.73
Aluminum-based Metals/Alloys	0.00
Other Metals	4.62
Other Inorganic Materials	32.51
Cellulosics	36.64
Rubber	9.41
Plastics	37.79
Cements	0.00
Inorganic Matrix	0.33
Organic Matrix	0.17
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	171.54
Packaging Material, Plastic	28.97
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.83E-02
Cs-137	1.07E-02
Np-237	1.03E-07
Pu-238	3.34E-02
Pu-239	7.05E-02
Pu-240	1.78E-02
Pu-241	1.97E-01
Pu-242	2.86E-06
Sr-90	7.41E-03
Th-229	3.25E-15
Th-230	5.06E-09
Th-232	4.70E-15
U-233	4.64E-12
U-234	2.15E-05
U-235	2.79E-07
U-236	3.40E-06
U-238	1.08E-08

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D011, D019, D022, D029, F002, F005

TRUCON Code(s)

125/225

Waste Stream Description

This waste is comprised of numerous organic and inorganic debris waste and generally consists of paper, cloth, wood, plastic, rubber, glass, and metal.

Waste Stream ID: **SR-W027-999-AGNS-HOM**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3000	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	SR-AGNS-HOM	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	61.52
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	816.06
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.14E-01
Np-237	5.18E-04
Pu-238	4.93E-01
Pu-239	1.04E+00
Pu-240	2.44E-01
Pu-241	2.88E+00
Pu-242	4.23E-05
Th-229	8.22E-11
Th-230	2.25E-08
Th-232	1.41E-16
U-233	6.27E-08
U-234	1.10E-04
U-235	3.35E-06
U-236	2.03E-07
U-238	7.11E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D011, F005
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TRUCON Code(s)

111/211

Waste Stream Description

This waste is comprised of aqueous liquids solidified with lime and cement in a 55-gallon drum and aqueous liquid that had been absorbed using Florco-X and then later solidified with cement and water inside a 55-gallon drum.

Waste Stream ID: **SR-W027-999-LASL-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Source Information Not Compiled	Defense Determination	Likely Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Mixed TRU Debris (S5000)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	22.1	0.0	22.1
Current Form Total	22.1	0.0	22.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	124.8	0.0	124.8
Final Form Total	124.8	0.0	124.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	10.23
Aluminum-based Metals/Alloys	0.15
Other Metals	0.18
Other Inorganic Materials	1.72
Cellulosics	2.37
Rubber	4.64
Plastics	16.81
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.20E-01
Np-237	6.02E-06
Pu-238	2.06E+02
Pu-239	1.93E-01
Pu-240	1.20E-01
Pu-241	2.14E+00
Pu-242	1.38E-04
Th-229	4.51E-13
Th-230	4.13E-06
Th-232	1.14E-16
U-233	4.27E-10
U-234	2.43E-02
U-235	6.87E-09
U-236	1.28E-07
U-238	7.50E-13

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225

Waste Stream Description

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SR-W027-999-LASL-HOM**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3000	Handling	CH
Source Cat.	Source Information Not Compiled	Defense Determination	Likely Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Mixed TRU Solids (S3000)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	5.1	0.0	5.1
Current Form Total	5.1	0.0	5.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	18.7	0.0	18.7
Final Form Total	18.7	0.0	18.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.73
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	15.88
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.33E+00
Np-237	1.30E-05
Pu-238	6.22E+02
Pu-239	5.82E-01
Pu-240	3.35E-01
Pu-241	4.51E+00
Pu-242	3.92E-04
Th-229	9.77E-13
Th-230	1.25E-05
Th-232	3.19E-16
U-233	9.23E-10
U-234	7.35E-02
U-235	2.07E-08
U-236	3.58E-07
U-238	2.13E-12

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Plutonium Oxide Scrap

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SR-W027-999-MD-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from offsite			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	159.1	0.0	159.1
83-gal Drum	18.9	0.0	18.9
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	4.5	0.0	4.5
Box - Misc	117.8	0.0	117.8
Box - Steel	211.2	0.0	211.2
SWB Dir Ld w/ Liner	30.2	0.0	30.2
Current Form Total	541.8	0.0	541.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	55.3	0.0	55.3
SLB2 (5' x 5' x 8) Dir Ld	849.0	0.0	849.0
SWB Dir Ld w/o Liner	30.2	0.0	30.2
TDOP w/ 10 - 55-gal Drums w/ Liners	274.5	0.0	274.5
Final Form Total	1209.1	0.0	1209.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	67.13
Aluminum-based Metals/Alloys	1.64
Other Metals	2.88
Other Inorganic Materials	6.46
Cellulosics	0.89
Rubber	1.31
Plastics	3.04
Cements	0.00
Inorganic Matrix	19.99
Organic Matrix	1.37
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	214.34
Packaging Material, Plastic	3.88
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.09E-01
Cm-244	4.09E-07
Cs-137	1.03E-08
Np-237	9.74E-07
Pu-238	1.14E+02
Pu-239	1.10E-01
Pu-240	6.01E-02
Pu-241	6.14E-01
Pu-242	6.86E-05
Pu-244	1.35E-18
Sr-90	1.01E-08
Th-229	3.63E-08
Th-230	2.28E-06
Th-232	5.72E-17
U-233	1.08E-05
U-234	1.34E-02
U-235	3.07E-08
U-236	6.43E-08
U-238	1.32E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D030, D032, D034, D037, D043, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste.

Waste Stream ID: **SR-W027-999-MD-HOM-A**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3113	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Mixed TRU Solids (S3000)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.7	0.0	1.7
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	1.0	0.0	1.0
Current Form Total	2.6	0.0	2.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.7	0.0	2.7
Final Form Total	2.7	0.0	2.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	7.63
Aluminum-based Metals/Alloys	0.00
Other Metals	11.40
Other Inorganic Materials	25.05
Cellulosics	3.04
Rubber	0.09
Plastics	19.53
Cements	0.00
Inorganic Matrix	149.87
Organic Matrix	4.94
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.99E-02
Np-237	3.38E-05
Pu-238	3.62E+01
Pu-239	2.57E-02
Pu-240	2.06E-03
Pu-241	2.45E-02
Th-229	6.14E-12
Th-230	6.98E-07
Th-232	1.36E-18
U-233	4.37E-09
U-234	4.26E-03
U-235	3.98E-07
U-236	1.83E-09

Haz. Waste No(s).

D006, D007, D008

No TRUCON
Codes Provided

Waste Stream Description

Aqueous liquids absorbed in polyethylene bottles.

Waste Stream ID: **SR-W027-999-MD-HOM-B**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Mixed TRU Solids (S3000)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Steel	4.2	0.0	4.2
Current Form Total	4.2	0.0	4.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
SLB2 (5' x 5' x 8) Dir Ld	22.6	0.0	22.6
Final Form Total	22.6	0.0	22.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.74
Aluminum-based Metals/Alloys	0.00
Other Metals	1.11
Other Inorganic Materials	2.44
Cellulosics	0.30
Rubber	0.01
Plastics	1.90
Cements	0.00
Inorganic Matrix	14.60
Organic Matrix	0.48
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	216.30
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.95E-04
Np-237	2.22E-08
Pu-238	9.08E-03
Th-229	3.83E-15
Th-230	1.22E-10
U-233	2.77E-12
U-234	8.73E-07

Haz. Waste No(s).

D004, D006, D007,
D008, D009, D011,
F002, F003, F006,
F007, F009

**No TRUCON
Codes Provided**

Waste Stream Description

Waste water treatment sludge.

Waste Stream ID: **SR-W027-999-MD-HOM-C**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3000	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Mixed TRU Solids (S3000)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
Current Form Total	0.9	0.0	0.9

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	5.40
Aluminum-based Metals/Alloys	0.00
Other Metals	8.06
Other Inorganic Materials	17.73
Cellulosics	2.15
Rubber	0.06
Plastics	13.82
Cements	0.00
Inorganic Matrix	106.06
Organic Matrix	3.50
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.67E-04
Np-237	6.64E-09
Pu-238	1.98E-01
Pu-239	7.92E-05
Pu-242	4.39E-09
Th-229	4.10E-16
Th-230	2.67E-09
U-233	4.36E-13
U-234	1.91E-05
U-235	2.34E-12
U-238	1.02E-17

Haz. Waste No(s).

D004, D006, D007,
D008, D009, D011,
F002, F003No TRUCON
Codes Provided

Waste Stream Description

Not yet incorporated into an AK Report

Waste Stream ID: **SR-W027-999-MD-SOIL**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Soils	Waste Matrix Code	S4200	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Mixed TRU Soil / Gravel (S4000)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.9	0.0	2.9
Box - Steel	18.4	0.0	18.4
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Current Form Total	23.2	0.0	23.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.8	0.0	0.8
SLB2 (5' x 5' x 8) Dir Ld	79.2	0.0	79.2
SWB Dir Ld w/o Liner	1.9	0.0	1.9
TDOP w/ 10 - 55-gal Drums w/ Liners	4.5	0.0	4.5
Final Form Total	86.5	0.0	86.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.20
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	3.95
Soils/gravel	178.72
Vitrified	0.00
Packaging Material, Steel	214.91
Packaging Material, Plastic	0.89
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.42E-04
Cs-137	8.14E-08
Np-237	4.30E-07
Pu-238	5.43E-02
Pu-239	1.87E-03
Pu-242	3.65E-11
Sr-90	7.97E-08
Th-229	7.86E-14
Th-230	7.31E-10
U-233	5.59E-11
U-234	5.21E-06
U-235	5.53E-11
U-238	8.46E-20

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, F002, F003, F004, F005, F007, F009

TRUCON Code(s)

111/211

Waste Stream Description

Soil mixed with absorbant and some commingled debris.

Waste Stream ID: **SR-W027-FB-PRE86-C-S**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5300	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Shipped Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	WP-SR-W027-FB-PRE8	190.3
55-gal Drum Dir Ld w/o Liner	WP-SR-W027-FB-PRE8	29.5
SWB w/ 4 - 55-gal Drums w/ Liners	WP-SR-W027-FB-PRE8	497.1
SWB w/ 4 - 55-gal Drums w/o Liners	WP-SR-W027-FB-PRE8	15.1
TDOP w/ 10 - 55-gal Drums w/ Liners	WP-SR-W027-FB-PRE8	2070.0
TDOP w/ 10 - 55-gal Drums w/o Liners	WP-SR-W027-FB-PRE8	4.5
Shipped Total		2806.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	12.42
Aluminum-based Metals/Alloys	0.13
Other Metals	0.17
Other Inorganic Materials	4.12
Cellulosics	4.38
Rubber	4.17
Plastics	30.49
Cements	0.00
Inorganic Matrix	0.05
Organic Matrix	0.02
Soils/gravel	0.00
Vitrified	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.16E-01
Am-243	2.51E-07
Cm-244	6.21E-04
Cs-137	4.24E-07
Np-237	2.28E-05
Pu-238	1.49E-01
Pu-239	1.48E+00
Pu-240	3.67E-01
Pu-241	4.95E+00
Pu-242	8.07E-05
Sr-90	4.11E-07
Th-229	2.68E-09
Th-230	1.57E-09
Th-232	4.64E-08
U-233	7.13E-06
U-234	4.45E-05
U-235	9.22E-08
U-236	4.35E-08
U-238	4.25E-07

Haz. Waste No(s).

D005, D006, D007, D008, D009, D011, D018, D019, D022, D029, D039, D040, D043, F001, F002, F003, F005, U002, U151

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **SR-W027-HBL-Box-A****Appendix A****TRU Waste Inventory Profile Report**

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH mixed TRU from 221H			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - SRS B-25 OP	28.8	0.0	28.8
Box - SRS Black Box	256.2	0.0	256.2
SLB2 (5' x 5' x 8) Dir Ld	1205.6	0.0	1205.6
Current Form Total	1490.6	0.0	1490.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
SLB2 (5' x 5' x 8) Dir Ld	1205.6	0.0	1205.6
Final Form Total	1205.6	0.0	1205.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	78.30
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	6.53
Rubber	6.53
Plastics	39.15
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	216.30
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.43E-03
Cs-137	6.39E-05
Np-237	1.14E-04
Pu-238	7.66E+00
Pu-239	6.20E-03
Pu-240	3.37E-03
Pu-241	7.67E-02
Pu-242	3.98E-06
Sr-90	4.48E-05
Th-229	7.52E-12
Th-230	3.48E-08
Th-232	8.00E-19
U-233	8.91E-09
U-234	4.20E-04
U-235	1.10E-10
U-236	1.80E-09
U-238	1.08E-14

Haz. Waste No(s).

D006, D007, D008, D009

No TRUCON Codes Provided**Waste Stream Description**

This waste stream has been separated from its parent waste stream SR-W027-HBL-Box because a small fraction of the parent waste stream contains sensitive waste. Waste Stream SR-W027-HBL-Box-A contains no sensitive waste. This waste stream is defense related debris consisting of large equipment and job control waste packaged in large steel boxes

Waste Stream ID: **SR-W027-SRSG-HET**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Source Information Not Compiled	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Mixed TRU Debris (S5000)	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	7.9	161.8	169.7
Box - SRS B-25 OP	7.2	0.0	7.2
SWB Dir Ld w/ Liner	3.8	0.0	3.8
Current Form Total	18.9	161.8	180.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	5.8	148.9	154.8
SLB2 (5' x 5' x 8) Dir Ld	11.3	0.0	11.3
SWB Dir Ld w/o Liner	3.8	0.0	3.8
TDOP w/ 10 - 55-gal Drums w/ Liners	4.5	0.0	4.5
Final Form Total	25.4	148.9	174.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	45.16
Aluminum-based Metals/Alloys	45.16
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	5.64
Rubber	5.64
Plastics	11.29
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	139.45
Packaging Material, Plastic	33.28
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.48E-01
Am-243	3.58E-07
Cm-244	9.91E-06
Cs-137	3.32E-04
Np-237	9.15E-05
Pu-238	3.69E+00
Pu-239	2.21E-01
Pu-240	5.20E-02
Pu-241	4.91E+00
Pu-242	1.15E-05
Sr-90	9.45E-03
Th-229	9.78E-10
Th-230	5.83E-08
Th-232	4.82E-15
U-233	3.43E-07
U-234	3.85E-04
U-235	2.69E-07
U-236	3.17E-06
U-238	8.82E-08

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Mixed CH TRU Debris from waste remediation activities and burial ground operations

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **SR-W027-SRSG-HET-RH**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Source Information Not Compiled	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	RH Mixed TRU Debris (S5000)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - SRS Poly Box	0.2	0.0	0.2
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.0	13.4	13.4
SWB Dir Ld w/o Liner	5.7	0.0	5.7
Current Form Total	5.9	13.4	19.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	8.9	13.4	22.3
Final Form Total	8.9	13.4	22.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	95.06
Aluminum-based Metals/Alloys	47.53
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	15.84
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.39E-01
Am-243	5.61E-07
Cm-244	3.96E-03
Cs-137	3.84E-04
Np-237	8.81E-07
Pu-238	8.37E+00
Pu-239	1.60E-01
Pu-240	9.62E-02
Pu-241	1.25E+00
Pu-242	1.61E-04
Sr-90	4.51E-04
Th-229	3.44E-14
Th-230	1.21E-07
Th-232	6.78E-17
U-233	4.42E-11
U-234	8.34E-04
U-235	4.88E-09
U-236	8.85E-08
U-238	7.75E-11

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream currently consists of 3 Pu / Be neutron sources and one 2'X2'X1' HEPA filter from the F-Tank farm.

Waste Stream ID: **SR-W027-SRSG-HOM**

Appendix A

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3000	Handling	CH
Source Cat.	Source Information Not Compiled	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH Mixed TRU Solids (S3000)			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	15.6	0.0	15.6
SWB w/ 4 - 55-gal Drums w/ Liners	3.8	0.0	3.8
Current Form Total	19.4	0.0	19.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	11.6	0.0	11.6
SWB w/ 4 - 55-gal Drums w/ Liners	3.8	0.0	3.8
TDOP w/ 10 - 55-gal Drums w/ Liners	9.0	0.0	9.0
Final Form Total	24.4	0.0	24.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	2.60
Cements	257.80
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	180.44
Packaging Material, Plastic	26.47
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.79E-01
Am-243	5.45E-05
Cm-244	7.20E-04
Cs-137	4.79E-05
Np-237	4.71E-03
Pu-238	2.85E+01
Pu-239	2.00E+00
Pu-240	2.73E-01
Pu-241	2.72E+00
Pu-242	2.01E-02
Sr-90	4.90E-06
Th-229	5.65E-05
Th-230	1.27E-05
Th-232	2.05E-13
U-233	1.95E-02
U-234	4.69E-02
U-235	3.55E-05
U-236	1.34E-04
U-238	2.13E-03

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Inorganic particulate from CIF stabilized with concrete and sludge material from D&D work in "F" area.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **VN-GEVNC.01****Appendix A****TRU Waste Inventory Profile Report**

Site	GE - Vallecitos Nuclear Center	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	RH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Heterogeneous debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Hot Cell	15.0	0.0	15.0
Current Form Total	15.0	0.0	15.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	21.4	0.0	21.4
Final Form Total	21.4	0.0	21.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	63.30
Aluminum-based Metals/Alloys	14.40
Other Metals	12.90
Other Inorganic Materials	12.90
Cellulosics	20.10
Rubber	4.31
Plastics	11.50
Cements	0.00
Inorganic Matrix	1.44
Organic Matrix	2.88
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.69E-02
Cs-137	1.79E-02
Pu-238	2.03E-04
Pu-239	1.41E-03
Pu-240	6.59E-04
Pu-241	7.60E-03
Pu-242	3.89E-07
Sr-90	5.39E-03
U-233	1.10E-08
U-234	2.71E-06
U-235	9.80E-08
U-238	4.98E-08

Haz. Waste No(s).D007, D008, D009,
F002, F005**TRUCON Code(s)**

321, 325

Waste Stream Description

The waste will be generated from the refurbishment of an alpha high-level hot cell.

Waste Stream ID: **VN-GEVNC.02****Appendix A****TRU Waste Inventory Profile Report**

Site	GE - Vallecitos Nuclear Center	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Heterogeneous debris			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Hot Cell	2.0	0.0	2.0
Current Form Total	2.0	0.0	2.0

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	9.06
Aluminum-based Metals/Alloys	2.06
Other Metals	1.85
Other Inorganic Materials	1.85
Cellulosics	2.88
Rubber	0.62
Plastics	1.65
Cements	0.00
Inorganic Matrix	0.21
Organic Matrix	0.41
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.24E-02
Cs-137	1.34E-02
Pu-238	1.48E-04
Pu-239	1.14E-03
Pu-240	4.83E-04
Pu-241	5.59E-03
Pu-242	2.85E-07
Sr-90	8.63E-03
U-233	8.08E-09
U-234	1.98E-06
U-235	7.15E-08
U-238	3.65E-08

Haz. Waste No(s).D007, D008, D009,
F002, F005**TRUCON Code(s)**

125/225

Waste Stream Description

This waste will be generated from refurbishment of an alpha high-level hot cell.

APPENDIX B: Emplaced Waste

The following WSPs contain information on waste streams emplaced in the WIPP as of the inventory date, December 31, 2008.

The TRU waste sites that have shipped TRU waste to the WIPP are:

Argonne National Laboratory – East	AE
Idaho National Laboratory	IN
Los Alamos National Laboratory	LA
Lawrence Livermore National Laboratory	LL
Nevada Test Site	NT
Oak Ridge National Laboratory	OR
Rocky Flats Environmental Technology Site	RF
Hanford (Richland Operations) Site	RL
Savannah River Site	SR

Waste Stream ID: **WP-AECHDM**

Appendix B

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - East	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	AECHDM-S	56.6
55-gal Drum Dir Ld w/o Liner	AECHDM-S	0.2
TDOP w/ 10 - 55-gal Drums w/ Liners	AECHDM-S	45.0
Emplaced Total		101.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	78.91
Aluminum-based Metals/Alloys	1.45
Other Metals	6.32
Other Inorganic Materials	6.55
Cellulosics	5.70
Rubber	11.27
Plastics	41.18
Cements	0.00
Inorganic Matrix	1.94
Organic Matrix	0.91
Soils/gravel	0.11
Vitrified	0.00
Packaging Material, Steel	175.45
Packaging Material, Plastic	28.13
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.35E-01
Am-243	1.85E-02
Cm-244	1.10E-03
Cs-137	1.70E-02
Np-237	1.20E-03
Pu-238	6.23E-01
Pu-239	8.40E-01
Pu-240	6.35E-01
Pu-241	8.43E-01
Pu-242	2.57E-04
Pu-244	4.74E-19
Sr-90	1.77E-02
Th-229	8.39E-05
Th-230	3.48E-08
Th-232	1.16E-17
U-233	4.13E-04
U-234	7.79E-04
U-235	1.47E-05
U-236	9.41E-08
U-238	4.33E-04

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D011, D021, D027,
D028, D030, D037,
F001, F002, F003,
F004, F005

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-AECHHM**

Appendix B

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - East	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3110	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	AECHHM-S	9.4
TDOP w/ 10 - 55-gal Drums w/ Liners	AECHHM-S	4.5
Emplaced Total		13.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	355.56
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	163.59
Packaging Material, Plastic	30.54
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.06E+00
Am-243	3.71E-04
Cs-137	9.81E-05
Np-237	1.24E-04
Pu-238	3.18E-01
Pu-239	2.98E+00
Pu-240	1.19E+00
Pu-241	8.53E-13
Pu-242	1.46E-04
Sr-90	1.02E-04
Th-229	2.32E-05
Th-230	1.74E-08
Th-232	2.18E-17
U-233	2.62E-09
U-234	3.89E-04
U-235	7.63E-06
U-236	1.76E-07
U-238	1.94E-04

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D018,
D019, D021, D027,
D028, D030, D035,
D036, D037, F001,
F002, F003, F004,
F005

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-AERHDM**

Appendix B

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - East	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	RH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	AERHDM-S	8.0
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	AERHDM-S	1.8
Emplaced Total		9.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	87.36
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	21.27
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.95E-01
Cs-137	9.19E+00
Np-237	1.26E-07
Pu-238	6.55E-01
Pu-239	2.33E-01
Pu-240	1.57E-01
Pu-241	8.65E+00
Pu-242	3.39E-04
Sr-90	5.97E+00
Th-229	3.19E-12
Th-230	6.76E-09
Th-232	1.15E-19
U-233	3.40E-08
U-234	7.52E-04
U-235	2.36E-05
U-236	4.64E-09
U-238	2.53E-05

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-MU-W002****Appendix B****TRU Waste Inventory Profile Report**

Site	Argonne National Laboratory - East	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
TDOP w/ 10 - 55-gal Drums w/ Liners	MU-W002-S	4.5
Emplaced Total		4.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	7.11
Aluminum-based Metals/Alloys	2.31
Other Metals	0.02
Other Inorganic Materials	2.91
Cellulosics	0.11
Rubber	0.00
Plastics	2.84
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	231.80
Packaging Material, Plastic	17.10
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.55E+00
Am-243	2.53E-04
Cs-137	3.63E-07
Np-237	8.58E-04
Pu-239	5.04E-03
Sr-90	3.78E-07
Th-229	2.44E-04
Th-230	1.20E-15
U-233	1.83E-08
U-234	5.35E-11
U-235	2.49E-11
U-238	3.85E-06

Haz. Waste No(s).

D006, D011

**No TRUCON
Codes Provided****Waste Stream Description**

N/A

Waste Stream ID: **WP-BN004**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	BN004-S	7.1
SWB w/ 4 - 55-gal Drums w/ Liners	BN004-S	253.3
TDOP w/ 10 - 55-gal Drums w/ Liners	BN004-S	81.0
Emplaced Total		341.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.02
Aluminum-based Metals/Alloys	0.00
Other Metals	0.01
Other Inorganic Materials	2.44
Cellulosics	0.03
Rubber	0.02
Plastics	1.79
Cements	0.00
Inorganic Matrix	487.97
Organic Matrix	1.40
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	214.35
Packaging Material, Plastic	16.92
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.08E+00
Cm-244	4.73E-03
Cs-137	7.06E-06
Np-237	5.06E-04
Pu-238	1.46E-01
Pu-239	3.59E+00
Pu-240	8.13E-01
Pu-241	6.42E+00
Pu-242	7.40E-05
Sr-90	1.19E-05
Th-229	2.00E-07
Th-230	8.76E-10
Th-232	5.36E-18
U-233	7.12E-04
U-234	3.31E-05
U-235	7.34E-06
U-236	7.23E-08
U-238	5.68E-06

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-BN161**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	BN161-S	0.6
SWB w/ 4 - 55-gal Drums w/ Liners	BN161-S	3.8
TDOP w/ 10 - 55-gal Drums w/ Liners	BN161-S	54.0
Emplaced Total		58.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.41
Aluminum-based Metals/Alloys	0.00
Other Metals	0.08
Other Inorganic Materials	135.39
Cellulosics	10.80
Rubber	0.00
Plastics	2.19
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	229.38
Packaging Material, Plastic	17.26
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.42E-01
Np-237	1.07E-05
Pu-238	1.66E-01
Pu-239	4.00E+00
Pu-240	9.15E-01
Pu-241	6.00E+00
Pu-242	7.38E-05
Th-229	1.86E-14
Th-230	2.86E-11
Th-232	6.03E-18
U-233	1.34E-10
U-234	1.77E-06
U-235	5.86E-08
U-236	8.14E-08
U-238	3.34E-14

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-BN211**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Filter	Waste Matrix Code	S5410	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	BN211-S	8.7
SWB w/ 4 - 55-gal Drums w/ Liners	BN211-S	54.8
TDOP w/ 10 - 55-gal Drums w/ Liners	BN211-S	459.0
Emplaced Total		522.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.30
Aluminum-based Metals/Alloys	1.80
Other Metals	0.41
Other Inorganic Materials	77.01
Cellulosics	26.02
Rubber	0.02
Plastics	4.13
Cements	0.00
Inorganic Matrix	0.28
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	227.94
Packaging Material, Plastic	17.35
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.30E-01
Am-243	9.80E-09
Cs-137	2.55E-09
Np-237	4.91E-05
Pu-238	1.67E-01
Pu-239	3.96E+00
Pu-240	9.14E-01
Pu-241	5.78E+00
Pu-242	7.63E-05
Sr-90	4.31E-09
Th-229	1.64E-08
Th-230	1.67E-10
Th-232	6.02E-18
U-233	5.82E-05
U-234	6.92E-06
U-235	1.21E-06
U-236	8.13E-08
U-238	8.80E-09

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-BN243**

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TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	BN243-S	2.9
SWB w/ 4 - 55-gal Drums w/ Liners	BN243-S	7.6
TDOP w/ 10 - 55-gal Drums w/ Liners	BN243-S	139.5
Emplaced Total		150.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.05
Aluminum-based Metals/Alloys	0.00
Other Metals	4.29
Other Inorganic Materials	93.81
Cellulosics	0.09
Rubber	0.14
Plastics	14.44
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	228.80
Packaging Material, Plastic	17.45
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.72E-01
Cm-244	8.07E-03
Cs-137	9.03E-10
Np-237	1.76E-05
Pu-238	3.73E-02
Pu-239	7.89E-01
Pu-240	1.77E-01
Pu-241	1.20E+00
Pu-242	1.77E-05
Sr-90	1.52E-09
Th-229	3.21E-14
Th-230	1.67E-10
Th-232	1.17E-18
U-233	2.29E-10
U-234	6.36E-06
U-235	1.61E-06
U-236	1.58E-08
U-238	8.00E-15

Haz. Waste No(s).

D005, D008, D009,
D022, D028, D029,
F001, F002, F005**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-BN252**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5311	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	BN252-S	16.6
SWB w/ 4 - 55-gal Drums w/ Liners	BN252-S	58.6
TDOP w/ 10 - 55-gal Drums w/ Liners	BN252-S	103.5
Emplaced Total		178.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.03
Aluminum-based Metals/Alloys	0.00
Other Metals	30.92
Other Inorganic Materials	2.38
Cellulosics	0.11
Rubber	237.57
Plastics	1.54
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	215.61
Packaging Material, Plastic	18.69
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.02E+00
Cs-137	2.39E-09
Np-237	3.44E-04
Pu-238	2.21E-01
Pu-239	6.36E+00
Pu-240	1.37E+00
Pu-241	1.19E+01
Pu-242	1.48E-04
Sr-90	3.79E-09
Th-229	6.31E-13
Th-230	9.91E-11
Th-232	9.01E-18
U-233	4.49E-09
U-234	4.62E-06
U-235	1.33E-06
U-236	1.22E-07
U-238	6.72E-14

Haz. Waste No(s).

D008, D022, D028,
D029, F001, F002,
F005, F006, F007,
F009**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-BN296**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Lead/Cadmium Metal Waste	Waste Matrix Code	S5112	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	BN296-S	32.0
SWB w/ 4 - 55-gal Drums w/ Liners	BN296-S	28.4
TDOP w/ 10 - 55-gal Drums w/ Liners	BN296-S	414.0
Emplaced Total		474.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	81.20
Aluminum-based Metals/Alloys	0.39
Other Metals	100.88
Other Inorganic Materials	3.05
Cellulosics	2.81
Rubber	0.62
Plastics	1.55
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	223.74
Packaging Material, Plastic	18.40
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.46E+00
Cm-244	2.42E-03
Cs-137	1.87E-08
Np-237	8.36E-05
Pu-238	1.78E-01
Pu-239	3.75E+00
Pu-240	8.34E-01
Pu-241	5.37E+00
Pu-242	8.42E-05
Sr-90	3.36E-08
Th-229	3.35E-09
Th-230	7.52E-11
Th-232	5.50E-18
U-233	1.19E-05
U-234	3.55E-06
U-235	2.11E-03
U-236	7.42E-08
U-238	1.42E-06

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-BN304**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	BN304-S	4.8
SWB w/ 4 - 55-gal Drums w/ Liners	BN304-S	20.8
TDOP w/ 10 - 55-gal Drums w/ Liners	BN304-S	279.0
Emplaced Total		304.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	17.05
Aluminum-based Metals/Alloys	0.03
Other Metals	24.82
Other Inorganic Materials	4.74
Cellulosics	5.09
Rubber	8.27
Plastics	6.55
Cements	0.00
Inorganic Matrix	0.01
Organic Matrix	0.00
Soils/gravel	0.09
Vitrified	0.00
Packaging Material, Steel	228.80
Packaging Material, Plastic	17.36
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.78E-01
Cs-137	1.33E-06
Np-237	7.98E-06
Pu-238	5.01E+01
Pu-239	1.00E-01
Pu-240	7.54E-02
Pu-241	7.81E-01
Pu-242	6.37E-05
Sr-90	2.69E-06
Th-229	1.45E-14
Th-230	6.03E-09
Th-232	4.97E-19
U-233	1.03E-10
U-234	4.38E-04
U-235	1.42E-07
U-236	6.70E-09
U-238	7.84E-05

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-BN510**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
100-gal Drum Dir Ld w/o Liner	BN510-S	5753.6
SWB w/ 4 - 55-gal Drums w/o Liners	BN510-S	1.9
Emplaced Total		5755.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	350.56
Aluminum-based Metals/Alloys	2.01
Other Metals	3.01
Other Inorganic Materials	23.08
Cellulosics	154.14
Rubber	8.72
Plastics	154.57
Cements	0.00
Inorganic Matrix	0.04
Organic Matrix	0.07
Soils/gravel	0.03
Vitrified	0.00
Packaging Material, Steel	113.73
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.56E-01
Am-243	8.94E-09
Cm-244	2.90E-04
Cs-137	1.58E-07
Np-237	1.33E-05
Pu-238	1.99E-01
Pu-239	1.47E+00
Pu-240	3.18E-01
Pu-241	2.42E+00
Pu-242	2.88E-05
Sr-90	2.86E-07
Th-229	3.15E-10
Th-230	1.63E-09
Th-232	2.33E-19
U-233	3.35E-06
U-234	1.81E-04
U-235	1.75E-04
U-236	9.44E-09
U-238	4.88E-06

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-BN835**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3113	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	BN835-S	18.7
SWB w/ 4 - 55-gal Drums w/ Liners	BN835-S	15.1
TDOP w/ 10 - 55-gal Drums w/ Liners	BN835-S	1008.0
Emplaced Total		1041.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.02
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.69
Cellulosics	0.97
Rubber	0.01
Plastics	0.54
Cements	0.00
Inorganic Matrix	239.62
Organic Matrix	0.08
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	229.68
Packaging Material, Plastic	17.45
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.95E-02
Cs-137	8.40E-08
Np-237	6.08E-06
Pu-238	1.64E+00
Pu-239	3.27E-03
Pu-240	2.10E-03
Pu-241	3.49E-02
Pu-242	2.12E-06
Sr-90	1.46E-07
Th-229	1.11E-14
Th-230	1.92E-10
Th-232	1.38E-20
U-233	7.93E-11
U-234	1.42E-05
U-235	1.38E-10
U-236	1.87E-10
U-238	2.06E-07

Haz. Waste No(s).

D007, D008, D009,
F001, F002**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-BN836**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	BN836-S	43.9
SWB w/ 4 - 55-gal Drums w/ Liners	BN836-S	1682.1
Emplaced Total		1726.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.01
Other Inorganic Materials	0.11
Cellulosics	0.09
Rubber	0.00
Plastics	0.19
Cements	0.00
Inorganic Matrix	551.74
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	209.06
Packaging Material, Plastic	16.83
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.36E-03
Cs-137	2.70E-07
Np-237	1.27E-06
Pu-238	1.03E+00
Pu-239	1.60E-03
Pu-240	1.08E-03
Pu-241	5.01E-03
Pu-242	1.24E-06
Sr-90	4.44E-07
Th-229	1.04E-15
Th-230	5.60E-11
Th-232	3.17E-21
U-233	1.11E-11
U-234	6.06E-06
U-235	1.90E-08
U-236	6.42E-11
U-238	7.78E-09

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-BNINW216**

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TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	BNINW216-S	142.9
SWB w/ 4 - 55-gal Drums w/ Liners	BNINW216-S	827.8
TDOP w/ 10 - 55-gal Drums w/ Liners	BNINW216-S	3694.5
Emplaced Total		4665.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.03
Aluminum-based Metals/Alloys	0.00
Other Metals	0.06
Other Inorganic Materials	5.06
Cellulosics	0.01
Rubber	0.02
Plastics	0.49
Cements	0.00
Inorganic Matrix	394.96
Organic Matrix	0.27
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	225.03
Packaging Material, Plastic	17.57
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.60E+00
Cs-137	1.88E-08
Np-237	7.91E-05
Pu-238	4.01E-02
Pu-239	3.90E-01
Pu-240	9.91E-02
Pu-241	1.07E+00
Pu-242	5.34E-05
Sr-90	3.06E-08
Th-229	1.38E-13
Th-230	1.05E-09
Th-232	6.53E-19
U-233	9.94E-10
U-234	3.91E-05
U-235	6.95E-06
U-236	8.81E-09
U-238	3.92E-04

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-BNINW218**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
SWB w/ 4 - 55-gal Drums w/ Liners	BNINW218-S	45.4
TDOP w/ 10 - 55-gal Drums w/ Liners	BNINW218-S	409.5
Emplaced Total		454.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.03
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	33.23
Cellulosics	0.01
Rubber	0.01
Plastics	2.84
Cements	0.00
Inorganic Matrix	347.94
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	229.74
Packaging Material, Plastic	17.02
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.37E-02
Cs-137	2.19E-08
Np-237	5.74E-04
Pu-238	4.99E-03
Pu-239	9.94E-02
Pu-240	2.05E-02
Pu-241	1.88E-01
Pu-242	3.00E-06
Sr-90	3.57E-08
Th-229	1.83E-12
Th-230	1.67E-09
Th-232	2.40E-19
U-233	9.75E-09
U-234	4.64E-05
U-235	4.69E-06
U-236	2.43E-09
U-238	4.06E-04

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-ID-ANLE-S5000**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	RH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	ID-ANLE-S5000-S	112.1
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	ID-ANLE-S5000-S	51.6
Emplaced Total		163.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	82.57
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	17.80
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.84E-01
Cs-137	3.36E+00
Np-237	5.89E-08
Pu-238	9.61E-02
Pu-239	3.46E-01
Pu-240	1.83E-01
Pu-241	2.69E+00
Pu-242	5.42E-03
Sr-90	2.52E+00
Th-229	8.59E-08
Th-230	1.00E-08
Th-232	1.34E-19
U-233	9.15E-04
U-234	1.12E-03
U-235	3.96E-05
U-236	5.42E-09
U-238	6.71E-06

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-ID-RF-BNL-ASH**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3111	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/o Liner	ID-RF-BNL-ASH-S	0.2
Emplaced Total		0.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	9.62
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	37.02
Cellulosics	0.00
Rubber	0.00
Plastics	7.69
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.02E-01
Np-237	9.28E-06
Pu-238	1.17E-01
Pu-239	3.52E+00
Pu-240	8.08E-01
Pu-241	4.78E+00
Pu-242	6.47E-05
Th-229	1.62E-14
Th-230	1.36E-11
Th-232	5.33E-18
U-233	1.17E-10
U-234	1.01E-06
U-235	1.04E-08
U-236	7.19E-08
U-238	2.93E-14

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

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

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Organics	Waste Matrix Code	S3114	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
SWB Dir Ld w/o Liner	ID-RF-S3114-S	22.7
SWB w/ 4 - 55-gal Drums w/ Liners	ID-RF-S3114-S	35.9
TDOP w/ 10 - 55-gal Drums w/ Liners	ID-RF-S3114-S	670.5
Emplaced Total		729.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.86
Aluminum-based Metals/Alloys	0.00
Other Metals	1.04
Other Inorganic Materials	4.11
Cellulosics	0.06
Rubber	0.65
Plastics	1.66
Cements	0.00
Inorganic Matrix	0.22
Organic Matrix	353.39
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	228.34
Packaging Material, Plastic	16.53
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.81E-02
Cs-137	1.08E-08
Np-237	6.58E-07
Pu-238	3.34E-03
Pu-239	9.16E-02
Pu-240	1.86E-02
Pu-241	1.77E-01
Pu-242	1.95E-06
Sr-90	1.71E-08
Th-229	5.28E-16
Th-230	6.81E-11
Th-232	5.46E-20
U-233	5.66E-12
U-234	3.80E-06
U-235	1.09E-07
U-236	1.11E-09
U-238	6.68E-06

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-ID-RF-S3150-A**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	ID-RF-S3150-A-S	91.1
SWB w/ 4 - 55-gal Drums w/ Liners	ID-RF-S3150-A-S	92.6
TDOP w/ 10 - 55-gal Drums w/ Liners	ID-RF-S3150-A-S	18.0
Emplaced Total		201.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.01
Aluminum-based Metals/Alloys	0.00
Other Metals	21.17
Other Inorganic Materials	4.29
Cellulosics	0.00
Rubber	1.93
Plastics	3.23
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	666.31
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	176.68
Packaging Material, Plastic	25.72
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.86E-01
Cs-137	8.56E-08
Np-237	8.67E-06
Pu-238	3.45E-02
Pu-239	7.55E-01
Pu-240	1.66E-01
Pu-241	1.52E+00
Pu-242	1.41E-05
Sr-90	1.46E-07
Th-229	1.57E-14
Th-230	7.54E-08
Th-232	1.09E-18
U-233	1.12E-10
U-234	2.79E-03
U-235	4.88E-07
U-236	1.48E-08
U-238	9.14E-07

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-ID-RF-S5100-A**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5100	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	ID-RF-S5100-A-S	162.7
SWB w/ 4 - 55-gal Drums w/ Liners	ID-RF-S5100-A-S	7.6
TDOP w/ 10 - 55-gal Drums w/ Liners	ID-RF-S5100-A-S	459.0
Emplaced Total		629.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.03
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	122.14
Cellulosics	14.92
Rubber	0.01
Plastics	8.59
Cements	0.00
Inorganic Matrix	0.97
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	205.44
Packaging Material, Plastic	22.23
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.43E-01
Cs-137	2.15E-08
Np-237	2.59E-06
Pu-238	3.22E-02
Pu-239	9.77E-01
Pu-240	2.07E-01
Pu-241	1.19E+00
Pu-242	1.77E-05
Sr-90	3.25E-08
Th-229	1.27E-09
Th-230	8.94E-11
Th-232	1.36E-18
U-233	4.50E-06
U-234	3.45E-06
U-235	1.42E-07
U-236	1.84E-08
U-238	7.15E-09

Haz. Waste No(s).

D008, D009, D022,
F001, F002, F005**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

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

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5126	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	ID-RF-S5126-S	79.9
55-gal Drum Dir Ld w/o Liner	ID-RF-S5126-S	0.4
SWB w/ 4 - 55-gal Drums w/ Liners	ID-RF-S5126-S	7.6
TDOP w/ 10 - 55-gal Drums w/ Liners	ID-RF-S5126-S	144.0
Emplaced Total		231.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.48
Aluminum-based Metals/Alloys	0.00
Other Metals	0.03
Other Inorganic Materials	239.38
Cellulosics	5.59
Rubber	0.05
Plastics	4.80
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	196.15
Packaging Material, Plastic	23.90
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.79E-01
Cs-137	4.12E-03
Np-237	1.16E-05
Pu-238	1.31E-01
Pu-239	3.63E+00
Pu-240	8.46E-01
Pu-241	6.09E+00
Pu-242	7.74E-05
Sr-90	8.30E-08
Th-229	1.76E-07
Th-230	1.30E-09
Th-232	2.48E-18
U-233	9.41E-04
U-234	7.27E-05
U-235	5.98E-08
U-236	5.01E-08
U-238	6.87E-06

Haz. Waste No(s).

D008, D029, F001,
F002, F005**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-ID-RF-S5300-A**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5300	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
SWB w/ 4 - 55-gal Drums w/ Liners	ID-RF-S5300-A-S	60.5
SWB w/ 4 - 55-gal Drums w/o Liners	ID-RF-S5300-A-S	1.9
TDOP w/ 10 - 55-gal Drums w/ Liners	ID-RF-S5300-A-S	2349.0
TDOP w/ 10 - 55-gal Drums w/o Liners	ID-RF-S5300-A-S	4.5
Emplaced Total		2415.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	4.38
Aluminum-based Metals/Alloys	0.22
Other Metals	0.44
Other Inorganic Materials	6.49
Cellulosics	55.38
Rubber	5.22
Plastics	49.97
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.01
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	231.27
Packaging Material, Plastic	17.03
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.45E-02
Am-243	7.09E-12
Cm-244	2.03E-04
Cs-137	8.44E-09
Np-237	1.64E-06
Pu-238	3.13E-03
Pu-239	9.50E-02
Pu-240	2.13E-02
Pu-241	1.38E-01
Pu-242	2.14E-05
Sr-90	1.15E-08
Th-229	2.30E-08
Th-230	1.68E-10
Th-232	6.25E-20
U-233	1.23E-04
U-234	9.37E-06
U-235	2.46E-07
U-236	1.27E-09
U-238	3.55E-07

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-ID-SDA-DEBRIS**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	ID-SDA-DEBRIS-S	98.0
Emplaced Total		98.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.56
Aluminum-based Metals/Alloys	0.96
Other Metals	0.00
Other Inorganic Materials	210.07
Cellulosics	86.79
Rubber	0.07
Plastics	11.48
Cements	0.00
Inorganic Matrix	0.40
Organic Matrix	0.27
Soils/gravel	3.07
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.90E-01
Cs-137	2.11E-07
Np-237	7.66E-06
Pu-238	8.32E-02
Pu-239	2.04E+00
Pu-240	4.64E-01
Pu-241	2.43E+00
Pu-242	1.13E-04
Sr-90	2.39E-07
Th-229	4.98E-09
Th-230	8.25E-10
Th-232	3.40E-19
U-233	5.31E-05
U-234	9.18E-05
U-235	2.36E-06
U-236	1.38E-08
U-238	8.20E-05

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-ID-SDA-SLUDGE**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Organics	Waste Matrix Code	S3900	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	ID-SDA-SLUDGE-S	170.8
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	ID-SDA-SLUDGE-S	0.6
Emplaced Total		171.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.18
Aluminum-based Metals/Alloys	0.00
Other Metals	0.05
Other Inorganic Materials	48.23
Cellulosics	0.20
Rubber	0.02
Plastics	1.83
Cements	0.00
Inorganic Matrix	358.30
Organic Matrix	270.98
Soils/gravel	0.05
Vitrified	0.00
Packaging Material, Steel	131.05
Packaging Material, Plastic	36.95
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.16E+00
Cs-137	8.69E-07
Np-237	6.00E-05
Pu-238	1.55E-02
Pu-239	4.23E-01
Pu-240	9.50E-02
Pu-241	8.43E-01
Pu-242	1.55E-05
Sr-90	9.55E-07
Th-229	1.21E-14
Th-230	1.42E-09
Th-232	6.95E-20
U-233	2.59E-10
U-234	1.57E-04
U-235	3.63E-06
U-236	2.82E-09
U-238	3.64E-04

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-ID-SDA-SOIL**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Soils	Waste Matrix Code	S4200	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	ID-SDA-SOIL-S	182.8
Emplaced Total		182.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.98
Aluminum-based Metals/Alloys	0.02
Other Metals	0.01
Other Inorganic Materials	32.05
Cellulosics	9.59
Rubber	0.14
Plastics	7.04
Cements	0.00
Inorganic Matrix	5.64
Organic Matrix	0.85
Soils/gravel	605.21
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.30E-01
Cs-137	5.71E-07
Np-237	1.25E-05
Pu-238	2.10E-02
Pu-239	4.90E-01
Pu-240	1.08E-01
Pu-241	7.30E-01
Pu-242	1.69E-05
Sr-90	6.37E-07
Th-229	2.51E-15
Th-230	1.66E-09
Th-232	7.93E-20
U-233	5.37E-11
U-234	1.85E-04
U-235	4.57E-06
U-236	3.21E-09
U-238	3.94E-04

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-INW161.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	INW161.001-S	19.1
Emplaced Total		19.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.05
Aluminum-based Metals/Alloys	0.00
Other Metals	0.43
Other Inorganic Materials	247.58
Cellulosics	24.03
Rubber	0.00
Plastics	6.05
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.34E+00
Np-237	2.45E-06
Pu-238	2.74E-01
Pu-239	8.21E+00
Pu-240	1.86E+00
Pu-241	1.55E+01
Pu-242	1.84E-04
Th-229	5.71E-15
Th-230	9.89E-10
Th-232	4.90E-17
U-233	3.08E-11
U-234	2.07E-05
U-235	4.63E-06
U-236	3.31E-07
U-238	2.90E-07

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-INW169.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5330	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	INW169.001-S	19.1
Emplaced Total		19.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.24
Aluminum-based Metals/Alloys	0.05
Other Metals	3.52
Other Inorganic Materials	7.37
Cellulosics	130.27
Rubber	0.73
Plastics	7.38
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.46E-01
Np-237	4.58E-07
Pu-238	3.40E-02
Pu-239	1.03E+00
Pu-240	2.30E-01
Pu-241	2.17E+00
Pu-242	3.09E-05
Th-229	1.08E-15
Th-230	8.55E-10
Th-232	6.05E-18
U-233	5.80E-12
U-234	1.61E-05
U-235	3.78E-06
U-236	4.08E-08
U-238	2.29E-07

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-INW198.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5310	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	INW198.001-S	49.1
Emplaced Total		49.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.17
Aluminum-based Metals/Alloys	0.00
Other Metals	2.55
Other Inorganic Materials	13.60
Cellulosics	0.44
Rubber	0.53
Plastics	86.81
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.26E-01
Np-237	2.32E-07
Pu-238	2.40E-02
Pu-239	7.70E-01
Pu-240	1.72E-01
Pu-241	1.47E+00
Pu-242	1.81E-05
Th-229	2.98E-09
Th-230	1.67E-10
Th-232	4.54E-18
U-233	5.30E-06
U-234	3.30E-06
U-235	7.30E-07
U-236	3.06E-08
U-238	1.20E-06

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-INW211.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Filter	Waste Matrix Code	S5410	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	INW211.001-S	299.9
55-gal Drum Dir Ld w/o Liner	INW211.001-S	0.2
SWB w/ 4 - 55-gal Drums w/ Liners	INW211.001-S	3.8
Emplaced Total		303.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.05
Aluminum-based Metals/Alloys	8.60
Other Metals	0.41
Other Inorganic Materials	22.38
Cellulosics	136.35
Rubber	0.08
Plastics	7.29
Cements	0.00
Inorganic Matrix	0.01
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	131.80
Packaging Material, Plastic	36.72
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.50E+00
Np-237	4.59E-06
Pu-238	4.30E-01
Pu-239	1.20E+01
Pu-240	2.67E+00
Pu-241	2.91E+01
Pu-242	4.62E-04
Th-229	2.40E-08
Th-230	8.70E-10
Th-232	7.04E-17
U-233	4.26E-05
U-234	1.99E-05
U-235	3.17E-06
U-236	4.75E-07
U-238	4.84E-06

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-INW216.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	INW216.001-S	1227.4
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	INW216.001-S	0.6
SWB Dir Ld w/o Liner	INW216.001-S	11.3
SWB w/ 4 - 55-gal Drums w/ Liners	INW216.001-S	5.7
Emplaced Total		1245.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.01
Aluminum-based Metals/Alloys	0.00
Other Metals	0.08
Other Inorganic Materials	12.65
Cellulosics	0.19
Rubber	0.01
Plastics	0.53
Cements	0.00
Inorganic Matrix	829.38
Organic Matrix	0.18
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	131.41
Packaging Material, Plastic	36.56
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.57E+01
Np-237	1.04E-04
Pu-238	8.87E-02
Pu-239	2.62E+00
Pu-240	5.88E-01
Pu-241	5.94E+00
Pu-242	9.49E-05
Th-229	1.77E-08
Th-230	3.15E-08
Th-232	2.11E-17
U-233	2.69E-05
U-234	5.01E-04
U-235	8.28E-05
U-236	1.22E-07
U-238	3.12E-03

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-INW218.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	INW218.001-S	833.0
SWB Dir Ld w/o Liner	INW218.001-S	275.9
SWB w/ 4 - 55-gal Drums w/ Liners	INW218.001-S	1.9
Emplaced Total		1110.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.01
Other Inorganic Materials	16.30
Cellulosics	0.16
Rubber	0.01
Plastics	1.25
Cements	0.00
Inorganic Matrix	753.19
Organic Matrix	0.19
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	136.58
Packaging Material, Plastic	27.77
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.46E-01
Np-237	1.69E-06
Pu-238	1.48E-02
Pu-239	4.48E-01
Pu-240	1.00E-01
Pu-241	1.00E+00
Pu-242	1.53E-05
Th-229	6.58E-09
Th-230	5.24E-08
Th-232	3.59E-18
U-233	1.00E-05
U-234	8.32E-04
U-235	9.20E-05
U-236	2.08E-08
U-238	7.87E-03

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-INW222.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	INW222.001-S	65.1
Emplaced Total		65.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.03
Other Inorganic Materials	0.76
Cellulosics	0.04
Rubber	0.00
Plastics	16.36
Cements	0.00
Inorganic Matrix	566.62
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.38E-01
Np-237	1.54E-06
Pu-238	1.50E-01
Pu-239	4.36E+00
Pu-240	9.80E-01
Pu-241	9.12E+00
Pu-242	1.14E-04
Th-229	3.61E-15
Th-230	7.81E-10
Th-232	2.59E-17
U-233	1.94E-11
U-234	1.58E-05
U-235	1.63E-06
U-236	1.74E-07
U-238	1.08E-04

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-INW243.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	INW243.001-S	73.8
55-gal Drum Dir Ld w/o Liner	INW243.001-S	1.0
Emplaced Total		74.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.37
Aluminum-based Metals/Alloys	0.01
Other Metals	11.00
Other Inorganic Materials	163.61
Cellulosics	0.58
Rubber	0.10
Plastics	23.80
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	36.49
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.01E+00
Np-237	2.20E-06
Pu-238	1.35E-01
Pu-239	3.16E+00
Pu-240	7.07E-01
Pu-241	6.98E+00
Pu-242	9.10E-05
Th-229	2.17E-08
Th-230	1.63E-09
Th-232	2.54E-17
U-233	3.30E-05
U-234	2.73E-05
U-235	6.00E-06
U-236	1.47E-07
U-238	4.24E-06

Haz. Waste No(s).

D005, D008, D009,
D022, F001, F002,
F005**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-INW247.001R1**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	INW247.001R1-S	112.7
55-gal Drum Dir Ld w/o Liner	INW247.001R1-S	4.2
Emplaced Total		116.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.15
Aluminum-based Metals/Alloys	0.00
Other Metals	0.01
Other Inorganic Materials	233.57
Cellulosics	19.55
Rubber	0.00
Plastics	1.28
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	35.68
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.58E-01
Np-237	1.61E-06
Pu-238	2.06E-01
Pu-239	3.55E+00
Pu-240	8.10E-01
Pu-241	8.15E+00
Pu-242	6.77E-05
Th-229	4.23E-08
Th-230	1.46E-10
Th-232	2.91E-17
U-233	6.45E-05
U-234	4.40E-06
U-235	7.58E-08
U-236	1.68E-07
U-238	7.16E-14

Haz. Waste No(s).

D008, F001, F002

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-INW252.001**

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TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5311	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	INW252.001-S	60.9
Emplaced Total		60.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	207.33
Other Inorganic Materials	4.03
Cellulosics	0.10
Rubber	208.17
Plastics	3.38
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.15E-01
Np-237	1.62E-06
Pu-238	1.94E-01
Pu-239	4.95E+00
Pu-240	1.12E+00
Pu-241	1.58E+01
Pu-242	1.12E-04
Th-229	3.72E-15
Th-230	7.74E-10
Th-232	2.96E-17
U-233	2.02E-11
U-234	1.60E-05
U-235	3.72E-06
U-236	2.00E-07
U-238	1.01E-13

Haz. Waste No(s).

D008, D022, F001, F002, F003, F005, F006, F007, F009

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-INW276.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5126	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	INW276.001-S	10.2
Emplaced Total		10.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	329.28
Cellulosics	4.61
Rubber	0.00
Plastics	3.73
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.55E-01
Np-237	1.72E-06
Pu-238	2.22E-01
Pu-239	3.12E+00
Pu-240	7.11E-01
Pu-241	7.23E+00
Pu-242	6.42E-05
Th-229	1.29E-14
Th-230	3.64E-10
Th-232	6.30E-17
U-233	3.86E-11
U-234	7.25E-06
U-235	5.94E-08
U-236	2.32E-07
U-238	1.07E-13

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-INW276.002**

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TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5126	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	INW276.002-S	16.0
Emplaced Total		16.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	320.62
Cellulosics	8.74
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.56E-01
Np-237	1.59E-06
Pu-238	2.14E-01
Pu-239	2.98E+00
Pu-240	6.79E-01
Pu-241	7.22E+00
Pu-242	6.13E-05
Th-229	4.27E-08
Th-230	3.05E-10
Th-232	4.97E-17
U-233	4.56E-05
U-234	6.50E-06
U-235	7.69E-08
U-236	2.01E-07
U-238	9.25E-14

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-INW276.003**

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TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5126	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	INW276.003-S	182.6
55-gal Drum Dir Ld w/o Liner	INW276.003-S	4.0
Emplaced Total		186.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.04
Aluminum-based Metals/Alloys	0.00
Other Metals	0.04
Other Inorganic Materials	329.25
Cellulosics	8.62
Rubber	0.00
Plastics	1.35
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	36.22
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.77E+00
Np-237	4.13E-06
Pu-238	6.80E-01
Pu-239	9.25E+00
Pu-240	2.11E+00
Pu-241	2.51E+01
Pu-242	1.96E-04
Th-229	2.10E-07
Th-230	6.45E-10
Th-232	9.88E-17
U-233	2.79E-04
U-234	1.68E-05
U-235	2.83E-07
U-236	5.00E-07
U-238	6.00E-09

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-INW276.004**

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TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5126	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	INW276.004-S	42.4
55-gal Drum Dir Ld w/o Liner	INW276.004-S	4.4
Emplaced Total		46.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.25
Aluminum-based Metals/Alloys	0.00
Other Metals	0.17
Other Inorganic Materials	327.99
Cellulosics	2.14
Rubber	0.00
Plastics	3.07
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	33.55
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.71E+00
Np-237	4.06E-06
Pu-238	5.67E-01
Pu-239	7.84E+00
Pu-240	1.79E+00
Pu-241	2.09E+01
Pu-242	1.63E-04
Th-229	7.27E-07
Th-230	6.95E-10
Th-232	8.38E-17
U-233	9.69E-04
U-234	1.62E-05
U-235	6.67E-07
U-236	4.24E-07
U-238	1.97E-13

Haz. Waste No(s).

D008, D029, D040,
F001, F002, F005**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-INW296.001**

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TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Lead/Cadmium Metal Waste	Waste Matrix Code	S5112	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	INW296.001-S	93.2
55-gal Drum Dir Ld w/o Liner	INW296.001-S	4.6
Emplaced Total		97.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	5.43
Aluminum-based Metals/Alloys	0.39
Other Metals	220.74
Other Inorganic Materials	11.39
Cellulosics	0.93
Rubber	1.78
Plastics	4.31
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	35.27
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.59E+00
Np-237	3.46E-06
Pu-238	2.89E-01
Pu-239	5.25E+00
Pu-240	1.19E+00
Pu-241	1.22E+01
Pu-242	1.13E-04
Th-229	6.81E-08
Th-230	6.20E-10
Th-232	4.27E-17
U-233	1.04E-04
U-234	1.28E-05
U-235	1.59E-06
U-236	2.47E-07
U-238	4.05E-06

Haz. Waste No(s).

D006, D007, D008,
D009, D011, D028,
F001, F002, F003,
F005, F006, F007,
F009

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-LA-CIN02.001**

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TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3150	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	LA-CIN02.001-S	1.2
55-gal Drum Dir Ld w/o Liner	LA-CIN02.001-S	15.6
TDOP w/ 10 - 55-gal Drums w/o Liners	LA-CIN02.001-S	4.5
Emplaced Total		21.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	975.69
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	152.09
Packaging Material, Plastic	2.16
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.55E+00
Am-243	1.04E-04
Cs-137	2.29E-05
Np-237	2.50E-04
Pu-238	9.96E-01
Pu-239	4.06E+00
Pu-240	1.24E+00
Pu-241	1.21E+01
Pu-242	3.39E-04
Sr-90	2.29E-05
Th-229	5.08E-14
Th-230	1.14E-09
Th-232	9.07E-19
U-233	1.08E-09
U-234	1.28E-04
U-235	3.11E-06
U-236	3.67E-08
U-238	5.12E-14

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-LA-MHD01.001**

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TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	LA-MHD01.001-S	246.5
55-gal Drum Dir Ld w/o Liner	LA-MHD01.001-S	347.6
55-gal POC - 12" w/ Liner	LA-MHD01.001-S	3.5
SWB w/ 4 - 55-gal Drums w/ Liners	LA-MHD01.001-S	621.8
SWB w/ 4 - 55-gal Drums w/o Liners	LA-MHD01.001-S	189.0
Emplaced Total		1408.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	60.00
Aluminum-based Metals/Alloys	0.18
Other Metals	6.10
Other Inorganic Materials	28.18
Cellulosics	7.72
Rubber	7.61
Plastics	25.38
Cements	0.00
Inorganic Matrix	0.53
Organic Matrix	0.02
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	178.02
Packaging Material, Plastic	13.76
Packaging Material, Cellulosics	0.35
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.10E+00
Am-243	6.60E-04
Cm-244	3.15E-03
Cs-137	9.91E-07
Np-237	1.57E-04
Pu-238	3.21E+01
Pu-239	8.45E+00
Pu-240	2.25E+00
Pu-241	2.12E+01
Pu-242	1.95E-03
Sr-90	6.78E-04
Th-229	8.39E-08
Th-230	6.11E-06
Th-232	3.21E-09
U-233	4.47E-04
U-234	5.23E-03
U-235	3.48E-06
U-236	1.33E-07
U-238	4.55E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-LA-MHD02.001**

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TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	LA-MHD02.001-S	5.0
55-gal Drum Dir Ld w/o Liner	LA-MHD02.001-S	8.5
Emplaced Total		13.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	78.72
Aluminum-based Metals/Alloys	0.00
Other Metals	3.17
Other Inorganic Materials	17.11
Cellulosics	3.40
Rubber	25.27
Plastics	31.33
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	13.66
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.33E-01
Am-243	2.96E-06
Cs-137	1.72E-07
Np-237	6.21E-06
Pu-238	1.30E+02
Pu-239	1.03E-01
Pu-240	5.19E-02
Pu-241	4.57E-01
Pu-242	5.31E-05
Sr-90	1.72E-07
Th-229	3.55E-11
Th-230	4.48E-07
Th-232	1.52E-19
U-233	1.89E-07
U-234	2.53E-02
U-235	4.70E-08
U-236	3.08E-09
U-238	1.60E-14

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D018,
D019, D021, D022,
D035, D038, D039,
D040, F001, F002,
F005

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-LA-MHD03.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	LA-MHD03.001-S	5.6
55-gal Drum Dir Ld w/o Liner	LA-MHD03.001-S	223.4
SWB w/ 4 - 55-gal Drums w/ Liners	LA-MHD03.001-S	3.8
SWB w/ 4 - 55-gal Drums w/o Liners	LA-MHD03.001-S	13.2
Emplaced Total		246.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	13.45
Aluminum-based Metals/Alloys	0.12
Other Metals	1.47
Other Inorganic Materials	26.01
Cellulosics	20.37
Rubber	1.56
Plastics	56.07
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	136.35
Packaging Material, Plastic	1.10
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.30E-01
Am-243	1.22E-04
Cm-244	2.51E-03
Cs-137	2.28E-05
Np-237	6.84E-05
Pu-238	6.03E+00
Pu-239	7.25E-01
Pu-240	1.95E-01
Pu-241	2.49E+00
Pu-242	8.12E-05
Sr-90	2.26E-05
Th-229	1.08E-08
Th-230	1.60E-08
Th-232	5.71E-19
U-233	5.78E-05
U-234	9.04E-04
U-235	6.57E-07
U-236	1.16E-08
U-238	1.10E-06

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D018,
D019, D021, D022,
D026, D027, D028,
D029, D030, D035,
D036, D037, D038,
D039, D040, D043,
F001, F002, F004,
F005

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-LA-MHD04.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	LA-MHD04.001-S	0.4
55-gal Drum Dir Ld w/o Liner	LA-MHD04.001-S	0.6
SWB w/ 4 - 55-gal Drums w/o Liners	LA-MHD04.001-S	3.8
Emplaced Total		4.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	29.83
Aluminum-based Metals/Alloys	0.19
Other Metals	0.10
Other Inorganic Materials	6.78
Cellulosics	6.20
Rubber	3.32
Plastics	7.10
Cements	0.00
Inorganic Matrix	0.04
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	193.77
Packaging Material, Plastic	3.19
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.25E-01
Am-243	3.55E-05
Cs-137	3.64E-08
Np-237	6.98E-05
Pu-238	9.46E+01
Pu-239	1.34E-01
Pu-240	5.40E-02
Pu-241	5.11E-01
Pu-242	4.39E-05
Sr-90	3.64E-08
U-234	1.47E-02

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-LA-MIN03-NC.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3120	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	LA-MIN03-NC.001-S	505.0
55-gal Drum Dir Ld w/o Liner	LA-MIN03-NC.001-S	0.4
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	LA-MIN03-NC.001-S	0.3
SWB w/ 4 - 55-gal Drums w/ Liners	LA-MIN03-NC.001-S	22.7
Emplaced Total		528.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	2.30
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.33
Cellulosics	0.00
Rubber	0.00
Plastics	5.45
Cements	0.00
Inorganic Matrix	723.11
Organic Matrix	3.31
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	134.29
Packaging Material, Plastic	36.07
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.47E-01
Am-243	4.67E-06
Cs-137	1.04E-04
Np-237	6.15E-06
Pu-238	2.02E-02
Pu-239	3.49E-01
Pu-240	4.97E-02
Pu-241	7.99E-01
Pu-242	3.29E-05
Sr-90	9.04E-05
Th-229	7.20E-14
Th-230	9.80E-10
Th-232	1.46E-19
U-233	4.10E-10
U-234	5.46E-05
U-235	1.37E-06
U-236	2.95E-09
U-238	1.22E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D028, D037, F001, F002, F004, F005, F006, F007, F009

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-LA-OS-00-01**

Appendix B

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5100	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/o Liner	LA-OS-00-01-S	0.4
Emplaced Total		0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	130.77
Aluminum-based Metals/Alloys	0.00
Other Metals	0.96
Other Inorganic Materials	0.00
Cellulosics	137.50
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	527.40
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	137.50
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.33E+00
Cs-137	6.04E-04
Np-237	4.06E-05
Pu-238	4.13E+00
Pu-239	1.15E+01
Pu-240	1.17E+01
Pu-241	1.28E+01
Pu-242	2.32E-04
Sr-90	5.64E-04
Th-229	2.35E-13
Th-230	2.24E-01
Th-232	3.08E-16
U-233	8.86E-10
U-234	7.20E-05
U-235	6.80E-08
U-236	2.08E-06
U-238	2.10E-13

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-LA-OS-00-01.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5100	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	LA-OS-00-01.001-S	62.2
55-gal S100 POC - 6" w/ Liner	LA-OS-00-01.001-S	27.9
Emplaced Total		90.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	20.38
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	463.43
Packaging Material, Plastic	246.20
Packaging Material, Cellulosics	116.52
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.16E+01
Cs-137	1.66E-03
Np-237	7.52E-06
Pu-238	7.78E+01
Pu-239	7.74E+00
Pu-240	2.32E+00
Pu-241	7.21E+00
Pu-242	6.37E-04
Sr-90	2.01E-02
Th-229	7.81E-13
Th-230	1.27E-07
Th-232	6.80E-18
U-233	4.19E-09
U-234	7.26E-03
U-235	3.37E-07
U-236	1.38E-07
U-238	1.10E-08

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-LA-TA-55-19.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	LA-TA-55-19.01-S	0.2
55-gal Drum Dir Ld w/o Liner	LA-TA-55-19.01-S	5.6
SWB Dir Ld w/o Liner	LA-TA-55-19.01-S	75.6
Emplaced Total		81.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	51.12
Aluminum-based Metals/Alloys	0.03
Other Metals	0.10
Other Inorganic Materials	0.27
Cellulosics	6.20
Rubber	2.18
Plastics	26.49
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	151.88
Packaging Material, Plastic	0.09
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.22E-01
Am-243	5.37E-05
Cs-137	1.08E-08
Np-237	4.92E-05
Pu-238	2.45E-01
Pu-239	3.06E+00
Pu-240	7.56E-01
Pu-241	6.79E+00
Pu-242	2.05E-03
Th-229	6.18E-13
Th-230	4.45E-07
Th-232	3.54E-17
U-233	1.66E-09
U-234	1.45E-03
U-235	2.80E-06
U-236	1.79E-07
U-238	4.75E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-LA-TA-55-19.02**

Appendix B

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5300	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	LA-TA-55-19.02-S	16.0
55-gal Drum Dir Ld w/o Liner	LA-TA-55-19.02-S	171.4
SWB Dir Ld w/o Liner	LA-TA-55-19.02-S	13.2
SWB w/ 4 - 55-gal Drums w/ Liners	LA-TA-55-19.02-S	1.9
SWB w/ 4 - 55-gal Drums w/o Liners	LA-TA-55-19.02-S	26.5
Emplaced Total		229.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	10.64
Aluminum-based Metals/Alloys	0.02
Other Metals	0.66
Other Inorganic Materials	3.05
Cellulosics	39.08
Rubber	4.67
Plastics	62.20
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.03
Soils/gravel	0.18
Vitrified	0.00
Packaging Material, Steel	142.05
Packaging Material, Plastic	2.72
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.67E+00
Am-243	3.38E-04
Cs-137	2.31E-06
Np-237	9.55E-05
Pu-238	8.77E-01
Pu-239	3.57E+00
Pu-240	9.96E-01
Pu-241	1.26E+01
Pu-242	5.43E-03
Sr-90	2.14E-06
Th-229	1.12E-08
Th-230	7.53E-06
Th-232	8.99E-08
U-233	1.98E-05
U-234	3.53E-03
U-235	4.18E-06
U-236	1.77E-07
U-238	6.67E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-LA-TA-55-30**

Appendix B

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	LA-TA-55-30-S	10.6
55-gal Drum Dir Ld w/o Liner	LA-TA-55-30-S	79.0
SWB w/ 4 - 55-gal Drums w/o Liners	LA-TA-55-30-S	5.7
Emplaced Total		95.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	213.70
Aluminum-based Metals/Alloys	0.41
Other Metals	2.45
Other Inorganic Materials	18.28
Cellulosics	11.63
Rubber	1.41
Plastics	14.23
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.75
Vitrified	0.00
Packaging Material, Steel	135.58
Packaging Material, Plastic	4.12
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.23E+00
Am-243	6.83E-05
Cs-137	8.24E-05
Np-237	8.36E-05
Pu-238	4.67E-01
Pu-239	2.59E+00
Pu-240	7.30E-01
Pu-241	7.86E+00
Pu-242	6.28E-04
Sr-90	8.20E-05
Th-229	6.53E-08
Th-230	6.65E-09
Th-232	3.44E-07
U-233	9.96E-05
U-234	1.10E-04
U-235	2.28E-06
U-236	1.52E-07
U-238	5.85E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-LA-TA-55-43.01****Appendix B****TRU Waste Inventory Profile Report**

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
SWB Dir Ld w/o Liner	LA-TA-55-43.01-S	190.9
Emplaced Total		190.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	45.68
Aluminum-based Metals/Alloys	0.11
Other Metals	0.38
Other Inorganic Materials	0.13
Cellulosics	1.22
Rubber	0.19
Plastics	8.86
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	153.50
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.78E-03
Am-243	7.54E-08
Np-237	2.05E-07
Pu-238	2.76E+00
Pu-239	2.44E-03
Pu-240	4.00E-03
Pu-241	2.60E-02
Pu-242	2.79E-06
Th-229	4.03E-15
Th-230	1.95E-08
Th-232	2.40E-08
U-233	8.65E-12
U-234	2.57E-04
U-235	2.41E-11
U-236	1.19E-09
U-238	4.22E-15

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-BLCHDN.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Lawrence Livermore National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5440	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	BLCHDN.001-S	0.2
55-gal Drum Dir Ld w/o Liner	BLCHDN.001-S	1.5
Emplaced Total		1.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	61.42
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	13.70
Cellulosics	5.41
Rubber	1.80
Plastics	40.99
Cements	0.00
Inorganic Matrix	11.12
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	4.63
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.56E-02
Am-243	1.34E-03
Cm-244	1.13E-01
Np-237	5.38E-04
Pu-238	5.20E-02
Pu-239	4.31E-07
Pu-240	5.18E-05
Pu-241	2.81E-05
Th-229	1.71E-12
Th-230	1.08E-11
Th-232	2.10E-22
U-233	9.13E-09
U-234	6.00E-07
U-235	8.59E-16
U-236	3.15E-12

Haz. Waste No(s).

F005

No TRUCON
Codes Provided

Waste Stream Description

N/A

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

Appendix B

TRU Waste Inventory Profile Report

Site	Lawrence Livermore National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	LL-M001-S5400-S	136.4
55-gal Drum Dir Ld w/o Liner	LL-M001-S5400-S	2.9
SWB w/ 4 - 55-gal Drums w/ Liners	LL-M001-S5400-S	3.8
Emplaced Total		143.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	88.62
Aluminum-based Metals/Alloys	2.36
Other Metals	3.76
Other Inorganic Materials	7.07
Cellulosics	5.01
Rubber	11.09
Plastics	57.87
Cements	0.00
Inorganic Matrix	14.54
Organic Matrix	3.08
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	132.92
Packaging Material, Plastic	35.70
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.06E+00
Am-243	9.47E-05
Cm-244	2.05E-01
Cs-137	1.40E-07
Np-237	5.12E-04
Pu-238	2.47E+00
Pu-239	4.18E+00
Pu-240	1.17E+00
Pu-241	1.37E+01
Pu-242	2.21E-04
Sr-90	1.38E-07
Th-229	1.62E-12
Th-230	5.22E-09
Th-232	1.38E-17
U-233	8.66E-09
U-234	1.59E-04
U-235	3.48E-06
U-236	1.39E-07
U-238	2.47E-05

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-NTLBL-S5400**

Appendix B

TRU Waste Inventory Profile Report

Site	Nevada Test Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	NTLBL-S5400-S	1.2
55-gal Drum Dir Ld w/o Liner	NTLBL-S5400-S	0.4
Emplaced Total		1.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	68.85
Aluminum-based Metals/Alloys	0.00
Other Metals	19.04
Other Inorganic Materials	35.81
Cellulosics	8.37
Rubber	4.61
Plastics	18.87
Cements	0.00
Inorganic Matrix	1.74
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	27.75
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.33E-01
Am-243	3.49E-03
Cm-244	5.19E-01
Cs-137	3.04E-05
Np-237	4.07E-04
Pu-238	8.72E-02
Pu-239	4.04E-01
Pu-240	9.16E-02
Pu-241	1.93E+00
Pu-242	1.27E-05
Sr-90	3.03E-05
Th-229	7.47E-13
Th-230	1.02E-11
Th-232	6.03E-19
U-233	5.31E-09
U-234	7.51E-07
U-235	1.20E-09
U-236	8.14E-09
U-238	5.76E-15

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D022,
D028, F001, F002,
F003, F005

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-NTLRC-S5400**

Appendix B

TRU Waste Inventory Profile Report

Site	Nevada Test Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	NTLRC-S5400-S	3.1
Emplaced Total		3.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	48.02
Aluminum-based Metals/Alloys	10.80
Other Metals	9.85
Other Inorganic Materials	18.63
Cellulosics	26.85
Rubber	31.38
Plastics	73.04
Cements	0.00
Inorganic Matrix	9.45
Organic Matrix	0.57
Soils/gravel	0.17
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.55E+00
Am-243	1.13E-05
Cs-137	3.51E-07
Np-237	7.93E-05
Pu-238	1.83E-01
Pu-239	2.31E+00
Pu-240	8.47E-01
Pu-241	1.02E+01
Pu-242	9.39E-05
Sr-90	3.50E-07
Th-229	1.44E-13
Th-230	3.84E-08
Th-232	5.58E-18
U-233	1.03E-09
U-234	1.42E-03
U-235	4.74E-05
U-236	7.53E-08
U-238	3.37E-05

Haz. Waste No(s).

D005, D008, D009,
D011, D019, D035,
D040, F001, F005**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-NT-RF-BERYLLIUM**

Appendix B

TRU Waste Inventory Profile Report

Site	Nevada Test Site	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	NT-RF-BERYLLIUM-S	29.3
Emplaced Total		29.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	3.88
Aluminum-based Metals/Alloys	4.01
Other Metals	158.30
Other Inorganic Materials	1.17
Cellulosics	8.92
Rubber	0.09
Plastics	15.77
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.33E-01
Am-243	3.13E-08
Np-237	1.44E-06
Pu-238	3.21E-02
Pu-239	8.27E-01
Pu-240	1.88E-01
Pu-241	1.39E+00
Pu-242	1.47E-05
Th-229	5.70E-08
Th-230	8.33E-10
Th-232	1.24E-18
U-233	2.03E-04
U-234	3.10E-05
U-235	6.12E-07
U-236	1.67E-08
U-238	7.89E-06

Haz. Waste No(s).

D007, F002

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-NT-RF-GRAPHITE**

Appendix B

TRU Waste Inventory Profile Report

Site	Nevada Test Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5126	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	NT-RF-GRAPHITE-S	3.7
Emplaced Total		3.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.32
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	291.08
Cellulosics	2.30
Rubber	0.61
Plastics	12.55
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.25E-01
Np-237	8.95E-06
Pu-238	3.17E-01
Pu-239	1.04E+01
Pu-240	1.92E+00
Pu-241	1.64E+01
Pu-242	1.40E-04
Th-229	1.54E-14
Th-230	4.46E-10
Th-232	1.27E-17
U-233	1.11E-10
U-234	1.79E-05
U-235	3.07E-08
U-236	1.71E-07
U-238	7.58E-06

Haz. Waste No(s).

D008

No TRUCON
Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-NT-RF-METAL**

Appendix B

TRU Waste Inventory Profile Report

Site	Nevada Test Site	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	NT-RF-METAL-S	5.6
55-gal Drum Dir Ld w/o Liner	NT-RF-METAL-S	0.4
Emplaced Total		6.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	166.64
Aluminum-based Metals/Alloys	25.59
Other Metals	4.59
Other Inorganic Materials	0.24
Cellulosics	7.26
Rubber	0.65
Plastics	21.28
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	34.45
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.20E-01
Am-243	4.51E-07
Np-237	1.94E-06
Pu-238	3.51E-02
Pu-239	1.12E+00
Pu-240	2.77E-01
Pu-241	2.40E+00
Pu-242	2.24E-05
Th-229	3.43E-15
Th-230	2.00E-07
Th-232	1.82E-18
U-233	2.46E-11
U-234	7.39E-03
U-235	4.54E-06
U-236	2.46E-08
U-238	3.70E-03

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-NTS54332R0**

Appendix B

TRU Waste Inventory Profile Report

Site	Nevada Test Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	NTS54332R0-S	235.0
55-gal Drum Dir Ld w/o Liner	NTS54332R0-S	47.6
SWB w/ 4 - 55-gal Drums w/ Liners	NTS54332R0-S	24.6
Emplaced Total		307.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	45.13
Aluminum-based Metals/Alloys	2.90
Other Metals	3.84
Other Inorganic Materials	6.28
Cellulosics	13.22
Rubber	11.05
Plastics	46.10
Cements	0.00
Inorganic Matrix	10.47
Organic Matrix	3.40
Soils/gravel	0.08
Vitrified	0.00
Packaging Material, Steel	137.22
Packaging Material, Plastic	29.61
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.99E-01
Am-243	4.23E-05
Cm-244	9.21E-03
Cs-137	7.57E-07
Np-237	4.66E-05
Pu-238	8.09E-02
Pu-239	1.20E+00
Pu-240	3.14E-01
Pu-241	3.28E+00
Pu-242	3.38E-05
Sr-90	7.70E-07
Th-229	2.65E-07
Th-230	3.27E-09
Th-232	3.68E-18
U-233	7.08E-04
U-234	9.13E-05
U-235	3.25E-03
U-236	3.73E-08
U-238	3.29E-05

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D022, D027, D028,
D029, D040, F001,
F002, F003, F004,
F005

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-NTS54COMR0**

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TRU Waste Inventory Profile Report

Site	Nevada Test Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	NTS54COMR0-S	39.5
55-gal Drum Dir Ld w/o Liner	NTS54COMR0-S	8.9
SWB w/ 4 - 55-gal Drums w/ Liners	NTS54COMR0-S	1.9
Emplaced Total		50.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	50.86
Aluminum-based Metals/Alloys	4.45
Other Metals	5.66
Other Inorganic Materials	8.36
Cellulosics	20.52
Rubber	12.84
Plastics	55.40
Cements	0.00
Inorganic Matrix	3.71
Organic Matrix	0.66
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	133.81
Packaging Material, Plastic	29.65
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.83E-01
Am-243	4.16E-04
Cm-244	4.73E-01
Cs-137	1.61E-06
Np-237	9.70E-05
Pu-238	4.21E-01
Pu-239	1.02E+00
Pu-240	2.42E-01
Pu-241	2.27E+00
Pu-242	3.66E-05
Sr-90	1.60E-06
Th-229	1.95E-06
Th-230	1.54E-09
Th-232	2.84E-18
U-233	5.19E-03
U-234	4.51E-05
U-235	2.64E-07
U-236	2.87E-08
U-238	1.75E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D040, F001, F002, F003, F004, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-NTS54MIX1R0**

Appendix B

TRU Waste Inventory Profile Report

Site	Nevada Test Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	NTS54MIX1R0-S	0.4
Emplaced Total		0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	33.89
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	2.40
Cellulosics	38.46
Rubber	41.59
Plastics	38.46
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.28E-03
Am-243	2.30E-04
Cs-137	1.73E-04
Np-237	1.91E-06
Pu-238	9.60E-04
Pu-239	6.96E-02
Pu-240	1.67E-02
Pu-241	5.18E-02
Pu-242	1.64E-06
Th-229	1.37E-14
Th-230	4.56E-13
Th-232	4.41E-19
U-233	4.88E-11
U-234	1.67E-08
U-235	4.12E-10
U-236	2.98E-09
U-238	1.49E-15

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D022, D027, D028,
D029, D040, F001,
F002, F003, F004,
F005

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-OR-NFS-CH-HET**

Appendix B

TRU Waste Inventory Profile Report

Site	Oak Ridge National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	OR-NFS-CH-HET-S	1.0
55-gal Drum Dir Ld w/o Liner	OR-NFS-CH-HET-S	22.3
Emplaced Total		23.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	76.07
Aluminum-based Metals/Alloys	8.66
Other Metals	0.28
Other Inorganic Materials	2.39
Cellulosics	16.46
Rubber	1.38
Plastics	56.20
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	1.65
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.07E-01
Cs-137	4.58E-08
Np-237	6.52E-07
Pu-238	1.50E-02
Pu-239	1.89E-01
Pu-240	5.75E-02
Pu-241	4.84E-01
Pu-242	8.86E-06
Sr-90	4.58E-08
Th-229	1.17E-09
Th-230	1.50E-11
Th-232	4.21E-20
U-233	1.24E-05
U-234	1.69E-06
U-235	6.52E-08
U-236	1.70E-09
U-238	3.98E-05

Haz. Waste No(s).

D006, D008, D009, D011

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF001.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Combustible	Waste Matrix Code	S5390	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF001.01-S	745.1
55-gal Drum Dir Ld w/o Liner	RF001.01-S	92.4
SWB Dir Ld w/o Liner	RF001.01-S	100.2
SWB w/ 4 - 55-gal Drums w/ Liners	RF001.01-S	37.8
SWB w/ 4 - 55-gal Drums w/o Liners	RF001.01-S	3.8
Emplaced Total		979.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.08
Aluminum-based Metals/Alloys	0.01
Other Metals	0.24
Other Inorganic Materials	2.65
Cellulosics	27.92
Rubber	0.74
Plastics	78.05
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.02
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	136.53
Packaging Material, Plastic	28.78
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.54E+00
Am-243	1.21E-06
Np-237	5.66E-05
Pu-238	1.47E-01
Pu-239	3.44E+00
Pu-240	7.99E-01
Pu-241	1.07E+01
Pu-242	1.20E-04
Th-229	5.77E-08
Th-230	1.48E-08
Th-232	3.74E-17
U-233	7.70E-05
U-234	2.07E-04
U-235	9.79E-06
U-236	1.89E-07
U-238	2.26E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF002.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF002.01-S	399.4
55-gal Drum Dir Ld w/o Liner	RF002.01-S	32.2
55-gal POC - 12" w/ Liner	RF002.01-S	13.7
SWB Dir Ld w/o Liner	RF002.01-S	984.7
SWB w/ 4 - 55-gal Drums w/ Liners	RF002.01-S	17.0
TDOP w/ 1 SWB w/o Liners	RF002.01-S	13.5
Emplaced Total		1460.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	230.92
Aluminum-based Metals/Alloys	1.27
Other Metals	10.50
Other Inorganic Materials	0.49
Cellulosics	7.19
Rubber	0.20
Plastics	4.85
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.01
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	151.74
Packaging Material, Plastic	10.65
Packaging Material, Cellulosics	1.29
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.86E-01
Am-243	7.25E-07
Cs-137	2.08E-07
Np-237	8.53E-06
Pu-238	1.46E-01
Pu-239	3.02E+00
Pu-240	7.11E-01
Pu-241	1.16E+01
Pu-242	8.39E-05
Th-229	9.82E-09
Th-230	5.63E-09
Th-232	2.55E-17
U-233	1.50E-05
U-234	9.09E-05
U-235	4.81E-06
U-236	1.48E-07
U-238	1.94E-04

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF003.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5126	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF003.01-S	65.9
55-gal Drum Dir Ld w/o Liner	RF003.01-S	0.4
55-gal POC - 12" w/ Liner	RF003.01-S	275.8
SWB w/ 4 - 55-gal Drums w/ Liners	RF003.01-S	9.5
SWB w/ 4 - 55-gal Drums w/o Liners	RF003.01-S	3.8
Emplaced Total		355.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	13.10
Aluminum-based Metals/Alloys	0.00
Other Metals	0.07
Other Inorganic Materials	70.17
Cellulosics	1.84
Rubber	0.00
Plastics	2.72
Cements	0.00
Inorganic Matrix	0.30
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	441.58
Packaging Material, Plastic	36.01
Packaging Material, Cellulosics	106.71
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.51E+00
Np-237	2.81E-05
Pu-238	1.45E+00
Pu-239	3.57E+01
Pu-240	8.63E+00
Pu-241	9.27E+01
Pu-242	8.25E-04
Th-229	2.13E-08
Th-230	4.29E-09
Th-232	4.05E-16
U-233	2.84E-05
U-234	7.65E-05
U-235	1.68E-06
U-236	2.05E-06
U-238	3.67E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF004.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF004.01-S	263.3
55-gal Drum Dir Ld w/o Liner	RF004.01-S	7.9
55-gal POC - 12" w/ Liner	RF004.01-S	2.3
SWB Dir Ld w/o Liner	RF004.01-S	1.9
SWB w/ 4 - 55-gal Drums w/ Liners	RF004.01-S	5.7
SWB w/ 4 - 55-gal Drums w/o Liners	RF004.01-S	1.9
Emplaced Total		283.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.60
Aluminum-based Metals/Alloys	0.02
Other Metals	0.46
Other Inorganic Materials	464.77
Cellulosics	11.91
Rubber	0.00
Plastics	4.75
Cements	0.00
Inorganic Matrix	0.04
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	136.30
Packaging Material, Plastic	35.06
Packaging Material, Cellulosics	1.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.51E-01
Am-243	3.12E-09
Np-237	5.60E-06
Pu-238	1.14E-01
Pu-239	2.43E+00
Pu-240	5.62E-01
Pu-241	1.01E+01
Pu-242	6.77E-05
Th-229	3.38E-14
Th-230	3.96E-09
Th-232	1.48E-17
U-233	1.26E-10
U-234	7.43E-05
U-235	2.35E-06
U-236	1.00E-07
U-238	2.66E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF005.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Salt Waste	Waste Matrix Code	S3141	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	RF005.01-S	119.4
Emplaced Total		119.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	19.04
Aluminum-based Metals/Alloys	0.00
Other Metals	3.07
Other Inorganic Materials	19.27
Cellulosics	0.00
Rubber	0.00
Plastics	1.73
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	527.40
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	137.50
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.44E+01
Np-237	1.65E-04
Pu-238	1.70E+00
Pu-239	4.01E+01
Pu-240	1.03E+01
Pu-241	6.15E+01
Pu-242	8.47E-04
Th-229	1.41E-12
Th-230	2.29E-09
Th-232	7.55E-16
U-233	4.03E-09
U-234	5.02E-05
U-235	1.08E-06
U-236	3.06E-06
U-238	1.28E-12

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF005.02****Appendix B****TRU Waste Inventory Profile Report**

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Salt Waste	Waste Matrix Code	S3141	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	RF005.02-S	78.4
Emplaced Total		78.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	13.92
Aluminum-based Metals/Alloys	0.00
Other Metals	0.23
Other Inorganic Materials	27.49
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	527.40
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	137.50
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.22E+01
Np-237	2.70E-04
Pu-238	1.53E+00
Pu-239	3.70E+01
Pu-240	9.73E+00
Pu-241	5.16E+01
Pu-242	8.23E-04
Th-229	1.80E-12
Th-230	2.28E-09
Th-232	5.77E-16
U-233	5.81E-09
U-234	4.82E-05
U-235	5.75E-07
U-236	2.60E-06
U-238	2.19E-09

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF006.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF006.01-S	2.7
55-gal POC - 12" w/ Liner	RF006.01-S	233.0
Emplaced Total		235.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	8.48
Aluminum-based Metals/Alloys	0.00
Other Metals	0.06
Other Inorganic Materials	32.83
Cellulosics	0.03
Rubber	0.00
Plastics	0.67
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	522.85
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	135.92
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.63E+00
Np-237	4.79E-05
Pu-238	1.92E+00
Pu-239	3.91E+01
Pu-240	9.45E+00
Pu-241	1.17E+02
Pu-242	1.26E-03
Th-229	1.36E-12
Th-230	9.79E-09
Th-232	1.77E-15
U-233	2.16E-09
U-234	1.14E-04
U-235	1.42E-06
U-236	4.49E-06
U-238	5.89E-09

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF008.01****Appendix B****TRU Waste Inventory Profile Report**

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY		2008	

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF008.01-S	4.4
55-gal Drum Dir Ld w/o Liner	RF008.01-S	0.2
55-gal POC - 12" w/ Liner	RF008.01-S	90.7
SWB w/ 4 - 55-gal Drums w/ Liners	RF008.01-S	1.9
Emplaced Total		97.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	5.36
Aluminum-based Metals/Alloys	0.10
Other Metals	1.39
Other Inorganic Materials	56.30
Cellulosics	0.36
Rubber	0.00
Plastics	1.05
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	502.57
Packaging Material, Plastic	36.52
Packaging Material, Cellulosics	128.35
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.01E+01
Np-237	1.63E-04
Pu-238	2.00E+00
Pu-239	3.49E+01
Pu-240	9.58E+00
Pu-241	1.00E+02
Pu-242	1.40E-03
Th-229	2.37E-12
Th-230	2.39E-09
Th-232	5.69E-16
U-233	5.78E-09
U-234	5.56E-05
U-235	5.92E-07
U-236	2.56E-06
U-238	7.77E-10

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF009.01**

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TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Salt Waste	Waste Matrix Code	S3141	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF009.01-S	3.3
55-gal Drum Dir Ld w/o Liner	RF009.01-S	8.5
55-gal POC - 12" w/ Liner	RF009.01-S	1311.2
SWB w/ 4 - 55-gal Drums w/o Liners	RF009.01-S	3.8
Emplaced Total		1326.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	10.46
Aluminum-based Metals/Alloys	0.00
Other Metals	4.01
Other Inorganic Materials	17.82
Cellulosics	0.04
Rubber	0.00
Plastics	0.93
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	522.96
Packaging Material, Plastic	36.66
Packaging Material, Cellulosics	135.88
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.05E+01
Np-237	3.95E-04
Pu-238	1.45E+00
Pu-239	4.14E+01
Pu-240	1.03E+01
Pu-241	6.52E+01
Pu-242	1.03E-03
Th-229	3.97E-12
Th-230	1.75E-09
Th-232	4.82E-16
U-233	1.13E-08
U-234	4.12E-05
U-235	5.58E-07
U-236	2.44E-06
U-238	2.05E-09

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF010.01**

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TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Filter	Waste Matrix Code	S5410	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF010.01-S	274.6
55-gal Drum Dir Ld w/o Liner	RF010.01-S	12.9
SWB Dir Ld w/o Liner	RF010.01-S	264.6
SWB w/ 4 - 55-gal Drums w/ Liners	RF010.01-S	62.4
SWB w/ 4 - 55-gal Drums w/o Liners	RF010.01-S	15.1
Emplaced Total		629.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	12.18
Aluminum-based Metals/Alloys	8.77
Other Metals	0.98
Other Inorganic Materials	8.04
Cellulosics	36.45
Rubber	3.69
Plastics	9.49
Cements	0.00
Inorganic Matrix	0.29
Organic Matrix	0.03
Soils/gravel	0.13
Vitrified	0.00
Packaging Material, Steel	150.22
Packaging Material, Plastic	17.75
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.32E+00
Am-243	6.52E-08
Np-237	1.36E-05
Pu-238	3.94E-01
Pu-239	9.94E+00
Pu-240	2.32E+00
Pu-241	2.69E+01
Pu-242	2.53E-04
Th-229	1.01E-13
Th-230	1.26E-08
Th-232	8.33E-17
U-233	3.33E-10
U-234	2.05E-04
U-235	6.40E-06
U-236	4.82E-07
U-238	5.68E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF011.01**

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TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A	Activity Concentrations Decayed to CY			2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF011.01-S	49.5
55-gal Drum Dir Ld w/o Liner	RF011.01-S	1.7
SWB w/ 4 - 55-gal Drums w/ Liners	RF011.01-S	28.4
Emplaced Total		79.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	10.77
Aluminum-based Metals/Alloys	0.01
Other Metals	0.04
Other Inorganic Materials	17.84
Cellulosics	1.61
Rubber	0.00
Plastics	1.75
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	159.43
Packaging Material, Plastic	28.85
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.89E+00
Np-237	8.71E-06
Pu-238	7.78E-01
Pu-239	1.87E+01
Pu-240	4.50E+00
Pu-241	4.51E+01
Pu-242	3.85E-04
Th-229	3.75E-14
Th-230	8.48E-10
Th-232	1.19E-16
U-233	1.55E-10
U-234	2.25E-05
U-235	3.97E-07
U-236	8.00E-07
U-238	5.29E-08

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF015.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF015.01-S	1.7
Emplaced Total		1.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	19.17
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	5.05
Cellulosics	12.98
Rubber	0.00
Plastics	1.62
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.21E+00
Np-237	5.17E-05
Pu-238	5.63E-01
Pu-239	1.13E+01
Pu-240	2.63E+00
Pu-241	5.31E+01
Pu-242	3.50E-04
Th-229	3.55E-13
Th-230	2.67E-10
Th-232	6.94E-17
U-233	1.28E-09
U-234	9.81E-06
U-235	6.67E-08
U-236	4.69E-07
U-238	3.17E-13

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF029.01**

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TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF029.01-S	13.9
55-gal Drum Dir Ld w/o Liner	RF029.01-S	2.7
55-gal POC - 12" w/ Liner	RF029.01-S	3.1
SWB Dir Ld w/o Liner	RF029.01-S	4316.8
SWB w/ 4 - 55-gal Drums w/o Liners	RF029.01-S	5.7
TDOP w/ 1 SWB w/o Liners	RF029.01-S	4.5
Emplaced Total		4346.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	168.15
Aluminum-based Metals/Alloys	1.51
Other Metals	0.58
Other Inorganic Materials	13.97
Cellulosics	17.25
Rubber	1.33
Plastics	30.02
Cements	0.00
Inorganic Matrix	0.01
Organic Matrix	0.03
Soils/gravel	0.16
Vitrified	0.00
Packaging Material, Steel	153.84
Packaging Material, Plastic	0.15
Packaging Material, Cellulosics	0.10
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.98E-01
Am-243	3.33E-07
Cs-137	5.87E-09
Np-237	5.89E-06
Pu-238	8.38E-02
Pu-239	1.58E+00
Pu-240	3.80E-01
Pu-241	8.07E+00
Pu-242	5.09E-05
Pu-244	5.72E-21
Sr-90	4.00E-11
Th-229	2.69E-14
Th-230	8.69E-10
Th-232	6.95E-18
U-233	1.17E-10
U-234	1.99E-05
U-235	6.13E-07
U-236	5.63E-08
U-238	2.89E-07

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF031.01**

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TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5313	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF031.01-S	15.2
55-gal Drum Dir Ld w/o Liner	RF031.01-S	5.0
55-gal POC - 12" w/ Liner	RF031.01-S	0.4
Emplaced Total		20.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.34
Aluminum-based Metals/Alloys	0.00
Other Metals	0.23
Other Inorganic Materials	1.10
Cellulosics	9.68
Rubber	0.00
Plastics	46.42
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	6.07
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	138.81
Packaging Material, Plastic	28.03
Packaging Material, Cellulosics	2.78
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.59E-01
Np-237	2.72E-06
Pu-238	1.12E-01
Pu-239	2.34E+00
Pu-240	5.42E-01
Pu-241	1.06E+01
Pu-242	6.42E-05
Th-229	7.47E-15
Th-230	1.58E-09
Th-232	6.35E-18
U-233	4.14E-11
U-234	4.47E-05
U-235	1.43E-06
U-236	6.43E-08
U-238	1.99E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF032.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A	Activity Concentrations Decayed to CY			2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF032.01-S	3.1
55-gal POC - 12" w/ Liner	RF032.01-S	206.1
Emplaced Total		209.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	15.54
Aluminum-based Metals/Alloys	0.00
Other Metals	0.23
Other Inorganic Materials	31.96
Cellulosics	0.04
Rubber	0.00
Plastics	0.06
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	521.49
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	135.45
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.11E+01
Np-237	1.25E-04
Pu-238	1.47E+00
Pu-239	4.12E+01
Pu-240	9.66E+00
Pu-241	8.24E+01
Pu-242	7.24E-04
Th-229	1.07E-12
Th-230	1.49E-09
Th-232	3.47E-16
U-233	3.39E-09
U-234	3.86E-05
U-235	5.57E-07
U-236	2.01E-06
U-238	2.41E-09

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF033.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF033.01-S	12.1
55-gal Drum Dir Ld w/o Liner	RF033.01-S	1.7
55-gal POC - 12" w/ Liner	RF033.01-S	11.9
Emplaced Total		25.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	16.37
Aluminum-based Metals/Alloys	0.00
Other Metals	1.27
Other Inorganic Materials	109.77
Cellulosics	0.20
Rubber	0.00
Plastics	27.33
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.09
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	314.59
Packaging Material, Plastic	34.59
Packaging Material, Cellulosics	63.72
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.66E+00
Np-237	3.29E-05
Pu-238	1.34E+00
Pu-239	3.12E+01
Pu-240	7.28E+00
Pu-241	1.04E+02
Pu-242	7.19E-04
Th-229	1.98E-13
Th-230	1.29E-09
Th-232	1.92E-16
U-233	7.37E-10
U-234	3.55E-05
U-235	6.00E-07
U-236	1.30E-06
U-238	2.34E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF036.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5420	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF036.01-S	44.1
Emplaced Total		44.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.12
Aluminum-based Metals/Alloys	0.79
Other Metals	0.00
Other Inorganic Materials	488.73
Cellulosics	7.07
Rubber	0.00
Plastics	12.67
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.29
Soils/gravel	4.40
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.06E+00
Am-243	1.85E-06
Np-237	8.59E-06
Pu-238	3.03E-01
Pu-239	6.00E+00
Pu-240	1.40E+00
Pu-241	3.10E+01
Pu-242	1.85E-04
Th-229	2.46E-14
Th-230	2.07E-09
Th-232	1.64E-17
U-233	1.35E-10
U-234	5.92E-05
U-235	2.53E-06
U-236	1.66E-07
U-238	6.76E-05

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RF101.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Combustible	Waste Matrix Code	S5390	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF101.01-S	114.6
55-gal Drum Dir Ld w/o Liner	RF101.01-S	13.1
SWB Dir Ld w/o Liner	RF101.01-S	24.6
SWB w/ 4 - 55-gal Drums w/ Liners	RF101.01-S	22.7
Emplaced Total		175.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	2.53
Aluminum-based Metals/Alloys	0.02
Other Metals	0.39
Other Inorganic Materials	15.34
Cellulosics	62.57
Rubber	1.27
Plastics	30.20
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.84
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	144.40
Packaging Material, Plastic	26.35
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.04E+00
Am-243	6.04E-06
Np-237	1.41E-05
Pu-238	4.56E-01
Pu-239	9.65E+00
Pu-240	2.26E+00
Pu-241	3.70E+01
Pu-242	2.64E-04
Th-229	8.40E-14
Th-230	1.30E-08
Th-232	5.95E-17
U-233	3.14E-10
U-234	2.46E-04
U-235	7.77E-06
U-236	4.02E-07
U-238	4.88E-06

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF101.29**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Combustible	Waste Matrix Code	S5390	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF101.29-S	25.4
55-gal Drum Dir Ld w/o Liner	RF101.29-S	3.1
SWB Dir Ld w/o Liner	RF101.29-S	1.9
Emplaced Total		30.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.43
Aluminum-based Metals/Alloys	0.03
Other Metals	0.00
Other Inorganic Materials	12.48
Cellulosics	51.65
Rubber	5.43
Plastics	47.43
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	132.21
Packaging Material, Plastic	30.90
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.06E+00
Np-237	6.77E-06
Pu-238	2.51E-01
Pu-239	5.15E+00
Pu-240	1.20E+00
Pu-241	1.84E+01
Pu-242	1.39E-04
Th-229	5.22E-14
Th-230	1.16E-08
Th-232	4.30E-17
U-233	1.70E-10
U-234	1.87E-04
U-235	5.94E-06
U-236	2.49E-07
U-238	6.71E-06

Haz. Waste No(s).

F001

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RF101.30**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Combustible	Waste Matrix Code	S5390	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF101.30-S	79.5
55-gal Drum Dir Ld w/o Liner	RF101.30-S	5.8
SWB Dir Ld w/o Liner	RF101.30-S	3.8
SWB w/ 4 - 55-gal Drums w/ Liners	RF101.30-S	24.6
SWB w/ 4 - 55-gal Drums w/o Liners	RF101.30-S	3.8
Emplaced Total		117.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.84
Aluminum-based Metals/Alloys	0.00
Other Metals	0.09
Other Inorganic Materials	2.31
Cellulosics	40.50
Rubber	0.80
Plastics	37.94
Cements	0.00
Inorganic Matrix	0.04
Organic Matrix	0.03
Soils/gravel	0.01
Vitrified	0.00
Packaging Material, Steel	150.92
Packaging Material, Plastic	28.45
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.13E+00
Am-243	2.67E-06
Np-237	2.38E-05
Pu-238	3.26E-01
Pu-239	7.49E+00
Pu-240	1.76E+00
Pu-241	2.40E+01
Pu-242	2.16E-04
Th-229	1.89E-13
Th-230	9.02E-09
Th-232	6.32E-17
U-233	6.11E-10
U-234	1.47E-04
U-235	4.56E-06
U-236	3.65E-07
U-238	1.57E-06

Haz. Waste No(s).

F001, F002

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RF101.31**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Combustible	Waste Matrix Code	S5390	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF101.31-S	43.9
55-gal Drum Dir Ld w/o Liner	RF101.31-S	5.4
SWB Dir Ld w/o Liner	RF101.31-S	9.5
SWB w/ 4 - 55-gal Drums w/ Liners	RF101.31-S	3.8
Emplaced Total		62.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	4.86
Aluminum-based Metals/Alloys	0.00
Other Metals	0.12
Other Inorganic Materials	2.09
Cellulosics	65.86
Rubber	0.69
Plastics	43.00
Cements	0.00
Inorganic Matrix	0.02
Organic Matrix	0.02
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	139.09
Packaging Material, Plastic	26.96
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.13E+00
Am-243	2.18E-07
Np-237	6.07E-06
Pu-238	1.67E-01
Pu-239	3.74E+00
Pu-240	8.88E-01
Pu-241	1.15E+01
Pu-242	1.32E-04
Th-229	5.43E-14
Th-230	6.62E-09
Th-232	4.16E-17
U-233	1.60E-10
U-234	9.39E-05
U-235	2.95E-06
U-236	2.11E-07
U-238	1.33E-06

Haz. Waste No(s).

F001, F002, F005

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RF101.35**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Combustible	Waste Matrix Code	S5390	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF101.35-S	51.2
55-gal Drum Dir Ld w/o Liner	RF101.35-S	17.1
SWB Dir Ld w/o Liner	RF101.35-S	3.8
SWB w/ 4 - 55-gal Drums w/ Liners	RF101.35-S	7.6
Emplaced Total		79.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.72
Aluminum-based Metals/Alloys	0.00
Other Metals	0.57
Other Inorganic Materials	2.66
Cellulosics	48.15
Rubber	0.47
Plastics	58.97
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	139.51
Packaging Material, Plastic	25.34
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.06E+00
Np-237	2.73E-05
Pu-238	3.69E-01
Pu-239	8.02E+00
Pu-240	1.87E+00
Pu-241	2.97E+01
Pu-242	2.62E-04
Th-229	2.26E-13
Th-230	6.71E-08
Th-232	6.72E-17
U-233	7.20E-10
U-234	1.07E-03
U-235	3.42E-05
U-236	3.89E-07
U-238	2.75E-06

Haz. Waste No(s).

F005

No TRUCON
Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF102.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF102.01-S	45.3
55-gal Drum Dir Ld w/o Liner	RF102.01-S	0.6
SWB Dir Ld w/o Liner	RF102.01-S	175.8
SWB w/ 4 - 55-gal Drums w/ Liners	RF102.01-S	1.9
Emplaced Total		223.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	234.12
Aluminum-based Metals/Alloys	0.50
Other Metals	9.83
Other Inorganic Materials	1.88
Cellulosics	6.47
Rubber	0.25
Plastics	4.10
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	149.32
Packaging Material, Plastic	7.64
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.91E-01
Am-243	8.92E-07
Cs-137	4.30E-05
Np-237	6.91E-06
Pu-238	1.31E-01
Pu-239	2.56E+00
Pu-240	6.10E-01
Pu-241	1.20E+01
Pu-242	7.93E-05
Th-229	4.39E-14
Th-230	1.05E-09
Th-232	1.61E-17
U-233	1.61E-10
U-234	2.06E-05
U-235	6.24E-07
U-236	1.09E-07
U-238	1.78E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D028, D029, F001, F002, F005, F006, F007, F009, P030, P098, P099, P106, U003, U103, U108

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF102.31**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Lead/Cadmium Metal Waste	Waste Matrix Code	S5112	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF102.31-S	22.3
55-gal Drum Dir Ld w/o Liner	RF102.31-S	1.0
55-gal POC - 12" w/ Liner	RF102.31-S	0.6
SWB Dir Ld w/o Liner	RF102.31-S	96.4
SWB w/ 4 - 55-gal Drums w/ Liners	RF102.31-S	3.8
Emplaced Total		124.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	189.33
Aluminum-based Metals/Alloys	0.36
Other Metals	147.87
Other Inorganic Materials	0.16
Cellulosics	5.66
Rubber	1.89
Plastics	3.08
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	152.87
Packaging Material, Plastic	7.32
Packaging Material, Cellulosics	0.69
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.15E+00
Am-243	1.55E-07
Np-237	9.20E-06
Pu-238	1.09E-01
Pu-239	2.21E+00
Pu-240	5.24E-01
Pu-241	9.60E+00
Pu-242	6.82E-05
Th-229	5.61E-14
Th-230	3.50E-09
Th-232	1.38E-17
U-233	2.09E-10
U-234	6.57E-05
U-235	2.23E-06
U-236	9.32E-08
U-238	1.72E-05

Haz. Waste No(s).

D008

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RF104.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF104.01-S	35.2
55-gal Drum Dir Ld w/o Liner	RF104.01-S	2.1
55-gal POC - 12" w/ Liner	RF104.01-S	7.7
SWB Dir Ld w/o Liner	RF104.01-S	5.7
SWB w/ 4 - 55-gal Drums w/ Liners	RF104.01-S	1.9
SWB w/ 4 - 55-gal Drums w/o Liners	RF104.01-S	1.9
Emplaced Total		54.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	5.65
Aluminum-based Metals/Alloys	0.01
Other Metals	1.43
Other Inorganic Materials	213.89
Cellulosics	7.04
Rubber	0.06
Plastics	5.63
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	194.88
Packaging Material, Plastic	29.72
Packaging Material, Cellulosics	19.46
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.27E+00
Am-243	4.20E-06
Np-237	1.94E-05
Pu-238	2.93E-01
Pu-239	7.52E+00
Pu-240	1.77E+00
Pu-241	2.25E+01
Pu-242	1.72E-04
Th-229	8.52E-14
Th-230	7.92E-10
Th-232	3.25E-17
U-233	3.76E-10
U-234	1.97E-05
U-235	5.59E-07
U-236	2.63E-07
U-238	2.58E-06

Haz. Waste No(s).

D005, D008, D009,
D022, F001, F002,
F005**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF107.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF107.01-S	63.4
Emplaced Total		63.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.17
Aluminum-based Metals/Alloys	0.00
Other Metals	0.73
Other Inorganic Materials	13.61
Cellulosics	0.00
Rubber	0.00
Plastics	1.11
Cements	0.00
Inorganic Matrix	776.54
Organic Matrix	11.45
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.13E+01
Np-237	2.75E-04
Pu-238	1.48E-01
Pu-239	3.01E+00
Pu-240	6.97E-01
Pu-241	1.53E+01
Pu-242	9.12E-05
Th-229	7.62E-13
Th-230	9.77E-09
Th-232	8.17E-18
U-233	4.22E-09
U-234	2.73E-04
U-235	1.75E-05
U-236	8.27E-08
U-238	9.43E-04

Haz. Waste No(s).

D006, D007, D008,
D009, D011**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-RF107.03**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF107.03-S	60.7
55-gal Drum Dir Ld w/o Liner	RF107.03-S	0.2
Emplaced Total		60.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.45
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	1.09
Cements	0.00
Inorganic Matrix	819.47
Organic Matrix	0.04
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	36.87
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.38E-01
Np-237	2.10E-06
Pu-238	1.89E-02
Pu-239	3.80E-01
Pu-240	8.83E-02
Pu-241	1.94E+00
Pu-242	1.16E-05
Th-229	6.03E-15
Th-230	4.57E-08
Th-232	1.04E-18
U-233	3.30E-11
U-234	1.27E-03
U-235	1.50E-04
U-236	1.05E-08
U-238	1.13E-02

Haz. Waste No(s).

F001, F002, F005,
F006, F007, F009**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-RF107.04**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF107.04-S	100.9
55-gal Drum Dir Ld w/o Liner	RF107.04-S	1.9
SWB w/ 4 - 55-gal Drums w/ Liners	RF107.04-S	7.6
Emplaced Total		110.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.01
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.07
Rubber	0.00
Plastics	1.64
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	954.33
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	136.30
Packaging Material, Plastic	34.95
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.36E-01
Np-237	4.72E-06
Pu-238	3.71E-02
Pu-239	7.55E-01
Pu-240	1.75E-01
Pu-241	3.83E+00
Pu-242	2.29E-05
Th-229	1.36E-14
Th-230	6.95E-10
Th-232	2.05E-18
U-233	7.43E-11
U-234	1.95E-05
U-235	1.91E-06
U-236	2.08E-08
U-238	1.40E-04

Haz. Waste No(s).

D022, D028, D029,
D030, D032, D034,
F001, F002, F005**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF107.05**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF107.05-S	4.4
Emplaced Total		4.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.63
Cellulosics	8.65
Rubber	0.00
Plastics	2.35
Cements	0.00
Inorganic Matrix	601.28
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.11E+00
Np-237	6.51E-06
Pu-238	2.31E-01
Pu-239	4.67E+00
Pu-240	1.09E+00
Pu-241	2.38E+01
Pu-242	1.42E-04
Th-229	1.78E-14
Th-230	8.12E-08
Th-232	1.27E-17
U-233	9.88E-11
U-234	2.26E-03
U-235	7.28E-05
U-236	1.29E-07
U-238	6.43E-07

Haz. Waste No(s).

D004, D005, D009,
D010, D022, D027,
D028, D029, D032,
D033, D034, D043,
F001, F002, F005,
F006, F007, F009,
P030, P098, P099,
P106, U003, U103,
U108

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-RF107.06**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF107.06-S	14.4
Emplaced Total		14.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.49
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	8.25
Cements	0.00
Inorganic Matrix	873.52
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.07E-02
Np-237	7.08E-08
Pu-238	1.05E-02
Pu-239	2.13E-01
Pu-240	4.94E-02
Pu-241	1.08E+00
Pu-242	6.46E-06
Th-229	1.48E-16
Th-230	5.79E-09
Th-232	5.79E-19
U-233	8.89E-13
U-234	1.61E-04
U-235	1.83E-05
U-236	5.86E-09
U-238	1.40E-03

Haz. Waste No(s).

F001, F002, F005,
F006, F007, F009,
P030, P098, P099,
P106, U003, U103,
U108

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-RF107.07**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF107.07-S	57.0
SWB w/ 4 - 55-gal Drums w/ Liners	RF107.07-S	1.9
Emplaced Total		58.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	3.51
Cements	0.00
Inorganic Matrix	1172.21
Organic Matrix	4.62
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	133.38
Packaging Material, Plastic	36.34
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.91E+00
Am-243	2.88E-05
Np-237	4.32E-05
Pu-238	6.19E-01
Pu-239	1.23E+01
Pu-240	2.87E+00
Pu-241	6.34E+01
Pu-242	3.79E-04
Th-229	1.24E-13
Th-230	8.35E-08
Th-232	3.36E-17
U-233	6.81E-10
U-234	2.33E-03
U-235	7.51E-05
U-236	3.40E-07
U-238	3.74E-05

Haz. Waste No(s).

F001, F002, F005,
F006, F007, F009,
P030, P098, P099,
P106, U003, U103,
U108

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-RF110.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Filter	Waste Matrix Code	S5410	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF110.01-S	8.3
55-gal Drum Dir Ld w/o Liner	RF110.01-S	0.6
55-gal POC - 12" w/ Liner	RF110.01-S	0.2
Emplaced Total		9.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	4.57
Aluminum-based Metals/Alloys	5.49
Other Metals	0.08
Other Inorganic Materials	9.72
Cellulosics	50.40
Rubber	4.90
Plastics	26.12
Cements	0.00
Inorganic Matrix	0.07
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	139.81
Packaging Material, Plastic	34.48
Packaging Material, Cellulosics	3.13
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.21E+00
Am-243	1.88E-04
Np-237	2.88E-05
Pu-238	6.71E-01
Pu-239	1.37E+01
Pu-240	3.20E+00
Pu-241	5.24E+01
Pu-242	7.16E-04
Th-229	1.42E-13
Th-230	5.47E-09
Th-232	8.43E-17
U-233	5.64E-10
U-234	1.07E-04
U-235	3.34E-06
U-236	5.69E-07
U-238	2.12E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D029, F001, F002, F005, F006, F007, F009, P030, P098, P099, P106, U003, U103, U108

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RF110.05**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Filter	Waste Matrix Code	S5410	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF110.05-S	16.6
55-gal Drum Dir Ld w/o Liner	RF110.05-S	1.7
SWB w/ 4 - 55-gal Drums w/ Liners	RF110.05-S	11.3
SWB w/ 4 - 55-gal Drums w/o Liners	RF110.05-S	1.9
Emplaced Total		31.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	7.11
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	7.40
Cellulosics	6.35
Rubber	0.07
Plastics	17.62
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.23
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	164.49
Packaging Material, Plastic	25.39
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.58E+00
Np-237	7.78E-06
Pu-238	6.41E-01
Pu-239	1.46E+01
Pu-240	3.38E+00
Pu-241	3.48E+01
Pu-242	3.25E-04
Th-229	4.04E-14
Th-230	1.03E-08
Th-232	1.21E-16
U-233	1.50E-10
U-234	1.70E-04
U-235	5.15E-06
U-236	7.02E-07
U-238	5.28E-07

Haz. Waste No(s).

D022, F001, F002

No TRUCON
Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF113.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Organics	Waste Matrix Code	S3114	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF113.01-S	0.4
Emplaced Total		0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	108.89
Cellulosics	0.48
Rubber	0.00
Plastics	12.02
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.48E-01
Np-237	2.45E-06
Pu-238	4.33E-02
Pu-239	8.91E-01
Pu-240	2.07E-01
Pu-241	4.12E+00
Pu-242	2.71E-05
Th-229	1.65E-14
Th-230	2.05E-11
Th-232	5.45E-18
U-233	5.96E-11
U-234	7.55E-07
U-235	5.27E-09
U-236	3.68E-08
U-238	2.45E-14

Haz. Waste No(s).

D007, D010, F005

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RF115.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF115.01-S	17.3
55-gal Drum Dir Ld w/o Liner	RF115.01-S	1.5
55-gal POC - 12" w/ Liner	RF115.01-S	86.7
SWB w/ 4 - 55-gal Drums w/ Liners	RF115.01-S	5.7
SWB w/ 4 - 55-gal Drums w/o Liners	RF115.01-S	3.8
Emplaced Total		114.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	16.78
Aluminum-based Metals/Alloys	0.01
Other Metals	11.65
Other Inorganic Materials	53.37
Cellulosics	2.41
Rubber	0.01
Plastics	3.38
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.01
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	436.77
Packaging Material, Plastic	34.29
Packaging Material, Cellulosics	103.79
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.21E+00
Np-237	1.66E-05
Pu-238	8.97E-01
Pu-239	2.20E+01
Pu-240	5.13E+00
Pu-241	4.15E+01
Pu-242	4.30E-04
Th-229	8.22E-14
Th-230	8.05E-10
Th-232	1.35E-16
U-233	3.26E-10
U-234	2.27E-05
U-235	4.04E-07
U-236	9.12E-07
U-238	5.44E-06

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RF116.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	RF116.01-S	4.0
Emplaced Total		4.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	19.23
Aluminum-based Metals/Alloys	0.00
Other Metals	16.09
Other Inorganic Materials	32.79
Cellulosics	0.00
Rubber	0.00
Plastics	3.23
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	527.40
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	137.50
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.49E+00
Np-237	3.79E-05
Pu-238	6.39E-01
Pu-239	2.48E+01
Pu-240	5.75E+00
Pu-241	3.01E+01
Pu-242	3.84E-04
Th-229	2.24E-13
Th-230	3.03E-10
Th-232	1.52E-16
U-233	8.39E-10
U-234	1.11E-05
U-235	1.47E-07
U-236	1.02E-06
U-238	3.47E-13

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF117.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF117.01-S	1.7
55-gal Drum Dir Ld w/o Liner	RF117.01-S	0.2
Emplaced Total		1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.50
Aluminum-based Metals/Alloys	0.00
Other Metals	1.28
Other Inorganic Materials	93.11
Cellulosics	8.65
Rubber	0.00
Plastics	8.22
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	32.89
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.69E+00
Np-237	2.28E-05
Pu-238	6.49E-01
Pu-239	1.31E+01
Pu-240	3.04E+00
Pu-241	6.19E+01
Pu-242	3.90E-04
Th-229	1.01E-13
Th-230	3.53E-08
Th-232	5.57E-17
U-233	4.43E-10
U-234	7.89E-04
U-235	2.51E-05
U-236	4.51E-07
U-238	2.22E-07

Haz. Waste No(s).

D007

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RF118.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3111	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF118.01-S	1.0
55-gal POC - 12" w/ Liner	RF118.01-S	1431.0
55-gal POC - 12" w/o Liner	RF118.01-S	0.2
Emplaced Total		1432.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	11.29
Aluminum-based Metals/Alloys	0.00
Other Metals	1.26
Other Inorganic Materials	16.19
Cellulosics	0.00
Rubber	0.00
Plastics	1.32
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	527.11
Packaging Material, Plastic	36.99
Packaging Material, Cellulosics	137.40
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.39E+00
Am-243	8.75E-07
Np-237	6.00E-05
Pu-238	2.87E+00
Pu-239	4.66E+01
Pu-240	1.25E+01
Pu-241	1.30E+02
Pu-242	1.52E-03
Th-229	5.80E-13
Th-230	1.63E-08
Th-232	5.88E-16
U-233	1.67E-09
U-234	2.60E-04
U-235	6.57E-06
U-236	2.98E-06
U-238	1.40E-07

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF119.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF119.01-S	19.3
55-gal Drum Dir Ld w/o Liner	RF119.01-S	3.7
55-gal POC - 12" w/ Liner	RF119.01-S	1.0
Emplaced Total		24.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	57.80
Aluminum-based Metals/Alloys	0.02
Other Metals	0.85
Other Inorganic Materials	8.24
Cellulosics	0.30
Rubber	0.00
Plastics	15.73
Cements	0.00
Inorganic Matrix	245.52
Organic Matrix	1.90
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	147.89
Packaging Material, Plastic	31.26
Packaging Material, Cellulosics	5.93
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.51E+00
Np-237	1.20E-05
Pu-238	3.04E-01
Pu-239	6.09E+00
Pu-240	1.43E+00
Pu-241	2.99E+01
Pu-242	1.85E-04
Th-229	3.44E-14
Th-230	7.65E-10
Th-232	1.68E-17
U-233	1.88E-10
U-234	2.30E-05
U-235	7.34E-07
U-236	1.70E-07
U-238	8.83E-06

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RF121.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5129	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	RF121.01-S	46.0
Emplaced Total		46.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	5.55
Aluminum-based Metals/Alloys	0.00
Other Metals	6.66
Other Inorganic Materials	11.10
Cellulosics	0.00
Rubber	0.00
Plastics	1.33
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	527.40
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	137.50
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.27E+00
Np-237	9.01E-06
Pu-238	1.38E+00
Pu-239	4.29E+01
Pu-240	1.03E+01
Pu-241	6.48E+01
Pu-242	6.64E-04
Th-229	1.77E-14
Th-230	1.07E-09
Th-232	1.88E-16
U-233	1.04E-10
U-234	3.38E-05
U-235	6.56E-07
U-236	1.52E-06
U-238	3.94E-09

Haz. Waste No(s).

D007, D008

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RF122.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF122.01-S	0.2
55-gal Drum Dir Ld w/o Liner	RF122.01-S	1.5
55-gal POC - 12" w/ Liner	RF122.01-S	33.9
Emplaced Total		35.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	10.47
Aluminum-based Metals/Alloys	0.00
Other Metals	12.08
Other Inorganic Materials	21.10
Cellulosics	0.00
Rubber	0.00
Plastics	2.56
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	508.85
Packaging Material, Plastic	35.49
Packaging Material, Cellulosics	131.07
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.91E+00
Np-237	1.59E-03
Pu-238	1.74E+00
Pu-239	3.86E+01
Pu-240	9.28E+00
Pu-241	7.36E+01
Pu-242	9.78E-04
Th-229	1.15E-11
Th-230	8.26E-10
Th-232	2.45E-16
U-233	4.08E-08
U-234	3.04E-05
U-235	2.28E-07
U-236	1.65E-06
U-238	8.86E-13

Haz. Waste No(s).

D006, D007, D008,
D009, F001, F002,
F005**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF122.03**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF122.03-S	4.4
Emplaced Total		4.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	424.32
Cellulosics	0.00
Rubber	0.00
Plastics	6.64
Cements	0.00
Inorganic Matrix	163.06
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.63E+00
Np-237	9.55E-05
Pu-238	1.59E-01
Pu-239	3.25E+00
Pu-240	7.54E-01
Pu-241	1.65E+01
Pu-242	9.85E-05
Th-229	2.83E-13
Th-230	7.44E-08
Th-232	8.84E-18
U-233	1.54E-09
U-234	2.07E-03
U-235	1.39E-04
U-236	8.95E-08
U-238	7.77E-03

Haz. Waste No(s).

D004, D005, D009,
D010, F001, F002,
F005, F006, F007,
F009

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-RF122.04**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF122.04-S	54.1
Emplaced Total		54.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	662.72
Cellulosics	0.28
Rubber	0.00
Plastics	8.45
Cements	0.00
Inorganic Matrix	1.50
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.74E+00
Np-237	7.07E-05
Pu-238	1.47E-01
Pu-239	2.98E+00
Pu-240	6.92E-01
Pu-241	1.51E+01
Pu-242	9.06E-05
Th-229	2.09E-13
Th-230	2.20E-08
Th-232	8.11E-18
U-233	1.14E-09
U-234	6.13E-04
U-235	6.47E-05
U-236	8.21E-08
U-238	4.33E-03

Haz. Waste No(s).

D006, D007, D008,
D009, D011**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-RF122.05**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF122.05-S	16.2
Emplaced Total		16.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.15
Other Inorganic Materials	519.58
Cellulosics	0.00
Rubber	0.00
Plastics	49.09
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.83E-01
Np-237	8.91E-07
Pu-238	1.68E-02
Pu-239	3.37E-01
Pu-240	7.83E-02
Pu-241	1.72E+00
Pu-242	1.03E-05
Th-229	2.35E-15
Th-230	4.45E-08
Th-232	9.18E-19
U-233	1.32E-11
U-234	1.24E-03
U-235	6.46E-05
U-236	9.29E-09
U-238	2.40E-03

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-RF122.06**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF122.06-S	0.4
55-gal POC - 12" w/ Liner	RF122.06-S	6.9
Emplaced Total		7.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	9.30
Aluminum-based Metals/Alloys	0.00
Other Metals	12.03
Other Inorganic Materials	48.94
Cellulosics	0.00
Rubber	0.00
Plastics	2.65
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	504.74
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	129.64
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.90E+00
Np-237	5.90E-05
Pu-238	1.36E+00
Pu-239	3.47E+01
Pu-240	8.19E+00
Pu-241	6.49E+01
Pu-242	8.75E-04
Th-229	3.54E-13
Th-230	3.02E-09
Th-232	2.16E-16
U-233	1.32E-09
U-234	6.76E-05
U-235	1.98E-06
U-236	1.46E-06
U-238	3.86E-05

Haz. Waste No(s).

D006, D007, D008,
D009, D011**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF123.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	RF123.01-S	7.5
SWB w/ 4 - 55-gal Drums w/ Liners	RF123.01-S	1.9
Emplaced Total		9.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	5.09
Aluminum-based Metals/Alloys	0.00
Other Metals	5.89
Other Inorganic Materials	9.14
Cellulosics	0.00
Rubber	0.00
Plastics	1.18
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	463.65
Packaging Material, Plastic	32.83
Packaging Material, Cellulosics	109.79
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.83E+00
Np-237	1.98E-05
Pu-238	1.07E+00
Pu-239	3.23E+01
Pu-240	7.51E+00
Pu-241	6.28E+01
Pu-242	5.30E-04
Th-229	8.10E-14
Th-230	2.48E-09
Th-232	1.98E-16
U-233	3.42E-10
U-234	5.52E-05
U-235	1.60E-06
U-236	1.34E-06
U-238	1.06E-08

Haz. Waste No(s).

D006, D007, D008,
D009, D018, D019,
D022, D028, D029,
D043, F001, F002,
F005

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-RF123.02**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF123.02-S	0.6
55-gal Drum Dir Ld w/o Liner	RF123.02-S	0.2
Emplaced Total		0.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	29.16
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	128.43
Cellulosics	6.49
Rubber	0.00
Plastics	2.51
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	27.75
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.84E-02
Np-237	2.17E-08
Pu-238	5.00E-03
Pu-239	9.99E-02
Pu-240	2.33E-02
Pu-241	5.13E-01
Pu-242	3.07E-06
Th-229	2.18E-17
Th-230	1.01E-08
Th-232	2.73E-19
U-233	1.77E-13
U-234	2.81E-04
U-235	3.24E-05
U-236	2.76E-09
U-238	2.52E-03

Haz. Waste No(s).

D010, F001, F002, F005, F006, F007, F009

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF123.03**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF123.03-S	11.9
55-gal Drum Dir Ld w/o Liner	RF123.03-S	0.2
Emplaced Total		12.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	5.34
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	25.98
Cellulosics	11.41
Rubber	0.00
Plastics	2.72
Cements	0.00
Inorganic Matrix	0.96
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	36.36
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.49E+01
Np-237	2.25E-04
Pu-238	8.45E-01
Pu-239	1.71E+01
Pu-240	3.97E+00
Pu-241	8.33E+01
Pu-242	5.23E-04
Th-229	9.89E-13
Th-230	8.89E-10
Th-232	7.27E-17
U-233	4.36E-09
U-234	2.58E-05
U-235	1.66E-06
U-236	5.89E-07
U-238	1.22E-04

Haz. Waste No(s).

D006, D007, D008, D009

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF123.04**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF123.04-S	44.5
Emplaced Total		44.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.39
Aluminum-based Metals/Alloys	0.00
Other Metals	0.01
Other Inorganic Materials	17.76
Cellulosics	1.10
Rubber	0.00
Plastics	0.27
Cements	0.00
Inorganic Matrix	0.76
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.25E+00
Np-237	2.34E-05
Pu-238	9.04E-01
Pu-239	1.81E+01
Pu-240	4.23E+00
Pu-241	8.90E+01
Pu-242	5.59E-04
Th-229	1.01E-13
Th-230	1.10E-09
Th-232	7.74E-17
U-233	4.47E-10
U-234	3.10E-05
U-235	7.20E-07
U-236	6.27E-07
U-238	5.86E-06

Haz. Waste No(s).

D007, D008, F005

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RF124.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5311	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF124.01-S	91.5
55-gal Drum Dir Ld w/o Liner	RF124.01-S	0.8
SWB Dir Ld w/o Liner	RF124.01-S	1.9
Emplaced Total		94.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.02
Aluminum-based Metals/Alloys	0.01
Other Metals	223.31
Other Inorganic Materials	0.82
Cellulosics	0.75
Rubber	129.33
Plastics	8.27
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	131.26
Packaging Material, Plastic	35.93
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.33E-01
Am-243	4.78E-08
Np-237	1.57E-05
Pu-238	1.18E-01
Pu-239	2.62E+00
Pu-240	6.04E-01
Pu-241	1.03E+01
Pu-242	6.99E-05
Th-229	1.48E-13
Th-230	4.75E-09
Th-232	2.17E-17
U-233	4.56E-10
U-234	7.67E-05
U-235	1.33E-06
U-236	1.25E-07
U-238	1.51E-06

Haz. Waste No(s).

D008

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RF124.02**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5311	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF124.02-S	13.1
55-gal Drum Dir Ld w/o Liner	RF124.02-S	0.2
Emplaced Total		13.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.26
Aluminum-based Metals/Alloys	0.00
Other Metals	207.17
Other Inorganic Materials	2.78
Cellulosics	0.98
Rubber	123.26
Plastics	8.93
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	36.42
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.73E-01
Np-237	1.12E-05
Pu-238	2.37E-01
Pu-239	5.01E+00
Pu-240	1.15E+00
Pu-241	2.03E+01
Pu-242	1.38E-04
Th-229	9.69E-14
Th-230	1.61E-09
Th-232	4.12E-17
U-233	3.05E-10
U-234	2.79E-05
U-235	7.79E-07
U-236	2.38E-07
U-238	6.59E-09

Haz. Waste No(s).

D008, D022, D028,
F001, F002**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF125.01****Appendix B****TRU Waste Inventory Profile Report**

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Organics	Waste Matrix Code	S3900	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF125.01-S	3.3
55-gal Drum Dir Ld w/o Liner	RF125.01-S	1.0
55-gal POC - 12" w/ Liner	RF125.01-S	6.2
SWB w/ 4 - 55-gal Drums w/ Liners	RF125.01-S	3.8
Emplaced Total		14.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	10.07
Aluminum-based Metals/Alloys	0.00
Other Metals	2.84
Other Inorganic Materials	2.40
Cellulosics	0.76
Rubber	0.00
Plastics	1.35
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	11.23
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	323.90
Packaging Material, Plastic	28.89
Packaging Material, Cellulosics	59.63
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.55E+01
Np-237	3.23E-04
Pu-238	1.07E+00
Pu-239	2.69E+01
Pu-240	6.22E+00
Pu-241	7.09E+01
Pu-242	5.32E-04
Th-229	1.53E-12
Th-230	2.76E-08
Th-232	1.14E-16
U-233	6.63E-09
U-234	6.22E-04
U-235	2.00E-05
U-236	9.21E-07
U-238	4.37E-05

Haz. Waste No(s).

D004, D005, D009,
D010, D022, D027,
D028, D029, D032,
D033, D034, D043,
F001, F002, F005,
F006, F007, F009,
P030, P098, P099,
P106, U003, U103,
U108

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-RF126.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Organics	Waste Matrix Code	S3229	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	RF126.01-S	1.0
Emplaced Total		1.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	8.65
Aluminum-based Metals/Alloys	0.00
Other Metals	11.54
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	2.31
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	13.94
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	527.40
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	137.50
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.41E+00
Np-237	6.62E-06
Pu-238	1.44E+00
Pu-239	3.73E+01
Pu-240	8.35E+00
Pu-241	7.76E+01
Pu-242	5.23E-04
Th-229	1.06E-14
Th-230	2.20E-09
Th-232	1.53E-16
U-233	6.87E-11
U-234	5.92E-05
U-235	1.42E-06
U-236	1.24E-06
U-238	1.10E-08

Haz. Waste No(s).

D007

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RF126.04**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Organics	Waste Matrix Code	S3229	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	RF126.04-S	2.1
Emplaced Total		2.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	6.06
Aluminum-based Metals/Alloys	0.00
Other Metals	8.08
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	1.62
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	11.15
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	527.40
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	137.50
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.50E+00
Np-237	8.48E-06
Pu-238	1.19E+00
Pu-239	3.40E+01
Pu-240	7.85E+00
Pu-241	6.58E+01
Pu-242	6.09E-04
Th-229	1.38E-14
Th-230	3.19E-09
Th-232	1.44E-16
U-233	8.88E-11
U-234	7.95E-05
U-235	1.80E-06
U-236	1.16E-06
U-238	1.51E-08

Haz. Waste No(s).

D007, D008, F001, F002

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RF128.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	RF128.01-S	198.2
Emplaced Total		198.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	4.71
Aluminum-based Metals/Alloys	0.00
Other Metals	5.88
Other Inorganic Materials	9.14
Cellulosics	0.00
Rubber	0.00
Plastics	1.18
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	527.40
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	137.50
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.02E+00
Np-237	2.15E-05
Pu-238	1.88E+00
Pu-239	4.29E+01
Pu-240	1.04E+01
Pu-241	8.56E+01
Pu-242	7.61E-04
Th-229	1.43E-13
Th-230	1.25E-09
Th-232	3.73E-16
U-233	4.86E-10
U-234	3.88E-05
U-235	3.13E-07
U-236	2.16E-06
U-238	1.47E-10

Haz. Waste No(s).

D005, D006, D007,
D008, D010, D011**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-RF129.01****Appendix B****TRU Waste Inventory Profile Report**

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF129.01-S	8.3
55-gal Drum Dir Ld w/o Liner	RF129.01-S	0.6
55-gal POC - 12" w/ Liner	RF129.01-S	3.3
SWB Dir Ld w/o Liner	RF129.01-S	455.5
Emplaced Total		467.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	151.84
Aluminum-based Metals/Alloys	1.45
Other Metals	23.51
Other Inorganic Materials	20.31
Cellulosics	14.40
Rubber	2.70
Plastics	26.27
Cements	0.00
Inorganic Matrix	0.22
Organic Matrix	0.61
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	155.73
Packaging Material, Plastic	0.92
Packaging Material, Cellulosics	0.98
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.69E-01
Am-243	2.19E-07
Cs-137	2.18E-07
Np-237	4.88E-06
Pu-238	9.59E-02
Pu-239	1.86E+00
Pu-240	4.44E-01
Pu-241	9.09E+00
Pu-242	5.81E-05
Pu-244	2.21E-23
Th-229	2.15E-14
Th-230	3.77E-09
Th-232	8.13E-18
U-233	9.46E-11
U-234	8.44E-05
U-235	2.93E-06
U-236	6.59E-08
U-238	1.33E-06

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF129.05**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF129.05-S	2.1
55-gal Drum Dir Ld w/o Liner	RF129.05-S	0.2
SWB Dir Ld w/o Liner	RF129.05-S	446.0
Emplaced Total		448.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	182.14
Aluminum-based Metals/Alloys	0.66
Other Metals	61.87
Other Inorganic Materials	6.36
Cellulosics	8.09
Rubber	2.72
Plastics	22.28
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.26
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	153.38
Packaging Material, Plastic	0.17
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.70E-01
Am-243	7.64E-07
Np-237	2.28E-05
Pu-238	9.03E-02
Pu-239	1.68E+00
Pu-240	4.04E-01
Pu-241	8.79E+00
Pu-242	5.51E-05
Th-229	1.10E-13
Th-230	6.05E-10
Th-232	7.40E-18
U-233	4.74E-10
U-234	1.41E-05
U-235	4.22E-07
U-236	6.00E-08
U-238	1.41E-07

Haz. Waste No(s).

D008

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RF130.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF130.01-S	25.4
55-gal Drum Dir Ld w/o Liner	RF130.01-S	1.9
SWB w/ 4 - 55-gal Drums w/ Liners	RF130.01-S	11.3
Emplaced Total		38.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	13.34
Aluminum-based Metals/Alloys	1.41
Other Metals	6.65
Other Inorganic Materials	8.05
Cellulosics	0.81
Rubber	0.13
Plastics	7.57
Cements	0.00
Inorganic Matrix	2.91
Organic Matrix	7.06
Soils/gravel	0.03
Vitrified	0.00
Packaging Material, Steel	154.40
Packaging Material, Plastic	29.12
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.35E+00
Cm-244	3.35E-09
Cs-137	1.70E-05
Np-237	2.15E-04
Pu-238	6.40E-01
Pu-239	1.28E+01
Pu-240	2.99E+00
Pu-241	6.30E+01
Pu-242	3.95E-04
Pu-244	7.58E-18
Sr-90	8.26E-04
Th-229	1.03E-12
Th-230	1.47E-07
Th-232	1.18E-10
U-233	4.45E-09
U-234	1.05E-03
U-235	4.11E-05
U-236	4.44E-07
U-238	5.93E-05

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF134.02**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Soils	Waste Matrix Code	S4200	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
SWB Dir Ld w/o Liner	RF134.02-S	11.3
Emplaced Total		11.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	3.35
Aluminum-based Metals/Alloys	2.23
Other Metals	0.00
Other Inorganic Materials	0.63
Cellulosics	10.66
Rubber	0.00
Plastics	10.56
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	666.10
Vitrified	0.00
Packaging Material, Steel	153.50
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.93E-02
Np-237	2.87E-08
Pu-238	4.01E-03
Pu-239	8.16E-02
Pu-240	1.90E-02
Pu-241	3.97E-01
Pu-242	2.49E-06
Th-229	4.54E-17
Th-230	1.31E-12
Th-232	3.47E-19
U-233	2.96E-13
U-234	5.81E-08
U-235	4.03E-10
U-236	2.81E-09
U-238	1.88E-15

Haz. Waste No(s).

F001, F002, F005

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RF135.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Organics	Waste Matrix Code	S3290	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF135.01-S	2.3
Emplaced Total		2.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	5.51
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	802.10
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.20E+00
Np-237	2.33E-05
Pu-238	7.02E-02
Pu-239	1.45E+00
Pu-240	3.35E-01
Pu-241	6.97E+00
Pu-242	4.38E-05
Th-229	1.05E-13
Th-230	6.35E-09
Th-232	6.14E-18
U-233	4.59E-10
U-234	1.42E-04
U-235	1.63E-05
U-236	4.97E-08
U-238	1.26E-03

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-RF135.02**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Organics	Waste Matrix Code	S3290	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF135.02-S	10.4
Emplaced Total		10.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.82
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.61
Rubber	0.00
Plastics	0.42
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	446.57
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.36E-01
Np-237	1.31E-06
Pu-238	2.93E-02
Pu-239	5.94E-01
Pu-240	1.38E-01
Pu-241	3.02E+00
Pu-242	1.80E-05
Th-229	3.81E-15
Th-230	1.42E-08
Th-232	1.61E-18
U-233	2.08E-11
U-234	3.96E-04
U-235	1.28E-05
U-236	1.63E-08
U-238	1.13E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D026, D027, D028, D029, D030, D032, D034, D036, D043, F001, F002, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RF137.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF137.01-S	0.4
Emplaced Total		0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	29.18
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	240.94
Cellulosics	0.00
Rubber	1.49
Plastics	20.22
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.42E-01
Np-237	8.72E-06
Pu-238	7.86E-02
Pu-239	1.64E+00
Pu-240	3.79E-01
Pu-241	7.83E+00
Pu-242	4.92E-05
Th-229	4.03E-14
Th-230	2.57E-11
Th-232	6.94E-18
U-233	1.75E-10
U-234	1.14E-06
U-235	8.08E-09
U-236	5.62E-08
U-238	3.71E-14

Haz. Waste No(s).

D007, D008

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RF139.01****Appendix B****TRU Waste Inventory Profile Report**

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF139.01-S	11.6
Emplaced Total		11.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	44.57
Cellulosics	0.00
Rubber	0.00
Plastics	4.14
Cements	0.00
Inorganic Matrix	744.45
Organic Matrix	14.88
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.13E+01
Np-237	2.96E-04
Pu-238	1.40E-01
Pu-239	2.87E+00
Pu-240	6.66E-01
Pu-241	1.45E+01
Pu-242	8.68E-05
Th-229	8.58E-13
Th-230	7.57E-09
Th-232	7.80E-18
U-233	4.69E-09
U-234	2.11E-04
U-235	1.71E-05
U-236	7.89E-08
U-238	1.11E-03

Haz. Waste No(s).
D004, D005, D009,
D010, F001, F002,
F005, F006, F007,
F009

**No TRUCON
Codes Provided**
Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RF140.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5420	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RF140.01-S	4.0
SWB Dir Ld w/o Liner	RF140.01-S	168.2
Emplaced Total		172.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	149.72
Aluminum-based Metals/Alloys	2.38
Other Metals	60.72
Other Inorganic Materials	47.21
Cellulosics	4.14
Rubber	1.58
Plastics	5.57
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.02
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	152.98
Packaging Material, Plastic	0.85
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.01E-01
Am-243	7.90E-08
Np-237	2.53E-06
Pu-238	7.75E-02
Pu-239	1.44E+00
Pu-240	3.49E-01
Pu-241	7.52E+00
Pu-242	4.72E-05
Th-229	1.12E-14
Th-230	5.75E-11
Th-232	6.39E-18
U-233	4.92E-11
U-234	1.83E-06
U-235	3.01E-08
U-236	5.17E-08
U-238	2.03E-10

Haz. Waste No(s).

D005, D008, D009,
D011, F001, F002,
F005, F006, F007,
F009

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-RF141.01**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	RF141.01-S	45.6
Emplaced Total		45.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	7.30
Aluminum-based Metals/Alloys	0.00
Other Metals	8.83
Other Inorganic Materials	14.35
Cellulosics	0.00
Rubber	0.00
Plastics	1.77
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.01
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	527.40
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	137.50
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.93E+00
Np-237	5.77E-06
Pu-238	1.55E+00
Pu-239	3.99E+01
Pu-240	9.35E+00
Pu-241	8.98E+01
Pu-242	6.16E-04
Th-229	9.08E-15
Th-230	2.63E-07
Th-232	1.71E-16
U-233	5.93E-11
U-234	5.86E-03
U-235	1.88E-04
U-236	1.39E-06
U-238	1.66E-06

Haz. Waste No(s).

D006, D007, D008

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RF141.02**

Appendix B

TRU Waste Inventory Profile Report

Site	Rocky Flats Environmental Technology Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3119	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A	Activity Concentrations Decayed to CY		2008			

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	RF141.02-S	176.0
Emplaced Total		176.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	5.27
Aluminum-based Metals/Alloys	0.01
Other Metals	6.35
Other Inorganic Materials	11.00
Cellulosics	0.00
Rubber	0.00
Plastics	1.27
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	527.40
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	137.50
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.32E+00
Np-237	1.39E-03
Pu-238	1.57E+00
Pu-239	4.22E+01
Pu-240	1.01E+01
Pu-241	8.49E+01
Pu-242	8.65E-04
Th-229	6.92E-12
Th-230	7.51E-08
Th-232	1.84E-16
U-233	2.96E-08
U-234	1.68E-03
U-235	5.37E-05
U-236	1.49E-06
U-238	4.73E-07

Haz. Waste No(s).

D007, D008

No TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RLCBWD.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RLCBWD.001-S	41.8
55-gal Drum Dir Ld w/o Liner	RLCBWD.001-S	45.6
TDOP w/ 10 - 55-gal Drums w/ Liners	RLCBWD.001-S	4.5
TDOP w/ 10 - 55-gal Drums w/o Liners	RLCBWD.001-S	67.5
Emplaced Total		159.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	54.67
Aluminum-based Metals/Alloys	0.31
Other Metals	4.10
Other Inorganic Materials	39.54
Cellulosics	19.45
Rubber	4.87
Plastics	21.88
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	176.43
Packaging Material, Plastic	10.19
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.58E+00
Am-243	1.29E-07
Cs-137	7.48E-05
Np-237	1.08E-05
Pu-238	3.77E-01
Pu-239	2.10E+00
Pu-240	1.01E+00
Pu-241	1.43E+01
Pu-242	1.78E-04
Sr-90	6.80E-05
Th-229	1.83E-08
Th-230	4.20E-10
Th-232	7.36E-19
U-233	1.95E-04
U-234	4.72E-05
U-235	1.23E-06
U-236	2.98E-08
U-238	2.31E-05

Haz. Waste No(s).

D005, D006, D007, D008, D009, D011, F001, F002, F003, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RLCFFD.001**

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TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RLCFFD.001-S	200.1
55-gal Drum Dir Ld w/o Liner	RLCFFD.001-S	14.8
TDOP w/ 10 - 55-gal Drums w/ Liners	RLCFFD.001-S	63.0
Emplaced Total		277.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	373.15
Aluminum-based Metals/Alloys	1.87
Other Metals	0.37
Other Inorganic Materials	37.28
Cellulosics	41.88
Rubber	9.06
Plastics	58.97
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.06
Vitrified	0.00
Packaging Material, Steel	153.70
Packaging Material, Plastic	30.52
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.81E+00
Cs-137	7.13E-08
Np-237	2.08E-06
Pu-238	3.50E-01
Pu-239	2.17E+00
Pu-240	1.10E+00
Pu-241	1.40E+01
Pu-242	1.68E-04
Sr-90	6.46E-08
Th-229	1.69E-15
Th-230	4.35E-10
Th-232	4.70E-09
U-233	1.58E-11
U-234	1.76E-05
U-235	4.90E-07
U-236	9.76E-08
U-238	1.08E-05

Haz. Waste No(s).

D007, D008, D009,
F001, F002, F003,
F005**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RLHMOX.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5120	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	RLHMOX.001-S	182.6
55-gal POC - 12" w/o Liner	RLHMOX.001-S	11.2
Emplaced Total		193.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	17.10
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	527.40
Packaging Material, Plastic	34.86
Packaging Material, Cellulosics	137.50
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.67E+01
Am-243	2.22E-06
Cs-137	3.12E-06
Np-237	2.15E-03
Pu-238	8.60E+00
Pu-239	4.00E+01
Pu-240	2.03E+01
Pu-241	2.92E+02
Pu-242	1.01E-02
Sr-90	2.80E-06
Th-229	1.05E-11
Th-230	1.77E-07
Th-232	3.71E-16
U-233	4.50E-08
U-234	4.00E-03
U-235	2.50E-04
U-236	3.01E-06
U-238	3.07E-03

Haz. Waste No(s).

D005, D006, D007,
D008, D011**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RLM231ZD.001****Appendix B****TRU Waste Inventory Profile Report**

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/o Liner	RLM231ZD.001-S	1.2
TDOP w/ 10 - 55-gal Drums w/o Liners	RLM231ZD.001-S	4.5
Emplaced Total		5.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	118.69
Aluminum-based Metals/Alloys	0.00
Other Metals	0.97
Other Inorganic Materials	6.65
Cellulosics	17.28
Rubber	2.81
Plastics	17.04
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	209.87
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.62E-01
Am-243	3.31E-06
Cs-137	5.18E-05
Np-237	2.02E-05
Pu-238	4.60E-02
Pu-239	3.84E-01
Pu-240	1.00E-01
Pu-241	1.20E+00
Pu-242	9.87E-06
Sr-90	4.71E-05
Th-229	1.65E-14
Th-230	5.36E-10
Th-232	2.94E-19
U-233	1.76E-10
U-234	2.99E-05
U-235	2.93E-07
U-236	5.95E-09
U-238	1.18E-05

Haz. Waste No(s).D006, D007, D008,
D009, F001, F002,
F003, F005**No TRUCON
Codes Provided****Waste Stream Description**

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RLM233SD.001****Appendix B****TRU Waste Inventory Profile Report**

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RLM233SD.001-S	0.6
55-gal Drum Dir Ld w/o Liner	RLM233SD.001-S	14.8
SWB Dir Ld w/o Liner	RLM233SD.001-S	5.7
Emplaced Total		21.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	367.61
Aluminum-based Metals/Alloys	1.33
Other Metals	0.07
Other Inorganic Materials	130.92
Cellulosics	10.45
Rubber	1.40
Plastics	24.38
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	1.66
Vitrified	0.00
Packaging Material, Steel	136.91
Packaging Material, Plastic	1.10
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.73E-01
Cs-137	1.19E-05
Np-237	2.07E-04
Pu-238	6.94E-02
Pu-239	5.81E-01
Pu-240	1.69E-01
Pu-241	1.36E+00
Pu-242	4.70E-05
Sr-90	1.08E-05
Th-229	1.69E-13
Th-230	2.65E-11
Th-232	4.94E-19
U-233	1.80E-09
U-234	1.67E-06
U-235	4.35E-08
U-236	1.00E-08
U-238	6.36E-07

Haz. Waste No(s).D004, D005, D006,
D007, D008, D009,
D010, D011, F002,
F003**No TRUCON
Codes Provided****Waste Stream Description**

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RLM308D.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/o Liner	RLM308D.001-S	19.8
55-gal POC - 12" w/ Liner	RLM308D.001-S	24.8
TDOP w/ 10 - 55-gal Drums w/o Liners	RLM308D.001-S	31.5
Emplaced Total		76.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	60.49
Aluminum-based Metals/Alloys	0.18
Other Metals	7.71
Other Inorganic Materials	8.97
Cellulosics	10.34
Rubber	3.28
Plastics	21.81
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	301.80
Packaging Material, Plastic	12.05
Packaging Material, Cellulosics	44.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.57E+01
Am-243	1.54E-05
Cs-137	5.36E-04
Np-237	2.73E-04
Pu-238	7.50E+00
Pu-239	1.32E+01
Pu-240	8.26E+00
Pu-241	1.53E+02
Pu-242	7.65E-03
Sr-90	4.85E-04
Th-229	5.69E-08
Th-230	2.06E-08
Th-232	2.37E-06
U-233	2.02E-04
U-234	7.94E-04
U-235	2.56E-05
U-236	7.34E-07
U-238	3.43E-04

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D011, F001, F002,
F003**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RLM325D.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RLM325D.001-S	14.1
55-gal Drum Dir Ld w/o Liner	RLM325D.001-S	35.2
TDOP w/ 10 - 55-gal Drums w/ Liners	RLM325D.001-S	4.5
TDOP w/ 10 - 55-gal Drums w/o Liners	RLM325D.001-S	9.0
Emplaced Total		62.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	70.11
Aluminum-based Metals/Alloys	0.13
Other Metals	3.13
Other Inorganic Materials	44.92
Cellulosics	15.64
Rubber	6.44
Plastics	31.01
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	152.51
Packaging Material, Plastic	9.56
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.49E+00
Am-243	5.87E-04
Cs-137	8.90E-04
Np-237	1.46E-04
Pu-238	1.17E+00
Pu-239	2.06E+00
Pu-240	8.49E-01
Pu-241	1.53E+01
Pu-242	2.67E-04
Sr-90	8.08E-04
Th-229	4.14E-09
Th-230	2.48E-09
Th-232	3.00E-06
U-233	4.41E-05
U-234	2.77E-04
U-235	1.05E-05
U-236	2.52E-08
U-238	8.96E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D034, D037, D043, F001, F002, F003, F004, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RLMHASH.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3111	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	RLMHASH.001-S	62.0
55-gal POC - 12" w/o Liner	RLMHASH.001-S	0.2
Emplaced Total		62.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	16.75
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	527.40
Packaging Material, Plastic	36.88
Packaging Material, Cellulosics	137.50
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.22E+01
Cs-137	5.75E-08
Np-237	2.76E-05
Pu-238	1.23E+00
Pu-239	3.93E+01
Pu-240	9.73E+00
Pu-241	5.16E+01
Pu-242	1.31E-03
Sr-90	2.72E-08
Th-229	1.83E-08
Th-230	7.98E-10
Th-232	3.49E-16
U-233	2.78E-05
U-234	2.51E-05
U-235	2.82E-07
U-236	2.02E-06
U-238	1.39E-12

Haz. Waste No(s).

D005, D006, D007,
D008, D011**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RLMPDT.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RLMPDT.001-S	152.9
55-gal Drum Dir Ld w/o Liner	RLMPDT.001-S	443.2
55-gal POC - 12" w/ Liner	RLMPDT.001-S	40.6
SWB Dir Ld w/o Liner	RLMPDT.001-S	500.9
TDOP w/ 10 - 55-gal Drums w/ Liners	RLMPDT.001-S	27.0
TDOP w/ 10 - 55-gal Drums w/o Liners	RLMPDT.001-S	747.0
Emplaced Total		1911.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	52.14
Aluminum-based Metals/Alloys	0.26
Other Metals	5.79
Other Inorganic Materials	8.29
Cellulosics	12.86
Rubber	9.56
Plastics	19.80
Cements	0.00
Inorganic Matrix	0.16
Organic Matrix	0.02
Soils/gravel	0.21
Vitrified	0.00
Packaging Material, Steel	186.06
Packaging Material, Plastic	3.99
Packaging Material, Cellulosics	2.92
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.16E+00
Am-243	2.03E-06
Cs-137	1.37E-05
Np-237	7.39E-05
Pu-238	6.01E-01
Pu-239	4.17E+00
Pu-240	1.37E+00
Pu-241	1.91E+01
Pu-242	2.64E-04
Sr-90	1.24E-05
Th-229	6.69E-08
Th-230	6.47E-10
Th-232	5.20E-09
U-233	2.38E-04
U-234	2.66E-05
U-235	7.01E-07
U-236	1.22E-07
U-238	6.55E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D030

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RLMPURX.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RLMPURX.001-S	9.2
55-gal Drum Dir Ld w/o Liner	RLMPURX.001-S	44.3
TDOP w/ 10 - 55-gal Drums w/o Liners	RLMPURX.001-S	81.0
Emplaced Total		134.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	44.10
Aluminum-based Metals/Alloys	0.25
Other Metals	0.84
Other Inorganic Materials	7.59
Cellulosics	10.19
Rubber	23.02
Plastics	23.35
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.09
Vitrified	0.00
Packaging Material, Steel	191.65
Packaging Material, Plastic	2.52
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.04E+00
Am-243	8.60E-07
Cs-137	1.38E-04
Np-237	1.69E-05
Pu-238	1.62E+00
Pu-239	8.82E+00
Pu-240	3.36E+00
Pu-241	8.94E+01
Pu-242	7.92E-04
Sr-90	1.21E-04
Th-229	9.21E-07
Th-230	4.79E-10
Th-232	3.94E-17
U-233	2.45E-03
U-234	2.26E-05
U-235	1.62E-07
U-236	3.99E-07
U-238	1.94E-06

Haz. Waste No(s).

D005, D006, D008,
D009, D011**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RLMSSC.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	RLMSSC.001-S	64.7
Emplaced Total		64.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	49.32
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	527.40
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	137.50
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.05E+01
Np-237	2.07E-05
Pu-238	3.25E+00
Pu-239	4.31E+01
Pu-240	9.58E+00
Pu-241	1.58E+02
Pu-242	1.12E-03
Th-229	5.64E-14
Th-230	1.70E-09
Th-232	2.53E-16
U-233	2.81E-10
U-234	5.96E-05
U-235	3.55E-07
U-236	1.70E-06
U-238	6.08E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-RLMWARD.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RLMWARD.001-S	20.4
55-gal Drum Dir Ld w/o Liner	RLMWARD.001-S	36.2
Emplaced Total		56.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	74.04
Aluminum-based Metals/Alloys	0.14
Other Metals	3.30
Other Inorganic Materials	13.00
Cellulosics	28.94
Rubber	7.87
Plastics	36.86
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	13.33
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.01E+00
Cs-137	8.03E-08
Np-237	6.66E-06
Pu-238	3.80E-01
Pu-239	4.46E-01
Pu-240	3.02E-01
Pu-241	7.77E+00
Pu-242	2.46E-04
Sr-90	7.30E-08
Th-229	1.32E-15
Th-230	1.26E-09
Th-232	3.40E-08
U-233	2.83E-11
U-234	1.40E-04
U-235	4.93E-06
U-236	8.94E-09
U-238	2.93E-05

Haz. Waste No(s).

D007, D008, D009,
F001, F002, F003,
F005**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RLNPDT.002**

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TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	RLNPDT.002-S	62.4
55-gal Drum Dir Ld w/o Liner	RLNPDT.002-S	267.9
TDOP w/ 10 - 55-gal Drums w/ Liners	RLNPDT.002-S	4.5
TDOP w/ 10 - 55-gal Drums w/o Liners	RLNPDT.002-S	103.5
Emplaced Total		438.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	55.24
Aluminum-based Metals/Alloys	0.93
Other Metals	0.79
Other Inorganic Materials	25.15
Cellulosics	19.19
Rubber	8.43
Plastics	42.96
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.05
Vitrified	0.00
Packaging Material, Steel	155.69
Packaging Material, Plastic	5.44
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.41E+00
Am-243	7.95E-06
Cs-137	3.13E-06
Np-237	6.98E-06
Pu-238	4.50E-01
Pu-239	4.59E+00
Pu-240	1.10E+00
Pu-241	1.52E+01
Pu-242	1.91E-04
Sr-90	2.16E-06
Th-229	4.88E-14
Th-230	9.22E-10
Th-232	1.42E-10
U-233	1.64E-10
U-234	1.92E-05
U-235	3.91E-07
U-236	2.27E-07
U-238	9.91E-07

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RLNPURX.001****Appendix B****TRU Waste Inventory Profile Report**

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/o Liner	RLNPURX.001-S	34.3
TDOP w/ 10 - 55-gal Drums w/o Liners	RLNPURX.001-S	4.5
Emplaced Total		38.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	52.54
Aluminum-based Metals/Alloys	1.02
Other Metals	1.00
Other Inorganic Materials	18.32
Cellulosics	5.92
Rubber	8.89
Plastics	25.30
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	142.51
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.28E+00
Am-243	1.07E-06
Cs-137	4.86E-05
Np-237	8.71E-06
Pu-238	2.54E+00
Pu-239	1.06E+01
Pu-240	4.13E+00
Pu-241	1.56E+02
Pu-242	1.29E-03
Sr-90	3.10E-05
Th-229	1.90E-14
Th-230	1.20E-09
Th-232	1.09E-16
U-233	1.05E-10
U-234	4.42E-05
U-235	6.28E-08
U-236	7.34E-07
U-238	1.17E-12

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RLRFETS.001**

Appendix B

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3111	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal POC - 12" w/ Liner	RLRFETS.001-S	63.9
Emplaced Total		63.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	17.91
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	527.40
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	137.50
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.77E+00
Cs-137	2.91E-07
Np-237	1.89E-05
Pu-238	1.25E+00
Pu-239	5.97E+01
Pu-240	9.92E+00
Pu-241	7.48E+01
Pu-242	1.02E-03
Sr-90	2.97E-08
Th-229	7.72E-08
Th-230	5.70E-09
Th-232	3.56E-16
U-233	1.18E-04
U-234	1.03E-04
U-235	3.16E-06
U-236	2.06E-06
U-238	1.08E-12

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Waste Stream ID: **WP-RLSWOCD.001****Appendix B****TRU Waste Inventory Profile Report**

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/o Liner	RLSWOCD.001-S	18.9
TDOP w/ 10 - 55-gal Drums w/o Liners	RLSWOCD.001-S	4.5
Emplaced Total		23.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	26.56
Aluminum-based Metals/Alloys	0.60
Other Metals	0.72
Other Inorganic Materials	4.94
Cellulosics	12.62
Rubber	49.59
Plastics	49.33
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	150.20
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.63E-01
Am-243	2.38E-07
Cs-137	5.71E-05
Np-237	5.94E-06
Pu-238	9.64E-02
Pu-239	1.07E+00
Pu-240	3.09E-01
Pu-241	3.34E+00
Pu-242	3.09E-05
Sr-90	5.18E-05
Th-229	1.20E-15
Th-230	1.62E-11
Th-232	2.26E-19
U-233	2.56E-11
U-234	1.94E-06
U-235	6.23E-08
U-236	9.16E-09
U-238	6.47E-10

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D030, D034, D037, D043, F001, F002, F003, F004, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-RLVIPAC.001****Appendix B****TRU Waste Inventory Profile Report**

Site	Hanford (Richland) Site	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
SWB Dir Ld w/o Liner	RLVIPAC.001-S	155.0
Emplaced Total		155.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	15.18
Aluminum-based Metals/Alloys	1.69
Other Metals	1.35
Other Inorganic Materials	5.42
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	153.50
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.33E+00
Am-243	1.10E-07
Cs-137	1.23E-05
Np-237	2.11E-05
Pu-238	9.92E-01
Pu-239	6.31E+00
Pu-240	1.93E+00
Pu-241	9.26E+00
Pu-242	5.69E-04
Sr-90	1.11E-05
Th-229	1.88E-08
Th-230	6.05E-08
Th-232	5.65E-18
U-233	1.00E-04
U-234	3.37E-03
U-235	8.81E-05
U-236	1.14E-07
U-238	1.69E-03

Haz. Waste No(s).D005, D006, D007,
D008, D011**No TRUCON
Codes Provided****Waste Stream Description**

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-SR2001.001.00**

Appendix B

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5300	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	SR2001.001.00-S	61.2
Emplaced Total		61.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	11.89
Aluminum-based Metals/Alloys	0.00
Other Metals	0.29
Other Inorganic Materials	8.37
Cellulosics	7.74
Rubber	1.00
Plastics	86.03
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.34E-02
Cs-137	8.00E-08
Np-237	2.46E-08
Pu-238	1.74E-02
Pu-239	1.58E-01
Pu-240	3.14E-02
Pu-241	4.23E-01
Pu-242	3.16E-06
Th-229	7.05E-17
Th-230	1.13E-11
Th-232	1.13E-18
U-233	3.39E-13
U-234	3.55E-07
U-235	1.09E-09
U-236	6.52E-09
U-238	3.34E-15

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-SR2002.002.00**

Appendix B

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5440	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	SR2002.002.00-S	69.9
Emplaced Total		69.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	8.65
Aluminum-based Metals/Alloys	0.40
Other Metals	0.32
Other Inorganic Materials	6.82
Cellulosics	6.82
Rubber	1.36
Plastics	81.40
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.04E-02
Cs-137	2.40E-07
Np-237	8.93E-08
Pu-238	6.62E-03
Pu-239	1.62E-01
Pu-240	3.75E-02
Pu-241	8.83E-01
Pu-242	5.11E-06
Sr-90	2.02E-08
Th-229	7.13E-07
Th-230	3.14E-12
Th-232	9.89E-19
U-233	1.27E-03
U-234	1.15E-07
U-235	9.61E-10
U-236	6.68E-09
U-238	4.63E-15

Haz. Waste No(s).

D008, F001, F002,
F003, F005No TRUCON
Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-SR-AGNS-HET**

Appendix B

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	SR-AGNS-HET-S	4.6
55-gal Drum Dir Ld w/o Liner	SR-AGNS-HET-S	3.7
TDOP w/ 10 - 55-gal Drums w/ Liners	SR-AGNS-HET-S	36.0
TDOP w/ 10 - 55-gal Drums w/o Liners	SR-AGNS-HET-S	4.5
Emplaced Total		48.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	35.32
Aluminum-based Metals/Alloys	0.20
Other Metals	5.09
Other Inorganic Materials	12.17
Cellulosics	6.01
Rubber	2.93
Plastics	26.60
Cements	0.00
Inorganic Matrix	0.14
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	214.59
Packaging Material, Plastic	16.08
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.25E-02
Am-243	2.13E-07
Cs-137	2.31E-06
Np-237	4.13E-05
Pu-238	2.10E-01
Pu-239	5.25E-02
Pu-240	3.45E-02
Pu-241	7.39E-01
Pu-242	1.47E-05
Sr-90	2.31E-06
Th-229	7.89E-10
Th-230	3.22E-10
Th-232	1.85E-08
U-233	8.41E-06
U-234	3.60E-05
U-235	4.65E-07
U-236	1.02E-09
U-238	9.56E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D011, D019, D022, D029, F002, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-SR-MD-HET**

Appendix B

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	SR-MD-HET-S	17.7
55-gal Drum Dir Ld w/o Liner	SR-MD-HET-S	4.4
Emplaced Total		22.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	43.88
Aluminum-based Metals/Alloys	1.12
Other Metals	7.21
Other Inorganic Materials	21.58
Cellulosics	33.50
Rubber	24.05
Plastics	40.96
Cements	0.00
Inorganic Matrix	0.09
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	29.67
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.50E-02
Am-243	2.84E-08
Cs-137	4.02E-05
Np-237	3.65E-05
Pu-238	1.58E+01
Pu-239	2.67E-01
Pu-240	3.44E-02
Pu-241	9.73E-01
Pu-242	7.73E-06
Sr-90	4.02E-05
Th-229	2.85E-08
Th-230	2.51E-08
Th-232	1.81E-03
U-233	3.04E-04
U-234	2.82E-03
U-235	7.70E-07
U-236	1.02E-09
U-238	6.58E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D030, D032, D034, D037, D043, F002, F003, F004, F005, F007, F009

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-SR-SWMF-HET-A**

Appendix B

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	SR-SWMF-HET-A-S	3.3
55-gal Drum Dir Ld w/o Liner	SR-SWMF-HET-A-S	3.7
TDOP w/ 10 - 55-gal Drums w/ Liners	SR-SWMF-HET-A-S	9.0
TDOP w/ 10 - 55-gal Drums w/o Liners	SR-SWMF-HET-A-S	18.0
Emplaced Total		34.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	8.27
Aluminum-based Metals/Alloys	1.09
Other Metals	0.00
Other Inorganic Materials	1.74
Cellulosics	3.44
Rubber	11.46
Plastics	40.10
Cements	0.00
Inorganic Matrix	0.01
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	210.84
Packaging Material, Plastic	8.13
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.70E-02
Am-243	4.63E-06
Cs-137	7.85E-06
Np-237	1.66E-05
Pu-238	3.21E-01
Pu-239	4.95E-02
Pu-240	6.75E-03
Pu-241	2.00E-01
Pu-242	2.17E-06
Sr-90	7.85E-06
Th-232	3.88E-09
U-234	5.11E-05
U-235	2.45E-08

Haz. Waste No(s).

D008, F001, F002, F004, F005, F007, F009, U133, U151

No TRUCON Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **WP-SR-W026-221F-HET**

Appendix B

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5300	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	SR-W026-221F-HET-S	0.4
55-gal Drum Dir Ld w/o Liner	SR-W026-221F-HET-S	4.2
SWB w/ 4 - 55-gal Drums w/ Liners	SR-W026-221F-HET-S	28.4
SWB w/ 4 - 55-gal Drums w/o Liners	SR-W026-221F-HET-S	3.8
TDOP w/ 10 - 55-gal Drums w/ Liners	SR-W026-221F-HET-S	558.0
Emplaced Total		594.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	30.03
Aluminum-based Metals/Alloys	0.55
Other Metals	0.27
Other Inorganic Materials	6.74
Cellulosics	2.41
Rubber	8.31
Plastics	24.32
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.03
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	229.90
Packaging Material, Plastic	16.85
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.11E-01
Am-243	9.42E-08
Cm-244	1.24E-04
Cs-137	5.18E-07
Np-237	9.57E-06
Pu-238	5.47E-01
Pu-239	2.11E+00
Pu-240	5.88E-01
Pu-241	8.30E+00
Pu-242	2.45E-04
Sr-90	5.50E-07
Th-229	2.91E-14
Th-230	9.25E-09
Th-232	7.21E-08
U-233	1.57E-10
U-234	2.60E-04
U-235	3.06E-06
U-236	6.98E-08
U-238	2.20E-05

Haz. Waste No(s).

D006, D007, D008,
D009, D022, D028,
D029, F001, F002,
F003, F005

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-SR-W026-772F-HET**

Appendix B

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5300	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	SR-W026-772F-HET-S	9.6
55-gal Drum Dir Ld w/o Liner	SR-W026-772F-HET-S	20.2
SWB w/ 4 - 55-gal Drums w/ Liners	SR-W026-772F-HET-S	34.0
TDOP w/ 10 - 55-gal Drums w/ Liners	SR-W026-772F-HET-S	1516.5
Emplaced Total		1580.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	4.28
Aluminum-based Metals/Alloys	0.32
Other Metals	0.38
Other Inorganic Materials	9.42
Cellulosics	2.55
Rubber	1.95
Plastics	21.64
Cements	0.00
Inorganic Matrix	0.03
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	229.45
Packaging Material, Plastic	16.98
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.37E-01
Am-243	1.14E-06
Cm-244	6.03E-05
Cs-137	8.46E-05
Np-237	1.25E-04
Pu-238	4.84E+00
Pu-239	2.45E-01
Pu-240	6.35E-02
Pu-241	1.18E+00
Pu-242	2.29E-05
Sr-90	8.00E-05
Th-229	1.68E-08
Th-230	2.27E-08
Th-232	3.50E-07
U-233	4.78E-05
U-234	8.61E-04
U-235	9.58E-07
U-236	5.65E-09
U-238	6.88E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D028, D029, F002, F003, F005

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-SR-W027-221F-HETA**

Appendix B

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5440	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	SR-W027-221F-HETA-	169.5
55-gal Drum Dir Ld w/o Liner	SR-W027-221F-HETA-	13.7
SWB w/ 4 - 55-gal Drums w/ Liners	SR-W027-221F-HETA-	228.7
SWB w/ 4 - 55-gal Drums w/o Liners	SR-W027-221F-HETA-	1.9
TDOP w/ 10 - 55-gal Drums w/ Liners	SR-W027-221F-HETA-	1750.5
Emplaced Total		2164.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	9.07
Aluminum-based Metals/Alloys	0.41
Other Metals	0.08
Other Inorganic Materials	4.87
Cellulosics	4.97
Rubber	3.58
Plastics	34.07
Cements	0.00
Inorganic Matrix	0.01
Organic Matrix	0.01
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	221.04
Packaging Material, Plastic	18.45
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.49E-01
Am-243	4.88E-08
Cm-244	2.64E-06
Cs-137	1.01E-03
Np-237	4.93E-06
Pu-238	2.99E-01
Pu-239	1.07E+00
Pu-240	3.32E-01
Pu-241	5.75E+00
Pu-242	5.34E-05
Sr-90	2.46E-07
Th-229	3.39E-08
Th-230	5.30E-09
Th-232	5.71E-08
U-233	7.24E-05
U-234	1.20E-04
U-235	7.01E-08
U-236	4.93E-08
U-238	1.03E-06

Haz. Waste No(s).

D008, F001, F002,
F003, F005**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-SR-W027-221H-HET**

Appendix B

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5440	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	SR-W027-221H-HET-S	31.8
55-gal Drum Dir Ld w/o Liner	SR-W027-221H-HET-S	28.9
SWB w/ 4 - 55-gal Drums w/ Liners	SR-W027-221H-HET-S	317.5
SWB w/ 4 - 55-gal Drums w/o Liners	SR-W027-221H-HET-S	1.9
TDOP w/ 10 - 55-gal Drums w/ Liners	SR-W027-221H-HET-S	2686.5
TDOP w/ 10 - 55-gal Drums w/o Liners	SR-W027-221H-HET-S	18.0
Emplaced Total		3084.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	10.66
Aluminum-based Metals/Alloys	0.53
Other Metals	0.17
Other Inorganic Materials	4.18
Cellulosics	2.80
Rubber	7.83
Plastics	25.31
Cements	0.00
Inorganic Matrix	0.05
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	227.67
Packaging Material, Plastic	16.95
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.65E-02
Am-243	7.96E-06
Cm-244	2.59E-06
Cs-137	4.98E-06
Np-237	4.10E-04
Pu-238	2.58E+01
Pu-239	6.67E-02
Pu-240	2.01E-02
Pu-241	3.06E+00
Pu-242	1.25E-05
Sr-90	4.96E-06
Th-229	8.75E-08
Th-230	1.73E-07
Th-232	1.76E-06
U-233	2.33E-04
U-234	4.97E-03
U-235	1.16E-06
U-236	2.38E-09
U-238	1.47E-06

Haz. Waste No(s).

D006, D008, D009,
D019, D022, D029,
D039, D040, D043,
F001, F002, F003,
F005, U133

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-SR-W027-235F-HET**

Appendix B

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	SR-W027-235F-HET-S	14.1
55-gal Drum Dir Ld w/o Liner	SR-W027-235F-HET-S	6.4
SWB w/ 4 - 55-gal Drums w/ Liners	SR-W027-235F-HET-S	34.0
TDOP w/ 10 - 55-gal Drums w/ Liners	SR-W027-235F-HET-S	459.0
Emplaced Total		513.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	19.55
Aluminum-based Metals/Alloys	0.82
Other Metals	0.40
Other Inorganic Materials	4.72
Cellulosics	3.94
Rubber	14.07
Plastics	28.06
Cements	0.00
Inorganic Matrix	0.05
Organic Matrix	0.01
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	226.38
Packaging Material, Plastic	17.38
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.25E-01
Am-243	1.97E-07
Cm-244	1.07E-05
Cs-137	8.66E-07
Np-237	1.46E-03
Pu-238	4.31E+01
Pu-239	8.78E-02
Pu-240	4.68E-02
Pu-241	3.14E+00
Pu-242	2.76E-05
Sr-90	8.65E-07
Th-229	3.78E-10
Th-230	1.46E-07
Th-232	1.65E-06
U-233	2.02E-06
U-234	8.27E-03
U-235	2.90E-06
U-236	2.77E-09
U-238	1.03E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, F002, F003

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-SR-W027-773A-HET**

Appendix B

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	SR-W027-773A-HET-S	7.1
55-gal Drum Dir Ld w/o Liner	SR-W027-773A-HET-S	17.7
SWB w/ 4 - 55-gal Drums w/ Liners	SR-W027-773A-HET-S	3.8
TDOP w/ 10 - 55-gal Drums w/ Liners	SR-W027-773A-HET-S	535.5
TDOP w/ 10 - 55-gal Drums w/o Liners	SR-W027-773A-HET-S	13.5
Emplaced Total		577.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	15.42
Aluminum-based Metals/Alloys	0.22
Other Metals	0.75
Other Inorganic Materials	9.20
Cellulosics	4.59
Rubber	4.02
Plastics	16.98
Cements	0.00
Inorganic Matrix	0.06
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	227.34
Packaging Material, Plastic	16.42
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.00E-01
Am-243	7.97E-04
Cm-244	5.05E-02
Cs-137	1.79E-04
Np-237	3.12E-04
Pu-238	6.69E+00
Pu-239	2.33E-01
Pu-240	5.43E-02
Pu-241	1.18E+00
Pu-242	6.07E-06
Sr-90	1.79E-04
Th-229	8.26E-09
Th-230	2.17E-08
Th-232	4.70E-07
U-233	4.40E-05
U-234	1.23E-03
U-235	6.34E-07
U-236	3.22E-09
U-238	9.54E-06

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D022, D027, D028,
D029, D043, F002,
F003, F004, F005

**No TRUCON
Codes Provided**

Waste Stream Description

N/A

Comprehensive Inventory Database ver. **1.00**Data ver. **D.8.00**

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **WP-SR-W027-FB-PRE86-C**

Appendix B

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5300	Handling	CH
Source Cat.	N/A	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Emplaced Volumes		
Container Type	Ref. Waste Stream	Volume
55-gal Drum Dir Ld w/ Liner	SR-W027-FB-PRE86-C-	190.3
55-gal Drum Dir Ld w/o Liner	SR-W027-FB-PRE86-C-	29.5
SWB w/ 4 - 55-gal Drums w/ Liners	SR-W027-FB-PRE86-C-	497.1
SWB w/ 4 - 55-gal Drums w/o Liners	SR-W027-FB-PRE86-C-	15.1
TDOP w/ 10 - 55-gal Drums w/ Liners	SR-W027-FB-PRE86-C-	2070.0
TDOP w/ 10 - 55-gal Drums w/o Liners	SR-W027-FB-PRE86-C-	4.5
Emplaced Total		2806.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	12.42
Aluminum-based Metals/Alloys	0.13
Other Metals	0.17
Other Inorganic Materials	4.12
Cellulosics	4.38
Rubber	4.17
Plastics	30.49
Cements	0.00
Inorganic Matrix	0.05
Organic Matrix	0.02
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	220.11
Packaging Material, Plastic	18.01
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.16E-01
Am-243	2.51E-07
Cm-244	6.21E-04
Cs-137	4.24E-07
Np-237	2.28E-05
Pu-238	1.49E-01
Pu-239	1.48E+00
Pu-240	3.67E-01
Pu-241	4.95E+00
Pu-242	8.07E-05
Sr-90	4.11E-07
Th-229	2.68E-09
Th-230	1.57E-09
Th-232	4.64E-08
U-233	7.13E-06
U-234	4.45E-05
U-235	9.22E-08
U-236	4.35E-08
U-238	4.25E-07

Haz. Waste No(s).

D005, D006, D007, D008, D009, D011, D018, D019, D022, D029, D039, D040, D043, F001, F002, F003, F005, U002, U151

No TRUCON Codes Provided

Waste Stream Description

N/A

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

APPENDIX C: Potential WIPP Waste

The following WSPs contain information on waste streams that cannot be shipped to WIPP as of the inventory date, December 31, 2008, for various reasons, as stated in Section 4.0 of this report. As reported in Section 4.0, some of these waste streams may be treated or otherwise reworked to meet all of the requirements that will allow shipment to WIPP in the future.

The TRU waste sites that have reported potential TRU waste streams are:

Material and Fuels Complex (ANL–W)	AW
Babcock and Wilcox Nuclear Energy Services	BL
Bettis Atomic Power Laboratory	BT
Idaho National Laboratory	IN
Los Alamos National Laboratory	LA
Lawrence Berkeley Laboratory	LB
Nuclear Radiation Development Site, LLC	ND
Hanford (Richland Operations) Site	RL
Hanford (Office of River Protection)	RP
Separations Process Research Unit	SP
Savannah River Site	SR
West Valley Demonstration Project	WV

Waste Stream ID: **AW-IN-TRA-BE-01**

Appendix C

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - West	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	TRA Beryllium Blocks	Activity Concentrations Decayed to CY		2001			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Beryllium Reflector Block	9.0	10.8	19.8
Shim Control Cylinder	6.2	5.4	11.5
Current Form Total	15.2	16.2	31.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	15.1	16.0	31.2
Final Form Total	15.1	16.0	31.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	429.85
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	560.60
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.90E-02
Cs-137	6.12E+00
Pu-238	2.96E-02
Pu-239	5.91E-03
Pu-240	1.54E-02
Pu-241	1.97E+00
Pu-242	3.24E-04
Sr-90	1.80E+00
U-233	2.15E-05
U-234	5.51E-06
U-238	1.88E-06

No Hazardous Waste Numbers Provided

TRUCON Code(s)

317

Waste Stream Description

This waste stream consists of beryllium reflector blocks and outer shim control cylinders (OSCCs) removed from the Advanced Test Reactor (ATR) at INL.

Waste Stream ID: **AW-W018**

Appendix C

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - West	Final Waste Form	Uncategorized Metal	Waste Matrix Code	X7520	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Likely Defense-Related	Inventory Date	12/31/2008		
Stream Name	SODIUM - TRU			Activity Concentrations Decayed to CY	1996		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Liner - RSWF	0.6	0.0	4.0
Current Form Total	4.0	0.0	4.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	4.5	0.0	4.5
Final Form Total	4.5	0.0	4.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1829.21
Aluminum-based Metals/Alloys	0.00
Other Metals	228.67
Other Inorganic Materials	114.34
Cellulosics	114.34
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	560.60
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.30E+02
Cs-137	6.03E+04
Pu-238	3.25E+02
Pu-239	5.76E+03
Pu-240	9.68E+02
Pu-241	2.40E+04
Sr-90	2.47E+04

Haz. Waste No(s).

D001, D003

TRUCON Code(s)

317

Waste Stream Description

Sodium was used as a primary and secondary coolant for the EBR-II reactor. Waste sodium metal is a hazardous constituent of some of the TRU waste stored at the ANL-W Radioactive Scrap and Waste Facility (RSWF). The waste was generated during maintenance and operational activities. The sodium typically coats waste metal equipment, experiments, and components removed during reactor operations and maintenance activities or is contained in blanket elements. This waste will require treatment prior to disposal at WIPP. Final waste form has not been determined yet, but the sodium will be removed from the waste. Once removed, the resulting waste may not be considered TRU, especially in the case of sodium-bonded blanket fuels.

Waste Stream ID: **AW-W019**

Appendix C

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - West	Final Waste Form	Uncategorized Metal	Waste Matrix Code	X7520	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Likely Defense-Related	Inventory Date	12/31/2008		
Stream Name	SODIUM POTASSIUM -NaK- TRU			Activity Concentrations Decayed to CY	1996		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Liner - RSWF	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	466.88
Aluminum-based Metals/Alloys	0.00
Other Metals	58.36
Other Inorganic Materials	29.21
Cellulosics	29.21
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	560.60
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.07E+01
Cs-137	1.88E+04
Pu-238	1.01E+02
Pu-239	1.80E+03
Pu-240	3.02E+02
Pu-241	7.49E+03
Sr-90	7.69E+03

Haz. Waste No(s).

D003

TRUCON Code(s)

317

Waste Stream Description

Sodium potassium alloy (NaK) was used as a coolant for some components of the EBR-II Reactor. Waste NaK metal is a hazardous constituent of some transuranic wastes stored at the ANL-W Radioactive Scrap and Waste Facility (RSWF). The remote-handled NaK waste at RSWF is contained in stainless steel capsules or tubing and placed inside carbon steel waste cans which then are placed in stainless steel outer cans. The entire package is then stored in RSWF storage liners (carbon steel soil storage vaults). The NaK was generated during maintenance and operational activities. NaK waste is in canisters with TRU waste metal pieces and rods from reactor experiments. This waste will require treatment prior to disposal at WIPP. Final waste form has not been determined yet.

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

Appendix C

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - West	Final Waste Form	Heterogeneous	Waste Matrix Code	S5440	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Likely Defense-Related	Inventory Date	12/31/2008		
Stream Name	TRU-CD-HOT CELL WASTE			Activity Concentrations Decayed to CY	1993		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
45-gal Drum	0.3	13.3	13.6
Liner - RSWF	0.5	0.0	0.5
Current Form Total	0.8	13.3	14.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	1.8	22.3	24.0
Final Form Total	1.8	22.3	24.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	31.82
Aluminum-based Metals/Alloys	0.00
Other Metals	0.13
Other Inorganic Materials	14.18
Cellulosics	0.05
Rubber	0.00
Plastics	0.38
Cements	74.38
Inorganic Matrix	79.27
Organic Matrix	0.03
Soils/gravel	0.13
Vitrified	5.70
Packaging Material, Steel	560.60
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.02E-01
Cs-137	5.69E+02
Np-237	2.40E-03
Pu-238	9.52E+01
Pu-239	2.79E+01
Pu-240	1.23E+01
Pu-241	3.70E+00
Pu-242	8.49E-05
Sr-90	3.41E+01
U-233	3.53E-04
U-234	9.94E-02
U-235	1.81E-03
U-236	1.88E-03
U-238	6.98E-06

Haz. Waste No(s).

D006, D007, D008

TRUCON Code(s)

325

Waste Stream Description

This waste stream consisted of metallic cadmium, salts, and associated cleanup materials (paper towels and cloth rags). Waste also includes RCRA metal contaminated remote-handled TRU-Mixed HEPA filters from the Analytical Lab. The waste is contaminated with activation and fission products as well as with plutonium. This waste stream is generated from Fuel Conditioning Facility Demonstration support experiments; the analysis of fuels in the hot cells. Waste is stored in the Radioactive Scrap and Waste Facility and Sodium Storage Building. Future waste generation will be small because evaporation as part of the process will be done in the hot cell to minimize the volume.

Waste Stream ID: **AW-W029**

Appendix C

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - West	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5111	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Likely Defense-Related	Inventory Date	12/31/2008		
Stream Name	RSWF TRANSURANIC WASTE			Activity Concentrations Decayed to CY	1996		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Liner - RSWF	1.5	0.0	12.1
Current Form Total	12.1	0.0	12.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	12.5	0.0	12.5
Final Form Total	12.5	0.0	12.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	26.96
Aluminum-based Metals/Alloys	0.51
Other Metals	56.61
Other Inorganic Materials	3.10
Cellulosics	1.76
Rubber	0.11
Plastics	1.15
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	560.60
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.80E+01
Cs-137	1.76E+04
Pu-238	9.47E+01
Pu-239	1.68E+03
Pu-240	2.83E+02
Pu-241	7.01E+03
Sr-90	7.20E+03

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 317

Waste Stream Description

Radioactive Scrap and Waste Facility (RSWF) Waste containers storing TRU waste from various facilities. Waste includes analytical samples, EBR-I waste and subassembly hardware.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **AW-W048**

Appendix C

TRU Waste Inventory Profile Report

Site	Argonne National Laboratory - West	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Likely Defense-Related	Inventory Date	12/31/2008		
Stream Name	FCF Indirect RH-MTRU Waste			Activity Concentrations Decayed to CY	2006		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Canister - (MFC) o/p 45-gal Drums	2.0	5.4	7.5
Liner - RSWF	0.2	0.0	0.2
Current Form Total	2.2	5.4	7.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	3.6	7.1	10.7
Final Form Total	3.6	7.1	10.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	511.22
Aluminum-based Metals/Alloys	41.11
Other Metals	459.42
Other Inorganic Materials	42.76
Cellulosics	47.92
Rubber	13.32
Plastics	50.34
Cements	0.00
Inorganic Matrix	71.82
Organic Matrix	0.58
Soils/gravel	2.24
Vitrified	0.00
Packaging Material, Steel	560.60
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Cs-137	8.73E+02
Pu-239	4.03E-01
Sr-90	9.49E+02
U-235	1.24E-04

Haz. Waste No(s).

D006

TRUCON Code(s)

325

Waste Stream Description

FCF Argon cell RH-MTRU waste - rags, plastic, glass, rubber, paper, cardboard, aluminum foil, metal, brushes, copper, bolts, smears, nylon sling, insulation, o-rings, etc.

Waste Stream ID: **BL-Parks**

Appendix C

TRU Waste Inventory Profile Report

Site	Babcock and Wilcox Nuclear Energy Services	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Source Information Not Compiled	Defense Determination	Pending Determination	Inventory Date	12/31/2008		
Stream Name	Parks Township TRU Orphan Waste	Activity Concentrations Decayed to CY		2000			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.2	0.0	4.2
Box - Steel	11.3	0.0	11.3
Current Form Total	15.5	0.0	15.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	4.2	0.0	4.2
SWB Dir Ld w/o Liner	11.3	0.0	11.3
Final Form Total	15.5	0.0	15.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	147.41
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.99E+00
Cs-137	4.11E-03
Pu-238	3.44E+00
Pu-239	1.82E+01
Pu-240	6.85E+00
Pu-241	1.83E+02
Pu-242	4.04E-03
U-234	3.08E-05
U-235	1.40E-06
U-238	2.79E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

10.26 m3 of waste from Parks Township ROD 63FR3629, 65FR82985, 69FR39446 amended 27 February 2008 Point of Contact William Spurgeon (Any reference to 45m3, Matt Hutmaker, B&W is not related to BL-Parks)

Waste Stream ID: **BL-Parks-A**

Appendix C

TRU Waste Inventory Profile Report

Site	Babcock and Wilcox Nuclear Energy Services	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Source Information Not Compiled	Defense Determination	Pending Determination	Inventory Date	12/31/2008		
Stream Name	Parks Township TRU Orphan Waste	Activity Concentrations Decayed to CY	2000				

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Box - Misc	0.2	0.0	0.2
Current Form Total	0.4	0.0	0.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal POC - 6" w/ Liner	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	320.70
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	213.60
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.35E-01
Pu-239	4.41E+00

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

10.26 m3 of waste from Parks Township ROD 63FR3629, 65FR82985, 69FR39446 amended 27 February 2008 Point of Contact William Spurgeon (Any reference to 45m3, Matt Hutmaker, B&W is not related to BL-Parks)

Waste Stream ID: **BT-T006**

Appendix C

TRU Waste Inventory Profile Report

Site	Bettis Atomic Power Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Discarding Excess/Expired Materials	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Neutron Sources			Activity Concentrations Decayed to CY	1967		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Shipping Assembly	49.1	0.0	49.1
Current Form Total	49.1	0.0	49.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
SLB2 (5' x 5' x 8) Dir Ld	50.9	0.0	50.9
Final Form Total	50.9	0.0	50.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	373.00
Aluminum-based Metals/Alloys	0.37
Other Metals	501.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.12
Plastics	353.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	216.30
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.77E-02
Cm-244	2.26E-11
Cs-137	1.89E-08
Pu-238	7.08E+01
Pu-239	6.27E-02
Pu-240	4.07E-03
Pu-241	1.52E+00
Sr-90	1.87E-08
U-234	4.89E-03
U-235	1.63E-09

Haz. Waste No(s).

D008

TRUCON Code(s)

320

Waste Stream Description

Neutron sources--(current form Source Capsule)

Waste Stream ID: **IN-BN050**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3113	Handling	CH
Source Cat.	Source Information Not Compiled	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	SOLIDIFIED SOLUTIONS:			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	461.00
Cellulosics	0.00
Rubber	0.00
Plastics	4.24
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Np-237	3.33E-04
Pu-239	1.20E-01

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-BN161**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5123	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Firebrick Debris Waste			Activity Concentrations Decayed to CY	2005		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.20
Aluminum-based Metals/Alloys	0.00
Other Metals	0.12
Other Inorganic Materials	230.00
Cellulosics	6.40
Rubber	0.00
Plastics	1.60
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.07
Soils/gravel	0.30
Vitrified	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.69E-01
Np-237	9.29E-06
Pu-238	1.61E-01
Pu-239	3.78E+00
Pu-240	8.64E-01
Pu-241	6.55E+00
Pu-242	6.96E-05
U-234	3.23E-07
U-235	4.41E-08

Haz. Waste No(s).

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

TRUCON Code(s)

122/222, 125/225,
130/230

Waste Stream Description

The IN-BN161 waste stream contains firebrick debris waste. This waste was generated from maintenance activities in support of weapons fabrication and plutonium recovery operations at RFETS. Waste is estimated to contain a minimum of 50% by volume ceramic or brick debris (e.g., firebrick, ceramic refractories).

Waste Stream ID: **IN-BN204**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3113	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	SOLIDIFIED SOLUTIONS:			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	196.75
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	199.14
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	231.80
Packaging Material, Plastic	17.10
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	3.17E+00
Pu-239	2.49E-02
Th-230	7.31E-09
U-234	1.23E-04
U-235	3.19E-10

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste comes from Battelle Columbus Labs. It is a turco soap decontamination solution (used to decontaminate glove boxes from a Pu lab) which is solidified in plaster-of-paris.

Waste Stream ID: **IN-BN211**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Filter	Waste Matrix Code	S5410	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Filter Debris Waste			Activity Concentrations Decayed to CY	2005		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.62
Aluminum-based Metals/Alloys	1.30
Other Metals	0.18
Other Inorganic Materials	54.00
Cellulosics	24.00
Rubber	0.04
Plastics	3.00
Cements	5.20
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.56E-01
Am-243	9.28E-09
Cs-137	2.59E-09
Np-237	4.56E-05
Pu-238	1.62E-01
Pu-239	3.74E+00
Pu-240	8.65E-01
Pu-241	6.32E+00
Pu-242	7.22E-05
Sr-90	4.39E-09
U-233	5.51E-05
U-234	5.19E-06
U-235	1.14E-06
U-238	8.33E-09

Haz. Waste No(s).

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

TRUCON Code(s)

119/219

Waste Stream Description

The IN-BN211 waste stream consists of filters, filter media, and insulation generated during maintenance activities in support of production, recovery, laboratory, waste treatment, and research and development activities associated with plutonium operations at RF. Consists of debris that is estimated to be 50% by volume, or more, high-efficiency particulate air filters (HEPA) or other filters constructed of more than one material type (e.g., metal, inorganic non-metal, and organic materials).

Waste Stream ID: **IN-BN243**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Glass Debris Waste	Activity Concentrations Decayed to CY		2005			

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.00
Aluminum-based Metals/Alloys	0.00
Other Metals	8.90
Other Inorganic Materials	110.00
Cellulosics	0.79
Rubber	0.14
Plastics	12.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.52E-01
Cm-244	8.54E-03
Cs-137	9.13E-10
Np-237	1.64E-05
Pu-238	3.60E-02
Pu-239	7.44E-01
Pu-240	1.67E-01
Pu-241	1.31E+00
Pu-242	1.67E-05
Sr-90	1.54E-09
U-234	5.70E-06
U-235	1.52E-06

Haz. Waste No(s).

D005, D008, D009, D022, D028, D029, F001, F002, F005

TRUCON Code(s)

118/218, 125/225

Waste Stream Description

IN-BN243 (TRU glass debris) generated at RFETS from a variety of operations in support of weapons fabrication and manufacturing including plutonium production, purification and recovery, laboratory operations, research and development maintenance and utility operations, and waste treatment. Waste that is estimated to contain a minimum of 50% by volume glass debris (e.g., leaded glass windows, bottles, light bulbs)

Waste Stream ID: **IN-BN252**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Combustible	Waste Matrix Code	S5311	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Leaded Rubber Debris Waste			Activity Concentrations Decayed to CY	2005		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.07
Aluminum-based Metals/Alloys	0.00
Other Metals	18.00
Other Inorganic Materials	2.90
Cellulosics	0.06
Rubber	240.00
Plastics	0.83
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.28E-01
Cs-137	2.47E-09
Np-237	3.30E-04
Pu-238	2.18E-01
Pu-239	6.13E+00
Pu-240	1.32E+00
Pu-241	1.33E+01
Pu-242	1.43E-04
Sr-90	3.92E-09
U-234	2.62E-06
U-235	1.26E-06

Haz. Waste No(s).

D008, D022, D028, D029, F001, F002, F005, F006, F007, F009

TRUCON Code(s)

121/221, 123/223

Waste Stream Description

IN-BN252 (TRU leaded rubber debris) wastes were generated at RFETS from a variety of operations in support of weapons fabrication and manufacturing including plutonium production, purification and recovery, laboratory operations, research and development, maintenance and utility operations, and waste treatment. Waste is estimated to contain 50% or more by volume leaded rubber debris. IDCs ID-RF-339 and ID-RF-463.

Waste Stream ID: **IN-BN296**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5112	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Non-Special Source Metal			Activity Concentrations Decayed to CY	2005		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	90.00
Aluminum-based Metals/Alloys	0.81
Other Metals	74.00
Other Inorganic Materials	3.40
Cellulosics	3.00
Rubber	0.81
Plastics	1.60
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.01
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.36E+00
Cm-244	2.57E-03
Cs-137	1.90E-08
Np-237	7.78E-05
Pu-238	1.73E-01
Pu-239	3.55E+00
Pu-240	7.90E-01
Pu-241	5.87E+00
Pu-242	7.98E-05
Sr-90	3.42E-08
U-233	1.13E-05
U-234	1.91E-06
U-235	2.00E-03
U-238	1.35E-06

Haz. Waste No(s).

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

TRUCON Code(s)

117/217, 125/225

Waste Stream Description

IN-BN296 consists of metal debris generated during production, recovery, purification, laboratory, waste treatment, maintenance, research and development and non-routine activities (e.g., fire cleanup, strip-outs) associated with plutonium operations at RFETS. This waste is comprised of IDCs 320, 321, 480, and 481. This waste is estimated to contain a minimum 50% by volume metal debris.

Waste Stream ID: **IN-BN304**

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TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Mound Debris Waste			Activity Concentrations Decayed to CY	2005		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	20.00
Aluminum-based Metals/Alloys	0.30
Other Metals	24.00
Other Inorganic Materials	21.00
Cellulosics	4.40
Rubber	6.30
Plastics	6.10
Cements	0.00
Inorganic Matrix	0.01
Organic Matrix	0.00
Soils/gravel	0.09
Vitrified	0.00
Packaging Material, Steel	0.00
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.65E-01
Cs-137	1.34E-06
Np-237	7.37E-06
Pu-238	4.84E+01
Pu-239	9.45E-02
Pu-240	7.12E-02
Pu-241	8.52E-01
Pu-242	6.02E-05
Sr-90	2.73E-06
U-234	6.47E-06
U-235	1.34E-07
U-238	7.40E-05

Haz. Waste No(s).

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

TRUCON Code(s)

122/222, 125/225, 130/230

Waste Stream Description

"IN-BN304 (Mound debris waste) was generated from decontamination and decommissioning of gloveboxes, equipment and facilities for plutonium heat source production, isotope recovery, as well as operations in support of activities such as analytical laboratories, maintenance and utilities, and waste treatment. Waste that is estimated to contain at least 50% by volume debris waste materials. "

Waste Stream ID: **IN-BN811**

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TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3125	Handling	CH
Source Cat.	Pollution Control or Waste Treatment Process	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	EVAPORATOR AND DISSOLVER SLUDGE:			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	153.50
Packaging Material, Plastic	1.20
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	0.00E+00
Pu-238	7.88E+02
Pu-239	5.85E+00
Pu-240	0.00E+00
Pu-241	0.00E+00
Pu-242	0.00E+00

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

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

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

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

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	RH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	RH TRU Debris waste from Reactor Technology Complex at the INL			Activity Concentrations Decayed to CY	N/A		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.0	20.8	20.8
Current Form Total	0.0	20.8	20.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.0	30.3	30.3
Final Form Total	0.0	30.3	30.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides Provided

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
F002, F005No TRUCON
Codes Provided

Waste Stream Description

Draft AK report is being prepared to assure that the newly generated waste stream meets WIPP requirements. The waste is planned to be packaged in future (2009-2010). Approximately 100 drums (55 gallon) will be generated from this waste stream.

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

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TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	N/A	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	RH TRU Sludge Pan Container waste from Naval Reactor Facility at Idaho Site.			Activity Concentrations Decayed to CY	2008		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Sludge Pan Container	1.9	0.0	1.9
Current Form Total	1.9	0.0	1.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	27.6	0.0	27.6
Final Form Total	27.6	0.0	27.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.69E-03
Cs-137	8.26E+00
Pu-238	5.07E-01
Pu-239	1.35E-03
Pu-240	5.89E-04
Pu-241	5.72E-02
Pu-242	1.76E-06
Sr-90	7.78E+00
U-233	1.63E-03
U-234	6.04E-04
U-235	9.51E-07
U-238	9.21E-08

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream was generated at Naval Reactor Facility. AK information is being collected to assure that the waste stream meets WIPP requirement. There are 92 containers in storage. This waste stream is planned to be re-packaged in 2008-2011 time frame.

Waste Stream ID: **IN-SBW-01A**

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TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	SBW Treatment - Steam Reforming - Carbonate Waste Form			Activity Concentrations Decayed to CY	2006		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Tank(s)	3520.0	0.0	3520.0
Current Form Total	3520.0	0.0	3520.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	599.0	0.0	599.0
Final Form Total	599.0	0.0	599.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	1334.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	560.60
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.27E-01
Am-243	2.85E-04
Cm-244	2.02E-03
Cs-137	2.90E+02
Np-237	4.03E-03
Pu-238	6.22E+00
Pu-239	6.75E-01
Pu-240	2.50E-01
Pu-241	2.54E+00
Pu-242	1.29E-04
Sr-90	1.90E+02
U-233	5.64E-05
U-234	8.98E-03
U-235	2.20E-04
U-238	2.16E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, F001, F002, F005, U134

No TRUCON Codes Provided

Waste Stream Description

The liquid SBW would be transferred from the storage tanks to the steam reforming process over a 1.0-year period. The steam reforming process is a fluidized bed reactor that converts the metals dissolved in the nitric acid into a dry granular powder. The fluidized bed operates at temperature between 600 and 1000 degrees centigrade. The carbonate waste form would be removed from the fluidized bed and transferred to the canning facility and placed by 90% loading in to 72-B canisters (direct loaded). The carbonate waste form would be RH-TRU waste, dried to 1% moisture, and would generate approximately 673 canisters with a surface dose rate <100 Rem/hr.

Waste Stream ID: **IN-SBW-01B**

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TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	SBW Treatment - Steam Reforming Process - Debris			Activity Concentrations Decayed to CY	2010		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	0.0	89.0	89.0
Current Form Total	0.0	89.0	89.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	0.0	89.0	89.0
Final Form Total	0.0	89.0	89.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	700.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	2.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	560.60
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.27E-03
Am-243	2.85E-06
Cm-244	2.02E-05
Cs-137	2.90E+00
Np-237	4.03E-05
Pu-238	6.22E-02
Pu-239	6.75E-03
Pu-240	2.50E-03
Pu-241	2.54E-02
Pu-242	1.29E-06
Sr-90	1.90E+00
U-233	5.64E-07
U-234	8.98E-05
U-235	2.20E-06
U-238	2.16E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, F001, F002, F005, U134

No TRUCON Codes Provided

Waste Stream Description

The debris from the steam reforming process would include spent HEPA filters and other failed equipment.

Waste Stream ID: **IN-W139**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Unknown	Inventory Date	12/31/2008		
Stream Name	Transuranic Contaminated Lead Drums			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.08E+00

Haz. Waste No(s).

D008

No TRUCON
Codes Provided

Waste Stream Description

In 1983, EAD Metallurgical Inc. of New York state, a NRC licensee, sold to a company in Mexico the workings of a smoke detector factory. Included in the contract was an agreement that the seller would assemble the plant in Mexico and train the owner/operator. After the materials were received in Mexico, the original owner refused to fulfill contractual obligations, which originated legal proceedings that eventually failed. Escalation of the problem through normal channels finally involved the governments of the two nations which concluded in the DOE assuming ownership of the material in 1986. After government negotiations, DOE-ID was instructed by DOE-HQ to retrieve the material. The material, declared a defensive waste, is now stored at the INL. ☐The waste is mixed TRU waste that includes clothing, metals, contaminated process equipment, lead shielding, lead pigs, and lead sheeting throughout the waste

Waste Stream ID: **IN-W169R**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5300	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Dry Paper and Rags (RH)			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	25.80
Other Inorganic Materials	19.10
Cellulosics	94.70
Rubber	40.10
Plastics	131.80
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.78E-01
Pu-238	2.11E-02
Pu-239	5.98E-01
Pu-240	1.36E-01
Pu-241	3.61E+00
Pu-242	9.75E-06
U-235	2.60E-06
U-238	8.48E-11

Haz. Waste No(s).

D008, D022, D029,
F001, F002, F003,
F005No TRUCON
Codes Provided

Waste Stream Description

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

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **IN-W170**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5112	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Decontamination and Decommissioning Waste			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	22.50
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	1.60
Cellulosics	130.30
Rubber	1.50
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.13E+00
Pu-239	2.06E+01

Haz. Waste No(s).

D004, D006, D008, F003

No TRUCON Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-W171**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5330	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Research Generated Waste			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	2.90
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	2.90
Cellulosics	175.90
Rubber	2.00
Plastics	22.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.98E-01
Am-243	1.70E-03
Pu-239	5.12E+00
Pu-241	5.21E+01

Haz. Waste No(s).

D004, D006, D008, F003

No TRUCON Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-W172**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5390	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Combustibles			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	195.5	0.0	195.5
Current Form Total	195.5	0.0	195.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	195.5	0.0	195.5
Final Form Total	195.5	0.0	195.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	2.90
Cellulosics	575.60
Rubber	55.20
Plastics	165.60
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedHaz. Waste No(s).
F001, F002No TRUCON
Codes Provided

Waste Stream Description

This waste stream, generated at Bettis Atomic Power Laboratory, consists primarily of rags, gloves, plastic, paper, carbo-wax. Filters, oil-contaminated "absorbal" (diatomaceous earth), and rubber. This waste stream may also contain some noncombustible items and small quantities of floor sweepings, grinding sludge, and binary powder. Levels of hazardous materials is unknown.

Waste Stream ID: **IN-W197R**

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TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5300	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Moist Paper and Rags (RH)			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	16.4	0.0	16.4
Current Form Total	16.4	0.0	16.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	16.4	0.0	16.4
Final Form Total	16.4	0.0	16.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.50
Aluminum-based Metals/Alloys	0.00
Other Metals	1.40
Other Inorganic Materials	12.80
Cellulosics	33.10
Rubber	6.40
Plastics	50.60
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.23E-01
Pu-238	2.41E-02
Pu-239	6.82E-01
Pu-240	1.55E-01
Pu-241	4.12E+00
Pu-242	1.11E-05
U-235	9.73E-07

Haz. Waste No(s).

D008, D022, F001, F002, F003, F005

No TRUCON Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-W198R**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Combustible	Waste Matrix Code	S5300	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Plastics, Teflon, Wash, PVC (RH)			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.20
Other Inorganic Materials	15.30
Cellulosics	15.00
Rubber	49.70
Plastics	39.50
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.62E+00
Np-237	2.28E-05
Pu-238	3.13E-02
Pu-239	8.87E-01
Pu-240	2.01E-01
Pu-241	5.36E+00
Pu-242	5.11E-05
U-235	9.00E-08

Haz. Waste No(s).

D008, D022, D029,
F001, F002, F003,
F005No TRUCON
Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-W208R**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Filter	Waste Matrix Code	S5410	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Absolute 8X8 filters:(RH)			Activity Concentrations Decayed to CY	1988		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	0.9	0.0	0.9
Final Form Total	0.9	0.0	0.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	16.75
Aluminum-based Metals/Alloys	14.25
Other Metals	1.06
Other Inorganic Materials	17.77
Cellulosics	86.85
Rubber	8.58
Plastics	35.61
Cements	5.20
Inorganic Matrix	0.36
Organic Matrix	0.03
Soils/gravel	0.13
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.32E+01
Pu-238	1.69E+00
Pu-239	4.78E+01
Pu-240	1.08E+01
Pu-241	2.89E+02
Pu-242	7.80E-04
U-235	3.86E-05
U-238	1.03E-06

Haz. Waste No(s).

D022, D028, D029,
F001, F002, F003,
F005No TRUCON
Codes Provided

Waste Stream Description

This waste stream, generated at the Rocky Flats Plant, consists of absolute filters used for filtering intake and exhaust air from glovebox lines. The filters are composed of wood or particle board frames and an asbestos-type filter media. The waste may include limited amounts of combustible materials (surgical gloves, etc.). Several sizes of filters may be present. This code has not been used since 1975. Since then absolute filters were processed as Content Code 338 (insulation and CWS filter media) or 376 (cemented insulation and filter media). Some of the drums may be lead lined. There is a lack of information about the particulate on the filter media. Although there may be some organic material, it should be less than 14 lb/ft³. Significant amounts of respirable fines may be present. No sludges or free liquids should be present. No explosive, pyrophoric, or corrosive materials should be in this waste. except for some residual amounts of nitric acid. Each filter is double contained in PVC and PE bags and assayed. Up to 12-20 filters are placed in each prepared drum. Small amounts of Oil-Dri are added to drums containing damp filters. Drums were packed according to the usual pre-1972 procedures.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **IN-W216R**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121	Handling	RH
Source Cat.	Pollution Control or Waste Treatment Process	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	First Stage Sludge:(RH)			Activity Concentrations Decayed to CY	1988		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	57.9	0.0	57.9
Final Form Total	57.9	0.0	57.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	44.60
Cellulosics	0.00
Rubber	0.00
Plastics	4.14
Cements	0.00
Inorganic Matrix	744.00
Organic Matrix	14.90
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.19E+01
Pu-238	8.14E-02
Pu-239	2.30E+00
Pu-240	5.23E-01
Pu-241	1.39E+01
Pu-242	3.76E-05

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

Waste consists of a wet sludge produced from treating aqueous process wastes, such as ion exchange column effluent, distillates, and caustic scrub solutions generated by Plutonium Recovery Operations (Building 771). Portland cement is added to the waste package for absorption of free liquids. Waste drums may periodically contain surgeons' gloves, glovebox gloves, etc. Since the fall of 1979, First-stage sludge (IDC 001) and Second-stage sludge (IDC 002) have been combined into Content Code 1 - Combined sludge. Sludge is produced by treating aqueous wastes by the carrier precipitation process. Aqueous wastes are made basic, if necessary, with sodium hydroxide. Radioactive elements such as plutonium and americium are chemically precipitated from the liquid waste. Treatment chemicals include ferric sulfate, calcium chloride, magnesium sulfate, and flocculating agents. The treatment process produces a precipitate of the hydrated oxides of iron, magnesium, aluminum, silicon, etc., which also carries the hydrated oxides of plutonium and americium. The precipitate or slurry is filtered to produce a sludge containing 50 to 70 percent water. Liquid wastes were analyzed for fissile content prior to release from Buildings 771 and 774, and were retained at Building 771 for further treatment if contaminated with above-discard amounts of plutonium.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **IN-W219**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3129	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	SOLIDIFIED GRINDING SLUDGE, ETC.:			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	9.4	0.0	9.4
Current Form Total	9.4	0.0	9.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	9.4	0.0	9.4
Final Form Total	9.4	0.0	9.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	2500.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	4.34E-02
Pu-239	1.23E+00
Pu-240	2.79E-01
Pu-241	7.43E+00
Pu-242	2.01E-05

Haz. Waste No(s).

F001, F002

No TRUCON Codes Provided

Waste Stream Description

This waste stream, generated at Bettis Atomic Power Laboratory, consists of solidified grinding sludge and associated filters, rags, etc. The sludge can contain abraded grinding wheel material, which includes diamond dust, aluminum oxide, carborundum, and rubber. The waste is dry when packaged. The waste is in either powder or cakes and contains not more than 10% of other waste items.

Waste Stream ID: **IN-W228R**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3121	Handling	RH
Source Cat.	Pollution Control or Waste Treatment Process	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	SECOND STAGE SLUDGE:(RH)			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	29.4	0.0	29.4
Final Form Total	29.4	0.0	29.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.70
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	21.00
Cellulosics	0.00
Rubber	0.01
Plastics	1.90
Cements	21.00
Inorganic Matrix	310.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.70E-01
Pu-238	3.23E-03
Pu-239	9.15E-02
Pu-240	2.07E-02
Pu-241	5.52E-01
Pu-242	1.49E-06

Haz. Waste No(s).

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

**No TRUCON
Codes Provided**

Waste Stream Description

Waste consists of a wet sludge produced from treatment of other plant radioactive and/or chemical contaminated wastes and further treatment of the first-stage effluent. Portland cement was added to the waste package for absorption of free liquids. □ Second-stage sludge drums packaged prior to 1973 may contain other waste such as electric motors, bottles of chemical (usually liquid) wastes, mercury, lithium batteries, and small amounts of contaminated mercury in pint bottles. Radioactive sources were also periodically included in second-stage drums through 1979. □ Since the fall of 1979, Second stage sludge (IDC 002) have been combined into Content Code 1 - Combined sludge. Content code 2 is no longer used. □ Sludge is produced by treating aqueous wastes by the carrier precipitation process. Aqueous wastes are made basic, if necessary, with sodium hydroxide. Radioactive elements such as plutonium and americium are chemically precipitated from the liquid waste. Treatment chemicals include ferric sulfate, calcium chloride, magnesium sulfate, and flocculating agents. The treatment process produces a precipitate of the hydrated oxides of iron, magnesium, aluminum, silicon, etc., which also carries the hydrated oxides of plutonium and americium. The precipitate or slurry is filtered to produce a sludge containing 50 to 70 percent water. □ Liquid wastes were analyzed for fissile content prior to release from Buildings 771 and 774, and were retained at Building 771 for further treatment if contaminated with above-discard amounts of plutonium

Waste Stream ID: **IN-W243R**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5122	Handling	RH
Source Cat.	Analytical Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	GLASS: (RH)			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	5.3	0.0	5.3
Final Form Total	5.3	0.0	5.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	1.15
Other Inorganic Materials	208.53
Cellulosics	0.00
Rubber	0.76
Plastics	22.60
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.52E-01
Pu-238	7.54E-02
Pu-239	2.14E+00
Pu-240	4.85E-01
Pu-241	1.29E+01
Pu-242	3.49E-05
U-235	6.17E-07
U-238	4.26E-08

Haz. Waste No(s).

D008, D029, F001, F002, F003, F005

No TRUCON Codes Provided

Waste Stream Description

This waste stream, generated at the Rocky Flats Plant, consists of glass sample vials, bottles, lead-taped sample vials, ion exchange columns, dissolver ports, laboratory glassware such as pyrex flasks and beakers, glovebox windows (glass, plexiglass, leaded glass), and crushed and ground glass. The waste includes limited amounts of other non-combustibles such as metals, and limited amounts of combustible wastes. No sludges should be present although some glass vials may contain limited amounts of free liquids. No explosive, pyrophoric, or corrosive materials should be in the waste. □ Drums may contain respirable crushed glass fines or free liquids. □ The glass may be packaged with some variation depending on if it is whole, broken to pieces, or crushed or ground. Whole or broken glass may be packaged in 1-gallon PE bottles, in 13-inch high by 15.5-inch diameter Fibre-Paks (either loose or inside plastic bags inside the Fibre-Pak), or double-packed in plastic bags, with the outside of the outer bag taped for protection against sharp edges. Glassware such as sample vials may be taped together before packaging. Nonline generated glassware, light bulbs, and fluorescent tubes are usually crushed or ground and placed directly into a prepared 55-gallon drum. Drums were packed according to the usual pre-1972 and post-1972 procedures. □

Each drum was assayed. Since 1972, the drums were also processed according to inspection and sealing procedures; and since 1982, vermiculite instead of Oil-Dri was placed on the top of the outer sealed PE drum bag. A small number of the drums are lead-lined. Also, Oil-Dri was added to the glass waste if moisture was present.

Waste Stream ID: **IN-W245R**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5121	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Unleached Raschig Rings (RH)			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	246.20
Cellulosics	15.80
Rubber	0.00
Plastics	5.50
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.22E-02
Pu-238	1.52E-01
Pu-239	4.29E+00
Pu-240	9.74E-01
Pu-241	2.59E+01
Pu-242	7.00E-05

Haz. Waste No(s).

D008, F001

No TRUCON Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-W247R**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5121	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Leached Raschig Rings (RH)			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	137.40
Cellulosics	16.50
Rubber	0.00
Plastics	7.20
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.16E-03
Pu-238	7.31E-02
Pu-239	2.07E+00
Pu-240	4.70E-01
Pu-241	1.25E+01
Pu-242	3.38E-05
U-235	4.12E-07

Haz. Waste No(s).

D008, D028, D029,
F001, F002, F003,
F005No TRUCON
Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-W252R**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	LEADED RUBBER GLOVES AND APRONS: (RH)			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	17.8	0.0	17.8
Final Form Total	17.8	0.0	17.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	13.40
Cellulosics	2.60
Rubber	286.00
Plastics	8.40
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.58E-01
Pu-238	2.56E-01
Pu-239	7.25E+00
Pu-240	1.64E+00
Pu-241	4.37E+01
Pu-242	1.18E-04

Haz. Waste No(s).

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

No TRUCON Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-W254R**

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TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	LEADED RUBBER GLOVES AND APRONS: (RH)			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	1.8	0.0	1.8
Final Form Total	1.8	0.0	1.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	178.10
Other Inorganic Materials	20.10
Cellulosics	3.80
Rubber	185.70
Plastics	11.40
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	1.53E-01
Pu-239	4.33E+00
Pu-240	9.83E-01
Pu-241	2.62E+01
Pu-242	7.07E-05

Haz. Waste No(s).

D008, F001, F002

No TRUCON Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-W259**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Alpha Hot Cell	Activity Concentrations Decayed to CY		1989			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	24.3	0.0	24.3
Bin - Misc	7.0	0.0	7.0
Current Form Total	31.3	0.0	31.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.5	0.0	1.5
TDOP w/ 10 - 55-gal Drums w/ Liners	49.5	0.0	49.5
Final Form Total	51.0	0.0	51.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	83.60
Aluminum-based Metals/Alloys	0.00
Other Metals	0.10
Other Inorganic Materials	2.10
Cellulosics	70.30
Rubber	6.30
Plastics	56.40
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	228.91
Packaging Material, Plastic	17.67
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-239	2.45E-01
Pu-240	2.71E-02
U-235	6.09E-05

Haz. Waste No(s).

D008

No TRUCON Codes Provided

Waste Stream Description

This waste stream, generated at Argonne National Laboratory-East, contains alpha hot cell waste. Noncombustible and combustible waste are segregated. Sodium in the waste is reacted with ethyl alcohol, mixed with pelletized clay, and dried. Nitrates and oxidizing agents are neutralized or reduced, mixed with pelletized clay, and dried to ferrous or ferric salts.

Waste Stream ID: **IN-W260R**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Unknown	Waste Matrix Code	S9000	Handling	RH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Solid Binary Scrap Powder (RH)			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	35.8	0.0	35.8
Current Form Total	35.8	0.0	35.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	35.8	0.0	35.8
Final Form Total	35.8	0.0	35.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedNo TRUCON
Codes Provided

Waste Stream Description

This waste stream, generated at Bettis Atomic Power Laboratory, contains solid binary scap such as powder, pellets, or rods. The material is made of ceramic based UO₂ and ThO₂. Some "kilorods" or fuel rods constructed of fuel pellets within hollow zirconium tubes are also included. This waste may also contain combustible waste.

Waste Stream ID: **IN-W269**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Combustible	Waste Matrix Code	S5440	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Laboratory Waste	Activity Concentrations	Decayed to CY	1989			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	28.9	0.0	28.9
Current Form Total	28.9	0.0	28.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	28.9	0.0	28.9
Final Form Total	28.9	0.0	28.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.71E+00
Pu-238	6.67E+00
Pu-239	5.86E+01
Pu-240	6.07E+00
Pu-241	2.23E-01
Pu-242	2.07E-05
U-235	1.02E-02
U-238	6.25E-05

Haz. Waste No(s).

D008

No TRUCON Codes Provided

Waste Stream Description

This waste stream, generated at the INL, contains laboratory waste from ANL-W including fluxwire, fission counters, HEDL samples, analytical samples, dissolved and absorbed oil-dri, glassware, vials, miscellaneous waste from gloveboxes, dissolved pellets absorbed in Oil Dri, enriched and normal U308 pellets, aluminum foil and capsules, TREAT waste capsules, chlorinated ion exchange resins, Pu sources, and irradiated Ge caps. Lab waste from ICPP includes kimwipes, trash, glassware, dissolved samples absorbed in Oil Dri, analytical samples, gloves, etc. □□The organic content is usually less than 14 lb/ft³. No sludges or free liquids should be present. Absorbents were added if moisture was detected in any wastes. No explosive or pyrophoric materials should be in this waste.

Waste Stream ID: **IN-W283**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5420	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Americium Process Residues:			Activity Concentrations Decayed to CY	1973		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	159.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	129.00
Cellulosics	13.50
Rubber	0.00
Plastics	81.90
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	2.87E-01
Pu-239	8.14E+00
Pu-240	1.85E+00
Pu-241	4.91E+01
Pu-242	1.33E-04

Haz. Waste No(s).

D008, F002, F003

No TRUCON Codes Provided

Waste Stream Description

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

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **IN-W283R**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5420	Handling	RH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Americium Process Residues: (RH)				Activity Concentrations Decayed to CY	1989	

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	90.40
Cellulosics	0.00
Rubber	0.00
Plastics	57.40
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	2.87E-01
Pu-239	8.14E+00
Pu-240	1.85E+00
Pu-241	4.91E+01
Pu-242	1.33E-04

Haz. Waste No(s).

D008, F002, F003

No TRUCON Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-W287**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5112	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Cut-Up Gloveboxes	Activity Concentrations Decayed to CY		1989			

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	59.9	0.0	59.9
Final Form Total	59.9	0.0	59.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	213.20
Aluminum-based Metals/Alloys	34.20
Other Metals	15.80
Other Inorganic Materials	38.90
Cellulosics	56.80
Rubber	0.60
Plastics	5.70
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.99E-03
Np-237	7.88E-04
Pu-239	2.58E-01
Pu-240	3.07E+00
Pu-241	2.86E-01
U-235	1.24E-08
U-238	5.91E-05

Haz. Waste No(s).

D008

No TRUCON Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-W294R**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5110	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	LEACHED NONSPECIAL SOURCE METAL:(RH)			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	8.9	0.0	8.9
Final Form Total	8.9	0.0	8.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	113.00
Aluminum-based Metals/Alloys	6.70
Other Metals	85.10
Other Inorganic Materials	22.10
Cellulosics	0.00
Rubber	0.00
Plastics	11.40
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.51E-02
Pu-238	1.11E-01
Pu-239	3.15E+00
Pu-240	7.14E-01
Pu-241	1.90E+01
Pu-242	5.14E-05
U-235	2.02E-06

Haz. Waste No(s).

D008, D022, F001, F002, F005

No TRUCON Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-W296R**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5112	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	NONSPECIAL SOURCE METAL:(RH)			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	17.5	0.0	17.5
Current Form Total	17.5	0.0	17.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	24.9	0.0	24.9
Final Form Total	24.9	0.0	24.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	230.79
Aluminum-based Metals/Alloys	1.27
Other Metals	10.50
Other Inorganic Materials	0.49
Cellulosics	7.19
Rubber	0.20
Plastics	4.84
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.01
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.54E-02
Np-237	1.02E-05
Pu-238	8.58E-02
Pu-239	2.43E+00
Pu-240	5.51E-01
Pu-241	1.47E+01
Pu-242	3.97E-05
U-235	3.72E-07

Haz. Waste No(s).

D008, D028, D029,
F001, F002, F003,
F005No TRUCON
Codes Provided

Waste Stream Description

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

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **IN-W298R**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5112	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	TANTALUM:(RH)			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	8.0	0.0	8.0
Final Form Total	8.0	0.0	8.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	129.00
Aluminum-based Metals/Alloys	4.40
Other Metals	28.40
Other Inorganic Materials	14.60
Cellulosics	9.60
Rubber	1.00
Plastics	9.50
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.20E+00
Pu-238	4.25E-01
Pu-239	1.20E+01
Pu-240	2.73E+00
Pu-241	7.28E+01
Pu-242	1.97E-04

Haz. Waste No(s).

D008, F001, F002

No TRUCON Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-W302**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5420	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Noncompressible, Noncombustible			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	165.2	0.0	165.2
Current Form Total	165.2	0.0	165.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	165.2	0.0	165.2
Final Form Total	165.2	0.0	165.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	96.20
Aluminum-based Metals/Alloys	0.00
Other Metals	0.10
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.30
Plastics	64.90
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.87E-01
Pu-239	1.42E-01
U-233	1.33E-01

Haz. Waste No(s).

D008, F001, F002

No TRUCON Codes Provided

Waste Stream Description

This waste stream, generated at Bettis Atomic Power Laboratory, contains noncompressible and noncombustible items such as absolute filters, solidified chemical waste, contaminated metal equipment, furnace brick, and highly contaminated glovebox equipment. Metal scrap could include bars, sheets, fixtures, small equipment tools, etc. made of carbon steel, stainless steel, aluminum, copper, brass, and zirconium. ☐ Absorbed spent sulfuric, phosphoric, or nitric acids and associated solids from the isotope and isotopic dilution analysis of nuclear fuel specimens may be included in this waste. The residues were neutralized to a pH of 6 to 8 with either sodium hydroxide or hydrated lime before being either mixed with absorbent material or solidified.

Waste Stream ID: **IN-W317R**

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TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Organics	Waste Matrix Code	S3211	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Leached and Cemented Resin (RH)			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	1.90
Aluminum-based Metals/Alloys	0.00
Other Metals	2.90
Other Inorganic Materials	3.40
Cellulosics	0.17
Rubber	0.00
Plastics	13.00
Cements	89.00
Inorganic Matrix	0.00
Organic Matrix	76.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.73E+00
Pu-238	3.67E-01
Pu-239	1.04E+01
Pu-240	2.36E+00
Pu-241	6.28E+01
Pu-242	1.70E-04

Haz. Waste No(s).

D008, F001, F002

No TRUCON
Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-W322**

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TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5190	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	SAMPLE FUEL:			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	5.7	0.0	5.7
Final Form Total	5.7	0.0	5.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	139.10
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	211.10
Packaging Material, Plastic	16.30
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-239	4.83E+00
Pu-240	1.00E+00
U-235	1.31E-04

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream was generated at the INEL. These wastes include actinide neutron sources, a radium needle, small vials of fuel, and metal containers of experimental fuel capsules.

Waste Stream ID: **IN-W323**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5440	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	COMBUSTIBLE LAB WASTE:			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	12.15
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.86
Cellulosics	70.39
Rubber	0.79
Plastics	7.03
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	211.10
Packaging Material, Plastic	16.30
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	7.18E-01
Pu-239	1.32E-01
Pu-241	1.54E+00
U-235	5.07E-05

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream was generated at the Argonne National Laboratory-West at the INEL. Most of the waste is organic and combustible materials including paper, wood, PVC and plastic containers and items, rubber gaskets and gloves, leather, rags, towels, Q-tips, tubing, filter media, abrasive media, and metal pieces. Small residuals of moderators and fuel are trapped on the filters. One of the 28 total drums of Content Code 153 waste is stored at the Transuranic Storage Area (TSA) for contact-handled waste. The other 27 drums are stored at the intermediate level transuranic storage facility (ILTSF) for remote handled waste.

The organic content may exceed 14 lb/ft³. Combustibles, including packaging, may exceed 25 volume percent. The levels of dispersible fines should be within WIPP-WAC limits. No sludges or free liquids should be present. No explosive or pyrophoric materials should be in this waste.

Individual waste items may be loose or plastic bagged. Combustibles and noncombustibles are segregated to separate waste cans. Each can is weighed and assayed. The inner waste cans are loaded into an outer waste drum, along with a lead shield plug. Assays are done for each can and for the drums.

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

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **IN-W337**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5121	Handling	CH
Source Cat.	Source Information Not Compiled	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	AMERICIUM SOURCES:			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	139.10
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-239	1.46E+01
Pu-240	3.03E+00
U-235	3.96E-04

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

"This waste was generated at the Idaho National Engineering Laboratory. It consists of an americium neutron source. No other wastes were included in the drum.□

"

Waste Stream ID: **IN-W338**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5490	Handling	CH
Source Cat.	Source Information Not Compiled	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	ANL-W ACL Cold-Line Absorbed Liquid			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-239	4.67E-01
U-235	1.17E-04

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream was generated at ANL-W, includes absorbed liquids, miscellaneous hardware, and polyethylene. It is a solidified liquid.

Waste Stream ID: **IN-W339**

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TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5120	Handling	CH
Source Cat.	Source Information Not Compiled	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	ANL-W FMF EF: Zr-U Fuel Casting Alloys	Activity Concentrations Decayed to CY		1989			

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-239	1.10E+01
Pu-240	4.49E-02
U-235	8.30E-04

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream was generated at ANL-W. It consists of solid zirconium, uranium, and plutonium fuel casting metal alloy wastes. The waste is a solid with small amounts of glass powder from broken glass molds. The waste is created when the metal is heated in a crucible and then pressurized into the glass molds. The glass molds are broken to remove the fuel pins, and the remaining molds, crucibles, and residues constitute the waste.

Waste Stream ID: **IN-W342R**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5420	Handling	RH
Source Cat.	Source Information Not Compiled	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Miscellaneous Radionuclide Sources:			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	111.26
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	198.40
Packaging Material, Plastic	23.90
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.46E+00
Pu-239	2.13E-02

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

There is no descriptive or constituent information available for this waste, which was generated at ANL-W. Based on engineering judgment, the waste was assigned to "Inorganic Homogeneous Solids." The waste is assumed to be metallic but of a size that is too small to qualify as debris.

Waste Stream ID: **IN-W345**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5440	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Scap			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	19.1	0.0	19.1
Final Form Total	19.1	0.0	19.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	96.20
Aluminum-based Metals/Alloys	0.00
Other Metals	0.10
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.30
Plastics	64.90
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.96E+00
Pu-238	1.67E+00
Pu-239	1.35E+00
Pu-240	8.59E-01
Th-232	3.91E-05
U-235	1.79E-05

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream, generated at the Idaho Engineering Laboratory, consists of a plastic glovebox, hydraulic pum containing oil, vacuum pumps, centrifuges, tools and experimental fuel capsules.

Waste Stream ID: **IN-W347**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3113	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	ABSORBED LIQUIDS:			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	21.8	0.0	21.8
Bin - Misc	45.5	0.0	45.5
Current Form Total	67.3	0.0	67.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	32.7	0.0	32.7
Final Form Total	32.7	0.0	32.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	63.97
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	137.01
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.75E-02
Pu-239	4.97E-01
Pu-240	8.85E-01
Pu-242	0.00E+00
Th-232	1.86E-07
U-235	5.97E-07
U-238	6.35E-06

Haz. Waste No(s).

F003

No TRUCON Codes Provided

Waste Stream Description

This waste comes from Argonne National Laboratory-East. It consists of liquids adjusted to pH 10 using NaOH which are then absorbed in vermiculite.

Waste Stream ID: **IN-W350**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Unknown	Waste Matrix Code	S9000	Handling	CH
Source Cat.	Source Information Not Compiled	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Special Source Material:			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-239	5.74E+01
Pu-240	1.76E+02

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

There is no descriptive or constituent information available for this waste, which was generated at ANL-E.

Waste Stream ID: **IN-W351**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3113	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Empty Bottles	Activity Concentrations Decayed to CY			1989		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	3.40
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	3.40
Cellulosics	202.10
Rubber	2.30
Plastics	25.30
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-239	1.75E+00
Pu-240	6.01E+00

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream, generated at Argonne National Laboratory-East, consists of polyethylene and glass bottles used to collect liquid waste are emptied and filled with vermiculite to absorb any remaining liquid. The tops were replaced to contain the liquid. No free liquids should be present, except for small quantities of wet vermiculite.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **IN-W358**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Uncategorized Metal	Waste Matrix Code	S5420	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	PU NEUTRON SOURCES:			Activity Concentrations Decayed to CY	1995		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Bin - Misc	3.5	0.0	3.5
Current Form Total	3.7	0.0	3.7

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	96.20
Aluminum-based Metals/Alloys	0.80
Other Metals	0.10
Other Inorganic Materials	2.40
Cellulosics	80.90
Rubber	7.30
Plastics	64.90
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	6.65E+02
Pu-239	3.02E+00
Pu-240	5.81E+00

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream was generated at Argonne National Laboratory-West at the INEL. These wastes consist of noncombustible materials including Pu-Be neutron sources (small fuel samples, small sections of moderator, a pu standard, and pu foil), tools, hot cell operating equipment, various containers, and ferrous and nonferrous metals. Some combustible materials may include paper, plastic and PVC containers, rags, Q-tips, string mop heads, and an electrical plug strip and cord.

The organic content is less than 14 lb/ft³. Combustibles, including packaging, may exceed 25 volume percent. The levels of dispersible fines should be within WIPP-WAC limits. No sludges or free liquids should be present. No explosive or pyrophoric materials should be in this waste.

These wastes are packaged three different ways, depending on when the packaging was done. Pu-Be sources packaged in 1975 were placed in a carbon steel pipe, which was cemented and encapsulated into the center of a 55-gallon drum. In 1978, Pu-Be sources were packaged in four 55-gallon drums. Wastes packed in 1980 were wrapped plastic, placed in paraffin lined 15 gallon drums, and then placed in 55-gallon drums. Some individual items may be unbagged.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **IN-W359R**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Unknown	Waste Matrix Code	S9000	Handling	RH
Source Cat.	Source Information Not Compiled	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	NEUTRON SOURCES			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Current Form Total	0.6	0.0	0.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	1.41E+02

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

There is no descriptive or constituent information available for this waste, which was generated at Bettis Atomic Power Laboratory.

Waste Stream ID: **IN-W360R**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Unknown	Waste Matrix Code	S9000	Handling	RH
Source Cat.	Source Information Not Compiled	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	MISCELLANEOUS SOURCES:			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	111.50
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	2.87E-01
Pu-239	8.14E+00
Pu-240	1.85E+00
Pu-241	4.91E+01
Pu-242	1.33E-04

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

There is no descriptive or constituent information available for this waste, which was generated at Bettis Atomic Power Laboratory.

Waste Stream ID: **IN-W364R**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5190	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Sand, Slag, and Crucibles (RH)			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
Final Form Total	0.3	0.0	0.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	146.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	198.40
Packaging Material, Plastic	23.90
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	3.42E+00
Pu-239	9.67E+01
Pu-240	2.19E+01
Pu-241	5.84E+02
Pu-242	1.58E-03

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Specific information is not available for this content code. The waste stream is thought to be similar to content code 391, crucibles and sand. The operation which generated the waste is unknown. The waste packaging and handling procedures are unknown, although the waste form is thought to similar to content code 391.

Waste Stream ID: **IN-W365R**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Inorganic Non-Metal	Waste Matrix Code	S5190	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Crucibles and Sand (RH)	Activity Concentrations Decayed to CY			1989		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	175.57
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	198.40
Packaging Material, Plastic	23.90
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.22E+02
Pu-238	1.57E+00
Pu-239	4.43E+01
Pu-240	1.01E+01
Pu-241	2.68E+02
Pu-242	7.23E-04

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste consists of broken magnesium oxide crucibles and limited amounts of magnesium oxide sand, used in a molten salt cleanup project when reducing plutonium tetrafluoride to plutonium metal. Above-discard levels of plutonium were recovered from these crucibles by nitric acid leaching.

The waste stream handling and packaging is as follows: the crucibles were placed into 1-gallon PE bottles. Each bottle was double-bagged out the glovebox in PVC and PE bags. Each bottle was assayed and the placed in prepared 55 gallon drums, about 12-16 bottles per drum. Some of the drums were lead-lined. Prior to 1972, the drums were lined with one or two PE bags, which were sealed with tape. Some of the drums may have cardboard liners inside of the inner liner. After 1972, 90-mil sealed rigid liners were used in addition to one or two PE bags.

Since 1972, drums were inspected (and corrected where needed) for free liquids, proper packaging, and proper content code. One to two quarts of Oil-dri was placed on the outer sealed PE drum bag. Starting in February 1982, 3-12 lb of vermiculite was used to fill the space between the outer drum bag and the rigid liner.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **IN-W372**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Unknown	Waste Matrix Code	X7900	Handling	CH
Source Cat.	Source Information Not Compiled	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	MET SAMPLES FISSILE:			Activity Concentrations Decayed to CY	1989		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Current Form Total	0.6	0.0	0.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	111.26
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	13.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	211.10
Packaging Material, Plastic	16.30
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.46E+00
Pu-239	2.13E-02

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

There is no descriptive or constituent information available for this waste, which was generated at Bettis Atomic Power Laboratory.

Waste Stream ID: **IN-W372R**

Appendix C

TRU Waste Inventory Profile Report

Site	Idaho National Laboratory	Final Waste Form	Unknown	Waste Matrix Code	X7900	Handling	RH
Source Cat.	Source Information Not Compiled	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	MET SAMPLES FISSILE:(RH)			Activity Concentrations Decayed to CY	1995		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.9	0.0	2.9
Current Form Total	2.9	0.0	2.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	4.5	0.0	4.5
Final Form Total	4.5	0.0	4.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	270.87
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.54E-02
Cs-137	5.51E-02
Pu-238	3.12E-02
Pu-239	8.20E-04

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

There is no descriptive or constituent information available for this waste, which was generated at Bettis Atomic Power Laboratory.

Waste Stream ID: **LA-LA238HOR**

Appendix C

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3120	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Pu-238 Homogeneous, Hazardous	Activity Concentrations Decayed to CY		2006			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	6.4	6.7
Current Form Total	0.2	6.4	6.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	6.4	6.7
Final Form Total	0.2	6.4	6.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.15
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.94E-03
Pu-238	1.21E+01
Pu-239	7.27E-03
Pu-240	3.71E-03
Pu-241	2.72E-01
Pu-242	2.98E-06

Haz. Waste No(s).

D005, D006, D007, D008, D009, D010, D011
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TRUCON Code(s)

122/222

Waste Stream Description

Pu-238 Homogeneous, Hazardous

Waste Stream ID: **LA-TA-00-04**

Appendix C

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Combustibles, Mixed Inorganic Homogeneous Waste, Organics on Vermiculite.				Activity Concentrations Decayed to CY	1999	

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	38.51
Aluminum-based Metals/Alloys	0.16
Other Metals	4.62
Other Inorganic Materials	24.98
Cellulosics	3.19
Rubber	4.78
Plastics	14.75
Cements	0.00
Inorganic Matrix	0.61
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.99E-03
Pu-238	1.30E-01
Pu-239	4.41E+00
Pu-240	1.03E+00
Pu-241	1.56E+01
Pu-242	5.95E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005, U003, U044, U196

TRUCON Code(s)

112/212, 116/216

Waste Stream Description

Combustibles, Mixed Inorganic Homogeneous Waste, Organics on Vermiculite.

Waste Stream ID: **LA-TA-03-17**

Appendix C

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Hepa Filters	Activity Concentrations Decayed to CY		1972			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Crate	19.2	0.0	19.2
Current Form Total	19.2	0.0	19.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	20.8	0.0	20.8
Final Form Total	20.8	0.0	20.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	10.87
Aluminum-based Metals/Alloys	0.00
Other Metals	3.56
Other Inorganic Materials	17.25
Cellulosics	13.89
Rubber	1.41
Plastics	40.79
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.27
Vitrified	0.00
Packaging Material, Steel	153.50
Packaging Material, Plastic	1.20
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedNo TRUCON
Codes Provided

Waste Stream Description

Hepa Filters

Waste Stream ID: **LA-TA-03-20**

Appendix C

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Combustible debris waste from chemistry and metallurgical operations			Activity Concentrations Decayed to CY	1977		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
Current Form Total	0.5	0.0	0.5

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	16.09
Aluminum-based Metals/Alloys	0.00
Other Metals	5.26
Other Inorganic Materials	25.52
Cellulosics	20.55
Rubber	2.08
Plastics	60.35
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.40
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedNo TRUCON
Codes Provided

Waste Stream Description

Combustible debris waste from chemistry and metallurgical operations in wings 2 and 4 of the CMR facility (mixed). Combustible waste generated from facility and equipment operations and maintenance. This waste includes paper, rags, plastic, rubber, wood-based HEPA filters, and plastic-based and cellulose-based waste generated at the facility. Plastic-based waste includes, but may not be limited to, tape, polyethylene and vinyl; gloves; plastic vials; polystyrene; Tygon tubing; polyvinyl chloride plastic; Teflon products; Plexiglas; and dry box gloves (unleaded neoprene base). Cellulose-based waste includes, but may not be limited to, rags, wood, paper, cardboard, laboratory coats and coveralls, booties and cotton gloves, and similar materials. The waste stream may also contain a smaller fraction of non-combustible solids (e.g., scrap metal, crucibles, metal lids, zippers, discarded tools) and a small fraction of homogenous solids, salts, leached solids, ash, hydroxide cakes, crucibles, impure oxides.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **LA-TA-03-21**

Appendix C

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Metals and Miscellaneous Equipment Debris			Activity Concentrations Decayed to CY	1972		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Crate	2.8	0.0	90.6
Current Form Total	90.6	0.0	90.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	94.5	0.0	94.5
Final Form Total	94.5	0.0	94.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	32.01
Aluminum-based Metals/Alloys	0.00
Other Metals	10.47
Other Inorganic Materials	50.77
Cellulosics	40.90
Rubber	4.15
Plastics	120.08
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.80
Vitrified	0.00
Packaging Material, Steel	153.50
Packaging Material, Plastic	1.20
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedHaz. Waste No(s).
D008No TRUCON
Codes Provided

Waste Stream Description

Metals and Miscellaneous Equipment Debris

Waste Stream ID: **LA-TA-03-23**

Appendix C

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Hepa Filters	Activity Concentrations Decayed to CY		1973			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Crate	16.0	0.0	66.4
Current Form Total	66.4	0.0	66.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	68.0	0.0	68.0
Final Form Total	68.0	0.0	68.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	10.65
Aluminum-based Metals/Alloys	0.00
Other Metals	3.48
Other Inorganic Materials	16.89
Cellulosics	13.60
Rubber	1.38
Plastics	39.94
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.27
Vitrified	0.00
Packaging Material, Steel	153.50
Packaging Material, Plastic	1.20
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedNo TRUCON
Codes Provided

Waste Stream Description

Hepa Filters

Waste Stream ID: **LA-TA-21-11**

Appendix C

TRU Waste Inventory Profile Report

Site	Los Alamos National Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	NonCombustible Building Debris			Activity Concentrations Decayed to CY	1972		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Crate	15.9	0.0	15.9
Other	2.1	0.0	2.1
Current Form Total	18.0	0.0	18.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	20.8	0.0	20.8
Final Form Total	20.8	0.0	20.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	33.56
Aluminum-based Metals/Alloys	12.80
Other Metals	25.73
Other Inorganic Materials	7.31
Cellulosics	21.81
Rubber	16.85
Plastics	12.54
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	153.50
Packaging Material, Plastic	1.20
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedNo TRUCON
Codes Provided

Waste Stream Description

NonCombustible Building Debris

Waste Stream ID: **LB-T004**

Appendix C

TRU Waste Inventory Profile Report

Site	Lawrence Berkeley Laboratory	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	TRU Non mixed sources			Activity Concentrations Decayed to CY	1997		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
12.2-gal Drum	0.3	0.0	0.3
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
5-gal Drum	0.0	0.0	0.0
Current Form Total	0.5	0.0	0.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal S100 POC - 6" w/ Liner	0.2	0.2	0.4
Final Form Total	0.2	0.2	0.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.17
Other Inorganic Materials	0.00
Cellulosics	0.13
Rubber	0.00
Plastics	1.51
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	320.70
Packaging Material, Plastic	713.00
Packaging Material, Cellulosics	69.70
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.20E-01
Cm-244	2.30E-02
Pu-238	4.50E-05
Pu-239	1.80E-06
Pu-240	1.10E-04

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225

Waste Stream Description

Non mixed sources

Waste Stream ID: **ND-T001****Appendix C****TRU Waste Inventory Profile Report**

Site	Nuclear Radiation Development Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5400	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Pending Determination	Inventory Date	12/31/2008		
Stream Name	AmO2 Bagout/ Silver Bagout			Activity Concentrations Decayed to CY	2007		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	14.1	1.7	15.8
Box - Crate	1.5	3.0	4.5
Current Form Total	15.6	4.7	20.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	14.1	1.7	15.8
SWB Dir Ld w/o Liner	1.9	3.8	5.7
Final Form Total	16.0	5.4	21.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	90.10
Aluminum-based Metals/Alloys	0.00
Other Metals	4.50
Other Inorganic Materials	2.30
Cellulosics	90.10
Rubber	13.50
Plastics	22.50
Cements	0.00
Inorganic Matrix	225.30
Organic Matrix	4.50
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	136.79
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.73E+01

Haz. Waste No(s).

D008, D011, D035, D040, F001, F002, F005
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TRUCON Code(s)

125/225

Waste Stream Description

AmO2 Bagout- Material generated from the production of ionization sources containing Am-241. Material consists mainly of consumable items used in the production gloveboxes(e.g tissues paper towels, graphite blocks) but also includes equipment and tools that have exceeded their useful life. Most material is contained in one gallon cans that are placed into fifty five gallon drums. Silver Bagout- Material is mainly a vitrified slag that is created during the recovery of precious metals from scrap Am-241 foil. Also contained are items used in the glovebox during the recovery process (e.g. plastic bags, Carbon/Graphite crucibles, paper towels, induction furnaces).

Waste Stream ID: **RL105-09A**

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TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	105KE knockout pots TRU RH mixed solidified inorganics			Activity Concentrations Decayed to CY	2001		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Uncontained	4.2	0.0	4.2
Current Form Total	4.2	0.0	4.2

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	212.02
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	7.91
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	778.27
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.94E-02
Cs-137	1.57E+01
Pu-238	1.77E-02
Pu-239	7.38E-02
Pu-240	3.92E-02
Pu-241	5.67E-01
Sr-90	6.29E+00
U-234	4.96E-04
U-235	2.39E-05
U-238	2.66E-04

No Hazardous Waste Numbers Provided

TRUCON Code(s)

311

Waste Stream Description

The waste is generated from Facility/Equipment Operation and Maintenance Waste activities at the REACTOR FACILITY.

Waste Stream ID: **RL300-11**

Appendix C

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	300 Area TRU RH Mixed Debris			Activity Concentrations Decayed to CY	2001		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Misc	5.7	0.0	5.7
Current Form Total	5.7	0.0	5.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	10.7	0.0	10.7
Final Form Total	10.7	0.0	10.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	61.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	467.03
Cellulosics	15.25
Rubber	0.00
Plastics	3.81
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.16E-01
Am-243	2.34E-01
Cs-137	3.73E+05
Np-237	1.63E-06
Pu-238	5.75E-01
Pu-239	2.26E-01
Pu-240	8.60E-02
Pu-241	3.80E+00
Pu-242	1.52E-04
Sr-90	2.70E+05
Th-232	8.73E-06
U-234	3.25E-05
U-235	4.96E-07
U-236	1.20E-06
U-238	8.77E-06

No Hazardous Waste Numbers Provided

TRUCON Code(s)

325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RL618-01**

Appendix C

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	618 - 10&11 Burial Grounds TRU Mixed Debris			Activity Concentrations Decayed to CY	2006		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Uncontained	249.4	0.0	249.4
Current Form Total	249.4	0.0	249.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	249.5	0.0	249.5
Final Form Total	249.5	0.0	249.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	13.39
Aluminum-based Metals/Alloys	0.00
Other Metals	24.10
Other Inorganic Materials	23.22
Cellulosics	1.79
Rubber	3.57
Plastics	3.57
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	8.93
Soils/gravel	8.93
Vitrified	0.00
Packaging Material, Steel	153.50
Packaging Material, Plastic	1.20
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.80E-02
Cs-137	2.43E+01
Pu-238	2.00E-04
Pu-239	8.30E-01
Pu-240	7.90E-02
Pu-241	7.01E-02
Pu-242	9.98E-07
Sr-90	2.22E+01

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225

Waste Stream Description

Retrieved containerized debris waste from Burial Grounds 618 - 10 and 11

Waste Stream ID: **RL618-07**

Appendix C

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	618 - 10&11 Burial Grounds TRU RH Non-mixed Debris			Activity Concentrations Decayed to CY	2006		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Uncontained	953.0	0.0	953.0
Current Form Total	953.0	0.0	953.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	1359.9	0.0	1359.9
Final Form Total	1359.9	0.0	1359.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	184.11
Aluminum-based Metals/Alloys	0.00
Other Metals	332.00
Other Inorganic Materials	356.00
Cellulosics	24.55
Rubber	49.10
Plastics	49.10
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	122.74
Soils/gravel	122.74
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.66E-02
Cs-137	1.71E+01
Pu-238	1.40E-04
Pu-239	5.81E-01
Pu-240	5.54E-02
Pu-241	4.91E-02
Pu-242	7.01E-07
Sr-90	1.55E+01

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 325

Waste Stream Description

Retrieved containerized debris waste from Burial Grounds 618 - 10 and 11.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RLCH2-08**

Appendix C

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Tank Farms TRU RH Mixed Debris			Activity Concentrations Decayed to CY	2001		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Uncontained	319.0	0.0	319.0
Current Form Total	319.0	0.0	319.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	455.7	0.0	455.7
Final Form Total	455.7	0.0	455.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	2.99
Aluminum-based Metals/Alloys	0.00
Other Metals	362.87
Other Inorganic Materials	7.16
Cellulosics	0.00
Rubber	44.56
Plastics	12.39
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.99E+00
Am-243	8.74E-04
Cs-137	3.21E-01
Np-237	1.42E-04
Pu-238	4.89E-02
Pu-239	9.20E-01
Pu-240	2.07E-01
Pu-241	2.69E+00
Pu-242	1.80E-05
Sr-90	5.37E-01
U-233	2.30E-04
U-234	2.55E-03
U-235	1.01E-04
U-236	2.01E-04
U-238	1.93E-03

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 325

Waste Stream Description

Equipment removed from waste tanks (instrument trees, pumps, circulators, agitators, heaters, sluicers, steam coils, air lances, cameras). The waste stream ranges from contaminated clothing to process equipment contaminated with RCRA constituents.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RLGEV-08**

Appendix C

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	GE San Jose and Vallecitos TRU RH Mixed Debris	Activity Concentrations	Decayed to CY	1983			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Misc	5.3	0.0	5.3
Current Form Total	5.3	0.0	5.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	9.8	0.0	9.8
Final Form Total	9.8	0.0	9.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	744.80
Aluminum-based Metals/Alloys	117.60
Other Metals	0.00
Other Inorganic Materials	57.50
Cellulosics	141.30
Rubber	60.30
Plastics	144.70
Cements	0.00
Inorganic Matrix	20.70
Organic Matrix	0.00
Soils/gravel	24.40
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	26.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Cs-137	1.84E+00
Sr-90	1.44E+00

No Hazardous Waste Numbers Provided

TRUCON Code(s)

325

Waste Stream Description

Combustible and noncombustible debris waste from decontamination and decommissioning of Building 102 at the GE-Vallecitos Nuclear Center. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: **RLMLL-01**

Appendix C

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Lawrence Livermore TRU Mixed Debris			Activity Concentrations Decayed to CY	1973		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Current Form Total	0.7	0.0	0.7

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	393.83
Aluminum-based Metals/Alloys	62.07
Other Metals	0.00
Other Inorganic Materials	30.68
Cellulosics	74.91
Rubber	32.11
Plastics	76.34
Cements	0.00
Inorganic Matrix	10.70
Organic Matrix	0.00
Soils/gravel	12.84
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.77E-02
Pu-238	1.32E-02
Pu-239	5.01E-02
Pu-240	2.83E-02
Pu-241	1.09E+00
Pu-242	1.14E-06

Haz. Waste No(s).

D006, D007, D008, D011

TRUCON Code(s)

125/225

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RLPRC-01**

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TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Unknown	Inventory Date	12/31/2008		
Stream Name	CUPRC TRU Mixed Debris			Activity Concentrations Decayed to CY	1987		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Current Form Total	2.1	0.0	2.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Final Form Total	2.1	0.0	2.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	46.45
Other Inorganic Materials	661.59
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	151.25
Packaging Material, Plastic	4.75
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.40E-02
Pu-238	1.79E-02
Pu-239	1.64E-01
Pu-240	4.19E-02
Pu-241	1.15E+00
Pu-242	2.80E-06
Th-232	4.96E-05
U-234	5.62E-07
U-235	2.54E-08
U-238	5.46E-07

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225

Waste Stream Description

The waste is generated from R&D/R&D Laboratory Waste activities at the CEER University Laboratory.

Comprehensive Inventory Database ver. 1.00

Data ver. D.8.00

NOTE: Actual numerical values have been rounded for presentation purposes.

Waste Stream ID: **RLRFET-01**

Appendix C

TRU Waste Inventory Profile Report

Site	Hanford (Richland) Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Rocky Flats TRU Mixed Debris	Activity Concentrations Decayed to CY		1984			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	198.0	0.0	198.0
85-gal Drum Dir Ld w/ Liner	6.8	0.0	6.8
Current Form Total	204.8	0.0	204.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	253.1	0.0	253.1
Final Form Total	253.1	0.0	253.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	362.70
Aluminum-based Metals/Alloys	50.51
Other Metals	15.18
Other Inorganic Materials	67.36
Cellulosics	38.72
Rubber	9.19
Plastics	34.16
Cements	0.00
Inorganic Matrix	6.41
Organic Matrix	0.01
Soils/gravel	6.80
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.18E-01
Pu-238	4.25E-03
Pu-239	1.62E-02
Pu-240	9.13E-03
Pu-241	3.51E-01
Pu-242	3.68E-07

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RP-TFC001**

Appendix C

TRU Waste Inventory Profile Report

Site	Hanford (River Protection) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Bismuth Phosphate Process TRU Solids			Activity Concentrations Decayed to CY	2004		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Tank(s)	1200.0	0.0	1200.0
Current Form Total	1200.0	0.0	1200.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	438.7	0.0	438.7
Final Form Total	438.7	0.0	438.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	1.60
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.37E-02
Cs-137	6.11E-01
Np-237	1.22E-05
Pu-238	6.60E-03
Pu-239	5.16E-01
Pu-240	6.23E-02
Pu-241	1.89E-01
Pu-242	3.08E-06
Sr-90	7.98E+00
U-233	1.10E-09
U-234	1.68E-03
U-235	5.42E-05
U-236	1.62E-05
U-238	1.24E-03

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D028, D029, D030, D033, D034, D035, D036, D038, D039, D040, D041, D043, F001, F002, F003, F004, F005

No TRUCON Codes Provided

Waste Stream Description

Solidified aqueous waste slurry

Waste Stream ID: **RP-TFC002**

Appendix C

TRU Waste Inventory Profile Report

Site	Hanford (River Protection) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Bismuth Phosphate Process TRU Solids mixed with Fission Product Waste				Activity Concentrations Decayed to CY	2004	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Tank(s)	3040.0	0.0	3040.0
Current Form Total	3040.0	0.0	3040.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	1918.8	0.0	1918.8
Final Form Total	1918.8	0.0	1918.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	1.37
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	560.60
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.50E-01
Cs-137	1.05E+02
Np-237	1.31E-04
Pu-238	6.07E-03
Pu-239	3.64E-01
Pu-240	4.17E-02
Pu-241	1.11E-01
Pu-242	9.86E-07
Sr-90	2.46E+02
U-233	6.57E-04
U-234	1.81E-03
U-235	8.00E-05
U-236	2.16E-05
U-238	1.83E-03

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D028, D029, D030, D033, D034, D035, D036, D038, D039, D040, D041, D043, F001, F002, F003, F004, F005

**No TRUCON
Codes Provided**

Waste Stream Description

Solidified aqueous waste slurry

Waste Stream ID: **RP-TFC003**

Appendix C

TRU Waste Inventory Profile Report

Site	Hanford (River Protection) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Bismuth Phosphate Process TRU Solids mixed with Fission Product Waste			Activity Concentrations Decayed to CY	2004		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Tank(s)	370.0	0.0	370.0
Current Form Total	370.0	0.0	370.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	258.1	0.0	258.1
Final Form Total	258.1	0.0	258.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	1.37
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	560.60
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.36E-01
Cs-137	2.15E+01
Np-237	1.39E-06
Pu-238	4.87E-03
Pu-239	6.46E-01
Pu-240	6.85E-02
Pu-241	1.94E-01
Pu-242	3.40E-06
Sr-90	1.21E+02
U-233	1.42E-09
U-234	1.80E-03
U-235	7.49E-05
U-236	1.89E-05
U-238	1.69E-03

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D028, D029, D030, D033, D034, D035, D036, D038, D039, D040, D041, D043, F001, F002, F003, F004, F005

No TRUCON Codes Provided

Waste Stream Description

Solidified aqueous waste slurry

Waste Stream ID: **RP-W013**

Appendix C

TRU Waste Inventory Profile Report

Site	Hanford (River Protection) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	PFP TRU Solids			Activity Concentrations Decayed to CY	2004		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Tank(s)	270.0	0.0	270.0
Current Form Total	270.0	0.0	270.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	410.3	0.0	410.3
Final Form Total	410.3	0.0	410.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	1.37
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	560.60
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.05E+01
Cs-137	1.95E+02
Np-237	2.21E-03
Pu-238	6.58E-01
Pu-239	1.40E+01
Pu-240	3.23E+00
Pu-241	3.25E+01
Pu-242	2.58E-04
Sr-90	4.37E+02
U-233	5.17E-03
U-234	2.62E-03
U-235	1.09E-04
U-236	6.33E-05
U-238	2.44E-03

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D028, D029, D030, D033, D034, D035, D036, D038, D039, D040, D041, D043, F001, F002, F003, F004, F005

No TRUCON Codes Provided

Waste Stream Description

Solidified aqueous waste slurry.

Waste Stream ID: **RP-W016**

Appendix C

TRU Waste Inventory Profile Report

Site	Hanford (River Protection) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	PUREX TRU Cladding Removal Solids			Activity Concentrations Decayed to CY	2004		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Tank(s)	2030.0	0.0	2030.0
Current Form Total	2030.0	0.0	2030.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	1277.2	0.0	1277.2
Final Form Total	1277.2	0.0	1277.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	1.37
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	560.60
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.69E-01
Cs-137	5.47E+01
Np-237	1.10E-05
Pu-238	9.11E-02
Pu-239	9.17E-01
Pu-240	2.58E-01
Pu-241	6.62E+00
Pu-242	3.27E-05
Sr-90	3.63E+01
U-233	1.60E-07
U-234	1.28E-02
U-235	4.91E-04
U-236	1.24E-03
U-238	8.82E-03

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D028, D029, D030, D033, D034, D035, D036, D038, D039, D040, D041, D043, F001, F002, F003, F004, F005

No TRUCON Codes Provided

Waste Stream Description

Solidified aqueous waste slurry

Waste Stream ID: **RP-W754**

Appendix C

TRU Waste Inventory Profile Report

Site	Hanford (River Protection) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	224 Waste	Activity Concentrations Decayed to CY		2004			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Tank(s)	1079.0	0.0	1079.0
Current Form Total	1079.0	0.0	1079.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	323.2	0.0	323.2
Final Form Total	323.2	0.0	323.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	1.60
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.20E-01
Cs-137	1.66E-01
Np-237	1.62E-06
Pu-238	1.11E-02
Pu-239	1.55E+00
Pu-240	1.29E-01
Pu-241	2.16E-01
Pu-242	4.91E-06
Sr-90	3.36E+00
U-233	1.24E-10
U-234	1.79E-04
U-235	7.25E-06
U-236	1.75E-06
U-238	1.64E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D028, D029, D030, D033, D034, D035, D036, D038, D039, D040, D041, D043, F001, F002, F003, F004, F005

**No TRUCON
Codes Provided**

Waste Stream Description

Solidified aqueous waste slurry.

Waste Stream ID: **RP-W755**

Appendix C

TRU Waste Inventory Profile Report

Site	Hanford (River Protection) Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3100	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Bismuth Phosphate Process TRU Solids	Activity Concentrations Decayed to CY		2004			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Tank(s)	3090.0	0.0	3090.0
Current Form Total	3090.0	0.0	3090.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	793.5	0.0	793.5
Final Form Total	793.5	0.0	793.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	1.60
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.41E-01
Cs-137	3.32E-01
Np-237	8.04E-05
Pu-238	2.97E-03
Pu-239	5.40E-01
Pu-240	4.38E-02
Pu-241	6.82E-02
Pu-242	5.51E-07
Sr-90	1.20E+01
U-233	3.11E-09
U-234	3.61E-03
U-235	1.60E-04
U-236	2.90E-05
U-238	3.67E-03

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D028, D029, D030, D033, D034, D035, D036, D038, D039, D040, D041, D043, F001, F002, F003, F004, F005

No TRUCON Codes Provided

Waste Stream Description

Solidified aqueous waste slurry

Waste Stream ID: **SP-T001**

Appendix C

TRU Waste Inventory Profile Report

Site	Separations Process Research Unit	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3120	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A	Activity Concentrations Decayed to CY			N/A		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Tank(s)	8.2	0.0	8.2
Current Form Total	8.2	0.0	8.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	8.3	0.0	8.3
Final Form Total	8.3	0.0	8.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.32E+00
Cs-137	4.80E+01
Pu-239	1.28E+01
Sr-90	7.80E+01

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Separations Process Research Unit.

Waste Stream ID: **SP-T002**

Appendix C

TRU Waste Inventory Profile Report

Site	Separations Process Research Unit	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	N/A	Activity Concentrations Decayed to CY		N/A			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Uncontained	41.8	0.0	41.8
Current Form Total	41.8	0.0	41.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	41.8	0.0	41.8
Final Form Total	41.8	0.0	41.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedNo TRUCON
Codes Provided

Waste Stream Description

N/A

Waste Stream ID: **SR-T001-773A-CLAS**

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TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Other/Multiple Sources	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	CH TRU - Sensitive waste from 773A			Activity Concentrations Decayed to CY	1990		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Box - Steel	28.2	0.0	28.2
SWB Dir Ld w/ Liner	5.7	0.0	5.7
Current Form Total	34.3	0.0	34.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
SLB2 (5' x 5' x 8) Dir Ld	118.9	0.0	118.9
SWB Dir Ld w/o Liner	5.7	0.0	5.7
Final Form Total	124.9	0.0	124.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	129.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	32.10
Cellulosics	26.70
Rubber	0.00
Plastics	5.30
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	213.17
Packaging Material, Plastic	0.12
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedTRUCON Code(s)
125/225

Waste Stream Description

This waste stream is defense related, contact handled TRU waste and is composed of metal equipment and debris

Waste Stream ID: **SR-T001-WSB-1**

Appendix C

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3000	Handling	CH
Source Cat.	Source Unknown	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	UNKNOWN			Activity Concentrations Decayed to CY	2015		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	0.0	4910.2	4910.2
Current Form Total	0.0	4910.2	4910.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	0.0	4910.2	4910.2
Final Form Total	0.0	4910.2	4910.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	2300.00
Inorganic Matrix	720.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	153.50
Packaging Material, Plastic	1.20
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.99E+02
Pu-238	6.77E-03
Pu-239	4.44E-02
Pu-240	1.69E-02
Pu-241	8.17E+00
U-234	1.32E-03
U-235	4.25E-05
U-236	6.83E-07
U-238	3.84E-07

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream is defense related, contact handled TRU and is a neutralized aqueous stream solidified in an inorganic matrix (cement).

Waste Stream ID: **SR-T001-WSB-3**

Appendix C

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3000	Handling	CH
Source Cat.	Source Unknown	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	UNKNOWN	Activity Concentrations Decayed to CY		2015			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.0	143.9	143.9
Current Form Total	0.0	143.9	143.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	143.9	143.9
Final Form Total	0.0	143.9	143.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	250.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.99E+02
Pu-238	6.15E-01
Pu-239	4.04E+00
Pu-240	1.48E+00
Pu-241	7.45E+00
U-234	4.51E-03
U-235	1.45E-04
U-238	1.31E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream is defense related, contact handled TRU and is a neutralized aqueous stream in an inorganic sorbent.

Waste Stream ID: **SR-W026-MFFF-1**

Appendix C

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	UNKNOWN			Activity Concentrations Decayed to CY	2015		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.0	3504.2	3504.2
Current Form Total	0.0	3504.2	3504.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.0	3504.2	3504.2
Final Form Total	0.0	3504.2	3504.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	3.13
Aluminum-based Metals/Alloys	0.07
Other Metals	0.04
Other Inorganic Materials	1.24
Cellulosics	2.20
Rubber	0.26
Plastics	15.30
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	4.11E-01
Pu-239	2.69E+00
Pu-240	9.86E-01
Pu-241	4.95E+00
U-234	3.00E-06
U-235	9.66E-07
U-236	1.58E-08
U-238	8.75E-09

Haz. Waste No(s).

D008

TRUCON Code(s)

125/225

Waste Stream Description

This waste stream is defense related, contact handled TRU and is composed of heterogeneous debris which can include HEPA filters, plastic, protective clothing, metal, gloves, lead lined gloves and sludges.

Waste Stream ID: **SR-W026-PDCF-1**

Appendix C

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	UNKNOWN			Activity Concentrations Decayed to CY	2017		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.0	2146.6	2146.6
Current Form Total	0.0	2146.6	2146.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.0	2146.6	2146.6
Final Form Total	0.0	2146.6	2146.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	3.13
Aluminum-based Metals/Alloys	0.07
Other Metals	0.04
Other Inorganic Materials	1.24
Cellulosics	2.20
Rubber	0.26
Plastics	15.30
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedHaz. Waste No(s).
D008TRUCON Code(s)
125/225

Waste Stream Description

This waste stream is defense related, contact handled TRU and is composed of heterogeneous debris which can include HEPA filters, plastic, protective clothing, metal ingots including beryllium, gloves, lead lined gloves and sludges.

Waste Stream ID: **SR-W026-WSB-2**

Appendix C

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	UNKNOWN			Activity Concentrations Decayed to CY	2015		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.0	625.9	625.9
Current Form Total	0.0	625.9	625.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.0	625.9	625.9
Final Form Total	0.0	625.9	625.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	3.13
Aluminum-based Metals/Alloys	0.07
Other Metals	0.04
Other Inorganic Materials	1.24
Cellulosics	2.20
Rubber	0.26
Plastics	15.30
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.32E+02
Pu-238	9.66E-06
Pu-239	1.98E-01
Pu-240	9.86E-02
Pu-241	1.98E-01
Pu-242	7.54E-06
U-234	3.00E-04
U-235	9.66E-06
U-236	1.56E-07
U-238	9.08E-08

Haz. Waste No(s).

D008

TRUCON Code(s)

125/225

Waste Stream Description

This waste stream is defense related, contact handled TRU and is composed of heterogeneous debris with can include HEPA filters, plastic, protective clothing, metal, gloves, lead lined gloves, and sludges.

Waste Stream ID: **SR-W027-221H-HET-B**

Appendix C

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Discarding Excess/Expired Materials	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Sensitive- Heterogeneous debris from 221H			Activity Concentrations Decayed to CY	2004		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	14.8	0.0	14.8
Current Form Total	14.8	0.0	14.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	14.8	0.0	14.8
Final Form Total	14.8	0.0	14.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	37.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedTRUCON Code(s)
125/225

Waste Stream Description

This waste stream has been separated from its parent waste stream SR-W027-221H-HET because it contains sensitive waste.

Waste Stream ID: **SR-W027-HBL-Box-B**

Appendix C

TRU Waste Inventory Profile Report

Site	Savannah River Site	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Discarding Excess/Expired Materials	Defense Determination	Defense-Related	Inventory Date	12/31/2008		
Stream Name	Sensitive CH mixed TRU from 221H			Activity Concentrations Decayed to CY	1990		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - SRS Black Box	128.1	0.0	128.1
Current Form Total	128.1	0.0	128.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
SLB2 (5' x 5' x 8) Dir Ld	101.9	0.0	101.9
Final Form Total	101.9	0.0	101.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	216.30
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedNo TRUCON
Codes Provided

Waste Stream Description

This waste stream has been separated from its parent waste stream SR-W027-HBL-Box because it contains sensitive waste.

Waste Stream ID: **WV-M010a**

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TRU Waste Inventory Profile Report

Site	West Valley Demonstration Project	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3190	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Pending Determination	Inventory Date	12/31/2008		
Stream Name	TRU Spent Absorbents CH			Activity Concentrations Decayed to CY	N/A		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.2	0.0	0.2
Box - Misc	21.0	0.0	21.0
Current Form Total	21.2	0.0	21.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.2	0.0	0.2
SWB Dir Ld w/o Liner	11.3	0.0	11.3
Final Form Total	11.5	0.0	11.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	1.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	153.09
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedNo TRUCON
Codes Provided

Waste Stream Description

This waste stream consists of spent absorbents (not cement) generated from site operations. The media absorbed is not known for this waste stream. This does not contain hazardous waste.

Waste Stream ID: **WV-T004**

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TRU Waste Inventory Profile Report

Site	West Valley Demonstration Project	Final Waste Form	Solidified Inorganics	Waste Matrix Code	S3000	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Pending Determination	Inventory Date	12/31/2008		
Stream Name	Fissile Material - Other			Activity Concentrations Decayed to CY	N/A		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	0.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	2370.00
Inorganic Matrix	1.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedNo TRUCON
Codes Provided

Waste Stream Description

This waste stream consists of liquid waste with associated fissile material generated from previous decontamination and decommissioning activities. The specific contents are unknown. One container from WV-T001 was identified as all liquids and was removed and placed into this waste stream.

Waste Stream ID: **WV-T006a**

Appendix C

TRU Waste Inventory Profile Report

Site	West Valley Demonstration Project	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Pending Determination	Inventory Date	12/31/2008		
Stream Name	CH TRU General Waste			Activity Concentrations Decayed to CY	N/A		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	101.3	0.0	101.3
Box - Misc	345.6	0.0	345.6
Current Form Total	446.9	0.0	446.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	103.6	0.0	103.6
SWB Dir Ld w/o Liner	245.7	0.0	245.7
Final Form Total	349.3	0.0	349.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	1.00
Other Inorganic Materials	1.00
Cellulosics	0.00
Rubber	1.00
Plastics	1.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	146.77
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedNo TRUCON
Codes Provided

Waste Stream Description

This waste stream consists of radiologically contaminated solid waste generated from various site activities. The specific contents include but are not limited to Anti-C clothing, hoses, glovebags, tools, pre-filters, HEPA filters, Roughing filters, other filters, spent absorbents, sweeping compound, glove boxes, tools, evaporators, dissolver tanks, condensers, piping DAW, plastic bags, bottles, and cell floor debris etc. The waste that was consolidated into this waste stream had several containers that were characterized as LLW.

Waste Stream ID: **WV-T006b**

Appendix C

TRU Waste Inventory Profile Report

Site	West Valley Demonstration Project	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Pending Determination	Inventory Date	12/31/2008		
Stream Name	RH TRU General Waste	Activity Concentrations Decayed to CY	N/A				

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	53.2	0.0	53.2
Box - Misc	356.4	0.0	356.4
Current Form Total	409.6	0.0	409.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	583.0	0.0	583.0
Final Form Total	583.0	0.0	583.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	1.00
Other Inorganic Materials	1.00
Cellulosics	0.00
Rubber	1.00
Plastics	1.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedNo TRUCON
Codes Provided

Waste Stream Description

This waste stream consists of radiologically contaminated solid waste generated from various site activities. The specific contents include but are not limited to Anti-C clothing, hoses, glovebags, tools, pre-filters, HEPA filters, Roughing filters, other filters, spent absorbents, sweeping compound, glove boxes, tools, evaporators, dissolver tanks, condensers, piping DAW, plastic bags, bottles, and cell floor debris etc. The waste that was consolidated into this waste stream had several containers that were characterized as LLW.

Waste Stream ID: **WV-T017a**

Appendix C

TRU Waste Inventory Profile Report

Site	West Valley Demonstration Project	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Pending Determination	Inventory Date	12/31/2008		
Stream Name	Spent Filter Media and concrete blocks	Activity Concentrations Decayed to CY	N/A				

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Misc	12.2	0.0	12.2
Current Form Total	12.2	0.0	12.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	7.6	0.0	7.6
Final Form Total	7.6	0.0	7.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	1.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	2370.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	153.50
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedNo TRUCON
Codes Provided

Waste Stream Description

This waste stream consists of spent filter media generated from filtration of the Fuel Receiving & Storage pool where the remaining spent fuel rods were stored.

Waste Stream ID: **WV-T017b**

Appendix C

TRU Waste Inventory Profile Report

Site	West Valley Demonstration Project	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Defense Determination	Pending Determination	Inventory Date	12/31/2008		
Stream Name	Spent Filter Media with no concrete blocks			Activity Concentrations Decayed to CY	N/A		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Misc	39.3	0.0	39.3
Current Form Total	39.3	0.0	39.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	56.1	0.0	56.1
Final Form Total	56.1	0.0	56.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	1.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedNo TRUCON
Codes Provided

Waste Stream Description

This waste stream consists of spent filter media generated from filtration of the Fuel Receiving & Storage pool where the remaining spent fuel rods were stored.

Waste Stream ID: **WV-W024a**

Appendix C

TRU Waste Inventory Profile Report

Site	West Valley Demonstration Project	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	CH
Source Cat.	Remediation/D&D Waste	Defense Determination	Pending Determination	Inventory Date	12/31/2008		
Stream Name	TRU Lead and other mixed waste			Activity Concentrations Decayed to CY	N/A		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	6.9	0.0	6.9
Box - Misc	22.0	0.0	22.0
Current Form Total	28.9	0.0	28.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	6.7	0.0	6.7
SWB Dir Ld w/o Liner	13.2	0.0	13.2
Final Form Total	19.9	0.0	19.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	11340.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	2370.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	145.90
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides Provided

Haz. Waste No(s).

D006, D007, D008,
D009, D010No TRUCON
Codes Provided

Waste Stream Description

Hazardous constituents include Cadmium, Chromium, Lead, and Mercury from D&D activities and Laboratory Waste generated onsite in solid forms such as filters, vacuum cans, glove box debris, piping, hoses, pumps, anti C clothing, bags, wipes, and floor debris from D&D activities. If any liquids are found, then the liquid would be solidified and not expected to be TRU.

Waste Stream ID: **WV-W024b**

Appendix C

TRU Waste Inventory Profile Report

Site	West Valley Demonstration Project	Final Waste Form	Heterogeneous	Waste Matrix Code	S5000	Handling	RH
Source Cat.	Remediation/D&D Waste	Defense Determination	Pending Determination	Inventory Date	12/31/2008		
Stream Name	RH Waste Stream			Activity Concentrations Decayed to CY	N/A		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	12.1	0.0	12.1
Box - Misc	144.4	0.0	144.4
Current Form Total	156.5	0.0	156.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	223.4	0.0	223.4
Final Form Total	223.4	0.0	223.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	11340.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	652.20
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides Provided

Haz. Waste No(s).

D005, D006, D007,
D008, D009, D010No TRUCON
Codes Provided

Waste Stream Description

Hazardous constituents include Cadmium, Chromium, Lead, and Mercury from D&D activities and Laboratory Waste generated onsite in solid forms such as filters, vacuum cans, glovebox debris, piping, hoses, pumps, anti C clothing, bags, wipes, and floor debris from D&D activities. If any liquids are found, then the liquid would be solidified and not expected to be TRU..

Waste Stream ID: **WV-Z001**

Appendix C

TRU Waste Inventory Profile Report

Site	West Valley Demonstration Project	Final Waste Form	Unknown	Waste Matrix Code	U9999	Handling	CH
Source Cat.	N/A	Defense Determination	Pending Determination	Inventory Date	12/31/2008		
Stream Name	West Valley Buried TRU Waste			Activity Concentrations Decayed to CY	N/A		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Uncontained	1353.0	0.0	1353.0
Current Form Total	1353.0	0.0	1353.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	1353.0	0.0	1353.0
Final Form Total	1353.0	0.0	1353.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metals/Alloys	0.00
Aluminum-based Metals/Alloys	0.00
Other Metals	0.00
Other Inorganic Materials	10.00
Cellulosics	0.00
Rubber	0.00
Plastics	0.00
Cements	0.00
Inorganic Matrix	0.00
Organic Matrix	0.00
Soils/gravel	0.00
Vitrified	0.00
Packaging Material, Steel	130.80
Packaging Material, Plastic	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedNo TRUCON
Codes Provided

Waste Stream Description

N/A

APPENDIX D: Inventory Comparisons

D-1 Introduction

This appendix presents transuranic (TRU) waste inventory comparisons for volumes, waste material parameters (WMPs), radionuclide activity, oxyanions, and complexing agents reported by sites between the ATWIR-2008 (DOE 2008a) (December 31, 2007 cut-off) and this report (December 31, 2008 cut-off). Decisions, data, and direction that cause changes from year to year in this TRU waste inventory are as follows:

- *Waste program management decisions.* Many sites have reassessed what the final form container types and their respective counts will be for each of the waste streams at their sites. This results in changes to final form volumes.
- *Availability and confidence in supplemental characterization/analytical information and/or acceptable knowledge (AK).* As more AK is gathered and prepared and characterization is completed, that information is rolled into waste stream estimates, effectively improving the quality of the estimates.
- *Site estimates of projected TRU waste stream volumes.* Depending on their mission, sites such as Los Alamos National Laboratory (LANL), Lawrence Livermore National Laboratory (LLNL), and Material and Fuels Complex (MFC) have projected waste streams that will produce TRU waste in the future. The basis for estimating future generation can be largely uncertain from year to year.
- *Availability of more characterization data with continuing waste emplacement at the WIPP.* WIPP receives shipments from sites on an ongoing basis, depleting the sites' inventory and increasing the emplaced inventory.
- *Intersite shipments.* Nevada Test Site (NTS) shipped 2 shipments in 2008 to INL in preparation of shipment to WIPP. These waste streams were included in INL TRU waste inventory as IN-ID-NTLLNL-S5400 and IN-ID-NTLLNL-S3900 in this report.

The changes listed above are captured in the updates that are reported annually by the TRU waste sites. These changes are reported in data templates that are completed by the sites with assistance from the TRU Waste Inventory Team members, as needed. In addition to the information from the sites, data are obtained from WIPP Waste Information System (WWIS). As more TRU waste is emplaced in WIPP, more data of record are carried in the CID as represented by emplaced volumes, WMP densities, and radionuclide activity concentrations for emplaced waste streams.

D-2 Volumetric Comparisons

As of December 31, 2008, the total amount of CH and RH TRU waste that had been emplaced was 57,687 m³ and 174 m³, respectively. During CY 2008, 5,203 m³ of CH-TRU and 85 m³ of RH-TRU waste was received and emplaced according to CID estimates (LANL-CO 2009a) (see Section 3.1.1 for discussion of differences between emplaced volumes reported in the CID and those reported in the WWIS). The only sites that shipped RH-TRU waste during CY 2008 were INL and ANL.

Tables D-1 and D-2 show the final form anticipated (stored plus projected) volumes of CH- and RH-TRU waste for large quantity sites with the small quantity site volumes combined into one entry. These tables can be used to compare the 2007 inventory data volumes from the 2008 report (DOE 2008a) with the 2008 inventory data volumes from this report.

The overall volume decrease of CH-TRU waste observed between the 2007 (DOE 2008a) and 2008 (this report) inventory is approximately 6,000 m³ (see Table D-1). The majority of the decrease results not only from TRU waste being shipped to WIPP, but also waste managed as TRU that was determined to be low-level waste upon assay and was disposed of accordingly. Some waste at Hanford-RL has also been found to be RH-TRU upon characterization and has been reassigned to new or existing waste streams accordingly. It should be noted that the Net Change column in Table D-1 and the remaining tables in this appendix represents the total net change, which includes both total increases and total decreases reported by the sites. For example, 26 waste streams at INL increased in volume for a total volume increase of 4,599 m³, while the volume of 18 waste streams decreased or remained the same for a total volume decrease of 5,589 m³. The difference of the increase offset by the decrease is 990 m³ as shown in the Net Change column for INL in Table D-1.

Table D-1. CH-TRU Waste Expected to be Shipped to WIPP

Site	2007 Inventory (m ³) ¹	2008 Inventory (m ³) ²	Net Change (m ³)
Hanford Richland Operations	1.99E+04	1.74E+04	-2.51E+03
Idaho National Laboratory	4.02E+04	3.93E+04	-9.90E+02
Los Alamos National Laboratory	1.19E+04	1.14E+04	-5.10E+02
Oak Ridge National Laboratory	8.78E+02	8.70E+02	-8.11E+00
Savannah River Site	9.93E+03	7.87E+03	-2.06E+03
Total of Small Quantity Sites	1.66E+03	1.76E+03	+9.98E+01
Grand Total	8.45E+04	7.85E+04	-5.98E+03

¹Data Source: CID Data Version D.7.00, LANL-CO 2008b

²Data Source: CID Data Version D.8.00, LANL-CO 2009a

Overall, the RH-TRU waste volume has increased by approximately 1,700 m³ since the 2007 inventory (DOE 2008a) (see Table D-2). This increase is largely associated with a greater than three-fold volume increase in the reported volume for K-Basin sludge at Hanford-RL in Waste Stream RL105-09. The increase in K-Basin sludge volume is attributed to the amount of cement that is expected to be added to solidify the sludge. In addition to this K-Basin volume increase, the site recalculated the number of RH canisters required for all RH waste on site. The previous calculations had been based on the numbers of canisters required using the direct loaded volume of 0.89 m³ per canister rather than on three 55-gallon drums in a canister (using 0.624 m³ per canister). RH waste volume also increased at ORNL with assignment of CH soils to RH, and General Electric – Vallecitos Nuclear Center (GE-VNC) has been included in the TRU waste inventory. INL reported approximately 240 m³ less RH-TRU waste on site due to shipping and reassignment to CH waste streams or disposition as low-level waste.

Table D-2. RH-TRU Waste Expected to be Shipped to WIPP

Site	2007 Inventory (m ³) ¹	2008 Inventory (m ³) ²	Net Change (m ³)
Hanford Richland Operations	1.17E+03	2.89E+03	+1.71E+03
Idaho National Laboratory)	2.90E+02	5.16E+01	-2.39E+02
Los Alamos National Laboratory	9.79E+01	9.61E+01	-1.78E+00
Oak Ridge National Laboratory	5.35E+02	7.49E+02	+2.14E+02
Savannah River Site	8.19E+01	1.06E+02	+2.40E+01
Total of Small Quantity Sites	6.42E+02	6.58E+02	+1.60E+01
Grand Total	2.82E+03	4.55E+03	+1.73E+03

¹Data Source: CID Data Version D.7.00, LANL-CO 2008b

²Data Source: CID Data Version D.8.00, LANL-CO 2009a

D-3 Waste and Packaging Material Parameter Comparisons

The data presented in Tables 3-3 and 3-4 in the body of this report are shown in densities (kg/m³). The density of the waste is not an appropriate way to compare the differences of the 2007 waste and packaging materials to the 2008 materials, since the density is derived from that specific year's volume. Table D-3, D-4 and their associated discussions are presented within this section in mass (kg) to directly show the differences in these materials.

The CH-TRU waste and packaging material parameters are presented in Table D-3. A comparison of the mass for the CH-TRU waste and packaging material parameters shows that the largest differences are from inorganic matrix, cements, cellulose and soils. The most notable changes in these are a reported decrease of 4,077,108 kg for inorganic matrix and a reported increase of 4,714,890 kg in cements. These changes are mainly associated with the reassignment of solidified inorganic matrix to cement. During the inventory data collection for the 2008 inventory (this report), sites were asked to report cements where they were expected to be present rather than reporting inorganic material

generically. Another notable change is the decrease of 1,543,543 kg in cellulose in the CH-TRU inventory. This decrease can largely be attributed to reassessment of these parameters by the INL Advanced Mixed Waste Treatment Project (AMWTP). Finally there was an increase in soils in the CH-TRU waste inventory of 561,712 kg that primarily resulted from reassessment of soil due to an increase in acreage reported by the Idaho Cleanup Project (ICP). This increased the amount of soil reported in waste stream IN-ID-SDA-Soil by 408,291 kg.

Table D-3. CH-TRU Waste and Packaging Materials

CH Waste Material Parameter	2007 Inventory (kg) ¹	2008 Inventory (kg) ²	Net Change (kg)
Aluminum-based Metals/Alloys	2.08E+05	2.20E+05	+1.27E+04
Cellulosics	5.42E+06	3.88E+06	-1.54E+06
Cements	2.39E+06	7.10E+06	+4.71E+06
Inorganic Matrix	1.47E+07	1.06E+07	-4.08E+06
Iron-based Metals/Alloys	1.11E+07	9.76E+06	-1.36E+06
Organic Matrix	5.15E+06	5.07E+06	-8.00E+04
Other Inorganic Materials	4.94E+06	2.51E+06	-2.43E+06
Other Metals	7.00E+05	4.93E+05	-2.06E+05
Plastics	5.23E+06	4.73E+06	-5.00E+05
Rubber	7.68E+05	6.94E+05	-7.49E+04
Soils/gravel	1.45E+06	2.01E+06	+5.62E+05
Packaging Material, Cellulosics	7.05E+05	7.14E+05	+8.95E+03
Packaging Material, Plastic	2.14E+06	2.06E+06	-7.65E+04
Packaging Material, Steel	2.55E+07	2.56E+07	+3.71E+04

¹Data Source: CID Data Version D.7.00, LANL-CO 2008b

²Data Source: CID Data Version D.8.00, LANL-CO 2009a

The RH-TRU waste and packaging material parameters are presented in Table D-4. A comparison of the mass differences for the RH-TRU waste and packaging material parameters shows the largest differences in cements, inorganic matrix, soils and other inorganic materials. The most notable changes in these are an increase of 974,490 kg for cement reported and an associated decrease of 297,890 kg in inorganic matrix reported. The increase in cement reported is attributable to the cement expected to be used to solidify the sludges from K-Basin, Waste Stream RL105-09, at Hanford-RL. This cement increase of 984,533 kg for K-Basin is also associated with a decrease of 270,522 kg for K-Basin's inorganic matrix for the same reason described above for CH-TRU waste. The overall soils increase by 326,054 kg. The increase of 251,839 kg in soils comes from Waste Streams OR-W213-RH-HET and OR-W213-CH-HET that were combined to form a single soils waste stream, OR-W213-RH-SOILS. The increase of 447,223 kg in other inorganic materials is largely due to two waste streams at Hanford-RL. Waste Stream RL300-08 was moved from potential to WIPP-bound in 2008, which

resulted in an increase of 192,866 kg. Waste stream RL325-08 increased by 180,547 kg resulting from new WMPs information.

Table D-4. RH-TRU Waste and Packaging Materials

RH Waste Material Parameter	2007 Inventory (kg)¹	2008 Inventory (kg)²	Net Change (kg)
Aluminum-based Metals/Alloys	3.00E+04	3.89E+04	+8.89E+03
Cellulosics	6.34E+04	4.04E+04	-2.30E+04
Cements	1.18E+04	9.86E+05	+9.74E+05
Inorganic Matrix	3.13E+05	1.52E+04	-2.98E+05
Iron-based Metals/Alloys	4.98E+05	8.06E+05	+3.09E+05
Organic Matrix	9.77E+03	7.16E+03	-2.62E+03
Other Inorganic Materials	1.15E+05	5.62E+05	+4.47E+05
Other Metals	8.21E+04	5.99E+04	-2.22E+04
Plastics	8.11E+04	9.17E+04	+1.06E+04
Rubber	1.91E+04	1.94E+04	+2.57E+02
Soils/gravel	7.26E+04	3.99E+05	+3.26E+05
Packaging Material, Lead	1.03E+04	7.02E+03	-3.30E+03
Packaging Material, Plastic	4.11E+04	8.52E+04	+4.41E+04
Packaging Material, Steel	1.83E+06	3.00E+06	+1.16E+06

¹Data Source: CID Data Version D.7.00, LANL-CO 2008b

²Data Source: CID Data Version D.8.00, LANL-CO 2009a

D-4 Radionuclide Activity Comparisons

Radionuclide activity data have improved as additional waste was characterized and emplaced. Additional characterization data have been used by the sites for this report that were not available at the time data were collected for the ATWIR-2008 (DOE 2008a). WIPP has emplaced 1,070,858 Ci (an increase of 77,258 Ci in 2008) of CH-TRU waste and 1,524 Ci (an increase of 841 Ci in 2008) of RH-TRU waste. A comparison of these data collected in 2007 (DOE 2008a) and 2008 (this report) is presented in Tables D-5 and D-6. The small quantity sites are combined as a single entry in each of these tables. The activities reported in these tables include anticipated (stored plus projected) and emplaced activities for each site decayed to WIPP closure in 2033.

Table D-5 presents CH-TRU waste radionuclide activities by site. The total anticipated activity of CH-TRU waste in the 2008 TRU waste inventory (this report) has decreased by 203,705 Ci. The anticipated CH-TRU waste activity from Hanford-RL, LANL, SRS and the small quantity sites are lower than the activities reported by these sites in 2007 (DOE 2008a) (see table D-5). All of these sites shipped or prepared CH-TRU waste for

shipment to WIPP in 2008 and have more characterization data available for their waste streams. Two sites (INL and ORNL) showed increases in total anticipated activity reported in Table D-5. INL increased by 1,682 Ci primarily due to additional characterization data. The total anticipated activity increase of 6,716 Ci shown on Table D-5 for ORNL is mainly from a 6,528 Ci increase in the Waste Stream OR-TBD-CH-HET.

Table D-5. Total CH-TRU Radionuclide Activity by Site Decayed through 2033

Site	2007 Anticipated Inventory (Ci) ¹	2007 Emplaced Inventory (Ci) ¹	2008 Anticipated Inventory (Ci) ²	2008 Emplaced Inventory (Ci) ²	Anticipated Net Change (Ci)	Emplaced Net Change (Ci)
Hanford Richland Operations	4.23E+05	1.09E+05	3.54E+05	1.16E+05	-6.89E+04	+7.35E+03
Idaho National Laboratory	1.22E+05	1.59E+05	1.23E+05	1.66E+05	+1.68E+03	+7.74E+03
Los Alamos National Laboratory	2.57E+05	5.59E+04	1.94E+05	8.27E+04	-6.30E+04	+2.68E+04
Oak Ridge National Laboratory	3.85E+03	0.00E+00	1.06E+04	1.21E+01	+6.72E+03	+1.21E+01
Rocky Flats Environmental Technology Site	0.00E+00	5.80E+05	0.00E+00	5.80E+05	+0.00E+00	+0.00E+00
Savannah River Site	4.16E+05	8.71E+04	3.38E+05	1.22E+05	-7.83E+04	+3.54E+04
Total of Small Quantity Sites	9.08E+03	3.61E+03	7.20E+03	3.61E+03	-1.89E+03	+6.16E-07
Grand Total	1.23E+06	9.94E+05	1.03E+06	1.07E+06	-2.04E+05	+7.73E+04

¹Data Source: CID Data Version D.7.00, LANL-CO 2008b

²Data Source: CID Data Version D.8.00, LANL-CO 2009a

Table D-6 presents RH-TRU waste radionuclide activities by site decayed to closure in 2033. The total anticipated activity of RH-TRU waste in the 2008 TRU waste inventory (this report) reported in this table increased by 208,280 Ci. The RH-TRU waste activity increased by 213,876 Ci at Hanford-RL (see Table D-6) because of an increase of 305,300 Ci in Waste Stream RL300-08. This increase occurred when Waste Stream RL300-08 was moved from a potential waste stream to a WIPP-bound waste stream and new information was provided for the alpha caissons. Hanford-RL also had a decrease of 112,686 Ci because Waste Stream RLSWO-08 was dispositioned as non-TRU waste. There is also a decrease in total anticipated activity of RH TRU waste at INL of 4,510 Ci. This decrease at INL was caused when 14 waste streams from their RH waste inventory were reassigned to CH waste.

Table D-6. Total RH-TRU Radionuclide Activity by Site Decayed through 2033

Site	2007 Anticipated Inventory (Ci) ¹	2007 Emplaced Inventory (Ci) ¹	2008 Anticipated Inventory (Ci) ²	2008 Emplaced Inventory (Ci) ²	Anticipated Net Change (Ci)	Emplaced Net Change (Ci)
Hanford Richland Operations	1.32E+05	0.00E+00	3.46E+05	0.00E+00	+2.14E+05	+0.00E+00
Idaho National Laboratory	5.87E+03	6.84E+02	1.36E+03	1.32E+03	-4.51E+03	+6.39E+02
Los Alamos National Laboratory	3.41E+03	0.00E+00	3.41E+03	0.00E+00	-4.24E-01	+0.00E+00
Oak Ridge National Laboratory	3.87E+03	0.00E+00	3.52E+03	0.00E+00	-3.55E+02	+0.00E+00
Savannah River Site	4.56E+03	0.00E+00	4.28E+03	0.00E+00	-2.76E+02	+0.00E+00
Total of Small Quantity Sites	6.02E+04	0.00E+00	5.97E+04	2.02E+02	-4.54E+02	+2.02E+02
Grand Total	2.10E+05	6.84E+02	4.19E+05	1.52E+03	+2.08E+05	+8.41E+02

¹Data Source: CID Data Version D.7.00, LANL-CO 2008b²Data Source: CID Data Version D.8.00, LANL-CO 2009a

D-5 Complexing Agent Comparisons

Table D-7 shows the total CH and RH estimated complexing agents and their masses (kg) that were reported in the 2007 (Van Soest 2009c) and 2008 (McInroy 2009) inventories by the sites. These data represent only the complexing agents that are currently being reported by the sites in their anticipated TRU waste inventory and do not include complexing agents that have been emplaced in WIPP because the WWIS does not contain chemical component data. A detailed breakout of waste streams that contain complexing agents can be found in Section 3.2.3.1 of this report.

Table D-7. Total Complexing Agents

Complexing Agent	2007 Total Mass (kg) ¹	2008 Total Mass (kg) ²	Net Change (kg)
Acetic Acid	1.29E+04	8.95E+03	-3.90E+03
Citric Acid	1.51E+03	1.56E+03	+4.17E+01
Oxalic Acid	5.72E+03	5.63E+03	-8.70E+01
Sodium Acetate	7.37E+03	7.49E+03	+1.21E+02
Sodium Citrate	6.94E+02	1.92E+02	-5.03E+02
Sodium EDTA	1.38E+02	1.41E+02	+2.74E+00
Sodium Oxalate	2.11E+02	1.81E+01	-1.93E+02

¹Data Source: Qualified Query for 2007 Unscaled Oxyanion and Complexing Agents Mass, Van Soest 2009c²Data Source: *Analysis of Chemical and Cement Components 2008 Inventory Estimates*, McInroy 2009

The majority of the complexing agents reported in table D-7 have decreased since about half of the waste streams containing these components have been or are being shipped to WIPP. The increase in sodium acetate noted in Table D-7 is largely attributed to Hanford-RL after reassessment of all their complexing agents. Waste Stream RLPFP-01 had an increase of 239 kg while Waste Stream RL325-01 had a decrease of 122 kg. Acetic acid decreased 3,896 kg overall. In the 2008 data collection for this report, ICP reassessed all their CH waste streams because of the increase in acreage, as mentioned earlier in this appendix. In this reassessment it was discovered that Waste Stream IN-ID-SDA-Debris had over estimated the amount of acetic acid causing a decrease of 3,658 kg. At Hanford-RL, sodium citrate decreased by 503 kg and sodium oxalate decreased by 193 kg in Waste Stream RL325-01 after a similar reassessment of volumes and material parameters.

D-6 Oxyanion Comparisons

Table D-8 shows the total CH and RH estimated oxyanions and their masses (kg) that were reported in the 2007 (Van Soest 2009c) and 2008 (McInroy 2009) inventories by the sites. These data represent only the oxyanions that are currently being reported by the sites in their anticipated TRU waste inventory and do not include oxyanions that have been emplaced in WIPP because the WWIS does not contain chemical component data. A detailed breakout of waste streams that contain oxyanions can be found in Section 3.2.3.2 of this report.

Table D-8. Total Oxyanions

Complexing Agent	2007 Total Mass (kg) ¹	2008 Total Mass (kg) ²	Net Change (kg)
Nitrates	9.27E+05	8.29E+05	-9.87E+04
Phosphates	1.94E+05	1.87E+05	-7.38E+03
Sulfates	3.59E+05	2.49E+05	-1.10E+05

¹Data Source: Qualified Query for 2007 Unscaled Oxyanion and Complexing Agents Mass, Van Soest 2009c

²Data Source: *Analysis of Chemical and Cement Components 2008 Inventory Estimates*, McInroy 2009

Nitrate, phosphate, and sulfate masses have all decreased since 2007 (Van Soest 2009c). This is expected since approximately one-third of the waste streams reporting oxyanions are being shipped to WIPP. The major decrease for nitrates, phosphates and sulfates is due to the ICP's reassessment of their CH inventory data because of the increase in acreage of the cleanup project. The total decreases for nitrates and sulfates were 98,693 kg and 110,073 kg, respectively. ICP waste streams (IN-ID-SDA-Soil, Sludge and Debris) were the main contributors to these decreased oxyanions by reporting a reduction of nitrates by 97,954 kg and sulfates by 106,388 kg. Phosphates were reduced overall by 7,380 kg. The total reduction in phosphates results from a decrease of 10,354 kg from ICP along with an increase of 2,977 kg from multiple waste streams at Hanford-RL.

APPENDIX E: Historic Crosswalk of Inventory Waste Streams

This Appendix contains a crosswalk that maps current 2008 inventory waste streams to the 2007 inventory waste streams, published in the ATWIR-2008 (DOE 2008a).

Table E-1 displays the site code in the first column, the 2008 waste stream in the middle column, and all the 2007 waste streams that are mapped to a specific 2008 waste stream in the last column. This table provides easy reference to the 2007 waste streams using the 2008 waste streams as a lookup guide. Table E-2 shows the inverse of Table E-1. Table E-2 displays the site code in the first column, the 2007 waste stream in the middle column, and the 2008 waste streams that are mapped to a specific 2007 waste stream in the last column. This table provides reference to 2008 waste streams when the 2007 waste streams are known.

Site Code and Site Name:

AE	Argonne National Laboratory
AW	Material and Fuels Complex (MFC)
BL	Babcock and Wilcox Nuclear Energy Services
BT	Bettis Atomic Power Laboratory
FR	Framatome
IN	Idaho National Laboratory
KA	Knolls Atomic Power Laboratory
KN	Knolls Atomic Power Laboratory-Nuclear Fuels Services
LA	Los Alamos National Laboratory
LB	Lawrence Berkeley Laboratory
LL	Lawrence Livermore National Laboratory
MC	U.S. Army Materiel Command
ND	Nuclear Radiation Development Site
NT	Nevada Test Site
OR	Oak Ridge National Laboratory
PA	Paducah Gaseous Diffusion Plant
RL	Hanford Site (Richland Operations Office)
RP	Hanford Site (Office of River Protection)
SA	Sandia National Laboratories
SP	Separations Process Research Unit
SR	Savannah River Site
VN	General Electric Vallecitos Nuclear Center
WV	West Valley Demonstration Project

Table E-1. Crosswalk of 2008 to 2007 Waste Streams

Site Code	2008 Waste Stream	2007 Waste Stream(s)
AE	AE-T001	AE-T001
AE	AE-T003	AE-T003
AE	AE-T009	AE-T009
AW	AW-IN-TRA-BE-01	AW-IN-TRA-BE-01
AW	AW-N026.82	AW-N026.82
AW	AW-N027.531	AW-N027.531
AW	AW-T031.1322	AW-T031.1322
AW	AW-T033.1325	AW-T033.1325
AW	AW-W018	AW-W018
AW	AW-W019	AW-W019
AW	AW-W020.13	AW-W020.13
AW	AW-W026	AW-W026
AW	AW-W028	AW-W028
AW	AW-W029	AW-W029
AW	AW-W046	AW-W046
AW	AW-W047	AW-W047
AW	AW-W048	AW-W048
AW	AW-W049	AW-W049
BL	BL-Parks	BL-Parks
BL	BL-Parks-A	BL-Parks-A
BT	BT-T001	BT-T001
BT	BT-T002	BT-T002
BT	BT-T006	BT-T006
BT	BT-T007	BT-T007
IN	IN-AE-AGHC-01	IN-AE-AGHC-01
IN	IN-AW-161	IN-AW-161
IN	IN-BN004	IN-BN004
IN	IN-BN050	IN-W353.859, IN-W353.917
IN	IN-BN095	IN-W375.1096
IN	IN-BN161	IN-BN161
IN	IN-BN204	IN-W332.661
IN	IN-BN211	IN-BN211
IN	IN-BN222	IN-BN222
IN	IN-BN243	IN-BN243
IN	IN-BN252	IN-BN252
IN	IN-BN296	IN-BN296
IN	IN-BN304	IN-BN304
IN	IN-BN311	IN-BN311
IN	IN-BN375	IN-W163.1007
IN	IN-BN409	IN-BN409
IN	IN-BN421	IN-BN421
IN	IN-BN425	IN-W357.1022
IN	IN-BN430	IN-W321.1023
IN	IN-BN431	IN-W319.584
IN	IN-BN432	IN-BN432
IN	IN-BN510	IN-BN510
IN	IN-BN806	IN-BN222
IN	IN-BN811	IN-W159.1072

Table E-1. Crosswalk of 2008 to 2007 Waste Streams
Continued

Site Code	2008 Waste Stream	2007 Waste Stream(s)
IN	IN-BN817	IN-BN222
IN	IN-BN823	IN-BN222
IN	IN-BN835	IN-BN835
IN	IN-BN836	IN-BN836
IN	IN-BN842	IN-W263.520
IN	IN-BN976	IN-W188.160
IN	IN-BN978	IN-W181.162
IN	IN-BNINW216	IN-BNINW216
IN	IN-BNINW218	IN-BNINW218
IN	IN-GEM-01	IN-GEM-01
IN	IN-GEM-02	IN-GEM-02
IN	IN-ID-BTO-030	IN-ID-BTO-030, IN-W219.914
IN	IN-ID-INL-152	IN-ID-INL-152, IN-W323.951, IN-W358.949
IN	IN-ID-NTLLNL-S3900	NT-W002, NT-W003
IN	IN-ID-NTLLNL-S5400	NT-W001
IN	IN-ID-RF-S3114	IN-ID-RF-S3114
IN	IN-ID-RF-S3150-A	IN-ID-RF-S3150-A
IN	IN-ID-RF-S5100-A	IN-ID-RF-S5100-A
IN	IN-ID-RF-S5126-A	IN-ID-RF-S5126-A
IN	IN-ID-RF-S5300-A	IN-ID-RF-S5300-A
IN	IN-ID-RTC-S5000	IN-ID-RTC-S5000
IN	IN-ID-SDA-Debris	IN-ID-SDA-Debris
IN	IN-ID-SDA-Sludge	IN-ID-SDA-Sludge
IN	IN-ID-SDA-Soil	IN-ID-SDA-Soil
IN	IN-INTEC-SFS-01	IN-INTEC-SFS-01
IN	IN-NRF-153	IN-NRF-153
IN	IN-NRF-SPC	IN-NRF-SPC
IN	IN-SBW-01A	IN-SBW-01A
IN	IN-SBW-01B	IN-SBW-01B
IN	IN-TRA-150	IN-TRA-150, IN-W146.699
IN	IN-W139	IN-BN510
IN	IN-W169R	IN-W169.193
IN	IN-W170	IN-BN510
IN	IN-W171	IN-BN510
IN	IN-W172	IN-BN510
IN	IN-W197R	IN-W197.197
IN	IN-W198R	IN-W198.204
IN	IN-W208R	IN-W208.243
IN	IN-W216R	IN-W216.876, IN-W216.877
IN	IN-W219	IN-W219.110
IN	IN-W228R	IN-W228.884, IN-W228.885, IN-W228.886
IN	IN-W243R	IN-W243.276, IN-W243.277
IN	IN-W245R	IN-W245.1035
IN	IN-W247R	IN-W247.524
IN	IN-W252R	IN-W252.282
IN	IN-W254R	IN-W254.1045
IN	IN-W259	IN-W259.552, IN-W259.920
IN	IN-W260R	IN-W260.566
IN	IN-W269	IN-BN510
IN	IN-W283	IN-BN510

Table E-1. Crosswalk of 2008 to 2007 Waste Streams
Continued

Site Code	2008 Waste Stream	2007 Waste Stream(s)
IN	IN-W283R	IN-W283.964
IN	IN-W287	IN-BN510
IN	IN-W294R	IN-W294.343
IN	IN-W296R	IN-W296.330, IN-W296.331
IN	IN-W298R	IN-W298.318
IN	IN-W302	IN-BN510
IN	IN-W315	IN-W315.601
IN	IN-W317R	IN-W317.1029
IN	IN-W322	IN-W322.851, IN-W322.952
IN	IN-W323	IN-W323.562
IN	IN-W337	IN-W337.673, IN-W337.957
IN	IN-W338	IN-BN510
IN	IN-W339	IN-BN510
IN	IN-W342R	IN-W342.652, IN-W342.953
IN	IN-W345	IN-BN510
IN	IN-W347	IN-W347.818
IN	IN-W350	IN-W350.650, IN-W350.923
IN	IN-W351	IN-BN510
IN	IN-W358	IN-W358.854, IN-W358.855, IN-W358.948
IN	IN-W359R	IN-W359.853
IN	IN-W360R	IN-W360.852, IN-W360.912
IN	IN-W364R	IN-W364.845
IN	IN-W365R	IN-W365.843
IN	IN-W372	IN-W372.832
IN	IN-W372R	IN-W372.918
KA	KA-T001	KA-T001
KA	KA-W016	KA-W016
KN	KN-B234TRU	KN-B234TRU
KN	KN-B234TRU_SS	KN-B234TRU
LA	LA-CIN01.001	LA-CIN01.001, LA-TA-50-18, LA-TA-55-14, LA-TA-55-36, LA-TA-55-38
LA	LA-CIN02.001	LA-CIN02.001, LA-TA-50-18, LA-TA-50-19, LA-TA-55-30
LA	LA-LA238HOR	LA-LA238HOR
LA	LA-LAMHD02238	LA-MHD01.001
LA	LA-LAMHD03DD	LA-LAMHD03DD
LA	LA-LAMIN04S	LA-LAMIN04S
LA	LA-LA-NCD01	LA-LA-NCD01
LA	LA-LANHD02238	LA-LANHD02238
LA	LA-LANIN03NC	LA-LANIN03NC

Table E-1. Crosswalk of 2008 to 2007 Waste Streams**Continued**

Site Code	2008 Waste Stream	2007 Waste Stream(s)
LA	LA-MHD01.001	LA-LA238HOR, LA-LAMIN04S, LA-LA-NCD01, LA-LANHD01, LA-LANHD02238, LA-LANIN03NC, LA-MHD01.001, LA-TA-00-01, LA-TA-50-10, LA-TA-50-11, LA-TA-50-12, LA-TA-55-03, LA-TA-55-04, LA-TA-55-05, LA-TA-55-07, LA-TA-55-08, LA-TA-55-09, LA-TA-55-10, LA-TA-55-12, LA-TA-55-14, LA-TA-55-15, LA-TA-55-18, LA-TA-55-19, LA-TA-55-20, LA-TA-55-21, LA-TA-55-22, LA-TA-55-23, LA-TA-55-24, LA-TA-55-25, LA-TA-55-26, LA-TA-55-27, LA-TA-55-29, LA-TA-55-30, LA-TA-55-31, LA-TA-55-32, LA-TA-55-34, LA-TA-55-38, LA-TA-55-39, LA-TA-55-43, LA-TA-55-46, LA-TA-55-47, LA-TA-55-53, LA-TA-55-54, LA-TA-55-60, LA-TA-55-61, LA-TA-55-62, LA-TA-55-63
LA	LA-MHD03.001	LA-MHD03.001, LA-TA-00-01, LA-TA-03-09, LA-TA-03-10, LA-TA-03-12, LA-TA-03-14, LA-TA-03-17, LA-TA-03-20, LA-TA-03-21, LA-TA-03-23, LA-TA-03-29, LA-TA-03-30, LA-TA-03-33, LA-TA-50-11, LA-TA-50-15
LA	LA-MHD04.001	LA-MHD04.001, LA-TA-00-01, LA-TA-21-06, LA-TA-21-07, LA-TA-21-09, LA-TA-21-11, LA-TA-21-12, LA-TA-21-18, LA-TA-21-40, LA-TA-21-42, LA-TA-50-15, LA-TA-50-41
LA	LA-MHD08.001	LA-TA-00-01, LA-TA-48-01
LA	LA-MIN02-V.001	LA-LAMIN02V.001, LA-TA-55-17B, LA-TA-55-20, LA-TA-55-33, LA-TA-55-50, LA-TA-55-52
LA	LA-MIN03-NC.001	LA-MIN03-NC.001, LA-TA-50-10, LA-TA-50-18, LA-TA-50-19
LA	LA-OS-00-01.001	LA-OS-00-01.001
LA	LA-OS-00-03	LA-OS-00-03
LA	LA-PX-00-01	LA-PX-00-01
LA	LA-TA-00-01	LA-TA-00-01
LA	LA-TA-00-03	LA-TA-00-03
LA	LA-TA-00-04	LA-TA-55-19
LA	LA-TA-03-01	LA-TA-03-01
LA	LA-TA-03-09	LA-TA-03-09
LA	LA-TA-03-10	LA-TA-03-10
LA	LA-TA-03-12	LA-TA-03-12
LA	LA-TA-03-14	LA-TA-03-14
LA	LA-TA-03-17	LA-TA-03-17
LA	LA-TA-03-20	LA-TA-03-20
LA	LA-TA-03-21	LA-TA-03-21
LA	LA-TA-03-23	LA-TA-03-23
LA	LA-TA-03-27	LA-TA-03-27, LA-TA-21-07
LA	LA-TA-03-28	LA-TA-03-28
LA	LA-TA-03-30	LA-TA-03-30
LA	LA-TA-03-31	LA-TA-03-31
LA	LA-TA-03-33	LA-TA-03-33
LA	LA-TA-03-34	LA-TA-03-34
LA	LA-TA-03-40	LA-TA-03-40
LA	LA-TA-03-42	LA-TA-03-42
LA	LA-TA-21-05	LA-TA-21-05
LA	LA-TA-21-06	LA-TA-21-06

Table E-1. Crosswalk of 2008 to 2007 Waste Streams**Continued**

Site Code	2008 Waste Stream	2007 Waste Stream(s)
LA	LA-TA-21-07	LA-TA-21-07
LA	LA-TA-21-08	LA-TA-21-08
LA	LA-TA-21-09	LA-TA-21-09
LA	LA-TA-21-10	LA-TA-21-10
LA	LA-TA-21-11	LA-TA-21-11
LA	LA-TA-21-12	LA-TA-21-12
LA	LA-TA-21-13	LA-TA-21-13
LA	LA-TA-21-14	LA-TA-21-14
LA	LA-TA-21-15	LA-TA-21-15
LA	LA-TA-21-16	LA-TA-21-16
LA	LA-TA-21-17	LA-TA-21-17
LA	LA-TA-21-41	LA-TA-21-41
LA	LA-TA-50-01	LA-TA-50-01
LA	LA-TA-50-02	LA-TA-50-02
LA	LA-TA-50-05	LA-TA-50-05
LA	LA-TA-50-06	LA-TA-50-06
LA	LA-TA-50-11	LA-TA-50-11
LA	LA-TA-50-12	LA-TA-50-12
LA	LA-TA-50-13	LA-TA-50-13
LA	LA-TA-50-14	LA-TA-50-14
LA	LA-TA-50-15	LA-TA-50-15
LA	LA-TA-50-16	LA-TA-50-06, LA-TA-50-16
LA	LA-TA-50-18	LA-TA-50-18
LA	LA-TA-50-19	LA-TA-50-19
LA	LA-TA-50-20	LA-TA-50-20
LA	LA-TA-50-40	LA-TA-50-40
LA	LA-TA-55-14	LA-TA-55-14
LA	LA-TA-55-19	LA-TA-55-19
LA	LA-TA-55-20	LA-TA-55-19, LA-TA-55-20
LA	LA-TA-55-21	LA-TA-55-21
LA	LA-TA-55-23	LA-TA-55-23
LA	LA-TA-55-30	LA-TA-55-30
LA	LA-TA-55-32	LA-TA-55-32
LA	LA-TA-55-33	LA-TA-55-33
LA	LA-TA-55-38	LA-TA-55-38
LA	LA-TA-55-43	LA-TA-55-43
LA	LA-TA-55-61	LA-TA-55-61
LB	LB-T001	LB-T001
LB	LB-T002	LB-T002
LB	LB-T003	LB-T003
LB	LB-T004	LB-T004
LL	LL-M001	LL-M001
LL	LL-T004	LL-T004
LL	LL-T005	LL-T005
LL	LL-W018-S5100	LL-W018a
LL	LL-W018-SS	LL-W018b
LL	LL-W019	LL-W019
MC	MC-W001	MC-W001
ND	ND-T001	ND-T001
NT	NT-JAS-01	NT-JAS-01

Table E-1. Crosswalk of 2008 to 2007 Waste Streams**Continued**

Site Code	2008 Waste Stream	2007 Waste Stream(s)
NT	NTLBL-S3900	NT-W003
NT	NTLBL-S5400	NT-W003
NT	NTLLNL-S3900	NT-W002, NT-W003
NT	NTLLNL-S5400	NT-W001
NT	NTLRC-S5400	NT-W001
NT	NTS-EG&G-HET	NT-W003
NT	NTS-TTR-HET	NT-W005
NT	NT-W004	NT-W004
NT	NT-W021	NT-W021
OR	OR-CHEM-CH-HET	OR-CHEM-CH-HET
OR	OR-GENR-CH-HET	OR-GENR-CH-HET
OR	OR-ISTP-CH-HET	OR-ISTP-CH-HET
OR	OR-NBL-CH-HET	OR-NBL-CH-HET
OR	OR-NFS-CH-HET	OR-NFS-CH-HET
OR	OR-NFS-CH-HOM	OR-NFS-CH-HOM
OR	OR-NFS-CH-SOIL	OR-NFS-CH-SOIL
OR	OR-PGDP-CH-HET	OR-PGDP-CH-HET
OR	OR-RADP-CH-HET	OR-RADP-CH-HET
OR	OR-REDC-CH-HET	OR-REDC-CH-HET
OR	OR-REDC-RH-HET	OR-REDC-RH-HET
OR	OR-RF-CH-HET	OR-RF-CH-HET
OR	OR-RF-CH-HOM	OR-RF-CH-HOM
OR	OR-TBD-CH-HET	OR-TBD-CH-HET
OR	OR-TBD-RH-HET	OR-TBD-RH-HET
OR	OR-W203	OR-W203
OR	OR-W213-RH-SOILS	OR-W213-CH-HET, OR-W213-RH-HET
OR	OR-WSTR-CH-HET	OR-WSTR-CH-HET
OR	OR-Y12-CH-HET	OR-Y12-CH-HET
PA	PA-A015	PA-A015
PA	PA-W014	PA-W014
RL	RL105-01	RL105-01
RL	RL105-03	RL105-03
RL	RL105-07	RL105-07
RL	RL105-09	RL105-09
RL	RL105-09A	RL105-09A
RL	RL200-01	RL200-01
RL	RL200-02	RL200-02
RL	RL200-10	New waste stream
RL	RL201-01	RL201-01
RL	RL202S-01	RL202S-01
RL	RL209E-01	RL209E-01, RL2718-01
RL	RL209E-08	RL209E-08
RL	RL216Z-02	RL216Z-02
RL	RL221T-01	RL221T-01
RL	RL221U-01	RL221U-01
RL	RL222S-01	RL222S-01
RL	RL222S-08	RL222S-08
RL	RL231Z-01	RL231Z-01
RL	RL231Z-03	RL231Z-03
RL	RL233S-01	RL233S-01

Table E-1. Crosswalk of 2008 to 2007 Waste Streams**Continued**

Site Code	2008 Waste Stream	2007 Waste Stream(s)
RL	RL233S-03	RL233S-03
RL	RL300-01	RL300-01
RL	RL300-03	RL300-03
RL	RL300-08	RL300-08
RL	RL300-11	RL300-08
RL	RL308-01	RL308-01
RL	RL325-01	RL325-01
RL	RL325-03	RL325-03
RL	RL325-08	RL325-08
RL	RL325-09	RL325-09
RL	RL618-01	RL618-01
RL	RL618-07	RL618-07
RL	RLARG-01	RLARG-01
RL	RLARG-08	RLARG-01
RL	RLBART-01	RLBART-01
RL	RLBART-08	RLBART-08
RL	RLBAT-01	RLBAT-01
RL	RLBAT-08	RLBAT-08
RL	RLBET-08	RLBET-01
RL	RLBW-01	RLBW-01
RL	RLBW-03	RLBW-03
RL	RLBW-08	RLBW-08
RL	RLCFF-01	RLCFF-01
RL	RLCFF-03	RLCFF-03
RL	RLCH2-01	RLCH2-01
RL	RLCH2-08	RLCH2-08
RL	RLESG-01	RLESG-01
RL	RLESG-08	RLESG-08
RL	RLEXX-01	RLEXX-01, FR-MOX-MT02, FR-MOX-T01
RL	RLFFTF-01	<i>New waste stream</i>
RL	RLGEV-01	RLGEV-01
RL	RLGEV-03	RLGEV-01
RL	RLGEV-08	RLGEV-08
RL	RLHAN-01	RLHAN-01
RL	RLIAEA-01	RLIAEA-01
RL	RLMLB-08	RLMLB-01
RL	RLMLL-01	RLMLL-01
RL	RLPFP-01	RLPFP-01
RL	RLPFP-02	RLPFP-01
RL	RLPFP-03	RLPFP-03
RL	RLPFP-04	RLPFP-04
RL	RLPFP-08	RLPFP-08
RL	RLPRC-01	RLPRC-01
RL	RLPURX-01	RLPURX-01
RL	RLPURX-07	RLPURX-07
RL	RLRFET-01	RLRFET-01
RL	RLSAN-01	RLGEV-01
RL	RLSWO-01	RLSWO-01
RL	RLWAR-01	RLWAR-01
RL	RLWAR-03	RLWAR-03

Table E-1. Crosswalk of 2008 to 2007 Waste Streams**Continued**

Site Code	2008 Waste Stream	2007 Waste Stream(s)
RL	RLWTP-08	RLWTP-08
RP	RP-TFC001	RP-TFC001
RP	RP-TFC002	RP-TFC002
RP	RP-TFC003	RP-TFC003
RP	RP-W013	RP-W013
RP	RP-W016	RP-W016
RP	RP-W754	RP-W754
RP	RP-W755	RP-W755
SA	SA-T001	SA-T001
SA	SA-W134	SA-W134
SA	SA-W134M	SA-W134M
SA	SA-W135	SA-W135
SA	SA-W136	SA-W136
SP	SP-T001	SP-T001
SP	SP-T002	SP-T002
SR	SR-BCLCH-MT01	SR-BCLCH-MT01
SR	SR-BCLRH-MT01	SR-BCLRH-MT01
SR	SR-BCLRH-T001	SR-BCLRH-T001
SR	SR-BCLRH-T002	SR-BCLRH-T002
SR	SR-BCLRH-T003	SR-BCLRH-T003
SR	SR-BCLRH-T004	SR-BCLRH-T004
SR	SR-BCLRH-T005	SR-BCLRH-T005
SR	SR-BCLRH-T006	SR-BCLRH-T006
SR	SR-BCLRH-T007	SR-BCLRH-T007
SR	SR-BCLRH-T008	SR-BCLRH-T008
SR	SR-BCLRH-T009	SR-BCLRH-T009
SR	SR-BCLRH-T010	SR-BCLRH-T010
SR	SR-BCLRH-T011	SR-BCLRH-T011
SR	SR-SWMF-HET-A	SR-SWMF-HET-A
SR	SR-SWMF-HET-RH	SR-SWMF-HET-RH
SR	SR-SWMF-SOIL	SR-SWMF-SOIL
SR	SR-T001-773A-CLAS	SR-T001-773A-CLAS
SR	SR-T001-WSB-1	SR-T001-WSB-1
SR	SR-T001-WSB-3	SR-T001-WSB-3
SR	SR-T003-773A-HET	SR-T003-773A-HET
SR	SR-W026-221F-HEPA	SR-W026-221F-HEPA
SR	SR-W026-221F-HET	SR-W026-221F-HET
SR	SR-W026-221F-HOM	SR-W026-221F-HOM
SR	SR-W026-772F-HET	SR-W026-772F-HET
SR	SR-W026-MFFF-1	SR-W026-MFFF-1
SR	SR-W026-PDCF-1	SR-W026-PDCF-1
SR	SR-W026-WSB-2	SR-W026-WSB-2
SR	SR-W027-221F-HET	SR-W027-221F-HET
SR	SR-W027-221F-HOM	SR-W027-221F-HOM
SR	SR-W027-221H-HEPA	SR-T001-221H-HEPA, SR-W027-221H-HEPA
SR	SR-W027-221H-HET	SR-W027-221H-HET
SR	SR-W027-221H-HET-B	SR-W027-221H-HET-B
SR	SR-W027-221H-HET-RH	SR-W027-221H-HET-RH
SR	SR-W027-221H-HOM	SR-W027-221H-HOM
SR	SR-W027-235F-HET	SR-W027-235F-HET

Table E-1. Crosswalk of 2008 to 2007 Waste Streams
Continued

Site Code	2008 Waste Stream	2007 Waste Stream(s)
SR	SR-W027-235F-HOMO	SR-W027-235F-HOMO
SR	SR-W027-773A-HET	SR-W027-773A-HET
SR	SR-W027-999-AGNS-HET	SR-W027-999-AGNS-HET
SR	SR-W027-999-AGNS-HOM	SR-W027-999-AGNS-HOM
SR	SR-W027-999-LASL-HET	SR-W027-999-LASL-HET
SR	SR-W027-999-LASL-HOM	SR-W027-999-LASL-HOM
SR	SR-W027-999-MD-HET	SR-W027-999-MD-HET
SR	SR-W027-999-MD-HOM-A	SR-W027-999-MD-HOM-A
SR	SR-W027-999-MD-HOM-B	SR-W027-999-MD-HOM-B
SR	SR-W027-999-MD-HOM-C	SR-W027-999-MD-HOM-C
SR	SR-W027-999-MD-SOIL	SR-W027-999-MD-SOIL
SR	SR-W027-HBL-Box-A	SR-W027-HBL-Box-A
SR	SR-W027-HBL-Box-B	SR-W027-HBL-Box-B
SR	SR-W027-SRSG-HET	SR-W027-SRSG-HET
SR	SR-W027-SRSG-HET-RH	SR-W027-SRSG-HET-RH
SR	SR-W027-SRSG-HOM	SR-W027-SRSG-HOM
VN	VN-GEVNC.01	VN-RHT001
VN	VN-GEVNC.02	VN-CHT001
WV	WV-M010a	WV-M010a
WV	WV-T004	WV-T004
WV	WV-T006a	WV-T006a
WV	WV-T006b	WV-T006b
WV	WV-T017a	WV-T017a
WV	WV-T017b	WV-T017b
WV	WV-W024a	WV-W024a
WV	WV-W024b	WV-W024b
WV	WV-Z001	WV-Z001

Table E-2. Crosswalk of 2007 to 2008 Waste Streams

Site Code	2007 Waste Stream	2008 Waste Stream(s)
AE	AE-T001	AE-T001
AE	AE-T003	AE-T003
AE	AE-T009	AE-T009
AW	AW-IN-TRA-BE-01	AW-IN-TRA-BE-01
AW	AW-N026.82	AW-N026.82
AW	AW-N027.531	AW-N027.531
AW	AW-T031.1322	AW-T031.1322
AW	AW-T033.1325	AW-T033.1325
AW	AW-W018	AW-W018
AW	AW-W019	AW-W019
AW	AW-W020.13	AW-W020.13
AW	AW-W026	AW-W026
AW	AW-W028	AW-W028
AW	AW-W029	AW-W029
AW	AW-W046	AW-W046
AW	AW-W047	AW-W047
AW	AW-W048	AW-W048
AW	AW-W049	AW-W049
BL	BL-Parks	BL-Parks
BL	BL-Parks-A	BL-Parks-A
BT	BT-T001	BT-T001
BT	BT-T002	BT-T002
BT	BT-T006	BT-T006
BT	BT-T007	BT-T007
FR	FR-MOX-MT02	RLEXX-01
FR	FR-MOX-T01	RLEXX-01
IN	IN-AE-AGHC-01	IN-AE-AGHC-01
IN	IN-AW-161	IN-AW-161
IN	IN-BN004	IN-BN004
IN	IN-BN161	IN-BN161
IN	IN-BN211	IN-BN211
IN	IN-BN222	IN-BN222, IN-BN806, IN-BN817, IN-BN823
IN	IN-BN243	IN-BN243
IN	IN-BN252	IN-BN252
IN	IN-BN296	IN-BN296
IN	IN-BN304	IN-BN304
IN	IN-BN311	IN-BN311
IN	IN-BN409	IN-BN409
IN	IN-BN421	IN-BN421
IN	IN-BN432	IN-BN432
IN	IN-BN510	IN-BN510, IN-W139, IN-W170, IN-W171, IN-W172, IN-W269, IN-W283, IN-W287, IN-W302, IN-W338, IN-W339, IN-W345, IN-W351
IN	IN-BN835	IN-BN835
IN	IN-BN836	IN-BN836
IN	IN-BNINW216	IN-BNINW216
IN	IN-BNINW218	IN-BNINW218
IN	IN-GEM-01	IN-GEM-01

Table E-2. Crosswalk of 2007 to 2008 Waste Streams**Continued**

Site Code	2007 Waste Stream	2008 Waste Stream(s)
IN	IN-GEM-02	IN-GEM-02
IN	IN-ID-BTO-030	IN-ID-BTO-030
IN	IN-ID-INL-152	IN-ID-INL-152
IN	IN-ID-RF-S3114	IN-ID-RF-S3114
IN	IN-ID-RF-S3150-A	IN-ID-RF-S3150-A
IN	IN-ID-RF-S5100-A	IN-ID-RF-S5100-A
IN	IN-ID-RF-S5126-A	IN-ID-RF-S5126-A
IN	IN-ID-RF-S5300-A	IN-ID-RF-S5300-A
IN	IN-ID-RTC-S5000	IN-ID-RTC-S5000
IN	IN-ID-SDA-Debris	IN-ID-SDA-Debris
IN	IN-ID-SDA-Sludge	IN-ID-SDA-Sludge
IN	IN-ID-SDA-Soil	IN-ID-SDA-Soil
IN	IN-INTEC-SFS-01	IN-INTEC-SFS-01
IN	IN-NRF-153	IN-NRF-153
IN	IN-NRF-SPC	IN-NRF-SPC
IN	IN-SBW-01A	IN-SBW-01A
IN	IN-SBW-01B	IN-SBW-01B
IN	IN-TRA-150	IN-TRA-150
IN	IN-TRA-157	Deleted
IN	IN-W146.699	IN-TRA-150
IN	IN-W159.1072	IN-BN811
IN	IN-W163.1007	IN-BN375
IN	IN-W169.193	IN-W169R
IN	IN-W181.162	IN-BN978
IN	IN-W188.160	IN-BN976
IN	IN-W197.197	IN-W197R
IN	IN-W198.204	IN-W198R
IN	IN-W208.243	IN-W208R
IN	IN-W216.876	IN-W216R
IN	IN-W216.877	IN-W216R
IN	IN-W219.110	IN-W219
IN	IN-W219.914	IN-ID-BTO-030
IN	IN-W228.884	IN-W228R
IN	IN-W228.885	IN-W228R
IN	IN-W228.886	IN-W228R
IN	IN-W243.276	IN-W243R
IN	IN-W243.277	IN-W243R
IN	IN-W245.1035	IN-W245R
IN	IN-W247.524	IN-W247R
IN	IN-W252.282	IN-W252R
IN	IN-W254.1045	IN-W254R
IN	IN-W259.552	IN-W259
IN	IN-W259.920	IN-W259
IN	IN-W260.566	IN-W260R
IN	IN-W263.520	IN-BN842
IN	IN-W283.964	IN-W283R
IN	IN-W294.343	IN-W294R
IN	IN-W296.330	IN-W296R
IN	IN-W296.331	IN-W296R
IN	IN-W298.318	IN-W298R

Table E-2. Crosswalk of 2007 to 2008 Waste Streams**Continued**

Site Code	2007 Waste Stream	2008 Waste Stream(s)
IN	IN-W315.601	IN-W315
IN	IN-W317.1029	IN-W317R
IN	IN-W319.584	IN-BN431
IN	IN-W321.1023	IN-BN430
IN	IN-W322.851	IN-W322
IN	IN-W322.952	IN-W322
IN	IN-W323.562	IN-W323
IN	IN-W323.951	IN-ID-INL-152
IN	IN-W332.661	IN-BN204
IN	IN-W337.673	IN-W337
IN	IN-W337.957	IN-W337
IN	IN-W341.671	Deleted
IN	IN-W341.954	Deleted
IN	IN-W342.652	IN-W342R
IN	IN-W342.953	IN-W342R
IN	IN-W347.818	IN-W347
IN	IN-W350.650	IN-W350
IN	IN-W350.923	IN-W350
IN	IN-W353.859	IN-BN050
IN	IN-W353.917	IN-BN050
IN	IN-W357.1022	IN-BN425
IN	IN-W358.854	IN-W358
IN	IN-W358.855	IN-W358
IN	IN-W358.948	IN-W358
IN	IN-W358.949	IN-ID-INL-152
IN	IN-W359.853	IN-W359R
IN	IN-W360.852	IN-W360R
IN	IN-W360.912	IN-W360R
IN	IN-W364.845	IN-W364R
IN	IN-W365.843	IN-W365R
IN	IN-W372.832	IN-W372
IN	IN-W372.918	IN-W372R
IN	IN-W375.1096	IN-BN095
KA	KA-T001	KA-T001
KA	KA-W016	KA-W016
KN	KN-B234TRU	KN-B234TRU, KN-B234TRU_SS
LA	LA-CIN01.001	LA-CIN01.001
LA	LA-CIN02.001	LA-CIN02.001
LA	LA-LA238HOR	LA-LA238HOR, LA-MHD01.001
LA	LA-LAMHD03DD	LA-LAMHD03DD
LA	LA-LAMIN02V.001	LA-MIN02-V.001
LA	LA-LAMIN04S	LA-LAMIN04S, LA-MHD01.001
LA	LA-LA-NCD01	LA-LA-NCD01, LA-MHD01.001
LA	LA-LANHD01	LA-MHD01.001
LA	LA-LANHD02238	LA-LANHD02238, LA-MHD01.001
LA	LA-LANIN03NC	LA-LANIN03NC, LA-MHD01.001
LA	LA-MHD01.001	LA-LAMHD02238, LA-MHD01.001
LA	LA-MHD03.001	LA-MHD03.001
LA	LA-MHD04.001	LA-MHD04.001
LA	LA-MIN03-NC.001	LA-MIN03-NC.001

Table E-2. Crosswalk of 2007 to 2008 Waste Streams**Continued**

Site Code	2007 Waste Stream	2008 Waste Stream(s)
LA	LA-OS-00-01.001	LA-OS-00-01.001
LA	LA-OS-00-03	LA-OS-00-03
LA	LA-PX-00-01	LA-PX-00-01
LA	LA-TA-00-01	LA-MHD01.001, LA-MHD03.001, LA-MHD04.001, LA-MHD08.001, LA-TA-00-01
LA	LA-TA-00-03	LA-TA-00-03
LA	LA-TA-03-01	LA-TA-03-01
LA	LA-TA-03-09	LA-MHD03.001, LA-TA-03-09
LA	LA-TA-03-10	LA-MHD03.001, LA-TA-03-10
LA	LA-TA-03-12	LA-MHD03.001, LA-TA-03-12
LA	LA-TA-03-14	LA-MHD03.001, LA-TA-03-14
LA	LA-TA-03-17	LA-MHD03.001, LA-TA-03-17
LA	LA-TA-03-20	LA-MHD03.001, LA-TA-03-20
LA	LA-TA-03-21	LA-MHD03.001, LA-TA-03-21
LA	LA-TA-03-23	LA-MHD03.001, LA-TA-03-23
LA	LA-TA-03-27	LA-TA-03-27
LA	LA-TA-03-28	LA-TA-03-28
LA	LA-TA-03-29	LA-MHD03.001
LA	LA-TA-03-30	LA-MHD03.001, LA-TA-03-30
LA	LA-TA-03-31	LA-TA-03-31
LA	LA-TA-03-33	LA-MHD03.001, LA-TA-03-33
LA	LA-TA-03-34	LA-TA-03-34
LA	LA-TA-03-40	LA-TA-03-40
LA	LA-TA-03-42	LA-TA-03-42
LA	LA-TA-21-05	LA-TA-21-05
LA	LA-TA-21-06	LA-MHD04.001, LA-TA-21-06
LA	LA-TA-21-07	LA-MHD04.001, LA-TA-03-27, LA-TA-21-07
LA	LA-TA-21-08	LA-TA-21-08
LA	LA-TA-21-09	LA-MHD04.001, LA-TA-21-09
LA	LA-TA-21-10	LA-TA-21-10
LA	LA-TA-21-11	LA-MHD04.001, LA-TA-21-11
LA	LA-TA-21-12	LA-MHD04.001, LA-TA-21-12
LA	LA-TA-21-13	LA-TA-21-13
LA	LA-TA-21-14	LA-TA-21-14
LA	LA-TA-21-15	LA-TA-21-15
LA	LA-TA-21-16	LA-TA-21-16
LA	LA-TA-21-17	LA-TA-21-17
LA	LA-TA-21-18	LA-MHD04.001
LA	LA-TA-21-40	LA-MHD04.001
LA	LA-TA-21-41	LA-TA-21-41
LA	LA-TA-21-42	LA-MHD04.001
LA	LA-TA-48-01	LA-MHD08.001
LA	LA-TA-50-01	LA-TA-50-01
LA	LA-TA-50-02	LA-TA-50-02
LA	LA-TA-50-05	LA-TA-50-05
LA	LA-TA-50-06	LA-TA-50-06, LA-TA-50-16
LA	LA-TA-50-10	LA-MHD01.001, LA-MIN03-NC.001
LA	LA-TA-50-11	LA-MHD01.001, LA-MHD03.001, LA-TA-50-11
LA	LA-TA-50-12	LA-MHD01.001, LA-TA-50-12
LA	LA-TA-50-13	LA-TA-50-13

Table E-2. Crosswalk of 2007 to 2008 Waste Streams**Continued**

Site Code	2007 Waste Stream	2008 Waste Stream(s)
LA	LA-TA-50-14	LA-TA-50-14
LA	LA-TA-50-15	LA-MHD03.001, LA-MHD04.001, LA-TA-50-15
LA	LA-TA-50-16	LA-TA-50-16
LA	LA-TA-50-18	LA-CIN01.001, LA-CIN02.001, LA-MIN03-NC.001, LA-TA-50-18
LA	LA-TA-50-19	LA-CIN02.001, LA-MIN03-NC.001, LA-TA-50-19
LA	LA-TA-50-20	LA-TA-50-20
LA	LA-TA-50-40	LA-TA-50-40
LA	LA-TA-50-41	LA-MHD04.001
LA	LA-TA-55-03	LA-MHD01.001
LA	LA-TA-55-04	LA-MHD01.001
LA	LA-TA-55-05	LA-MHD01.001
LA	LA-TA-55-07	LA-MHD01.001
LA	LA-TA-55-08	LA-MHD01.001
LA	LA-TA-55-09	LA-MHD01.001
LA	LA-TA-55-10	LA-MHD01.001
LA	LA-TA-55-12	LA-MHD01.001
LA	LA-TA-55-14	LA-CIN01.001, LA-MHD01.001, LA-TA-55-14
LA	LA-TA-55-15	LA-MHD01.001
LA	LA-TA-55-17B	LA-MIN02-V.001
LA	LA-TA-55-18	LA-MHD01.001
LA	LA-TA-55-19	LA-MHD01.001, LA-TA-00-04, LA-TA-55-19, LA-TA-55-20
LA	LA-TA-55-20	LA-MHD01.001, LA-MIN02-V.001, LA-TA-55-20
LA	LA-TA-55-21	LA-MHD01.001, LA-TA-55-21
LA	LA-TA-55-22	LA-MHD01.001
LA	LA-TA-55-23	LA-MHD01.001, LA-TA-55-23
LA	LA-TA-55-24	LA-MHD01.001
LA	LA-TA-55-25	LA-MHD01.001
LA	LA-TA-55-26	LA-MHD01.001
LA	LA-TA-55-27	LA-MHD01.001
LA	LA-TA-55-29	LA-MHD01.001
LA	LA-TA-55-30	LA-CIN02.001, LA-MHD01.001, LA-TA-55-30
LA	LA-TA-55-31	LA-MHD01.001
LA	LA-TA-55-32	LA-MHD01.001, LA-TA-55-32
LA	LA-TA-55-33	LA-MIN02-V.001, LA-TA-55-33
LA	LA-TA-55-34	LA-MHD01.001
LA	LA-TA-55-36	LA-CIN01.001
LA	LA-TA-55-38	LA-CIN01.001, LA-MHD01.001, LA-TA-55-38
LA	LA-TA-55-39	LA-MHD01.001
LA	LA-TA-55-43	LA-MHD01.001, LA-TA-55-43
LA	LA-TA-55-46	LA-MHD01.001
LA	LA-TA-55-47	LA-MHD01.001
LA	LA-TA-55-50	LA-MIN02-V.001
LA	LA-TA-55-52	LA-MIN02-V.001
LA	LA-TA-55-53	LA-MHD01.001
LA	LA-TA-55-54	LA-MHD01.001
LA	LA-TA-55-60	LA-MHD01.001
LA	LA-TA-55-61	LA-MHD01.001, LA-TA-55-61
LA	LA-TA-55-62	LA-MHD01.001

Table E-2. Crosswalk of 2007 to 2008 Waste Streams**Continued**

Site Code	2007 Waste Stream	2008 Waste Stream(s)
LA	LA-TA-55-63	LA-MHD01.001
LB	LB-T001	LB-T001
LB	LB-T002	LB-T002
LB	LB-T003	LB-T003
LB	LB-T004	LB-T004
LL	LL-M001	LL-M001
LL	LL-T004	LL-T004
LL	LL-T005	LL-T005
LL	LL-W018a	LL-W018-S5100
LL	LL-W018b	LL-W018-SS
LL	LL-W019	LL-W019
MC	MC-W001	MC-W001
MC	MC-W002	<i>Sources Transferred to Canberra Industries</i>
ND	ND-T001	ND-T001
NT	NT-JAS-01	NT-JAS-01
NT	NT-W001	IN-ID-NTLLNL-S5400, NTLLNL-S5400, NTLRC-S5400
NT	NT-W002	IN-ID-NTLLNL-S3900, NTLLNL-S3900
NT	NT-W003	IN-ID-NTLLNL-S3900, NTLBL-S3900, NTLBL-S5400, NTLLNL-S3900, NTS-EG&G-HET
NT	NT-W004	NT-W004
NT	NT-W005	NTS-TTR-HET
NT	NT-W021	NT-W021
OR	OR-CHEM-CH-HET	OR-CHEM-CH-HET
OR	OR-GENR-CH-HET	OR-GENR-CH-HET
OR	OR-ISTP-CH-HET	OR-ISTP-CH-HET
OR	OR-NBL-CH-HET	OR-NBL-CH-HET
OR	OR-NFS-CH-HET	OR-NFS-CH-HET
OR	OR-NFS-CH-HOM	OR-NFS-CH-HOM
OR	OR-NFS-CH-SOIL	OR-NFS-CH-SOIL
OR	OR-PGDP-CH-HET	OR-PGDP-CH-HET
OR	OR-RADP-CH-HET	OR-RADP-CH-HET
OR	OR-REDC-CH-HET	OR-REDC-CH-HET
OR	OR-REDC-RH-HET	OR-REDC-RH-HET
OR	OR-RF-CH-HET	OR-RF-CH-HET
OR	OR-RF-CH-HOM	OR-RF-CH-HOM
OR	OR-TBD-CH-HET	OR-TBD-CH-HET
OR	OR-TBD-RH-HET	OR-TBD-RH-HET
OR	OR-W203	OR-W203
OR	OR-W213-CH-HET	OR-W213-RH-SOILS
OR	OR-W213-RH-HET	OR-W213-RH-SOILS
OR	OR-W233	Deleted
OR	OR-WSTR-CH-HET	OR-WSTR-CH-HET
OR	OR-Y12-CH-HET	OR-Y12-CH-HET
PA	PA-A015	PA-A015
PA	PA-W014	PA-W014
RL	RL105-01	RL105-01
RL	RL105-03	RL105-03
RL	RL105-07	RL105-07
RL	RL105-09	RL105-09
RL	RL105-09A	RL105-09A

Table E-2. Crosswalk of 2007 to 2008 Waste Streams**Continued**

Site Code	2007 Waste Stream	2008 Waste Stream(s)
RL	RL200-01	RL200-01
RL	RL200-02	RL200-02
RL	RL201-01	RL201-01
RL	RL202S-01	RL202S-01
RL	RL209E-01	RL209E-01
RL	RL209E-08	RL209E-08
RL	RL216Z-02	RL216Z-02
RL	RL221T-01	RL221T-01
RL	RL221U-01	RL221U-01
RL	RL222S-01	RL222S-01
RL	RL222S-08	RL222S-08
RL	RL231Z-01	RL231Z-01
RL	RL231Z-03	RL231Z-03
RL	RL233S-01	RL233S-01
RL	RL233S-03	RL233S-03
RL	RL2718-01	RL209E-01
RL	RL300-01	RL300-01
RL	RL300-03	RL300-03
RL	RL300-08	RL300-08, RL300-11
RL	RL308-01	RL308-01
RL	RL325-01	RL325-01
RL	RL325-03	RL325-03
RL	RL325-08	RL325-08
RL	RL325-09	RL325-09
RL	RL618-01	RL618-01
RL	RL618-07	RL618-07
RL	RLARG-01	RLARG-01, RLARG-08
RL	RLBART-01	RLBART-01
RL	RLBART-08	RLBART-08
RL	RLBAT-01	RLBAT-01
RL	RLBAT-08	RLBAT-08
RL	RLBET-01	RLBET-08
RL	RLBW-01	RLBW-01
RL	RLBW-03	RLBW-03
RL	RLBW-08	RLBW-08
RL	RLCFF-01	RLCFF-01
RL	RLCFF-03	RLCFF-03
RL	RLCH2-01	RLCH2-01
RL	RLCH2-08	RLCH2-08
RL	RLESG-01	RLESG-01
RL	RLESG-08	RLESG-08
RL	RLEXX-01	RLEXX-01
RL	RLGEV-01	RLGEV-01, RLGEV-03, RLSAN-01
RL	RLGEV-08	RLGEV-08
RL	RLHAN-01	RLHAN-01
RL	RLIAEA-01	RLIAEA-01
RL	RLMLB-01	RLMLB-08
RL	RLMLL-01	RLMLL-01
RL	RLPFP-01	RLPFP-01, RLPFP-02
RL	RLPFP-03	RLPFP-03

Table E-2. Crosswalk of 2007 to 2008 Waste Streams**Continued**

Site Code	2007 Waste Stream	2008 Waste Stream(s)
RL	RLPFP-04	RLPFP-04
RL	RLPFP-08	RLPFP-08
RL	RLPRC-01	RLPRC-01
RL	RLPURX-01	RLPURX-01
RL	RLPURX-07	RLPURX-07
RL	RLRFET-01	RLRFET-01
RL	RLSWO-01	RLSWO-01
RL	RLSWO-08	Deleted
RL	RLWAR-01	RLWAR-01
RL	RLWAR-03	RLWAR-03
RL	RLWTP-08	RLWTP-08
RP	RP-TFC001	RP-TFC001
RP	RP-TFC002	RP-TFC002
RP	RP-TFC003	RP-TFC003
RP	RP-W013	RP-W013
RP	RP-W016	RP-W016
RP	RP-W754	RP-W754
RP	RP-W755	RP-W755
SA	SA-T001	SA-T001
SA	SA-W134	SA-W134
SA	SA-W134M	SA-W134M
SA	SA-W135	SA-W135
SA	SA-W136	SA-W136
SP	SP-T001	SP-T001
SP	SP-T002	SP-T002
SR	SR-BCLCH-MT01	SR-BCLCH-MT01
SR	SR-BCLRH-MT01	SR-BCLRH-MT01
SR	SR-BCLRH-T001	SR-BCLRH-T001
SR	SR-BCLRH-T002	SR-BCLRH-T002
SR	SR-BCLRH-T003	SR-BCLRH-T003
SR	SR-BCLRH-T004	SR-BCLRH-T004
SR	SR-BCLRH-T005	SR-BCLRH-T005
SR	SR-BCLRH-T006	SR-BCLRH-T006
SR	SR-BCLRH-T007	SR-BCLRH-T007
SR	SR-BCLRH-T008	SR-BCLRH-T008
SR	SR-BCLRH-T009	SR-BCLRH-T009
SR	SR-BCLRH-T010	SR-BCLRH-T010
SR	SR-BCLRH-T011	SR-BCLRH-T011
SR	SR-SWMF-HET-A	SR-SWMF-HET-A
SR	SR-SWMF-HET-RH	SR-SWMF-HET-RH
SR	SR-SWMF-SOIL	SR-SWMF-SOIL
SR	SR-T001-221H-HEPA	SR-W027-221H-HEPA
SR	SR-T001-773A-CLAS	SR-T001-773A-CLAS
SR	SR-T001-WSB-1	SR-T001-WSB-1
SR	SR-T001-WSB-3	SR-T001-WSB-3
SR	SR-T003-773A-HET	SR-T003-773A-HET
SR	SR-W026-221F-HEPA	SR-W026-221F-HEPA
SR	SR-W026-221F-HET	SR-W026-221F-HET
SR	SR-W026-221F-HOM	SR-W026-221F-HOM
SR	SR-W026-772F-HET	SR-W026-772F-HET

Table E-2. Crosswalk of 2007 to 2008 Waste Streams**Continued**

Site Code	2007 Waste Stream	2008 Waste Stream(s)
SR	SR-W026-MFFF-1	SR-W026-MFFF-1
SR	SR-W026-PDCF-1	SR-W026-PDCF-1
SR	SR-W026-WSB-2	SR-W026-WSB-2
SR	SR-W027-221F-HET	SR-W027-221F-HET
SR	SR-W027-221F-HOM	SR-W027-221F-HOM
SR	SR-W027-221H-HEPA	SR-W027-221H-HEPA
SR	SR-W027-221H-HET	SR-W027-221H-HET
SR	SR-W027-221H-HET-B	SR-W027-221H-HET-B
SR	SR-W027-221H-HET-RH	SR-W027-221H-HET-RH
SR	SR-W027-221H-HOM	SR-W027-221H-HOM
SR	SR-W027-235F-HET	SR-W027-235F-HET
SR	SR-W027-235F-HOMO	SR-W027-235F-HOMO
SR	SR-W027-773A-HET	SR-W027-773A-HET
SR	SR-W027-999-AGNS-HET	SR-W027-999-AGNS-HET
SR	SR-W027-999-AGNS-HOM	SR-W027-999-AGNS-HOM
SR	SR-W027-999-LASL-HET	SR-W027-999-LASL-HET
SR	SR-W027-999-LASL-HOM	SR-W027-999-LASL-HOM
SR	SR-W027-999-MD-HET	SR-W027-999-MD-HET
SR	SR-W027-999-MD-HOM-A	SR-W027-999-MD-HOM-A
SR	SR-W027-999-MD-HOM-B	SR-W027-999-MD-HOM-B
SR	SR-W027-999-MD-HOM-C	SR-W027-999-MD-HOM-C
SR	SR-W027-999-MD-SOIL	SR-W027-999-MD-SOIL
SR	SR-W027-HBL-Box-A	SR-W027-HBL-Box-A
SR	SR-W027-HBL-Box-B	SR-W027-HBL-Box-B
SR	SR-W027-SRSG-HET	SR-W027-SRSG-HET
SR	SR-W027-SRSG-HET-RH	SR-W027-SRSG-HET-RH
SR	SR-W027-SRSG-HOM	SR-W027-SRSG-HOM
VN	VN-CHT001	VN-GEVNC.02
VN	VN-RHT001	VN-GEVNC.01
WV	WV-M008	Deleted
WV	WV-M010a	WV-M010a
WV	WV-M010b	Deleted
WV	WV-M013	Deleted
WV	WV-T004	WV-T004
WV	WV-T006a	WV-T006a
WV	WV-T006b	WV-T006b
WV	WV-T017a	WV-T017a
WV	WV-T017b	WV-T017b
WV	WV-W024a	WV-W024a
WV	WV-W024b	WV-W024b
WV	WV-Z001	WV-Z001