

ANNUAL TRANSURANIC WASTE INVENTORY REPORT – 2013
(Data Cutoff Date 12/31/2012)

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ACRONYMS AND ABBREVIATIONS

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

AK	acceptable knowledge
ANL	Argonne National Laboratory
ATWIR	Annual Transuranic Waste Inventory Report
BAPL	Bettis Atomic Power Laboratory
CBFO	Carlsbad Field Office
CFR	Code of Federal Regulations
CH	contact-handled
Ci	curie
CID	Comprehensive Inventory Database
CIT	CID Import Template
CPR	cellulose, plastic, and rubber
CY	calendar year
D&D	decontamination and decommissioning
DOE	U.S. Department of Energy
DT	data template
EDTA	ethylenediaminetetraacetic acid
EPA	U.S. Environmental Protection Agency
INL	Idaho National Laboratory
KAPL-NFS	Knolls Atomic Power Laboratory – Nuclear Fuel Services
KAPL-S	Knolls Atomic Power Laboratory– Schenectady
kg	kilogram
LANL	Los Alamos National Laboratory
LANL-CO	Los Alamos National Laboratory – Carlsbad Operations
LBNL	Lawrence Berkeley National Laboratory
l	liter
LLNL	Lawrence Livermore National Laboratory
LLW	low-level waste
LQS	large quantity site
LWA	Land Withdrawal Act
m ³	cubic meters
MFC	Materials and Fuels Complex
MgO	magnesium oxide
mrem	millirem

NEPA	National Environmental Policy Act
NNSS	Nevada National Security Site
NRD	Nuclear Radiation Development Site
NTP	National TRU Program
ORIGEN-S	Oak Ridge Isotope Generation and Depletion Code (a module of SCALE version 6)
ORNL	Oak Ridge National Laboratory
OSRP	Off-Site Source Recovery Program
PA	performance assessment
PAIR	Performance Assessment Inventory Report
PM	packaging material
QA	quality assurance
QAPD	Quality Assurance Program Document
RCRA	Resource Conservation and Recovery Act
RH	remote-handled
RL	Hanford Site –Richland Operations
RP	Hanford Site – Office of River Protection
SCALE	Standardized Computer Analysis for Licensing Evaluation
SNL	Sandia National Laboratories
SQS	small quantity site
SRS	Savannah River Site
TRU	transuranic
TWBIR	Transuranic Waste Baseline Inventory Report
WAC	Waste Acceptance Criteria
WAP	Waste Analysis Plan
WDS	Waste Data System
WIPP	Waste Isolation Pilot Plant
WMP	waste material parameter
WPR	waste profile report
WV	West Valley Demonstration Project

EXECUTIVE SUMMARY

The U.S. Department of Energy's (DOE's) Waste Isolation Pilot Plant (WIPP) began accepting defense-related transuranic (TRU) waste on March 26, 1999, becoming the nation's first and only deep geologic repository for the permanent disposal of defense-generated TRU waste. As of December 31, 2012 (the cutoff date for inventory data for this report), there have been 11,083 shipments (10,458 contact-handled [CH] and 625 remote-handled [RH]) of TRU waste to WIPP for emplacement since WIPP's opening (DOE 2013).

This *Annual Transuranic Waste Inventory Report – 2013* (ATWIR-2013) (hereafter referred to as “this report” or “ATWIR-2013”) reflects the changes that have occurred and provides an update to the defense-related TRU waste inventory data since the last published report, the *Annual Transuranic Waste Inventory Report – 2012* (ATWIR-2012) (DOE 2012). This report focuses on the TRU waste remaining at the TRU waste generator sites and only presents information on emplaced waste in section 3.0, Table 3-3, Table 3-5, and Table 3-13. Changes in waste volume, waste material parameters (WMPs), packaging materials (PMs), complexing agents, oxyanions, and radionuclides are also discussed in section 3.0 (see section 6.0 for definitions of these components).

The ATWIR-2013 was developed from an annual inventory data update campaign involving the TRU waste generator sites. TRU waste generation has occurred at both large quantity sites and small quantity sites (LQSS and SQSS) across the country. Many of these sites have emplaced their waste at WIPP, found other compliant disposition pathways for the waste, or transferred the waste to other sites for further disposition.

The updated data received from the TRU waste generator sites were entered into the Comprehensive Inventory Database (CID). The CID is a DOE Carlsbad Field Office (CBFO) database qualified in accordance with the Los Alamos National Laboratory – Carlsbad Operations (LANL-CO) Quality Assurance (QA) Program, which is in compliance with the CBFO *Quality Assurance Program Document* (QAPD) (DOE 2010). The CID includes estimates for TRU waste volumes, WMPs, PMs, complexing agents, oxyanions, and radionuclides (decayed to common years 2012 and 2033 [WIPP proposed closure date]).

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

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

The following tables summarize the TRU waste at the TRU waste generator sites for anticipated (stored plus projected) inventory volume, WMP and PM masses, complexing agent and oxyanion masses, radionuclide activity, and inventory change estimates as of December 31, 2012. Specific information on individual components (including changes) presented in Tables ES-1 through ES-5 can be found in section 3 of this report. All site data are validated by the DOE TRU waste site representative to ensure the data best represent the generator site's inventory at the time of the data cutoff.

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

TRU Waste Site	CH Volumes (m ³)	RH Volumes (m ³)	Total Volumes (m ³)
Hanford (Richland) Site	2.00E+04	2.47E+03	2.24E+04
Idaho National Laboratory	2.57E+04	2.16E+02	2.59E+04
Los Alamos National Laboratory	8.74E+03	7.92E+01	8.82E+03
Oak Ridge National Laboratory	9.36E+02	5.14E+02	1.45E+03
Savannah River Site	5.50E+03	5.74E+01	5.55E+03
Small Quantity Sites	1.87E+03	1.93E+02	2.07E+03
Grand Total	6.27E+04	3.53E+03	6.62E+04

Data Source: CID Data Version D.12.01 (LANL-CO 2013a). Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

Table ES-2. Anticipated CH/RH Waste and Packaging Material Inventory

Waste Material	CH Mass (kg)	RH Mass (kg)	Total Mass (kg)
Iron-based Metal/Alloys	2.54E+06	5.98E+05	3.13E+06
Aluminum-based Metal/Alloys	2.06E+05	1.39E+04	2.20E+05
Other Metal/Alloys	2.43E+05	3.54E+05	5.97E+05
Other Inorganic Materials	1.89E+06	9.08E+05	2.80E+06
Cellulose	8.60E+05	8.60E+04	9.46E+05
Rubber	4.10E+05	6.55E+04	4.75E+05
Plastic	1.38E+06	1.74E+05	1.55E+06
Cement	2.22E+06	3.66E+05	2.58E+06
Solidified Inorganic Material	3.28E+06	1.71E+04	3.30E+06
Solidified Organic Material	1.67E+06	2.39E+03	1.67E+06
Soil	2.22E+06	1.39E+05	2.36E+06
Vitrified	--	--	--
Packaging Material, Cellulose	3.32E+04	--	3.32E+04
Packaging Material, Plastic	8.99E+05	1.46E+05	1.04E+06
Packaging Material, Rubber	2.47E+04	2.02E+03	2.67E+04

Table ES-2. Anticipated CH/RH Waste and Packaging Material Inventory
Continued

Waste Material	CH Mass (kg)	RH Mass (kg)	Total Mass (kg)
Packaging Material, Steel	1.04E+07	3.35E+06	1.38E+07
Packaging Material, Lead	--	8.60E+03	8.60E+03
Grand Total	2.83E+07	6.23E+06	3.45E+07

Data Source: CID Data Version D.12.01 (LANL-CO 2013a). Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

Table ES-3. Anticipated CH/RH Complexing Agent and Oxyanion Inventory

Site	Complexing Agent Mass (kg)	Oxyanion Mass (kg)
Hanford (Richland) Site	1.38E+04	2.59E+05
Idaho National Laboratory	4.84E+03	4.20E+05
Los Alamos National Laboratory	2.25E+02	2.52E+05
Small Quantity Sites	1.07E+02	2.45E+01
Grand Total	1.89E+04	9.31E+05

Data Source: CID Data Version D.12.01 (LANL-CO 2013a). Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

Table ES-4. Anticipated CH/RH Radionuclide Activity by Site Decayed through 2012

TRU Waste Site	CH Activity (Ci)	RH Activity (Ci)	Total Activity (Ci)
Hanford (Richland) Site	7.14E+05	7.60E+05	1.47E+06
Idaho National Laboratory	6.70E+04	1.85E+05	2.52E+05
Los Alamos National Laboratory	3.13E+05	2.79E+03	3.16E+05
Oak Ridge National Laboratory	8.70E+04	8.52E+03	9.56E+04
Savannah River Site	2.87E+05	6.28E+03	2.93E+05
Small Quantity Sites	2.56E+04	1.89E+05	2.15E+05
Grand Total	1.49E+06	1.15E+06	2.65E+06

Data Source: CID Data Version D.12.01 (LANL-CO 2013a). Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

Table ES-5. Anticipated CH/RH Inventory Changes

Inventory Parameter	ATWIR- 2012	ATWIR- 2013	Total Net Change
Volume (m ³)	7.15E+04	6.62E+04	-5.33E+03
Waste and Packaging Material (kg)	3.69E+07	3.45E+07	-2.42E+06
Complexing Agents (kg)	1.95E+04	1.89E+04	-5.97E+02
Oxyanions (kg)	1.07E+06	9.31E+05	-1.36E+05
Radionuclide Activity (Ci as of 2033)	1.55E+06	1.53E+06	-1.63E+04

Data Source: CID Data Versions D.11.00 (LANL-CO 2012) and D.12.01 (LANL-CO 2013a).

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

1.0 INTRODUCTION

This *Annual Transuranic Waste Inventory Report – 2013* (ATWIR-2013) (hereafter referred to as “this report” or “ATWIR-2013”) provides the National TRU Program (NTP) with a strategic inventory to be used for initiatives such as the development of transuranic (TRU) waste site-specific project plans or National Environmental Policy Act (NEPA) analyses. Also, if requested by the U.S. Department of Energy (DOE) Carlsbad Field Office (CBFO), this report will provide the basis for the Performance Assessment Inventory Report (PAIR) for performance assessment (PA) modeling purposes. This report includes the background and history of the TRU waste inventory, the information sources used to collect and prepare the inventory, descriptions of the ways inventory information is used, methodology used to develop the inventory, TRU waste inventory estimates, and changes since the *Annual Transuranic Waste Inventory Report – 2012* (ATWIR-2012) (DOE 2012).

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

Section 1.1 explains how the TRU waste inventory was collected and used for the initial certification of WIPP. Currently, the inventory is collected on an annual basis to monitor how it is changing. Section 1.2 includes a description of all information sources used to update the Comprehensive Inventory Database (CID). Examples of sources include acceptable knowledge (AK) reports, TRU waste generator site information, and the WIPP’s Waste Data System (WDS). Section 1.3 describes the uses of TRU waste inventory.

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

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

Section 3.0 presents the TRU waste inventory estimates, with summaries of the inventory information collected from the TRU waste generator sites, and discusses changes in the inventory information for each of the following sections. Section 3.1 presents rolled-up TRU waste volume estimates, by site, of contact-handled (CH) and remote-handled (RH) TRU waste reported as stored, projected, and anticipated (stored plus projected). Section 3.2 presents the inventory of non-radiological material estimates including waste material parameters (WMPs), packaging materials (PMs), and chemical 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) 2012. All site data are validated by the DOE TRU waste generator site representative to ensure the data best represent the site's inventory at the time of the data cutoff.

Section 4.0 discusses the potential TRU waste streams that have been excluded in accordance with CBFO guidance criteria. These criteria are documented in a "screening memorandum" (Patterson 2010) (see Appendix D) that determines whether a waste stream is WIPP-bound or potential. Also found in section 4.0 is a table showing waste streams that have been moved from potential to WIPP-bound status during this collection period.

Section 5.0 presents a summary of this report, section 6.0 provides the glossary, and section 7.0 provides the references that were used for this report.

This report also contains four appendices. Appendix A presents the WIPP-bound waste profile reports (WPRs), Appendix B presents the potential WPRs, Appendix C presents the historic crosswalk of waste streams, and Appendix D contains the screening memorandum.

This report includes comprehensive data from each TRU waste generator site and WDS summation data for emplaced waste. More specific information on the emplaced waste can be obtained from the CBFO WDS administrator at the WIPP Information Center at 1-800-336-WIPP (9477) or at infocntr@wipp.ws. The WDS administrator manages the official database for container-level data on the emplaced TRU waste.

1.1 Background and History

The WIPP Land Withdrawal Act (LWA) (U.S. Congress 1992 and 1996) required the U.S. Environmental Protection Agency (EPA) to issue final disposal regulations to certify WIPP. On May 18, 1998, the EPA certified that WIPP complied with the final disposal regulations and criteria of Title 40 Code of Federal Regulations (CFR) Parts 191 and 194 (EPA 1993; EPA 1996). DOE opened WIPP on March 26, 1999, with the initial receipt of TRU waste, thus becoming the nation's first deep geologic repository for the permanent disposal of defense-generated TRU waste. The WIPP Land Withdrawal Act (U.S. Congress 1992 and 1996) also requires that WIPP be recertified every five years from the time of the first receipt of waste; WIPP has been recertified twice. DOE submitted the first recertification application, CRA-2004 (DOE 2004), to the EPA in March 2004, and the EPA recertified WIPP in March 2006. DOE submitted the second recertification application, CRA-2009 (DOE 2009), to the EPA in March 2009, and WIPP was recertified in November 2010. The third recertification application is due to the EPA in March 2014.

Depending upon programmatic needs, site waste management decisions, and characterization activities, TRU waste inventory information is continuously being updated at the TRU waste generator sites. This report is an update based on the TRU waste complex's known inventory as of December 31, 2012.

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

Table 1-1. Historical Inventory Documents

Date	Title	Purpose
June 1994	WIPP Transuranic Waste Baseline Inventory Report	Initial report of TRU waste in the DOE complex at the waste-stream level.
December 1995	Transuranic Waste Baseline Inventory Report (TWBIR), Revision 2	Revisions 2 and 3 provided the inventory information to the Sandia National Laboratories (SNL) Carlsbad office for the initial certification of WIPP.
June 1996	TWBIR, Revision 3	
March 2004	Appendix DATA, Attachment F of <i>Title 40 CFR 191, Subparts B and C, Compliance Recertification 2004</i>	Provided updated inventory information for the first recertification of WIPP in 2004.
March 2006	Transuranic Waste Baseline Inventory Report 2004	This was a revision of Appendix DATA, Attachment F. Provided updated inventory to support the Performance Assessment Baseline Calculation.
August 2008	Annual Transuranic Waste Inventory Report (ATWIR)–2007	The first annual inventory report that contained both scaled (calculations to represent a full repository) and unscaled data.
December 2008	ATWIR–2008	Provided unscaled updated annual inventory information.
April 2009	Performance Assessment Inventory Report (PAIR)–2008	Provided scaled data from ATWIR-2008 for performance assessment calculations.
December 2009	ATWIR–2009	Provided unscaled updated annual inventory information.
December 2010	ATWIR–2010	Provided unscaled updated annual inventory information.
December 2011	ATWIR–2011	Provided unscaled updated annual inventory information.
October 2012	ATWIR-2012	Provided unscaled updated annual inventory information.
November 2012	PAIR—2012	Provided scaled data from ATWIR-2012 for performance assessment calculations.

Since the ATWIR-2012 was published, a number of changes and improvements have occurred that affected the volume, waste material, and radiological characteristics of TRU waste streams. Also, ten waste streams have been moved from potential to WIPP-bound status to be in alignment with the CBFO screening memorandum (Patterson 2010) provided in Appendix D. The list of these waste streams (presented in Table 4-2) includes the reasons for the moves. The other primary inventory changes observed and addressed in this report are attributed to the following:

- Waste emplacement since the ATWIR-2012.
- Ten waste streams, seven from Los Alamos National Laboratory (LANL), two from the Savannah River Site (SRS), and one from the Idaho National Laboratory (INL), have

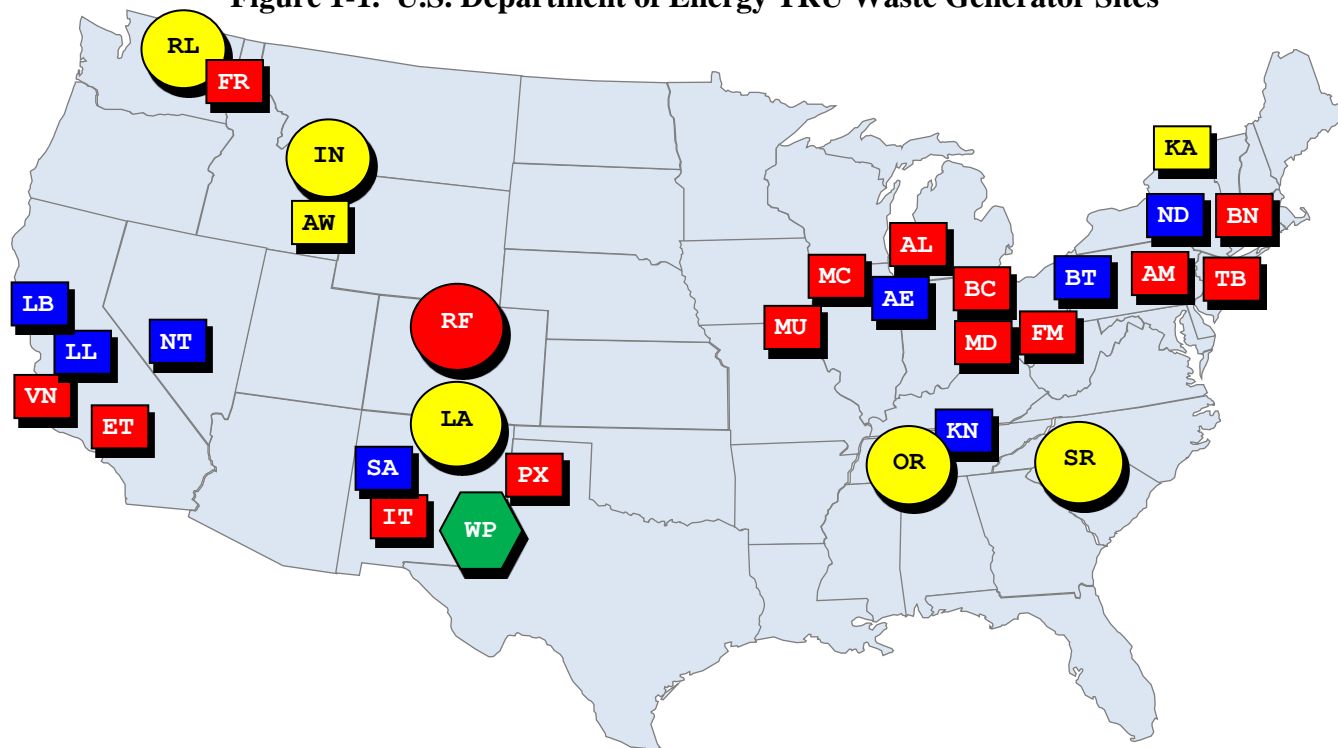
been determined to be low-level waste (LLW) and have been removed from the TRU waste inventory.

- Small quantity sites (SQSs) CH/RH volume has increased overall by approximately 470 m³.

TRU waste generation has occurred at both SQSs and large quantity sites (LQSs) across the country, as seen in Figure 1-1. This figure presents the DOE TRU waste generator sites, divided into three categories, as of December 31, 2012: yellow represents the active TRU waste sites, red represents the sites that have been de-inventoried of all TRU waste, and blue represents the sites that have been de-inventoried of their legacy TRU waste but continue to address additional defense TRU waste.

There are three generator sites not shown on Figure 1-1 that report only potential TRU waste: West Valley Demonstration Project, Office of River Protection, and Babcock & Wilcox-Lynchburg. Potential TRU waste is discussed in section 4.0 of this report. Also not shown are the Separations Process Research Unit and the Paducah Gaseous Diffusion Plant, which were determined last year to only have non-TRU waste.

This report was prepared by the Los Alamos National Laboratory – Carlsbad Operations (LANL-CO) TRU Waste Inventory Team. The work for this report was performed under the CBFO *Quality Assurance Program Document* (QAPD) (DOE 2010). The processes used by the LANL-CO TRU Waste Inventory Team to collect, maintain, and report inventory information are graded and implemented to the nuclear quality assurance standards contained in ASME NQA-1-1989, *Quality Assurance Program Requirements for Nuclear Facilities*, under the LANL-CO Quality Assurance (QA) Program. This includes the software QA procedures used to qualify the CID and other software, including ORIGEN-S, used to analyze TRU waste inventory information. LANL-CO software QA is documented in LCO-QPD-02, *LANL-CO Software Quality Assurance Plan* (LANL-CO 2013b), and LCO-QP19-1, *Software Quality Assurance* (LANL-CO 2013c).

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

Yellow – Active TRU Waste Sites Red – De-inventoried of all TRU Waste Blue –De-inventoried of Legacy TRU waste

AE	Argonne National Laboratory
AL	Ames Laboratory
AM	ARCO Medical Products — de-inventoried - shipped to the Offsite Source Recovery Program (OSRP)
AW	Materials and Fuels Complex
BC	Battelle Columbus Laboratories— de-inventoried - shipped to RL and SR
BN	Brookhaven National Laboratory— de-inventoried - shipped to OSRP
BT	Bettis Atomic Power Laboratory
ET	Energy Technology Engineering Center— de-inventoried - shipped to RL
FM	Fernald Environmental Management Project— de-inventoried - shipped to OSRP
FR	Framatome (AREVA) — de-inventoried - shipped to RL
IN	Idaho National Laboratory
IT	Inhalation Toxicology Research Institute (Lovelace Respiratory Research Institute) — de-inventoried - shipped to SA
KA	Knolls Atomic Power Laboratory-Schenectady
KN	Knolls Atomic Power Laboratory-Nuclear Fuel Services
LA	Los Alamos National Laboratory
LB	Lawrence Berkeley National Laboratory
LL	Lawrence Livermore National Laboratory (includes Site 300)
MC	U.S. Army Materiel Command (Army)
MD	Mound Plant – de-inventoried - shipped to SR
MU	University of Missouri Research Reactor
ND	Nuclear Radiation Development Site, Inc.
NT	Nevada Nuclear Security Site
OR	Oak Ridge National Laboratory
PX	Pantex Plant
RF	Rocky Flats Environmental Technology Site
RL	Hanford Site (Richland Operations Office)
SA	Sandia National Laboratories
SR	Savannah River Site
TB	Teledyne Brown Engineering
VN	General Electric Vallecitos Nuclear Center
WP	Waste Isolation Pilot Plant

1.2 Sources of Transuranic Waste Inventory Information

This report includes information taken from: 1) the ATWIR-2012, 2) updated information provided by the TRU waste generator sites, 3) AK reports, and 4) the WIPP WDS (DOE 2013). Each year, the sites are asked to update their data from the previous year. As an example, the sites used the ATWIR-2012 (data cutoff 12/31/2011) information to update the data used for this report. TRU waste generator sites may use information obtained from site-specific AK reports, which provide the most current information on waste streams being characterized and shipped to WIPP, such as chemical lists and radionuclides, and their site-specific databases. All TRU waste inventory information for emplaced waste is obtained from the CBFO WDS administrator.

1.3 Uses of Transuranic Waste Inventory Information

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

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

2.0 METHODOLOGY

This report was generated using documented processes and methods that are qualified under the LANL-CO QA Program (see section 1.1). The following steps were completed in order to generate this report (see Figure 2-1):

1. Collected TRU waste stream information from the TRU waste generator sites.
2. Performed a complete review of all data to check for inconsistencies, erroneous data, and completeness.
3. Entered the updated information in the CID and verified it.
4. Updated information in the CID validated by the DOE TRU waste generator site representatives.
5. Generated the required data tables, using the CID.

6. Performed analyses, where appropriate, to supplement CID data for publication in this report.

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

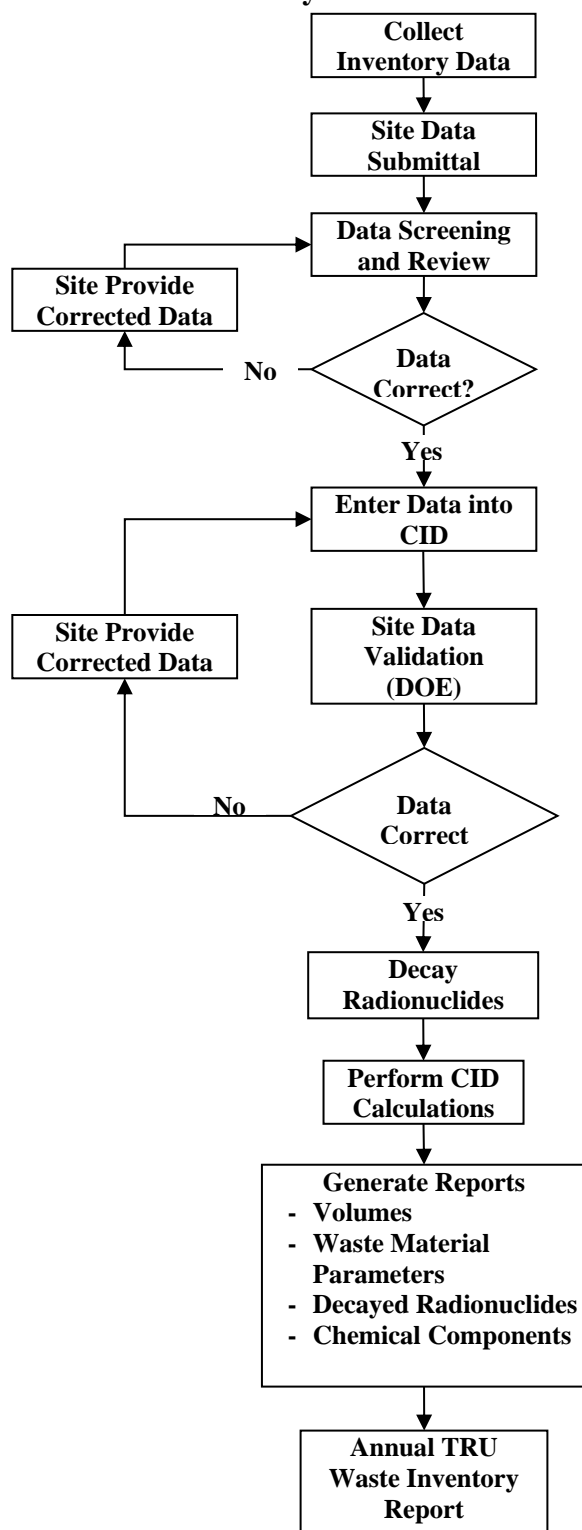
2.1 Collection, Compilation, Verification, and Validation of Inventory Information

The process used to collect information from the TRU waste generator sites is captured in LANL-CO Procedure INV-SP-01, *Data Collection, Data Management and Control for the Comprehensive Inventory* (LANL-CO 2011a). On January 11, 2013, in accordance with this procedure, a letter (Patterson 2013) was sent to TRU waste generator sites requesting the annual TRU waste inventory update. The Inventory Team then sent each site a notification of the update with an attached file with the Microsoft® Excel data template (DT) workbook containing last year's validated data along with guidance explaining the steps required to update the DT with the site's updated information. The Inventory Team worked with personnel from every generator site to assist in the updating process and to resolve any issues that arose.

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

- Verification of radionuclide isotopic inputs (e.g., confirm TRU concentration is greater than 100 nanocuries per gram);
- Verification of isotopic distribution for material type codes (e.g., plutonium [Pu]-52 and mixed fission products);
- Verification of radionuclide threshold limits to determine if the waste stream appeared to be categorized correctly as CH or RH;
- Verification that activity concentration for RH-TRU waste did not exceed the LWA limits (i.e., waste streams reported with greater than 23 curies per liter [Ci/l] averaged over the volume of the RH-TRU canister were screened out of the WIPP-bound inventory);
- Verification that if cement was reported in a comment field, it was also reported as a WMP in kilograms (kg);
- Verification that any hazardous waste that is prohibited at WIPP had an appropriate treatment identified;
- Comparison of the ATWIR-2013 waste stream data to the ATWIR-2012 waste stream data to identify and understand any significant differences.

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 2011b). In accordance with this procedure, the TRU waste inventory information was uploaded from the Microsoft® Excel DT or entered manually into the CID. Once the data were entered, waste stream data (validation) reports were prepared and sent to the DOE TRU waste managers at the generator sites. A validation letter signed by the DOE TRU waste generator site representative and site contractor (contractor signature optional) documented the correctness of the information as reported in the CID. Hard copies of the validation report and signed validation letters were then submitted to the LANL-CO Record Center (see Figure 2-1 for a flow chart of the TRU waste inventory process). The CID data were then labeled as data version D.12.01 and protected from further revision.

Figure 2-1. TRU Waste Inventory Process Flowchart

2.2 Calculations Used for CID Reports

Data tables included in this report were generated using the CID. The CID is a DOE CBFO database developed by LANL-CO and qualified in accordance with the LANL-CO QA Program, which is in compliance with the CBFO QAPD. The LANL-CO software QA Program is documented in LCO-QPD-02, *LANL-CO Software Quality Assurance Plan* (LANL-CO 2013b) and LCO-QP19-1, *Software Quality Assurance* (LANL-CO 2013c). The CID is used to manage, maintain, and perform specific qualified calculations using inventory data. The data are then used to generate qualified data reports and tables.

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

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 generator site contacts were asked to update the current form container information for their stored (already generated and stored at the site) and projected (future generation) TRU waste. For each waste stream, the contacts also provided an estimate of the WIPP-compliant final form container type(s) that would ultimately be used to ship the waste to the WIPP and determined the respective stored and projected counts for each container type based on the current form volume of the waste.

Final form stored and projected site waste stream volumes found within this report were derived by applying standardized container type volumes, which are maintained within the CID. CH-TRU waste volume calculations use the outer container volume and the RH-TRU waste volume calculations use the inner container volume.

The emplaced waste streams' container counts and volumes were obtained from the CBFO WDS administrator (see section 2.3). After this information was transformed for use in the CID (Van Soest 2013), the emplaced waste stream volumes were then imported into the CID and used in reporting the emplaced portion of the inventory.

2.2.2 Waste Material Parameter and Packaging Materials Reporting

As part of the data call for this report, the TRU waste generator site contacts were asked to update each waste stream's mass, in kg, for WMPs, or physical materials contained in the waste. See section 3.2.1 for a description of these WMPs.

The contacts were directed to only report the mass of the stored waste at their sites, even if the waste stream had a projected component. The CID then derived a projected mass using the projected-to-stored volume ratio for each waste stream. The anticipated mass was calculated by summing the stored and projected masses. However, if a waste stream consisted only of projected waste, then the contacts were requested to report their estimates of the projected mass for each WMP for that particular waste stream.

The PMs, as described in section 3.2.2, are specific to each of the individual final form container types, with each PM being a proportional contributor to a waste stream's overall PM makeup based upon the respective container counts reported. These PMs are standardized and defined for each container type and reported in INV-SAR-19, *Analysis of Container Material Masses* (French 2009).

Appendices A and B present a list of average WMP and PM densities (kg/m^3) for each waste stream. These densities were calculated by dividing the total mass of each material in the waste stream by the total final form volume of the waste stream.

2.2.3 Radionuclide Reporting

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

The site contacts were directed to report only the total radionuclide activity of the waste stored at their sites, even if the waste stream had a projected component. The CID then derived a projected activity using the projected-to-stored volume ratio for each waste stream. The anticipated activity was calculated by summing the stored and projected activities. However, if a waste stream consisted only of projected waste, then the sites were requested to report their estimates of the projected activity for each radionuclide for that particular waste stream.

Since radionuclide data provided by the TRU waste generator site contacts consisted of radionuclide activities at the date of assay (generation or as calculated), they were decay-corrected to common dates for reporting purposes. All radionuclide data provided in this report in Table 3-10, Table 3-11, Table 3-12, and Appendix A were decay-corrected to the end of the common base CY 2012. In order to identify changes in the radionuclide inventory (discussed in section 3.3.2), from previous TRU waste inventory reports, radionuclide activities were decay-corrected to the end of the WIPP proposed closure year, CY 2033, and are shown in Table 3-13.

The CID automates the radionuclide decay process by utilizing the ORIGEN-S module of SCALE 6 (ORNL 2009), which is a depletion and decay library that has been qualified for use under the LANL-CO QA Program, in accordance with LCO-QPD-02, *LANL-CO Software Quality Assurance Plan* (LANL-CO 2013b), and LCO-QP19-1, *Software Quality Assurance* (LANL-CO 2013c). The CID first takes the radionuclide activities reported by the TRU waste generator site contacts and exports them in the form of ORIGEN-S input files for each waste stream. It then executes ORIGEN-S in a sequential fashion for each input file, where the radionuclide decay and buildup calculations are performed and written to an output file. Finally, each output file is read and imported back into the CID, resulting in decay-corrected radionuclide tables to be generated for this report.

Appendices A and B present a list of average radionuclide concentrations (Ci/m^3) for each waste stream. These concentrations were calculated by dividing the total activity of each radionuclide in the waste stream by the total final form volume of the waste stream. Note that the radionuclides in Appendix B are not decay-corrected.

2.2.4 Chemical Constituent Reporting

As part of the data call for this report, the TRU waste generator site contacts were asked to update information about the chemical constituents of their site's waste. The contacts were requested to report stored and projected mass separately for their complexing agents (acetic acid, citric acid, oxalic acid, acetate, citrate, oxalate, and ethylenediaminetetraacetic acid [EDTA]), oxyanions (nitrates, phosphates, and sulfates), and other chemical constituents in units of mass (kg).

2.3 Analyses Supporting the Annual Transuranic Waste Inventory Report

In addition to collecting and processing information from the DOE TRU waste generator sites and securing the site information in a qualified database for future use, an analysis was performed and documented in accordance with LANL-CO QA Procedure LCO-QP9-1, *Analyses* (LANL-CO 2010), in order to support the preparation of this report. To account for TRU waste emplaced in the WIPP repository from January 1, 2012, through December 31, 2012 (the ATWIR-2013 reporting period), a documented request was made of the CBFO WDS database administrator to supply data for the waste emplaced as of December 31, 2012. To update the TRU waste emplaced inventory data within the CID, the WDS data were first migrated into a standardized CID Import Template (CIT) file. This migration required that the original WDS data undergo various transformations including, but not limited to, calculations, aggregations, and data mapping. These activities and calculations are documented in INV-SAR-29, *WDS Data Transformation for Insertion in the 2012 Inventory CID Import Template* (Van Soest 2013). The CIT file was subsequently used to update the CID.

The emplaced inventory is presented as a repository-level summation under “WIPP (Emplaced)” in section 3.0, under specific component sections (e.g., volumes, WMPs and PMs, and radionuclides). Chemical constituents are not reported in the emplaced inventory because the WDS does not track these constituents. Readers seeking more specific information on emplaced waste should make a request to CBFO so that the data can be obtained directly from the WDS, which is the official database of record for emplaced waste.

3.0 TRANSURANIC WASTE INVENTORY ESTIMATES AND CHANGES

This section presents the TRU waste inventory data that were collected and entered into the CID, internally reviewed and verified, validated by the TRU waste generator sites, and labeled as data version D.12.01 (LANL-CO 2013a), as discussed in section 2.1. It should be noted that all table values in this report are presented to three significant figures.

Section 3.1 presents the final form TRU waste volume for CH- and RH-TRU waste and a discussion of changes since ATWIR-2012 was issued. Section 3.2 presents the non-radiological

components of the TRU waste inventory as reported by the site contacts, and a discussion of changes that have occurred during this reporting period. This includes roll-ups of the WMPs, PMs, and chemical components, and includes a discussion of changes since ATWIR-2012. Section 3.3 presents the TRU waste radionuclide activities reported by the sites, which have been decayed through common base CY 2012. This section also presents a discussion of changes that have occurred in the total CH- and RH-TRU waste activity since ATWIR-2012.

3.1 TRU Waste Volume Estimates

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

3.1.1 TRU Waste Inventory Total Volumes by Site

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

Table 3-1 shows the total CH-TRU waste volume stored, projected, and anticipated. An estimated anticipated final form total of approximately 62,668 m³ of CH-TRU waste is currently being reported at the sites and could be shipped to WIPP in the future, provided all WIPP requirements are met. Approximately 97% of the anticipated CH-TRU waste is stored or will be generated at LQs: Hanford (RL), INL, LANL, Oak Ridge National Laboratory (ORNL), and the SRS. During this inventory collection period of January through December 2012, INL, LANL, and SRS shipped CH-TRU waste to WIPP. (See Table 3-3 for changes to CH-TRU waste volumes reported between ATWIR-2012 and ATWIR-2013.)

Table 3-2 shows the total RH-TRU waste volume stored, projected, and anticipated. An estimated anticipated final form total of about 3,525 m³ of RH-TRU waste is currently being reported by the sites and could be shipped to WIPP in the future, provided all WIPP requirements are met. Approximately 95% of the anticipated RH-TRU waste is stored or will be generated at LQs: RL, INL, LANL, ORNL, and SRS. During this inventory collection period, Argonne National Laboratory (ANL), INL, Sandia National Laboratories (SNL) and SRS shipped RH-TRU waste to WIPP. (See Table 3-3 for changes to RH-TRU waste volumes reported between ATWIR-2012 and ATWIR-2013.)

Table 3-1. CH Waste Inventory Total Volumes

TRU Waste Site	Stored Volumes (m³)	Projected Volumes (m³)	Anticipated Volumes (m³)
Argonne National Laboratory	4.10E+01	1.28E+02	1.69E+02
Hanford (Richland) Site	1.60E+04	3.92E+03	2.00E+04
Idaho National Laboratory	2.56E+04	9.63E+01	2.57E+04
Knolls Atomic Power Laboratory - Nuclear Fuel Services	7.80E+01	4.53E+02	5.31E+02
Lawrence Berkeley National Laboratory	4.16E-01	4.16E-01	8.32E-01
Lawrence Livermore National Laboratory	2.27E+02	7.64E+02	9.92E+02
Los Alamos National Laboratory	5.78E+03	2.97E+03	8.74E+03
Material and Fuels Complex	2.70E+00	3.06E+01	3.33E+01
Nevada National Security Site	4.70E+01	4.54E+01	9.23E+01
Nuclear Radiation Development Site	1.87E+00	8.32E-01	2.70E+00
Oak Ridge National Laboratory	8.31E+02	1.05E+02	9.36E+02
Sandia National Laboratories	5.44E+00	4.73E+01	5.27E+01
Savannah River Site	1.62E+03	3.88E+03	5.50E+03
Grand Total	5.02E+04	1.24E+04	6.27E+04

Data Source: CID Data Version D.12.01 (LANL-CO 2013a). Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

Table 3-2. RH Waste Inventory Total Volumes

TRU Waste Site	Stored Volumes (m³)	Projected Volumes (m³)	Anticipated Volumes (m³)
Argonne National Laboratory	2.38E+01	5.64E+01	8.02E+01
Bettis Atomic Power Laboratory	--	4.99E+00	4.99E+00
Hanford (Richland) Site	1.54E+03	9.22E+02	2.47E+03
Idaho National Laboratory	2.16E+02	--	2.16E+02
Knolls Atomic Power Laboratory – Schenectady	--	1.31E+01	1.31E+01
Los Alamos National Laboratory	7.92E+01	--	7.92E+01
Material and Fuels Complex	1.13E+01	8.30E+01	9.43E+01
Oak Ridge National Laboratory	3.67E+02	1.47E+02	5.14E+02

Table 3-2. RH Waste Inventory Total Volumes
Continued

TRU Waste Site	Stored Volumes (m ³)	Projected Volumes (m ³)	Anticipated Volumes (m ³)
Savannah River Site	4.62E+01	1.12E+01	5.74E+01
Grand Total	2.29E+03	1.24E+03	3.53E+03

Data Source: CID Data Version D.12.01 LANL-CO 2013a. Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

3.1.2 Changes to TRU Waste Volumes

Table 3-3 shows the total net changes for final form total volumes (anticipated) of CH- and RH-TRU waste between ATWIR-2012 and this report. The net change column applies to the total net changes, which include both increases and decreases in waste streams as reported by the sites and the volume of emplaced waste taken from the WDS. As shown, the total net change is a decrease of about 5,330 m³, but nearly 5,550 m³ of waste was emplaced, leaving a small net increase of about 221 m³. This slight change only represents a change in the overall inventory of less than two-tenths of one percent (0.15%) and does not warrant a change discussion.

Table 3-3. CH/RH Waste Volume Changes

TRU Waste Site	ATWIR-2012 Total Inventory (m ³)	ATWIR-2013 Total Inventory (m ³)	Total Net Change (m ³)
Hanford (Richland) Site	2.25E+04	2.24E+04	-8.89E+01
Idaho National Laboratory	2.85E+04	2.59E+04	-2.63E+03
Los Alamos National Laboratory	9.96E+03	8.82E+03	-1.14E+03
Oak Ridge National Laboratory	1.56E+03	1.45E+03	-1.09E+02
Savannah River Site	7.39E+03	5.55E+03	-1.83E+03
Small Quantity Sites	1.60E+03	2.07E+03	4.67E+02
Anticipated Total	7.15E+04	6.62E+04	-5.33E+03
WIPP (Emplaced)	7.97E+04	8.52E+04	5.55E+03
Grand Total	1.51E+05	1.51E+05	2.21E+02

Data Source: CID Data Versions D.11.00 (LANL-CO 2012) and D.12.01 (LANL-CO 2013a).

3.2 Non-Radiological Material Estimates

This section presents the non-radiological properties of the TRU waste inventory collected for this report. DOE has many reasons for obtaining and tracking non-radiological information about the TRU waste inventory destined for WIPP. For example, DOE tracks waste materials that are emplaced in the repository, such as CPR materials that might affect gas generation in the

repository. Section 3.2.1 presents the inventory of WMPs, section 3.2.2 presents PMs, and section 3.2.3 presents the chemical components.

3.2.1 Waste Material Parameters

WMPs are reported as final form mass (kg). If a waste stream includes stored and projected waste, the site contact provides only the stored mass and the projected mass is derived in the CID based on the stored final form mass. If a site has only projected waste, then the site contact provides the projected final form mass. See section 2.2.2 for details on how WMPs are reported. The following WMP descriptions are used for this report:

- **Iron-Based Metal/Alloys** – Includes iron and steel alloys in the waste, but does not include the waste container materials. Also includes an iron-based metallic phase associated with any vitrification process, if applicable.
- **Aluminum-Based Metal/Alloys** – Aluminum or aluminum-based alloys in the waste materials.
- **Other Metal/Alloys** – All other metal/alloys (e.g., copper, zirconium, tantalum) found in the waste materials, including the lead portion of leaded rubber gloves/aprons.
- **Other Inorganic Materials** – Inorganic non-metal waste materials such as concrete, glass, firebrick, ceramics, graphite, sand, and inorganic sorbents.
- **Vitrified** – Waste that has been melted or fused at high temperatures with glass-forming additives, such as soil or silica, in appropriate proportions to result in a homogeneous glass-like matrix. (Note that any unoxidized metallic phases, if present, are included in the iron-based metal/alloys WMP.)
- **Cellulose** – Material generally derived from high-polymer plant carbohydrates such as paper, cardboard, Kimwipes[®], wood, cellophane, and cloth.
- **Plastic** – Generally man-made, often derived from petroleum feedstock. Examples are polyethylene, polyvinyl chloride, Lucite[®], and Teflon[®].
- **Rubber** – Natural or manmade elastic latex materials, such as Hypalon[®], neoprene, surgical gloves, and leaded-rubber gloves (rubber part only).
- **Solidified Inorganic Material**– Any homogeneous material consisting of sludge or aqueous-based liquid that has been solidified. Examples are wastewater treatment sludge and inorganic particulates.
- **Solidified Organic Material**– Organic resin, solidified organic liquid, and sludge.
- **Cement** – An agent used to solidify liquid, particulate, and sludge. Cement may be reacted, unreacted, or both.

- Soil – Generally consists of naturally occurring soil that has been contaminated with radioactive waste materials at a high enough level to be considered TRU waste.

The estimated WMP and PM anticipated masses for CH- and RH-TRU waste are presented in Table 3-4.

Table 3-4. CH/RH Waste and Packaging Material Inventory

Waste Material	CH Mass (kg)	RH Mass (kg)	Total Mass (kg)
Iron-based Metal/Alloys	2.54E+06	5.98E+05	3.13E+06
Aluminum-based Metal/Alloys	2.06E+05	1.39E+04	2.20E+05
Other Metal/Alloys	2.43E+05	3.54E+05	5.97E+05
Other Inorganic Materials	1.89E+06	9.08E+05	2.80E+06
Cellulose	8.60E+05	8.60E+04	9.46E+05
Rubber	4.10E+05	6.55E+04	4.75E+05
Plastic	1.38E+06	1.74E+05	1.55E+06
Cement	2.22E+06	3.66E+05	2.58E+06
Solidified Inorganic Material	3.28E+06	1.71E+04	3.30E+06
Solidified Organic Material	1.67E+06	2.39E+03	1.67E+06
Soil	2.22E+06	1.39E+05	2.36E+06
Vitrified	--	--	--
Packaging Material, Cellulose	3.32E+04	--	3.32E+04
Packaging Material, Plastic	8.99E+05	1.46E+05	1.04E+06
Packaging Material, Rubber	2.47E+04	2.02E+03	2.67E+04
Packaging Material, Steel	1.04E+07	3.35E+06	1.38E+07
Packaging Material, Lead	--	8.60E+03	8.60E+03
Grand Total	2.83E+07	6.23E+06	3.45E+07

Data Source: CID Data Version D.12.01 (LANL-CO 2013a). Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

3.2.2 Packaging Materials

PMs are the materials used to construct the containers that hold TRU waste. The PM masses for the WIPP-approved payload containers are fixed values in the CID. The site contacts report the expected final form container type, and the CID generates the PM masses using consistent values associated with the container type. An analysis was performed (French 2009) to calculate the PM masses to be assigned to the various WIPP-approved container types in the CID. The purpose of that analysis was to document the calculations that provide the PM masses for steel, plastic, cellulose, lead, and rubber used in the containers for packaging CH- and RH-TRU waste for shipment to WIPP.

3.2.3 Waste and Packaging Material Parameter Changes

The changes in WMP and PM data between ATWIR-2012 and this report are presented in Table 3-5 for the total CH- and RH-TRU waste and packaging materials. Data for the WMPs and PMs improve as additional waste is characterized and the sites use that characterization data to estimate the WMPs remaining in that waste stream at the site. As stated earlier, the net change column applies to the total net changes, which include both increases and decreases in waste streams as reported by the site contacts and the amount of emplaced waste taken from the WDS.

As shown in Table 3-5, the total change in anticipated WMP mass was a decrease of about 1.5 million kg and a decrease of nearly 916,000 kg in anticipated PM mass. The emplaced WMPs increased approximately 1.94 million kg and the emplaced PMs increased approximately 1.05 million kg. The decrease in WMPs at the sites and the increase at WIPP is expected since the generator sites are decreasing their inventory by shipping waste to WIPP. The decrease in the generator sites' WMPs is due to factors such as under estimating the WMPs mass, dispositioning waste as LLW, and emplacement at WIPP. The increase in emplaced WMPs is directly related to known characterization data that are received when waste is emplaced at WIPP. When the emplaced mass at WIPP is greater than the decrease at the TRU waste generator sites, it is because the sites have underestimated their WMPs mass the prior year, as shown in Table 3-5. The increase in emplaced PMs is the same situation as explained for the WMPs, but instead, the generator sites underestimated either the number of final form containers or the final form container type, which are two factors that have an effect on the PM mass. One of the most common changes in the final form containers is that a generator site estimates shipping the waste in a 55-gallon drum but ends up shipping the waste in a standard waste box. The increase in the emplaced mass for both WMPs and PMs that is greater than the decrease at the sites is relatively small compared to the overall reported mass of the two components.

Table 3-5. CH/RH Waste and Packaging Material Inventory Changes

Waste Material Parameter	ATWIR-2012 Mass (kg)	ATWIR-2013 Mass (kg)	Mass Net Change (kg)
Iron-based Metal/Alloys	3.37E+06	3.13E+06	-2.38E+05
Aluminum-based Metal/Alloys	2.23E+05	2.20E+05	-2.81E+03
Other Metal/Alloys	6.26E+05	5.97E+05	-2.83E+04
Other Inorganic Materials	3.19E+06	2.80E+06	-3.92E+05
Cellulose	1.01E+06	9.46E+05	-6.59E+04
Rubber	4.98E+05	4.75E+05	-2.25E+04
Plastic	1.71E+06	1.55E+06	-1.57E+05
Cement	2.84E+06	2.58E+06	-2.59E+05
Solidified Inorganic Material	3.51E+06	3.30E+06	-2.10E+05
Solidified Organic Material	1.61E+06	1.67E+06	6.56E+04
Soil	2.55E+06	2.36E+06	-1.90E+05
Vitrified	0.00E+00	0.00E+00	0.00E+00

Table 3-5. CH/RH Waste and Packaging Material Inventory Changes
Continued

Waste Material Parameter	ATWIR- 2012 Mass (kg)	ATWIR- 2013 Mass (kg)	Mass Net Change (kg)
Anticipated Waste Total	2.11E+07	1.96E+07	-1.50E+06
WIPP (Emplaced) Waste Total	2.46E+07	2.65E+07	1.94E+06
Package Material			
Packaging Material, Cellulose	2.85E+04	3.32E+04	4.63E+03
Packaging Material, Plastic	1.05E+06	1.04E+06	-8.67E+03
Packaging Material, Rubber	2.82E+04	2.67E+04	-1.52E+03
Packaging Material, Steel	1.47E+07	1.38E+07	-9.18E+05
Packaging Material, Lead	8.44E+02	8.60E+03	7.76E+03
Anticipated Packaging Total	1.58E+07	1.49E+07	-9.16E+05
WIPP (Emplaced) Packaging Total	1.81E+07	1.92E+07	1.05E+06
Grand Total	7.97E+07	8.03E+07	5.71E+05

Data Source: CID Data Versions D.11.00 (LANL-CO 2012) and D.12.01 (LANL-CO 2013a).

3.2.4 Chemical Components

DOE tracks the mass (kg) of complexing agents and oxyanions as part of the non-radiological components. This report is the mechanism that DOE uses to track these components for currently stored and projected TRU waste at the sites. These masses for this report are presented in Table 3-6 and Table 3-8. For details on the reporting methods on chemical components, see section 2.2.4.

3.2.4.1 Complexing Agents

DOE tracks the masses (kg) of complexing agents destined for emplacement in the WIPP repository because of their potential impact on solubilities of actinides in the waste. For this inventory report, the TRU waste site contacts were asked to update their estimates of complexing agents in the waste streams (Patterson 2013). Table 3-6 presents a summary of the estimated CH- and RH-TRU waste complexing agents' masses by site and the grand total of the masses.

Table 3-6. CH/RH Complexing Agent Mass by Site

TRU Waste Site	Acetate (kg)	Acetic Acid (kg)	Citrate (kg)	Citric Acid (kg)	EDTA (kg)	Oxalate (kg)	Oxalic Acid (kg)
Argonne National Laboratory	--	--	--	--	--	--	7.79E+01
Hanford (Richland) Site	6.25E+03	3.00E+03	3.65E+01	1.01E+03	5.21E+00	1.96E+01	3.44E+03

Table 3-6. CH/RH Complexing Agent Mass by Site
Continued

TRU Waste Site	Acetate (kg)	Acetic Acid (kg)	Citrate (kg)	Citric Acid (kg)	EDTA (kg)	Oxalate (kg)	Oxalic Acid (kg)
Idaho National Laboratory	5.07E+02	3.88E+03	1.77E+02	4.77E+01	1.44E+02	--	9.00E+01
Lawrence Livermore National Laboratory	--	7.28E+00	--	7.28E+00	7.28E+00	--	7.28E+00
Los Alamos National Laboratory	--	1.08E+00	--	1.19E+02	--	--	1.06E+02
Grand Total	6.76E+03	6.89E+03	2.14E+02	1.18E+03	1.56E+02	1.96E+01	3.72E+03

Data Source: CID Data Version D.12.01 (LANL-CO 2013a). Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

3.2.4.2 Changes to Complexing Agents

Table 3-7 shows the changes in the total estimated CH- and RH-TRU waste complexing agent masses (kg) between the ATWIR-2012 and this report. 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 at WIPP because these components are not tracked in the WDS.

There was an overall net decrease of approximately 597 kg in the total estimated CH- and RH-TRU waste complexing agents' masses for this reporting period. The decrease in complexing agents comes exclusively from LANL. LANL has shipped its waste that contained acetic acid, citric acid and oxalic acid to WIPP, which reduced the complexing agents by about 2,300 kg. INL and ANL, on the other hand, increased their complexing agents mass by approximately 1,700 kg because of additional AK information and the addition of a waste stream at the Idaho Cleanup Project, which handles the RH-TRU waste at INL.

Table 3-7. CH/RH Complexing Agent Changes

Complexing Agent	ATWIR-2012 Total Mass (kg)	ATWIR-2013 Total Mass (kg)	Total Net Change (kg)
Acetate	6.76E+03	6.76E+03	0.00E+00
Acetic Acid	5.25E+03	6.89E+03	1.64E+03
Citrate	2.14E+02	2.14E+02	0.00E+00
Citric Acid	1.45E+03	1.18E+03	-2.66E+02
EDTA	1.56E+02	1.56E+02	0.00E+00
Oxalate	1.96E+01	1.96E+01	0.00E+00

Table 3-7. CH/RH Complexing Agent Changes
Continued

Complexing Agent	ATWIR-2012 Total Mass (kg)	ATWIR-2013 Total Mass (kg)	Total Net Change (kg)
Oxalic Acid	5.69E+03	3.72E+03	-1.97E+03
Grand Total	1.95E+04	1.89E+04	-5.97E+02

Data Source: CID Data Versions D.11.00 (LANL-CO 2012) and D.12.01 (LANL-CO 2013a). Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

3.2.4.3 Oxyanions

Estimates of the masses of oxyanions (nitrates, phosphates, and sulfates) expected in the TRU waste were also requested from the TRU waste site contacts. The contacts reported estimates of oxyanions in their waste as mass (kg) for both stored and projected waste. Table 3-8 presents the estimated CH- and RH-TRU waste oxyanion mass by site.

Table 3-8. CH/RH Oxyanion Mass by Site

TRU Waste Site	Nitrate (kg)	Phosphate (kg)	Sulfate (kg)
Argonne National Laboratory	1.52E+00	4.21E-01	6.49E-01
Hanford (Richland) Site	1.24E+05	1.17E+05	1.82E+04
Idaho National Laboratory	3.15E+05	2.64E+04	7.84E+04
Lawrence Berkeley National Laboratory	1.04E-01	--	--
Lawrence Livermore National Laboratory	7.28E+00	7.28E+00	7.28E+00
Los Alamos National Laboratory	2.11E+05	--	4.11E+04
Sandia National Laboratories	1.00E-06	--	--
Grand Total	6.49E+05	1.44E+05	1.38E+05

Data Source: CID Data Version D.12.01 (LANL-CO 2013a). Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

3.2.4.4 Changes to Oxyanions

Table 3-9 shows the changes in the total estimated CH- and RH-TRU waste oxyanion masses (kg) since they were reported in the ATWIR-2012. These data represent only the oxyanions that are currently being reported by the sites as anticipated TRU waste inventory and do not include oxyanions that have been emplaced at WIPP.

There was an overall net decrease of approximately 136,000 kg of oxyanion masses in the estimated CH- and RH-TRU waste for this reporting period. The decrease in oxyanions comes entirely from LANL. LANL has shipped its waste that contained nitrates and sulfates to WIPP,

which reduced oxyanions by approximately 153,200 kg. These oxyanions resided in four of the LANL main shipping waste streams (LA-MHD01.001, LA-MIN03.NC.001, LA-MHD04.001, and LA-CIN02.001). These decreases were offset by INL's oxyanions that increased by about 17,500 kg. The increase at INL is attributed to the reevaluation of the amount of oxyanions that are present in waste stream IN-ID-SDA-SLUDGE.

Table 3-9. CH/RH Oxyanion Changes

Oxyanion	ATWIR-2012 Total Mass (kg)	ATWIR-2013 Total Mass (kg)	Total Net Change (kg)
Nitrate	7.62E+05	6.49E+05	-1.13E+05
Phosphate	1.41E+05	1.44E+05	2.66E+03
Sulfate	1.63E+05	1.38E+05	-2.52E+04
Grand Total	1.07E+06	9.31E+05	-1.36E+05

Data Source: CID Data Versions D.11.00 (LANL-CO 2012) and D.12.01 (LANL-CO 2013a)

3.3 TRU Waste Radionuclide Estimates

This section presents the updated TRU waste radionuclide activity inventory collected from the TRU waste generator sites as of the end of CY 2012. The TRU waste generator sites' TRU waste stream radionuclide activities, in curies, shown in Table 3-10, Table 3-11, and Table 3-12, are decay-corrected through the end of CY 2012 (as described in section 2.2.3). The data are then aggregated using the CID and placed into tables by site for CH- and RH-TRU wastes.

3.3.1 Radionuclide Inventory by Site

Table 3-10 and Table 3-11 provide the comprehensive WIPP-bound anticipated activity (Ci) inventory estimates for CH- and RH-TRU waste, respectively. Table 3-12 sums the CH and RH site totals to produce a total anticipated activity by site.

Table 3-10. Total CH Radionuclide Activity (Ci) on a Site Basis Decayed through 2012

Radionuclide	ANL	Hanford	INL	KAPL-NFS	LANL	LBNL	LLNL	MFC	NNSS	NRD	ORNL	SNL	SRS	Grand Total
Ac-225	8.96E-05	3.65E-04	9.81E-05	3.69E-03	1.29E-01	3.29E-15	2.13E-03	9.88E-11	1.31E-12	3.48E-15	4.67E-03	1.08E-16	1.26E-03	1.42E-01
Ac-227	2.53E-09	5.26E-08	1.66E-06	1.03E-05	7.11E-01	7.97E-20	1.12E-02	1.05E-09	7.30E-11	--	3.63E+00	1.72E-14	9.50E-03	4.37E+00
Ac-228	4.55E-06	3.68E-04	2.59E-04	2.08E-01	8.16E-04	1.27E-07	4.25E-06	6.39E-10	4.86E-16	--	5.40E-02	1.01E-18	5.41E-04	2.64E-01
Ag-108	5.27E-05	--	--	--	3.14E-07	--	--	--	--	--	--	--	--	5.30E-05
Ag-108m	6.06E-04	--	--	--	3.61E-06	--	--	--	--	--	--	--	--	6.09E-04
Ag-109m	1.70E-06	--	--	--	--	--	2.59E-03	--	--	--	2.13E-12	--	--	2.59E-03
Ag-110	--	--	--	--	--	--	--	--	--	--	6.42E-05	--	--	6.42E-05
Ag-110m	--	--	--	--	--	--	--	--	--	--	1.10E+00	--	--	1.10E+00
Am-241	1.59E+01	5.74E+04	3.11E+04	8.17E+02	5.31E+04	3.27E-05	1.71E+03	8.70E+01	1.53E+01	3.48E+01	6.11E+02	7.21E-01	4.24E+04	1.87E+05
Am-242	3.68E-04	1.55E-02	--	--	--	--	7.51E+00	--	--	--	2.11E-04	--	1.84E-02	7.54E+00
Am-242m	3.70E-04	1.56E-02	--	--	--	--	7.54E+00	--	--	--	9.68E-01	--	1.84E-02	8.54E+00
Am-243	7.61E-01	6.51E-01	2.53E-02	--	1.25E+00	4.40E-08	2.30E-01	1.29E-01	--	--	6.50E+00	--	1.25E+00	1.08E+01
Am-244	--	--	--	--	--	--	--	--	--	--	1.00E-06	--	--	1.00E-06
Am-245	1.57E-08	--	--	--	8.35E-05	--	--	--	--	--	1.93E-05	--	--	1.03E-04
At-217	8.96E-05	3.65E-04	9.81E-05	3.69E-03	1.29E-01	3.29E-15	2.13E-03	9.88E-11	1.31E-12	3.48E-15	4.67E-03	1.08E-16	1.26E-03	1.42E-01
Ba-133	6.86E-05	3.16E-04	--	--	1.67E-04	--	--	--	--	--	1.13E-04	--	8.11E-06	6.72E-04
Ba-137m	2.09E+00	3.40E+03	5.28E-02	--	2.58E+00	1.71E-07	6.80E-01	1.99E-02	--	--	4.97E+00	--	8.01E-01	3.41E+03
Bi-210	4.19E-04	2.03E-04	3.14E-06	1.68E-04	2.84E-04	1.01E-26	1.57E-08	2.37E-10	1.51E-12	--	3.13E-01	1.49E-16	1.02E-04	3.14E-01
Bi-211	2.53E-09	5.26E-08	1.66E-06	1.03E-05	7.12E-01	7.97E-20	1.12E-02	1.05E-09	7.30E-11	--	3.53E+00	1.72E-14	9.51E-03	4.27E+00
Bi-212	4.71E-04	1.02E-01	2.58E-03	1.39E+00	1.71E-03	2.09E-08	3.19E-03	4.31E-04	2.39E-16	--	9.98E-03	1.60E-19	1.12E-01	1.62E+00
Bi-213	8.96E-05	3.65E-04	9.81E-05	3.69E-03	1.29E-01	3.29E-15	2.13E-03	9.88E-11	1.31E-12	3.48E-15	4.67E-03	1.08E-16	1.26E-03	1.42E-01
Bi-214	2.47E-04	4.89E-03	3.54E-05	2.82E-03	4.35E-04	1.32E-24	3.50E-07	5.33E-09	6.15E-11	--	7.24E-01	9.76E-15	2.70E-04	7.32E-01
Bk-249	1.08E-03	--	--	--	5.76E+00	--	--	--	--	--	4.74E+00	--	--	1.05E+01
Bk-250	1.23E-09	--	--	--	--	--	--	--	--	--	6.71E-10	--	--	1.90E-09
C-14	9.68E-03	6.00E-04	--	--	--	--	--	--	--	--	1.96E-04	--	6.35E-03	1.68E-02
Ca-45	4.13E-07	--	--	--	--	--	--	--	--	--	--	--	--	4.13E-07
Cd-109	1.70E-06	--	--	--	--	--	2.59E-03	--	--	--	4.89E-05	--	--	2.64E-03
Cd-113	4.03E-04	--	--	--	--	--	--	--	--	--	--	--	--	4.03E-04
Cd-113m	2.24E-04	--	--	--	--	--	--	--	--	--	--	--	--	2.24E-04
Ce-139	--	--	--	--	--	--	--	--	--	--	2.57E-05	--	--	2.57E-05
Ce-141	--	--	--	--	--	--	--	--	--	--	1.52E+00	--	--	1.52E+00
Ce-144	5.00E-03	--	--	--	2.07E-04	--	--	7.07E-05	--	--	5.75E-01	--	--	5.81E-01
Cf-249	1.06E-01	1.82E-02	--	--	2.39E-02	4.33E-03	7.41E+00	--	--	--	7.51E-01	--	3.68E-03	8.31E+00
Cf-250	5.62E-03	--	--	--	--	1.28E-07	--	--	--	--	2.88E-01	--	--	2.94E-01
Cf-251	8.18E-04	--	--	--	--	--	2.52E-04	--	--	--	4.08E-03	--	1.90E-03	7.05E-03
Cf-252	3.50E-05	--	--	--	--	--	2.46E-03	--	--	--	6.38E+00	--	6.80E-01	7.06E+00
Cf-253	--	--	--	--	--	--	--	--	--	--	1.94E-09	--	--	1.94E-09
Cf-254	--	--	--	--	--	--	--	--	--	--	1.07E-05	--	--	1.07E-05
Cl-36	5.32E-07	--	--	--	--	--	--	--	--	--	--	--	--	5.32E-07
Cm-242	3.41E-04	1.27E-02	2.81E-14	--	1.21E-04	--	6.16E+00	3.37E-14	--	--	3.87E+01	--	1.52E-02	4.49E+01
Cm-243	1.52E-02	5.18E-01	4.76E-10	--	3.20E-01	--	7.96E-02	3.49E-09	--	--	1.21E+02	--	5.80E-02	1.22E+02
Cm-244	1.64E+02	6.83E+01	5.47E+00	--	3.45E+03	--	7.47E+02	8.87E-01	--	--	3.46E+03	--	5.21E+01	7.95E+03
Cm-245	9.24E-05	1.49E-06	--	--	1.34E+00	3.54E-07	4.05E-02	--	--	--	2.15E-01	--	2.02E-02	1.61E+00
Cm-246	6.95E-03	--	--	--	5.76E-01	1.92E-11	--	--	--	--	1.11E+01	--	1.35E-02	1.17E+01
Cm-247	6.60E-10	--	--	--	--	--	3.36E-06	--	--	--	4.78E-06	--	2.05E-02	2.05E-02

Table 3-10. Total CH Radionuclide Activity (Ci) on a Site Basis Decayed through 2012

Continued

Radionuclide	ANL	Hanford	INL	KAPL-NFS	LANL	LBNL	LLNL	MFC	NNSS	NRD	ORNL	SNL	SRS	Grand Total
Cm-248	2.78E-04	--	--	--	--	1.69E-07	1.71E-02	--	--	--	2.34E-02	--	2.73E-05	4.08E-02
Cm-249	--	--	--	--	--	--	--	--	--	--	6.03E-12	--	--	6.03E-12
Cm-250	8.81E-09	--	--	--	--	--	--	--	--	--	2.23E-03	--	--	2.23E-03
Co-58	--	--	--	--	--	--	--	--	--	--	7.68E-03	--	--	7.68E-03
Co-60	1.18E-02	1.44E-01	--	--	3.74E-04	--	1.21E-03	1.49E-04	--	--	7.24E-02	--	1.80E-03	2.32E-01
Cr-51	--	--	--	--	--	--	--	--	--	--	3.15E-01	--	--	3.15E-01
Cs-134	7.28E-02	5.93E-01	1.92E-07	--	--	--	--	9.18E-05	--	--	5.22E-01	--	2.20E-06	1.19E+00
Cs-135	4.44E-07	--	--	--	--	--	--	--	--	--	--	--	--	4.44E-07
Cs-137	2.22E+00	3.60E+03	5.60E-02	--	3.76E+00	1.81E-07	7.20E-01	2.11E-02	--	--	1.70E+01	--	8.48E-01	3.63E+03
Es-253	--	--	--	--	--	--	--	--	--	--	1.00E-03	--	--	1.00E-03
Eu-152	1.51E-04	3.54E-03	--	--	3.20E-04	--	3.55E-04	--	--	--	5.74E-01	--	1.97E-04	5.78E-01
Eu-154	3.63E-02	4.55E+00	3.15E-06	--	9.05E-04	--	3.31E-03	1.14E-04	--	--	1.12E+00	--	5.77E-03	5.72E+00
Eu-155	6.29E-03	3.02E-06	4.80E-06	--	1.97E-04	--	--	2.58E-04	--	--	5.84E-01	--	5.67E-06	5.91E-01
Fe-55	1.29E-02	--	--	--	--	--	--	--	--	--	2.25E-06	--	--	1.29E-02
Fe-59	1.02E-07	--	--	--	--	--	--	--	--	--	1.43E-06	--	--	1.53E-06
Fr-221	8.96E-05	3.65E-04	9.81E-05	3.69E-03	1.29E-01	3.29E-15	2.13E-03	9.88E-11	1.31E-12	3.48E-15	4.67E-03	1.08E-16	1.26E-03	1.42E-01
Fr-223	3.49E-11	7.25E-10	2.29E-08	1.42E-07	9.81E-03	1.10E-21	1.54E-04	1.45E-11	1.01E-12	--	4.86E-02	2.37E-16	1.31E-04	5.87E-02
Gd-152	2.77E-19	7.61E-18	--	--	2.96E-18	--	2.06E-18	--	--	--	1.46E-15	--	3.90E-18	1.48E-15
H-3	3.77E-02	1.09E-04	--	--	1.22E+04	--	--	--	--	--	3.04E-03	--	6.85E-04	1.22E+04
Ho-166m	1.40E-09	--	--	--	--	--	--	--	--	--	6.77E-04	--	2.51E-06	6.79E-04
I-125	--	--	--	--	8.39E-08	--	--	--	--	--	--	--	--	8.39E-08
I-129	4.50E-07	1.58E-06	--	--	1.20E-06	--	--	--	--	--	3.14E-05	--	9.85E-06	4.45E-05
I-131	--	--	--	--	--	--	--	--	--	--	4.49E-19	--	--	4.49E-19
K-40	3.77E-04	3.96E-04	--	--	--	--	6.49E-08	--	--	--	3.47E-04	4.98E-10	2.39E-06	1.12E-03
Kr-85	1.55E-02	1.34E+00	--	--	2.84E-01	--	--	--	--	--	--	--	2.81E-06	1.64E+00
Mn-54	8.38E-04	2.18E-08	--	--	1.83E-08	--	--	--	--	--	5.64E-03	--	--	6.48E-03
Na-22	7.03E-05	1.08E-02	--	--	7.74E-04	--	2.57E-05	--	--	--	1.94E-06	--	9.81E-05	1.18E-02
Nb-93m	1.46E-03	--	--	--	--	--	--	--	--	--	--	--	--	1.46E-03
Nb-94	3.84E-06	1.18E-03	--	--	--	--	2.47E-08	--	--	--	2.27E-06	--	2.74E-07	1.18E-03
Nb-95	4.44E-07	--	3.00E-10	--	--	--	--	5.12E-10	--	--	3.23E-02	--	--	3.23E-02
Nb-95m	2.39E-09	--	1.60E-12	--	--	--	--	2.74E-12	--	--	2.41E-05	--	--	2.41E-05
Nd-144	2.67E-18	--	--	--	7.49E-19	--	--	3.53E-19	--	--	4.46E-17	--	--	4.84E-17
Ni-63	3.30E-05	--	--	--	--	--	--	--	--	--	3.29E+00	--	--	3.29E+00
Np-237	4.52E-02	7.55E-01	8.07E-01	1.05E-03	4.04E-01	1.72E-05	1.98E-02	5.74E-02	7.97E-05	1.46E-05	3.80E-01	4.39E-07	9.00E-01	3.37E+00
Np-238	1.67E-06	7.00E-05	--	--	--	--	3.39E-02	--	--	--	9.53E-07	--	8.30E-05	3.41E-02
Np-239	7.61E-01	6.51E-01	2.53E-02	--	1.25E+00	4.40E-08	2.30E-01	1.29E-01	--	--	4.94E+00	--	1.25E+00	9.23E+00
Np-240	1.55E-09	2.72E-14	--	--	2.11E-07	1.61E-18	4.88E-13	--	--	--	6.95E-07	--	1.26E-15	9.08E-07
Np-240m	1.29E-06	2.27E-11	--	--	1.76E-04	1.34E-15	4.06E-10	--	--	--	5.79E-04	--	1.05E-12	7.57E-04
P-32	4.12E-11	--	--	--	--	--	--	--	--	--	--	--	--	4.12E-11
Pa-231	8.18E-08	2.56E-06	1.17E-05	1.68E-04	3.16E-03	7.56E-18	5.40E-02	2.27E-08	2.14E-09	--	4.96E-01	8.23E-13	5.24E-03	5.58E-01
Pa-233	4.52E-02	7.55E-01	8.04E-01	1.05E-03	4.04E-01	1.72E-05	1.98E-02	5.74E-02	7.97E-05	1.46E-05	2.32E-01	4.39E-07	9.00E-01	3.22E+00
Pa-234	9.12E-06	2.31E-03	9.76E-03	3.34E-04	5.11E-04	1.01E-12	1.37E-05	2.58E-08	3.22E-06	--	3.72E-05	1.57E-16	1.55E-04	1.31E-02
Pa-234m	7.02E-03	1.77E+00	7.51E+00	2.57E-01	3.93E-01	7.80E-10	1.05E-02	1.99E-05	2.48E-03	--	2.87E-02	1.21E-13	1.19E-01	1.01E+01
Pb-209	8.96E-05	3.65E-04	9.81E-05	3.69E-03	1.29E-01	3.29E-15	2.13E-03	9.88E-11	1.31E-12	3.48E-15	4.67E-03	1.08E-16	1.26E-03	1.42E-01
Pb-210	4.19E-04	2.03E-04	3.14E-06	1.68E-04	2.84E-04	1.01E-26	1.57E-08	2.37E-10	1.51E-12	--	3.13E-01	1.49E-16	1.02E-04	3.14E-01
Pb-211	2.53E-09	5.26E-08	1.66E-06	1.03E-05	7.12E-01	7.97E-20	1.12E-02	1.05E-09	7.30E-11	--	3.53E+00	1.72E-14	9.51E-03	4.27E+00
Pb-212	4.71E-04	1.02E-01	2.58E-03	1.39E+00	1.71E-03	2.09E-08	3.19E-03	4.31E-04	2.39E-16	--	1.01E-02	1.60E-19	1.12E-01	1.62E+00

Table 3-10. Total CH Radionuclide Activity (Ci) on a Site Basis Decayed through 2012

Continued

Radionuclide	ANL	Hanford	INL	KAPL-NFS	LANL	LBNL	LLNL	MFC	NNSS	NRD	ORNL	SNL	SRS	Grand Total
Pb-214	2.47E-04	4.89E-03	3.54E-05	2.82E-03	4.35E-04	1.32E-24	3.50E-07	5.33E-09	6.15E-11	--	7.24E-01	9.76E-15	2.70E-04	7.32E-01
Pd-107	1.48E-06	--	--	--	--	--	--	--	--	--	--	--	--	1.48E-06
Pm-147	5.43E-01	1.16E+01	--	--	--	--	--	--	--	--	1.02E+01	--	--	2.23E+01
Po-210	4.21E-04	1.30E-04	2.57E-06	1.68E-04	2.50E-04	2.74E-27	1.10E-08	1.65E-10	9.52E-13	--	3.10E-01	6.55E-17	1.02E-04	3.11E-01
Po-211	6.95E-12	1.45E-10	4.57E-09	2.83E-08	1.96E-03	2.19E-22	3.07E-05	2.89E-12	2.01E-13	--	9.71E-03	4.73E-17	2.62E-05	1.17E-02
Po-212	3.02E-04	6.51E-02	1.65E-03	8.87E-01	1.10E-03	1.34E-08	2.04E-03	2.76E-04	1.53E-16	--	9.82E-04	1.03E-19	7.20E-02	1.03E+00
Po-213	8.77E-05	3.57E-04	9.60E-05	3.61E-03	1.26E-01	3.22E-15	2.08E-03	9.67E-11	1.28E-12	3.41E-15	4.57E-03	1.06E-16	1.24E-03	1.39E-01
Po-214	2.47E-04	4.89E-03	3.53E-05	2.82E-03	4.35E-04	1.32E-24	3.50E-07	5.33E-09	6.15E-11	--	7.24E-01	9.76E-15	2.70E-04	7.32E-01
Po-215	2.53E-09	5.26E-08	1.66E-06	1.03E-05	7.12E-01	7.97E-20	1.12E-02	1.05E-09	7.30E-11	--	3.53E+00	1.72E-14	9.51E-03	4.27E+00
Po-216	4.71E-04	1.02E-01	2.58E-03	1.39E+00	1.71E-03	2.09E-08	3.19E-03	4.31E-04	2.39E-16	--	1.53E-03	1.60E-19	1.12E-01	1.61E+00
Po-218	2.47E-04	4.89E-03	3.54E-05	2.82E-03	4.35E-04	1.32E-24	3.50E-07	5.33E-09	6.15E-11	--	7.24E-01	9.76E-15	2.70E-04	7.33E-01
Pr-144	5.00E-03	--	--	--	2.07E-04	--	--	7.07E-05	--	--	8.35E-02	--	--	8.88E-02
Pr-144m	7.00E-05	--	--	--	2.90E-06	--	--	9.90E-07	--	--	1.17E-03	--	--	1.24E-03
Pu-236	4.19E-09	--	--	--	--	--	--	--	--	--	1.42E-13	--	--	4.19E-09
Pu-238	2.54E+01	1.76E+04	2.95E+03	9.44E+01	1.17E+05	--	2.05E+03	1.05E+00	5.35E+00	--	3.47E+03	6.44E-01	5.84E+04	2.02E+05
Pu-239	6.19E+01	8.28E+04	1.18E+04	2.93E+03	2.70E+04	7.26E-04	1.94E+03	2.30E+01	1.79E+02	--	6.11E+02	1.98E+01	1.37E+04	1.41E+05
Pu-240	2.50E+01	3.17E+04	3.64E+03	2.93E+03	7.16E+03	2.00E-05	5.51E+02	5.92E+00	4.08E+01	--	8.40E+02	4.54E+00	3.51E+03	5.04E+04
Pu-241	1.87E+02	5.09E+05	1.74E+04	3.58E+03	9.30E+04	4.15E-04	5.90E+03	1.04E+03	2.34E+02	--	7.76E+04	2.70E+01	1.68E+05	8.76E+05
Pu-242	3.17E-02	1.59E+03	3.91E-01	--	2.20E+01	1.80E-17	1.66E-01	1.12E-03	2.36E-03	--	4.33E-01	3.90E-04	2.48E+00	1.62E+03
Pu-243	6.60E-10	--	--	--	--	--	3.36E-06	--	--	--	1.03E-06	--	2.05E-02	2.05E-02
Pu-244	1.29E-06	2.27E-11	--	--	1.76E-04	1.34E-15	4.07E-10	--	--	--	6.93E-04	--	1.05E-12	8.71E-04
Ra-223	2.53E-09	5.26E-08	1.66E-06	1.03E-05	7.12E-01	7.97E-20	1.12E-02	1.05E-09	7.30E-11	--	3.53E+00	1.72E-14	9.51E-03	4.27E+00
Ra-224	4.71E-04	1.02E-01	2.58E-03	1.39E+00	1.71E-03	2.09E-08	3.19E-03	4.31E-04	2.39E-16	--	1.53E-03	1.60E-19	1.12E-01	1.61E+00
Ra-225	8.96E-05	3.65E-04	9.81E-05	3.69E-03	1.29E-01	3.29E-15	2.13E-03	9.88E-11	1.31E-12	3.48E-15	4.67E-03	1.08E-16	1.26E-03	1.42E-01
Ra-226	2.47E-04	4.89E-03	3.54E-05	2.82E-03	4.35E-04	1.32E-24	3.50E-07	5.33E-09	6.15E-11	--	7.27E-01	9.76E-15	2.70E-04	7.36E-01
Ra-228	4.55E-06	3.68E-04	2.59E-04	2.08E-01	8.16E-04	1.27E-07	4.25E-06	6.39E-10	4.86E-16	--	5.00E-05	1.01E-18	5.41E-04	2.10E-01
Rb-87	2.40E-10	--	--	--	--	--	--	--	--	--	--	--	--	2.40E-10
Rh-103m	--	--	--	--	--	--	--	--	--	--	3.39E-04	--	--	3.39E-04
Rh-106	4.46E-03	--	--	--	1.54E-03	--	--	1.20E-04	--	--	3.94E-01	--	3.18E-08	4.00E-01
Rn-219	2.53E-09	5.26E-08	1.66E-06	1.03E-05	7.12E-01	7.97E-20	1.12E-02	1.05E-09	7.30E-11	--	3.53E+00	1.72E-14	9.51E-03	4.27E+00
Rn-220	4.71E-04	1.02E-01	2.58E-03	1.39E+00	1.71E-03	2.09E-08	3.19E-03	4.31E-04	2.39E-16	--	1.53E-03	1.60E-19	1.12E-01	1.61E+00
Rn-222	2.47E-04	4.89E-03	3.54E-05	2.82E-03	4.35E-04	1.32E-24	3.50E-07	5.33E-09	6.15E-11	--	7.24E-01	9.76E-15	2.70E-04	7.33E-01
Ru-103	--	--	--	--	--	--	--	--	--	--	7.17E-01	--	--	7.17E-01
Ru-106	4.46E-03	--	--	--	1.54E-03	--	--	1.20E-04	--	--	3.63E+00	--	3.18E-08	3.64E+00
S-35	1.07E-03	--	--	--	--	--	--	--	--	--	--	--	--	1.07E-03
Sb-125	3.82E-03	7.58E-01	--	--	1.33E-04	--	2.08E-06	--	--	--	2.23E-01	--	1.17E-04	9.86E-01
Sb-126	1.48E-06	1.14E-01	--	--	9.86E-06	--	--	--	--	--	2.14E-05	--	--	1.14E-01
Sb-126m	1.05E-05	8.13E-01	--	--	7.04E-05	--	--	--	--	--	--	--	--	8.13E-01
Se-79	3.40E-06	--	--	--	--	--	--	--	--	--	--	--	--	3.40E-06
Sm-147	4.07E-12	3.47E-10	--	--	--	--	--	--	--	--	--	--	--	3.51E-10
Sm-148	1.22E-35	4.80E-34	--	--	6.36E-34	--	2.78E-34	--	--	--	1.08E-30	--	2.34E-33	1.08E-30
Sm-151	5.21E-03	2.23E+00	--	--	9.89E-04	--	--	--	--	--	5.26E-01	--	--	2.76E+00
Sn-121	--	--	--	--	3.20E-04	--	--	--	--	--	--	--	--	3.20E-04
Sn-121m	--	--	--	--	4.13E-04	--	--	--	--	--	--	--	--	4.13E-04
Sn-126	1.05E-05	8.13E-01	--	--	7.04E-05	--	--	--	--	--	--	--	--	8.13E-01
Sr-85	2.97E-06	--	--	--	--	--	--	--	--	--	--	--	--	2.97E-06
Sr-89	--	--	--	--	--	--	--	--	--	--	3.62E-02	--	--	3.62E-02

Table 3-10. Total CH Radionuclide Activity (Ci) on a Site Basis Decayed through 2012

Continued

Radionuclide	ANL	Hanford	INL	KAPL-NFS	LANL	LBNL	LLNL	MFC	NNSS	NRD	ORNL	SNL	SRS	Grand Total
Sr-90	1.90E+00	3.71E+03	6.13E-02	--	2.78E+00	--	7.77E-01	5.04E-02	--	--	9.00E+01	--	8.38E-01	3.80E+03
Tc-99	1.44E-02	1.63E+00	--	1.81E+01	--	--	--	--	--	--	9.09E-01	--	6.15E-05	2.07E+01
Tc-125m	9.18E-04	1.85E-01	--	--	3.25E-05	--	5.09E-07	--	--	--	8.03E-03	--	2.86E-05	1.94E-01
Th-227	2.49E-09	5.18E-08	1.64E-06	1.01E-05	7.02E-01	7.86E-20	1.10E-02	1.04E-09	7.20E-11	--	3.48E+00	1.70E-14	9.38E-03	4.21E+00
Th-228	4.69E-04	1.02E-01	2.58E-03	1.38E+00	1.71E-03	2.09E-08	3.19E-03	4.31E-04	2.39E-16	--	1.32E-02	1.60E-19	1.12E-01	1.61E+00
Th-229	8.96E-05	3.65E-04	9.81E-05	3.69E-03	1.29E-01	3.29E-15	2.13E-03	9.88E-11	1.31E-12	3.48E-15	1.71E-02	1.08E-16	1.26E-03	1.54E-01
Th-230	3.13E-04	3.50E-05	5.21E-05	1.63E+00	2.36E-03	9.15E-21	2.71E-04	4.28E-06	1.33E-07	--	2.65E-03	3.38E-11	5.82E-03	1.64E+00
Th-231	1.05E-04	1.09E-01	1.12E-01	1.99E+00	5.40E-02	7.15E-13	2.70E-03	3.58E-04	4.92E-05	--	1.45E-03	3.89E-08	1.09E-02	2.28E+00
Th-232	1.93E-05	3.12E-03	2.77E-04	5.43E-01	2.13E-03	1.12E-06	1.40E-05	2.10E-09	1.75E-15	--	1.52E-03	1.33E-17	6.70E-04	5.51E-01
Th-234	7.02E-03	1.77E+00	7.51E+00	2.57E-01	3.93E-01	7.80E-10	1.05E-02	1.99E-05	2.48E-03	--	2.91E-02	1.21E-13	1.19E-01	1.01E+01
Ti-204	--	--	--	--	--	--	--	--	--	--	3.54E-07	--	--	3.54E-07
Ti-207	2.52E-09	5.24E-08	1.66E-06	1.03E-05	7.10E-01	7.94E-20	1.11E-02	1.05E-09	7.28E-11	--	3.52E+00	1.72E-14	9.49E-03	4.25E+00
Ti-208	1.69E-04	3.65E-02	9.26E-04	4.98E-01	6.15E-04	7.50E-09	1.15E-03	1.55E-04	8.60E-17	--	3.04E-03	5.76E-20	4.04E-02	5.81E-01
Ti-209	1.88E-06	7.66E-06	2.06E-06	7.75E-05	2.71E-03	6.91E-17	4.47E-05	2.08E-12	2.75E-14	7.32E-17	9.81E-05	2.28E-18	2.65E-05	2.97E-03
Tm-171	1.66E-09	--	--	--	6.77E-04	--	--	--	--	--	--	--	--	6.77E-04
U-232	1.72E-04	3.31E-01	2.87E-03	--	1.81E-03	--	4.59E-03	6.41E-04	--	--	5.07E-02	--	1.10E-01	5.02E-01
U-233	4.49E-04	4.11E+00	2.28E-01	1.05E+01	4.26E+01	7.49E-11	2.59E+00	7.49E-07	4.62E-09	5.36E-11	1.10E+01	1.87E-12	1.25E+00	7.23E+01
U-234	5.85E-03	3.32E+00	1.69E+00	1.05E+01	1.80E+01	1.99E-15	7.29E-02	1.25E-02	7.11E-03	--	6.03E+00	3.66E-06	2.15E+01	6.12E+01
U-235	1.05E-04	1.09E-01	1.13E-01	1.99E+00	5.40E-02	7.15E-13	2.70E-03	3.58E-04	4.92E-05	--	2.84E-03	3.89E-08	1.94E-02	2.29E+00
U-236	1.09E-05	1.96E-03	5.77E-04	1.99E+00	2.64E-03	5.92E-13	4.93E-05	6.43E-05	8.43E-06	--	4.33E+00	2.69E-07	7.34E-03	6.33E+00
U-237	4.48E-03	1.22E+01	4.10E-01	8.57E-02	2.21E+00	9.94E-09	1.41E-01	2.50E-02	5.59E-03	--	1.04E-01	6.46E-04	4.74E-01	1.56E+01
U-238	7.02E-03	1.77E+00	7.51E+00	2.57E-01	3.93E-01	7.80E-10	1.05E-02	1.99E-05	2.48E-03	--	4.34E-02	1.21E-13	1.19E-01	1.01E+01
U-240	1.29E-06	2.27E-11	--	--	1.76E-04	1.34E-15	4.06E-10	--	--	--	5.79E-04	--	1.05E-12	7.57E-04
Xe-133	2.01E-29	--	--	--	--	--	--	--	--	--	--	--	--	2.01E-29
Y-90	1.90E+00	3.71E+03	6.13E-02	--	2.78E+00	--	7.77E-01	5.04E-02	--	--	5.68E+01	--	8.38E-01	3.77E+03
Zr-93	6.55E-06	--	--	--	--	--	--	--	--	--	--	--	--	6.55E-06
Zr-95	2.03E-07	--	1.36E-10	--	--	--	--	2.33E-10	--	--	4.05E-01	--	--	4.05E-01
Grand Total	4.91E+02	7.14E+05	6.70E+04	1.04E+04	3.13E+05	5.57E-03	1.29E+04	1.16E+03	4.74E+02	3.48E+01	8.70E+04	5.27E+01	2.87E+05	1.49E+06

Data Source: CID Data Version D.12.01 (LANL-CO 2013a). Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

Table 3-11. Total RH Radionuclide Activity (Ci) on a Site Basis Decayed through 2012

Radionuclide	ANL	BAPL	Hanford	INL	KAPL-S	LANL	MFC	ORNL	SRS	Grand Total
Ac-225	9.35E-03	5.77E-05	2.68E-04	1.22E-03	4.52E-11	1.67E-12	1.32E-08	8.69E-01	8.27E-06	8.80E-01
Ac-227	4.58E-01	2.08E-12	9.93E-03	7.65E-06	2.30E-09	1.78E-06	1.70E-08	1.38E+00	1.04E-08	1.85E+00
Ac-228	5.21E-02	2.13E-16	1.42E-05	3.37E-05	1.90E-12	9.46E-15	8.16E-14	1.04E-02	3.39E-14	6.26E-02
Ag-108	1.98E-03	--	--	--	--	--	--	--	--	1.98E-03
Ag-108m	2.27E-02	--	--	--	--	--	--	--	--	2.27E-02
Ag-109m	1.44E+00	--	--	--	--	--	--	3.65E-08	--	1.44E+00
Ag-110	5.86E-03	--	9.59E-08	--	--	--	--	3.48E-15	--	5.86E-03
Ag-110m	4.31E-01	--	7.05E-06	--	--	--	--	2.56E-13	--	4.31E-01
Am-241	2.61E+02	4.29E-02	4.17E+03	6.51E+02	1.17E-02	4.65E+00	9.80E+01	1.67E+02	2.83E+02	5.63E+03
Am-242	6.39E-01	--	1.22E+00	2.54E-04	--	--	--	5.22E-03	3.42E-02	1.90E+00
Am-242m	6.42E-01	--	1.23E+00	2.55E-04	--	--	--	5.25E-03	3.43E-02	1.91E+00
Am-243	4.15E+00	1.78E-04	4.03E+00	6.89E-04	2.49E-06	--	1.96E-04	1.44E+00	1.48E+00	1.11E+01
Am-245	1.18E-11	--	--	--	--	--	--	2.10E-14	1.58E-08	1.58E-08
Ar-37	2.95E-06	--	--	--	--	--	--	--	--	2.95E-06
Ar-39	1.57E-02	--	--	--	--	--	--	--	--	1.57E-02
Ar-42	4.26E-02	--	--	--	--	--	--	--	--	4.26E-02
At-217	9.35E-03	5.77E-05	2.68E-04	1.22E-03	4.52E-11	1.67E-12	1.32E-08	8.69E-01	8.27E-06	8.80E-01
Ba-133	3.70E+00	--	--	--	--	--	--	--	--	3.70E+00
Ba-137m	4.98E+03	9.03E+01	2.12E+05	2.60E+04	2.77E+01	7.38E+02	1.86E+04	2.13E+03	2.69E+01	2.65E+05
Bi-210	1.60E+00	9.57E-15	1.26E-02	9.97E-08	1.19E-10	7.93E-10	6.28E-11	7.22E+00	1.04E-08	8.83E+00
Bi-211	4.59E-01	2.08E-12	9.96E-03	7.65E-06	2.31E-09	1.78E-06	1.70E-08	1.39E+00	1.04E-08	1.86E+00
Bi-212	7.39E+00	1.46E-02	2.26E-03	2.51E-02	4.93E-07	9.46E-15	2.29E-14	1.79E+00	2.26E-14	9.22E+00
Bi-213	9.35E-03	5.77E-05	2.68E-04	1.22E-03	4.52E-11	1.67E-12	1.32E-08	8.69E-01	8.27E-06	8.80E-01
Bi-214	7.35E-02	9.46E-13	7.45E-02	7.00E-07	4.54E-10	3.27E-09	2.16E-09	1.27E+01	5.99E-08	1.28E+01
Bk-249	8.13E-07	--	--	--	--	--	--	1.45E-09	1.09E-03	1.09E-03
Bk-250	--	--	--	--	--	--	--	5.76E-09	--	5.76E-09
C-14	--	2.48E-03	4.53E-04	8.43E+01	1.48E-01	--	1.32E+01	1.09E-03	8.03E-04	9.77E+01
Ca-45	4.40E-02	--	--	--	--	--	--	--	--	4.40E-02
Cd-109	1.44E+00	--	--	--	--	--	--	3.65E-08	--	1.44E+00
Cd-113	1.79E-19	--	3.58E-19	--	--	--	--	--	--	5.37E-19
Cd-113m	1.67E+00	--	1.63E+00	--	--	--	--	--	--	3.30E+00
Cd-115m	5.84E-04	--	--	--	--	--	--	--	--	5.84E-04
Ce-139	3.51E-01	--	--	--	--	--	--	--	--	3.51E-01
Ce-141	2.90E-04	--	--	1.43E-03	--	--	1.15E-03	--	--	2.87E-03
Ce-144	4.10E+01	--	4.09E-03	2.97E+03	--	2.55E-11	3.62E+03	7.24E-11	1.67E-04	6.63E+03
Cf-249	1.18E+00	--	--	--	1.88E-13	--	--	2.14E-01	1.33E-03	1.39E+00
Cf-250	7.78E-02	--	--	--	--	--	--	5.27E-01	2.68E-05	6.05E-01
Cf-251	1.43E-08	--	--	--	2.38E-15	--	--	3.10E-02	8.60E-07	3.10E-02
Cf-252	1.30E-03	--	--	3.95E-05	8.81E-17	--	--	7.68E-03	3.40E-02	4.30E-02
Cm-242	5.29E-01	--	1.11E+00	2.10E-04	1.08E-05	--	9.68E-08	4.32E-03	2.82E-02	1.67E+00
Cm-243	5.24E-01	--	2.87E+01	6.54E-03	7.27E-05	--	--	9.64E-02	2.89E-03	2.93E+01
Cm-244	1.68E+02	--	7.58E+02	2.81E+02	6.69E-03	--	2.97E-06	5.56E+02	1.31E+02	1.89E+03
Cm-245	2.78E-03	--	8.82E-02	--	2.30E-08	--	--	5.12E-02	1.83E-02	1.60E-01
Cm-246	1.17E-05	--	3.94E-02	--	3.00E-09	--	--	2.99E+00	2.44E-02	3.06E+00
Cm-247	1.11E-09	--	1.24E-10	--	7.07E-15	--	--	1.57E-06	4.60E-08	1.62E-06
Cm-248	2.93E-09	--	1.88E-06	1.23E-07	1.40E-14	--	--	1.06E-02	8.73E-06	1.06E-02
Cm-250	--	--	--	--	--	--	--	4.12E-08	--	4.12E-08
Co-58	2.89E-02	--	--	3.00E+04	--	--	1.03E+03	--	--	3.10E+04

Table 3-11. Total RH Radionuclide Activity (Ci) on a Site Basis Decayed through 2012
Continued

Radionuclide	ANL	BAPL	Hanford	INL	KAPL-S	LANL	MFC	ORNL	SRS	Grand Total
Co-60	8.70E+01	1.21E+00	1.29E+02	1.98E+03	2.59E+00	4.50E-01	3.64E+04	1.79E+00	7.73E-11	3.86E+04
Cr-51	1.55E-05	--	--	1.85E+03	--	--	3.75E+00	--	--	1.85E+03
Cs-134	5.09E+01	1.27E-01	8.42E+02	5.96E+02	--	--	1.40E+02	7.89E-03	1.62E-01	1.63E+03
Cs-135	1.49E-07	--	6.32E-04	1.98E-03	1.90E-05	--	6.44E+00	--	--	6.44E+00
Cs-137	5.28E+03	9.57E+01	2.25E+05	2.87E+04	2.93E+01	7.82E+02	1.97E+04	2.26E+03	2.85E+01	2.82E+05
Dy-159	4.29E-02	--	--	--	--	--	--	--	--	4.29E-02
Es-254	--	--	--	--	--	--	--	1.72E-14	--	1.72E-14
Eu-149	1.14E-02	--	--	--	--	--	--	--	--	1.14E-02
Eu-152	1.60E+00	9.49E+00	2.36E+00	6.39E-07	--	--	--	1.69E+01	--	3.04E+01
Eu-154	1.04E+02	4.22E+00	8.15E+02	6.61E+00	--	7.38E-03	7.19E+00	8.10E+00	6.75E-01	9.46E+02
Eu-155	7.60E+00	1.16E-01	5.28E+02	9.08E+00	--	7.23E-03	5.32E+01	1.28E-01	1.39E-02	5.98E+02
Fe-55	9.63E+01	9.00E-02	3.99E-02	5.37E+00	1.38E+01	--	2.50E+04	--	--	2.51E+04
Fe-59	1.90E-04	--	--	2.15E+02	--	--	--	--	--	2.15E+02
Fr-221	9.35E-03	5.77E-05	2.68E-04	1.22E-03	4.52E-11	1.67E-12	1.32E-08	8.69E-01	8.27E-06	8.80E-01
Fr-223	6.32E-03	2.87E-14	1.37E-04	1.06E-07	3.17E-11	2.46E-08	2.35E-10	1.91E-02	1.44E-10	2.56E-02
Gd-152	2.95E-15	1.75E-14	1.32E-14	2.86E-20	--	--	--	1.79E-12	--	1.83E-12
Gd-153	1.86E-01	--	6.88E-08	--	--	--	--	--	--	1.86E-01
H-3	2.88E+01	2.55E-01	1.01E+03	1.26E+02	8.51E-02	--	6.65E-05	--	7.51E-02	1.17E+03
Hf-175	2.53E-03	--	--	--	--	--	--	--	--	2.53E-03
Hf-181	9.96E-06	--	--	--	--	--	--	--	--	9.96E-06
I-125	7.02E-03	--	--	--	--	--	--	--	--	7.02E-03
I-129	8.72E-07	3.12E-05	2.42E-03	1.44E-02	1.51E-05	--	3.41E-02	1.75E-06	--	5.10E-02
In-113m	3.82E-02	--	--	--	--	--	--	--	--	3.82E-02
In-114	2.22E-04	--	--	--	--	--	--	--	--	2.22E-04
In-114m	2.31E-04	--	--	--	--	--	--	--	--	2.31E-04
In-115	4.71E-17	--	--	--	--	--	--	--	--	4.71E-17
In-115m	6.46E-08	--	--	--	--	--	--	--	--	6.46E-08
Ir-194	2.05E-02	--	--	--	--	--	--	--	--	2.05E-02
K-42	4.26E-02	--	--	--	--	--	--	--	--	4.26E-02
Kr-85	1.72E+02	4.50E+00	4.49E+02	1.24E+01	1.06E+00	9.28E+01	--	--	1.01E+00	7.33E+02
Lu-177m	7.70E-04	--	--	--	--	--	--	--	--	7.70E-04
Mn-54	7.94E+00	--	2.15E+01	1.80E+04	--	--	6.61E+03	--	--	2.46E+04
Mo-93	--	--	1.25E-04	2.02E-02	--	--	--	--	--	2.04E-02
Na-22	4.94E-02	--	1.55E-04	5.21E-08	--	--	--	7.13E-09	--	4.95E-02
Nb-91	2.57E-02	--	--	--	--	--	--	--	--	2.57E-02
Nb-93m	8.47E-01	3.50E-03	3.43E-04	8.33E-03	5.14E-06	--	--	--	--	8.59E-01
Nb-94	--	--	8.47E-02	4.58E-03	9.00E-03	--	2.09E-01	--	--	3.07E-01
Nb-95	6.41E-01	--	1.28E-04	6.14E-03	--	--	7.96E-02	--	--	7.27E-01
Nb-95m	3.32E-03	--	6.88E-07	--	--	--	--	--	--	3.32E-03
Nd-144	2.19E-14	--	1.74E-14	5.40E-12	--	1.48E-15	2.00E-12	7.08E-16	3.66E-16	7.43E-12
Ni-59	2.08E-02	1.62E-01	8.45E-04	8.43E+02	5.91E-02	--	1.27E+02	--	2.88E-10	9.71E+02
Ni-63	4.97E+01	1.32E+01	3.03E-02	8.26E+00	8.80E+00	--	2.96E+02	--	--	3.76E+02
Np-235	1.33E+00	--	--	--	--	--	--	--	--	1.33E+00
Np-237	3.41E-03	2.55E-04	2.33E-01	6.73E-03	8.71E-05	3.63E-05	4.67E-02	3.01E-02	2.10E+00	2.43E+00
Np-238	2.89E-03	--	5.53E-03	1.15E-06	--	--	--	2.36E-05	1.54E-04	8.59E-03
Np-239	4.15E+00	1.78E-04	4.03E+00	6.89E-04	2.49E-06	--	1.96E-04	1.44E+00	1.48E+00	1.11E+01
Np-240	1.46E-20	--	2.79E-09	2.26E-17	9.71E-17	--	--	4.65E-09	6.18E-16	7.43E-09
Np-240m	1.22E-17	--	2.32E-06	1.88E-14	8.09E-14	--	--	3.87E-06	5.15E-13	6.19E-06

Table 3-11. Total RH Radionuclide Activity (Ci) on a Site Basis Decayed through 2012
Continued

Radionuclide	ANL	BAPL	Hanford	INL	KAPL-S	LANL	MFC	ORNL	SRS	Grand Total
Os-185	2.60E-04	--	--	--	--	--	--	--	--	2.60E-04
Os-194	2.04E-02	--	--	--	--	--	--	--	--	2.04E-02
Pa-231	3.18E-07	1.31E-10	1.33E-05	3.54E-05	4.78E-09	5.13E-06	3.37E-07	7.22E-03	5.97E-08	7.27E-03
Pa-233	3.41E-03	2.55E-04	2.33E-01	6.62E-03	8.71E-05	3.63E-05	4.67E-02	3.01E-02	2.10E+00	2.43E+00
Pa-234	1.36E-04	3.85E-11	1.45E-04	1.84E-03	6.04E-11	5.36E-08	5.79E-06	1.60E-05	9.51E-06	2.15E-03
Pa-234m	1.05E-01	2.96E-08	1.12E-01	1.36E+00	4.65E-08	4.12E-05	4.45E-03	1.23E-02	7.32E-03	1.60E+00
Pb-209	9.35E-03	5.77E-05	2.68E-04	1.22E-03	4.52E-11	1.67E-12	1.32E-08	8.69E-01	8.27E-06	8.80E-01
Pb-210	1.60E+00	9.57E-15	1.26E-02	9.97E-08	1.19E-10	7.93E-10	6.28E-11	7.22E+00	1.04E-08	8.83E+00
Pb-211	4.59E-01	2.08E-12	9.96E-03	7.65E-06	2.31E-09	1.78E-06	1.70E-08	1.39E+00	1.04E-08	1.86E+00
Pb-212	7.39E+00	1.46E-02	2.26E-03	2.51E-02	4.93E-07	9.46E-15	2.29E-14	1.79E+00	2.26E-14	9.22E+00
Pb-214	7.35E-02	9.46E-13	7.45E-02	7.00E-07	4.54E-10	3.27E-09	2.16E-09	1.27E+01	5.99E-08	1.28E+01
Pd-107	4.52E-06	--	8.64E-05	--	7.97E-07	--	--	--	--	9.17E-05
Pm-145	1.02E+00	--	--	--	--	--	--	--	--	1.02E+00
Pm-146	1.22E+00	--	--	--	--	--	--	--	--	1.22E+00
Pm-147	1.45E+02	9.29E-01	3.85E+01	9.13E+01	2.80E-03	--	--	1.56E-02	2.67E-01	2.76E+02
Pm-148	1.44E-06	--	--	--	--	--	--	--	--	1.44E-06
Pm-148m	2.73E-05	--	--	--	--	--	--	--	--	2.73E-05
Po-210	1.84E+00	3.10E-15	1.15E-02	9.97E-08	9.51E-11	7.93E-10	3.82E-11	7.22E+00	1.04E-08	9.07E+00
Po-211	1.26E-03	5.71E-15	2.74E-05	2.10E-08	6.34E-12	4.90E-09	4.68E-11	3.82E-03	2.86E-11	5.10E-03
Po-212	4.73E+00	9.37E-03	1.45E-03	1.61E-02	3.16E-07	6.06E-15	1.47E-14	1.14E+00	1.45E-14	5.90E+00
Po-213	9.15E-03	5.65E-05	2.62E-04	1.19E-03	4.43E-11	1.63E-12	1.29E-08	8.50E-01	8.10E-06	8.61E-01
Po-214	7.35E-02	9.46E-13	7.45E-02	7.00E-07	4.53E-10	3.27E-09	2.16E-09	1.27E+01	5.99E-08	1.28E+01
Po-215	4.59E-01	2.08E-12	9.96E-03	7.65E-06	2.31E-09	1.78E-06	1.70E-08	1.39E+00	1.04E-08	1.86E+00
Po-216	7.39E+00	1.46E-02	2.26E-03	2.51E-02	4.93E-07	9.46E-15	2.29E-14	1.79E+00	2.26E-14	9.22E+00
Po-218	7.36E-02	9.46E-13	7.45E-02	7.00E-07	4.54E-10	3.27E-09	2.16E-09	1.27E+01	5.99E-08	1.28E+01
Pr-144	4.10E+01	--	4.09E-03	7.11E+01	--	2.55E-11	3.62E+03	7.24E-11	1.67E-04	3.73E+03
Pr-144m	5.74E-01	--	5.73E-05	1.36E-04	--	3.58E-13	5.07E+01	1.01E-12	2.34E-06	5.12E+01
Pu-236	8.19E-01	--	7.30E-06	3.72E-03	--	--	--	--	--	8.22E-01
Pu-238	1.91E+02	2.05E+00	1.86E+03	9.02E+02	4.96E-01	1.25E+00	2.55E+01	3.98E+02	3.89E+03	7.26E+03
Pu-239	2.46E+02	1.62E-03	1.94E+03	4.96E+02	7.75E-04	9.37E+01	3.55E+02	2.81E+01	1.22E+01	3.17E+03
Pu-240	1.61E+02	--	5.51E+03	2.36E+02	6.25E-04	2.53E+00	1.44E+02	2.65E+01	5.81E+00	6.08E+03
Pu-241	2.76E+03	3.44E-01	1.89E+04	1.19E+02	1.91E-01	2.26E+01	7.26E+01	8.72E+01	1.85E+03	2.38E+04
Pu-242	1.53E-01	2.93E-05	6.44E+03	1.20E-01	3.94E-06	1.52E-03	5.29E-03	9.81E-02	3.14E-03	6.44E+03
Pu-243	1.11E-09	--	1.24E-10	--	7.07E-15	--	--	1.57E-06	4.60E-08	1.62E-06
Pu-244	1.22E-17	--	2.33E-06	1.88E-14	8.10E-14	--	--	3.88E-06	5.16E-13	6.20E-06
Ra-223	4.59E-01	2.08E-12	9.96E-03	7.65E-06	2.31E-09	1.78E-06	1.70E-08	1.39E+00	1.04E-08	1.86E+00
Ra-224	7.39E+00	1.46E-02	2.26E-03	2.51E-02	4.93E-07	9.46E-15	2.29E-14	1.79E+00	2.26E-14	9.22E+00
Ra-225	9.35E-03	5.77E-05	2.68E-04	1.22E-03	4.52E-11	1.67E-12	1.32E-08	8.69E-01	8.27E-06	8.80E-01
Ra-226	7.36E-02	9.46E-13	7.45E-02	4.88E-05	4.54E-10	3.27E-09	2.16E-09	1.27E+01	5.99E-08	1.28E+01
Ra-228	5.21E-02	2.13E-16	1.42E-05	3.37E-05	1.90E-12	9.46E-15	8.16E-14	1.04E-02	3.39E-14	6.26E-02
Re-188	1.39E-04	--	--	--	--	--	--	--	--	1.39E-04
Rh-102	4.22E-01	--	--	--	--	--	--	--	--	4.22E-01
Rh-103m	3.51E-03	--	--	--	--	--	--	--	--	3.51E-03
Rh-106	5.60E+01	--	7.51E-02	1.14E+02	--	4.49E-08	1.53E+01	1.23E-07	6.60E-04	1.85E+02
Rn-219	4.59E-01	2.08E-12	9.96E-03	7.65E-06	2.31E-09	1.78E-06	1.70E-08	1.39E+00	1.04E-08	1.86E+00
Rn-220	7.39E+00	1.46E-02	2.26E-03	2.51E-02	4.93E-07	9.46E-15	2.29E-14	1.79E+00	2.26E-14	9.22E+00
Rn-222	7.36E-02	9.46E-13	7.45E-02	7.00E-07	4.54E-10	3.27E-09	2.16E-09	1.27E+01	5.99E-08	1.28E+01
Ru-103	3.51E-03	--	--	--	--	--	--	--	--	3.51E-03

Table 3-11. Total RH Radionuclide Activity (Ci) on a Site Basis Decayed through 2012
Continued

Radionuclide	ANL	BAPL	Hanford	INL	KAPL-S	LANL	MFC	ORNL	SRS	Grand Total
Ru-106	5.60E+01	--	7.51E-02	1.15E+02	--	4.49E-08	1.53E+01	1.23E-07	6.60E-04	1.86E+02
S-35	1.59E-03	--	--	--	--	--	--	--	--	1.59E-03
Sb-124	7.25E-03	--	--	--	--	--	2.33E+00	--	--	2.34E+00
Sb-125	8.39E+01	1.79E-02	2.02E+02	8.77E+00	--	3.02E-04	1.71E+01	7.18E-04	--	3.11E+02
Sb-126	1.09E-05	--	1.16E-01	--	2.22E-06	1.76E-02	--	--	--	1.34E-01
Sb-126m	7.76E-05	--	8.28E-01	--	1.59E-05	1.26E-01	--	--	--	9.54E-01
Sc-46	1.04E-02	--	--	--	--	--	--	--	--	1.04E-02
Se-75	2.19E-02	--	--	3.23E+01	--	--	--	--	--	3.24E+01
Se-79	1.05E-05	--	1.38E-01	--	4.88E-06	--	--	--	1.07E-02	1.49E-01
Sm-145	2.73E-01	--	--	--	--	--	--	--	--	2.73E-01
Sm-146	2.96E-09	--	--	--	--	--	--	--	--	2.96E-09
Sm-147	1.09E-09	6.95E-12	1.64E-09	4.34E-09	2.09E-14	--	--	4.85E-10	4.81E-11	7.61E-09
Sm-148	1.79E-19	7.71E-31	1.77E-30	2.28E-35	--	--	--	2.60E-27	--	1.79E-19
Sm-151	3.35E+00	2.58E-01	3.43E+01	6.51E+00	5.46E-02	1.79E-02	5.18E-01	--	3.07E-01	4.53E+01
Sn-113	3.82E-02	--	--	--	--	--	--	--	--	3.82E-02
Sn-119m	8.24E-01	--	3.59E-07	--	--	--	--	--	--	8.24E-01
Sn-121	6.98E-01	--	3.03E-04	--	1.10E-04	4.11E-01	--	--	--	1.11E+00
Sn-121m	9.00E-01	--	3.91E-04	--	1.42E-04	5.30E-01	--	--	--	1.43E+00
Sn-123	2.87E-01	--	--	--	--	--	--	--	--	2.87E-01
Sn-126	7.76E-05	--	8.28E-01	--	1.59E-05	1.26E-01	--	--	--	9.54E-01
Sr-85	2.64E-03	--	--	--	--	--	--	--	--	2.64E-03
Sr-89	2.98E-02	--	--	--	--	--	--	--	--	2.98E-02
Sr-90	3.79E+03	9.54E+01	1.40E+05	3.53E+04	2.93E+01	5.27E+02	2.48E+04	1.34E+03	2.11E+01	2.05E+05
Ta-182	7.09E+01	--	--	7.91E-17	--	--	--	--	--	7.09E+01
Tb-157	7.02E-02	--	--	--	--	--	--	--	--	7.02E-02
Tb-160	1.80E-03	--	--	--	--	--	--	--	--	1.80E-03
Tc-97m	1.47E-02	--	--	--	--	--	--	--	--	1.47E-02
Tc-99	1.10E-02	2.10E-02	7.24E+00	5.45E-02	9.00E-03	--	4.80E+00	2.22E-02	1.12E-03	1.22E+01
Te-121	7.27E-02	--	--	--	--	--	--	--	--	7.27E-02
Te-121m	7.31E-02	--	--	--	--	--	--	--	--	7.31E-02
Te-123	1.07E-14	--	--	--	--	--	--	--	--	1.07E-14
Te-123m	5.53E-02	--	--	--	--	--	--	--	--	5.53E-02
Te-125m	2.04E+01	4.30E-03	4.92E+01	2.13E+00	--	7.37E-05	4.14E+00	1.75E-04	4.93E-17	7.59E+01
Te-127	4.47E-01	--	--	--	--	--	--	--	--	4.47E-01
Te-127m	4.57E-01	--	--	--	--	--	--	--	--	4.57E-01
Te-129	4.11E-05	--	--	--	--	--	--	--	--	4.11E-05
Te-129m	6.41E-05	--	--	--	--	--	--	--	--	6.41E-05
Th-227	4.53E-01	2.05E-12	9.82E-03	7.55E-06	2.27E-09	1.76E-06	1.68E-08	1.37E+00	1.03E-08	1.83E+00
Th-228	7.35E+00	1.46E-02	2.25E-03	6.73E-02	4.93E-07	9.46E-15	2.29E-14	1.79E+00	2.26E-14	9.22E+00
Th-229	9.35E-03	5.77E-05	2.68E-04	1.22E-03	4.52E-11	1.67E-12	1.32E-08	8.69E-01	8.27E-06	8.80E-01
Th-230	3.20E-05	4.38E-09	1.28E-05	2.29E-04	6.88E-08	5.28E-07	3.69E-06	1.38E-03	1.60E-05	1.68E-03
Th-231	1.50E-02	6.18E-06	5.49E-03	1.06E-01	1.21E-05	8.36E-03	5.36E-03	1.96E-03	2.93E-04	1.42E-01
Th-232	3.68E-10	3.68E-15	7.17E-05	3.79E-05	1.96E-12	1.34E-14	5.49E-13	1.44E-02	8.86E-14	1.45E-02
Th-234	1.05E-01	2.96E-08	1.12E-01	1.36E+00	4.65E-08	4.12E-05	4.45E-03	1.23E-02	7.32E-03	1.60E+00
Tl-207	4.58E-01	2.07E-12	9.93E-03	7.63E-06	2.30E-09	1.78E-06	1.70E-08	1.38E+00	1.04E-08	1.85E+00
Tl-208	2.66E+00	5.26E-03	8.14E-04	9.03E-03	1.77E-07	3.40E-15	8.24E-15	6.42E-01	8.13E-15	3.31E+00
Tl-209	1.96E-04	1.21E-06	5.62E-06	2.56E-05	9.50E-13	3.51E-14	2.76E-10	1.82E-02	1.74E-07	1.85E-02
Tm-170	9.52E-03	--	--	--	--	--	--	--	--	9.52E-03

Table 3-11. Total RH Radionuclide Activity (Ci) on a Site Basis Decayed through 2012
Continued

Radionuclide	ANL	BAPL	Hanford	INL	KAPL-S	LANL	MFC	ORNL	SRS	Grand Total
Tm-171	5.88E-01	--	--	--	--	--	--	--	--	5.88E-01
U-232	2.72E+00	1.45E-02	1.17E-03	6.56E-02	1.61E-06	--	--	1.76E+00	--	4.56E+00
U-233	6.55E-04	1.61E-02	6.40E-01	2.75E+00	1.86E-08	2.08E-09	5.01E-05	2.58E+01	1.33E-02	2.92E+01
U-234	3.81E-03	4.79E-04	4.37E-01	2.28E+00	5.77E-04	2.04E-03	1.74E-01	1.22E-01	1.44E-01	3.17E+00
U-235	1.50E-02	6.18E-06	5.49E-03	1.12E-01	1.21E-05	8.36E-03	5.36E-03	1.96E-03	2.93E-04	1.48E-01
U-236	9.38E-06	7.45E-05	1.09E-01	5.33E-04	1.17E-04	1.04E-05	4.59E-03	1.23E-03	2.26E-04	1.16E-01
U-237	6.60E-02	8.23E-06	4.53E-01	2.45E-03	4.57E-06	5.40E-04	1.74E-03	2.09E-03	4.43E-02	5.70E-01
U-238	1.05E-01	2.96E-08	1.12E-01	1.37E+00	4.65E-08	4.12E-05	4.45E-03	1.23E-02	7.32E-03	1.62E+00
U-240	1.22E-17	--	2.32E-06	1.88E-14	8.09E-14	--	--	3.87E-06	5.15E-13	6.19E-06
V-49	3.40E+00	--	--	--	--	--	--	--	--	3.40E+00
W-181	2.57E-03	--	--	--	--	--	--	--	--	2.57E-03
W-185	8.71E-04	--	--	--	--	--	--	--	--	8.71E-04
W-188	1.37E-04	--	--	--	--	--	--	--	--	1.37E-04
Xe-127	3.47E-05	--	--	--	--	--	--	--	--	3.47E-05
Y-90	3.79E+03	9.54E+01	1.40E+05	3.53E+04	2.93E+01	5.27E+02	2.48E+04	1.34E+03	2.12E+01	2.06E+05
Y-91	1.22E-01	--	--	--	--	--	--	--	--	1.22E-01
Zn-65	5.21E-02	--	3.17E-03	--	--	--	--	2.16E-15	--	5.53E-02
Zr-93	8.55E-05	4.90E-03	6.77E-04	--	1.22E-04	--	--	--	--	5.79E-03
Zr-95	2.83E-01	--	5.85E-05	--	--	--	--	--	--	2.83E-01
Grand Total	2.28E+04	4.14E+02	7.60E+05	1.85E+05	1.43E+02	2.79E+03	1.66E+05	8.52E+03	6.28E+03	1.15E+06

Data Source: CID Data Version D.12.01 (LANL-CO 2013a). Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

Table 3-12. Total Activity by Site Decayed through 2012

TRU Waste Site	CH Activity (Ci)	RH Activity (Ci)	Total Activity (Ci)
Argonne National Laboratory	4.91E+02	2.28E+04	2.33E+04
Bettis Atomic Power Laboratory	--	4.14E+02	4.14E+02
Hanford (Richland) Site	7.14E+05	7.60E+05	1.47E+06
Idaho National Laboratory	6.70E+04	1.85E+05	2.52E+05
Knolls Atomic Power Laboratory - Nuclear Fuel Services	1.04E+04	--	1.04E+04
Knolls Atomic Power Laboratory - Schenectady	--	1.43E+02	1.43E+02
Lawrence Berkeley National Laboratory	5.57E-03	--	5.57E-03
Lawrence Livermore National Laboratory	1.29E+04	--	1.29E+04
Los Alamos National Laboratory	3.13E+05	2.79E+03	3.16E+05
Material and Fuels Complex	1.16E+03	1.66E+05	1.67E+05
Nevada National Security Site	4.74E+02	--	4.74E+02
Nuclear Radiation Development Site	3.48E+01	--	3.48E+01
Oak Ridge National Laboratory	8.70E+04	8.52E+03	9.56E+04
Sandia National Laboratories	5.27E+01	--	5.27E+01
Savannah River Site	2.87E+05	6.28E+03	2.93E+05
Grand Total	1.49E+06	1.15E+06	2.65E+06

Data Source: CID Data Version D.12.01 (LANL-CO 2013a). Note: This table contains data for WIPP-bound waste streams only; it does not include data for emplaced or potential waste streams.

3.3.2 Radionuclide Changes

Radionuclide activity data improve as additional waste is characterized and emplaced at WIPP. Characterization data used by the sites for this report may not have been available at the time that inventory information was collected for the ATWIR-2012 (DOE 2012). Table 3-13 presents the changes in the total activity between the ATWIR-2012 and this report. For the purpose of this discussion of changes, the activities reported in this table were decayed to WIPP closure in 2033.

As stated earlier, the net change column applies to the total net changes, which include both increases and decreases as reported by the sites and taken from the WDS.

Table 3-13. CH/RH Activity Changes Decayed through 2033

Site	ATWIR-2012 Total Inventory (Ci)	ATWIR-2013 Total Inventory (Ci)	Total Net Change (Ci)
Hanford (Richland) Site	8.51E+05	8.53E+05	2.08E+03
Idaho National Laboratory	1.37E+05	1.35E+05	-2.54E+03

Table 3-13. CH/RH Activity Changes Decayed through 2033

Continued

Site	ATWIR-2012 Total Inventory (Ci)	ATWIR-2013 Total Inventory (Ci)	Total Net Change (Ci)
Los Alamos National Laboratory	2.62E+05	2.27E+05	-3.47E+04
Oak Ridge National Laboratory	4.22E+04	4.19E+04	-3.07E+02
Savannah River Site	1.37E+05	1.88E+05	5.10E+04
Small Quantity Sites	1.20E+05	8.77E+04	-3.18E+04
Anticipated Total	1.55E+06	1.53E+06	-1.63E+04
WIPP (Emplaced)	1.43E+06	1.55E+06	1.20E+05
Grand Total	2.98E+06	3.08E+06	1.04E+05

Data Source: CID Data Versions D.11.00 (LANL-CO 2012) and D.12.01 (LANL-CO 2013a).

As shown in Table 3-13, the total CH- and RH-TRU waste activity reported by the sites has decreased approximately 16,300 Ci. This total decrease is offset with the emplacement of about 120,000 Ci at WIPP during CY12, leaving a net increase at WIPP of nearly 104,000 Ci. As with the WMPs, the increase in emplaced activity is directly related to known characterization data that are received when waste is emplaced at WIPP. When the emplaced activity is greater than the decrease at the generator sites, it is because they have underestimated the activity in the prior year, as seen in Table 3-13. The increase at WIPP due to the sites underestimating their activity is relatively small when compared to the overall total amount of activity reported. Three sites that emplaced waste at WIPP underestimated their activity last year while the waste was still at the sites INL, LANL, and SRS. SRS waste stream SR-MD-PAD1 had the largest underestimate of activity of about 60,000 Ci. The increase in this waste stream's activity is the result of actual characterization data that were received before the waste was emplaced at WIPP. The other two sites underestimated their activities for the same reason as SRS, but their underestimates were much less.

4.0 POTENTIAL TRU WASTE

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

Approximately 16% of the final form TRU waste volume reported by the TRU waste generator sites during this year's data collection has been identified as potential TRU waste. While a site may designate waste streams as potential for many different reasons, it is usually because of regulatory or physical constraints, such as the lack of characterization data. Section 4.1 identifies the reasons waste streams are designated as potential waste streams.

4.1 Categories of Potential TRU Waste

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

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

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

Table 4-1. Potential WIPP CH/RH-TRU Waste Streams

Waste Stream ID ¹	Handling	Final Form Anticipated Volume (m ³)	Categories of Potential WIPP CH/RH-TRU Waste
AW-IN-TRA-BE-01	RH	2.58E+01	Regulatory Restrictions
BL-Parks	CH	9.62E+00	Incomplete Data
BL-Parks-A	RH	6.24E-01	Incomplete Data
IN-JH826CH	CH	8.32E-01	Incomplete Data
IN-SBW-01A	RH	5.99E+02	TRU Waste Determination

Table 4-1. Potential WIPP CH/RH-TRU Waste Streams
Continued

Waste Stream ID¹	Handling	Final Form Anticipated Volume (m³)	Categories of Potential WIPP CH/RH-TRU Waste
IN-SBW-01B	RH	8.90E+01	TRU Waste Determination
IN-W139	CH	8.32E-01	Incomplete Data
IN-W269	CH	2.39E+01	Incomplete Data
IN-W338	CH	1.25E+00	Incomplete Data
IN-W339	CH	1.02E+01	Incomplete Data
IN-W350	CH	2.08E-01	Incomplete Data
LA-TA-00-04	CH	2.08E-01	Regulatory Restrictions
RL300-11	RH	7.49E+00	Regulatory Restrictions
RLCH2-08	RH	2.50E+00	TRU Waste Determination
RLPFP-02	CH	3.78E+01	Incomplete Data
RLPRC-01	CH	1.89E+00	Defense Determination
RLPURX-02	CH	4.63E+02	Incomplete Data
RP-TFC001	CH	4.39E+02	Directed by DOE to Move to Potential
RP-W754	CH	3.23E+02	Directed by DOE to Move to Potential
RP-W755	CH	7.94E+02	Directed by DOE to Move to Potential
SA-W135-A	RH	7.49E+00	TRU Waste Determination
SR-T001-WSB-1	CH	4.51E+03	Incomplete Data
SR-W027-773A-HET-CLAS	CH	1.13E+01	Incomplete Data
WV-M010a	CH	9.45E+00	Directed by DOE to Move to Potential
WV-T004	CH	4.16E-01	Directed by DOE to Move to Potential
WV-T006a	CH	1.99E+02	Directed by DOE to Move to Potential
WV-T006b	RH	3.08E+02	Directed by DOE to Move to Potential
WV-T017b	RH	7.49E+00	Directed by DOE to Move to Potential
WV-W024a	CH	8.37E+00	Directed by DOE to Move to Potential
WV-W024b	RH	5.12E+01	Directed by DOE to Move to Potential
WV-W050a	CH	5.82E+00	Directed by DOE to Move to Potential
WV-Z001	CH	4.30E+03	Directed by DOE to Move to Potential
Grand Total		1.23E+04	

¹See Figure 1-1 for site designators; Data Source: CID Data Version D.12.01 (LANL-CO 2013a).

Table 4-2. Potential to WIPP-Bound Waste Streams

Waste Stream ID¹	Reason
AW-W018	Regulatory restrictions resolved and moved to ICP Waste Stream IN-ID-HFEF-S5000RP for characterization
AW-W019	Regulatory restrictions resolved and moved to ICP Waste Stream IN-ID-HFEF-S5000RP for characterization
IN-W322	Sufficient information was found in the AK documentation to determine that this is defense-related
IN-W342R	Sufficient information was found in the AK documentation to determine the waste is defense-related and that it is debris waste (S5000)
IN-W359R	Received missing data and waste moved to ICP Waste Stream IN-ID-Miscellaneous for characterization
IN-W360	Regulatory restrictions resolved and waste moved to ICP Waste Stream IN-ID-Miscellaneous for characterization
LA-OS-00-04	Received missing data with new information from AK
LA-TA-03-21	Moved to Waste Stream LA-MHD04.001 for characterization
LA-TRU-Empty	Moved to Waste Streams LA-TRU-Empty-55 and LA-TRU-Empty-85 and identified as TRU drums resulting from repackaging TRU waste
SR-W027-UNK	New radionuclide data were provided

¹See Figure 1-1 for site designators; Data Source: CID Data Version D.12.01 (LANL-CO 2013a).

5.0 SUMMARY

WIPP has been receiving TRU waste since March 26, 1999. As of December 31, 2012, WIPP had received 11,083 shipments of TRU waste (10,458 CH shipments and 625 RH shipments) (DOE 2013). During this reporting period (January through December 2012), 5,507 m³ of CH-TRU waste, 41.14 m³ of RH-TRU waste (DOE 2013), and nearly 2.99 million kg of waste and packaging materials have been emplaced at WIPP, totaling about 120,000 curies of activity.

As shown from the tables presented in section 3.0 of this report, the generator sites' estimates are becoming more representative of their waste since they started applying known characterization data to their estimates. The increases seen at WIPP that are greater than the overall decreases at the sites are still recognized as the sites underestimating their data from prior years, but even these differences are small when compared to the overall amount of waste components being emplaced.

This report is an update to the ATWIR-2012. Like the ATWIR-2012, this report focuses on changes resulting from characterization, improved estimations, and continued waste generation. It also identifies the waste streams that have been moved from the designation of "potential" waste streams to the designation of "WIPP-bound" waste streams. The cutoff date for data collection was December 31, 2012.

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

6.0 GLOSSARY

Acceptable Knowledge – Title 40 CFR 194.2 defines acceptable knowledge as any information about the process used to generate waste, material inputs to the process, and the time period during which the waste was generated, as well as data resulting from the analysis of waste, conducted prior to or separate from the waste certification process authorized by EPA's certification decision, to show compliance with Condition 3 of the certification decision (U.S. EPA 1996).

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

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

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

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

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

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

Disposal – Emplacement of waste in a manner that assures isolation from the biosphere for the foreseeable future with no intent of retrieval and that requires deliberate action to regain access to the waste.

Emplaced Inventory – Waste that has been disposed of at WIPP as of the inventory date (December 31, 2012) for this report.

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

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

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

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

Payload Container Volume – For the purpose of this document, the payload container volume is the volume that the final form package occupies at the time it is emplaced in the repository. An example of payload container volume used in this context is a ten-drum overpack with a volume of 4.50 m³.

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

Performance Assessment Baseline Calculations – A PA run during the recertification that incorporates EPA requested changes. The results of this PA become the WIPP regulatory performance baseline that demonstrates compliance with EPA's radioactive waste containment requirements.

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

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

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

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

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

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

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

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

Transuranic Waste – The LWA definition of transuranic waste is: “Transuranic waste is radioactive waste containing more than 100 nanocuries (3700 becquerels) of alpha-emitting transuranic isotopes per gram of waste, with half-lives greater than 20 years, except for: (1) high-level radioactive waste; (2) waste that the Secretary of Energy has determined, with the concurrence of the Administration of the Environmental Protection Agency, does not need the degree of isolation required by 40 CFR Part 191 disposal regulations; (3) waste that the Nuclear Regulatory Commission has approved for disposal on a case-by-case basis in accordance with 10 CFR Part 61.”

TRU Waste Generator Sites – The five major active DOE facilities and several smaller sites throughout the U.S. that generate and store TRU waste. These may be called sites or TRU waste sites.

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

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

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

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

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

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

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

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

7.0 REFERENCES

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APPENDIX A WIPP-BOUND TRU WASTE PROFILE REPORTS

The following waste profile reports contain information on waste streams that are placed in the WIPP-bound category as of the inventory date, December 31, 2012.

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

AE	Argonne National Laboratory
AW	Material and Fuels Complex
BT	Bettis Atomic Power Laboratory
IN	Idaho National Laboratory
KA	Knolls Atomic Power Laboratory - Schenectady
KN	Knolls Atomic Power Laboratory - Nuclear Fuel Services
LA	Los Alamos National Laboratory
LB	Lawrence Berkeley National Laboratory
LL	Lawrence Livermore National Laboratory
ND	Nuclear Radiation Development Site
NT	Nevada National Security Site
OR	Oak Ridge National Laboratory
RL	Hanford (Richland) Site
SA	Sandia National Laboratories
SR	Savannah River Site

Waste Stream ID: AE-T001

Appendix A
Waste Profile Report

Site	Argonne National Laboratory - East	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	ANL-E Contact-Handled Mixed Heterogeneous Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D019, D027, D028, D029, D030, D037, F002, F004, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	7.9	121.7	129.6	Iron-based Metal/Alloys	35.81	Am-241	9.65E-02	
Box - Misc	17.5	0.0	17.5	Aluminum-based Metal/Alloys	4.04	Am-243	4.46E-03	
Current Form Total	25.4	121.7	147.1	Other Metal/Alloys	10.84	Cm-244	1.05E+00	
				Other Inorganic Materials	2.22	Cs-137	1.04E-02	
Final Form Volumes				Cellulose	2.79	Np-237	2.69E-04	
Container Type	Stored	Proj.	Total	Rubber	3.40	Pu-238	1.24E-01	
55-gal Drum Dir Ld w/ Liner	34.3	121.7	156.0	Plastic	29.49	Pu-239	3.79E-01	
Final Form Total	34.3	121.7	156.0	Cement	0.00	Pu-240	1.44E-01	TRUCON Code(s) 116/216, 125/225
				Solidified Inorganic Material	0.76	Pu-241	1.03E+00	
				Solidified Organic Material	0.20	Pu-242	3.55E-05	
				Soil	0.00	Pu-244	6.56E-09	
				Vitrified	0.00	Sr-90	9.47E-03	
				Packaging Material, Cellulosics	0.00	Th-229	5.74E-07	
				Packaging Material, Plastic	37.07	Th-230	1.99E-06	
				Packaging Material, Rubber	0.57	Th-232	1.18E-07	
				Packaging Material, Steel	130.77	U-233	2.34E-06	
				Packaging Material, Lead	0.00	U-234	3.62E-05	
						U-235	6.15E-07	
						U-236	3.72E-08	
						U-238	4.40E-05	

Waste Stream Description

The debris waste consists primarily of organic and inorganic laboratory debris. Organic debris materials includes paper, cardboard, cloth, plastic, and rubber. Inorganic debris materials include aluminum items, glass, tools, lead (e.g., scrap, shielding), metal cans, scrap metal, and laboratory equipment.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: AE-T003

Appendix A
Waste Profile Report

Site	Argonne National Laboratory - East			Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH	
Source Cat.	R&D/R&D Laboratory Waste			Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012		
Stream Name	ANL-E Contact-Handled Solidified Organic and Inorganic Homogenous Solids					Activity Concentrations Decayed to CY		2012		
Waste Volume Detail (m ³)				Waste Material Parameters			Final Form Radionuclides		Haz. Waste No(s).	
Current Form Volumes									D004, D005, D006, D007, D008, D009, D010, D011, D019, D027, D028, D029, D030, D037, F002, F004, F005	
Container Type	Stored	Proj.	Total							
55-gal Drum Dir Ld w/ Liner	0.4	6.2	6.7							
Box - Misc	3.1	0.0	3.1							
Current Form Total	3.5	6.2	9.8							
Final Form Volumes										TRUCON Code(s) 111/211, 113/213, 129/229
Container Type	Stored	Proj.	Total							
55-gal Drum Dir Ld w/ Liner	6.7	6.2	12.9							
Final Form Total	6.7	6.2	12.9							
			Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)				
			Iron-based Metal/Alloys	0.00	Am-241	6.86E-02				
			Aluminum-based Metal/Alloys	0.00	Am-243	5.12E-03				
			Other Metal/Alloys	0.00	Cm-244	9.53E-04				
			Other Inorganic Materials	73.93	Cs-137	4.58E-02				
			Cellulose	0.00	Np-237	2.49E-04				
			Rubber	0.00	Pu-238	4.71E-01				
			Plastic	0.00	Pu-239	2.18E-01				
			Cement	0.00	Pu-240	1.97E-01				
			Solidified Inorganic Material	216.14	Pu-241	2.03E+00				
			Solidified Organic Material	0.00	Pu-242	2.03E-03				
			Soil	0.00	Pu-244	2.10E-08				
			Vitrified	0.00	Sr-90	3.25E-02				
			Packaging Material, Cellulosics	0.00	Th-229	5.79E-10				
			Packaging Material, Plastic	37.07	Th-230	1.76E-07				
			Packaging Material, Rubber	0.57	Th-232	6.75E-08				
			Packaging Material, Steel	130.77	U-233	6.58E-06				
			Packaging Material, Lead	0.00	U-234	1.60E-05				
					U-235	6.69E-07				
					U-236	3.95E-07				
					U-238	1.21E-05				

Waste Stream Description

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

Waste Stream ID: AE-T009

Appendix A
Waste Profile Report

Site	Argonne National Laboratory - East	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	RH TRU			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum	0.8	0.0	0.8
30-gal Drum	4.4	18.9	23.3
55-gal Drum Dir Ld w/o Liner	5.8	37.0	42.8
85-gal Drum	1.3	0.0	1.3
Miscellaneous	0.5	0.0	0.5
Current Form Total	12.9	55.9	68.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 30-gal w/o Liner	2.4	19.0	21.4
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	19.3	37.4	56.8
RH Lead Shielded Cntr w/ 1 - 30 gal w/o Liner	2.0	0.0	2.0
Final Form Total	23.8	56.4	80.2

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)
Iron-based Metal/Alloys	67.55	Am-241	3.25E+00
Aluminum-based Metal/Alloys	20.40	Am-243	5.18E-02
Other Metal/Alloys	87.29	Cm-244	2.09E+00
Other Inorganic Materials	11.84	Cs-137	6.58E+01
Cellulose	0.99	Np-237	4.25E-05
Rubber	9.87	Pu-238	2.38E+00
Plastic	23.14	Pu-239	3.07E+00
Cement	0.00	Pu-240	2.00E+00
Solidified Inorganic Material	11.40	Pu-241	3.44E+01
Solidified Organic Material	14.48	Pu-242	1.91E-03
Soil	0.00	Pu-244	1.52E-19
Vitrified	0.00	Sr-90	4.72E+01
Packaging Material, Cellulosics	0.00	Th-229	1.17E-04
Packaging Material, Plastic	10.47	Th-230	3.99E-07
Packaging Material, Rubber	0.71	Th-232	4.59E-12
Packaging Material, Steel	1181.88	U-233	8.17E-06
Packaging Material, Lead	96.76	U-234	4.76E-05
		U-235	1.87E-04
		U-236	1.17E-07
		U-238	1.31E-03

Haz. Waste No(s).
D004, D005, D006, D007, D008, D009, D010, D011, D019, D028, D029, F002, F005
TRUCON Code(s)
321, 322, 325

Waste Stream Description

Waste stream consists of RH TRU debris generated by destructive and nondestructive examination of radiological materials such as fuel pins, reactor structural materials, and targets in waste cans. This waste stream consists predominantly of organic and inorganic debris generated during the destructive and nondestructive examinations. Wastes are visually inspected at packaging to ensure that the waste is compliant per the ANL Acceptable Knowledge document.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: **AW-5410N**

Appendix A
Waste Profile Report

Site	Material and Fuels Complex	Summary Category	S5000	Defense Determination	Pending Determination	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	RH TRU ATR Complex Legacy from Hot-Cell Cleanup			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Steel w/ lead-lined 55-gal drum	2.7	0.0	2.7
Current Form Total	2.7	0.0	2.7
Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Lead Shielded Cntr w/ 1 - 30 gal w/o Liner	0.1	0.0	0.1
Final Form Total	0.1	0.0	0.1

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	50.62	Am-241	3.90E-01
Aluminum-based Metal/Alloys	16.90	Am-243	1.73E-03
Other Metal/Alloys	0.00	Cm-244	1.58E-05
Other Inorganic Materials	0.00	Cs-137	2.39E+00
Cellulose	8.43	Np-237	4.36E-05
Rubber	0.00	Pu-238	1.94E-01
Plastic	8.43	Pu-239	5.32E-02
Cement	0.00	Pu-240	8.01E-02
Solidified Inorganic Material	7.63	Pu-241	2.84E+00
Solidified Organic Material	0.00	Pu-242	2.17E-04
Soil	0.00	Sr-90	5.04E+00
Vitrified	0.00	Th-229	7.48E-14
Packaging Material, Cellulosics	0.00	Th-230	4.31E-10
Packaging Material, Plastic	1.60	Th-232	5.26E-19
Packaging Material, Rubber	1.04	U-233	5.68E-10
Packaging Material, Steel	3619.47	U-234	1.64E-05
Packaging Material, Lead	3814.16	U-235	2.74E-06
		U-236	7.11E-09
		U-238	5.44E-05

No Hazardous Waste Numbers Provided
TRUCON Code(s)
325

Waste Stream Description

Lab debris: fuel examination waste rod pieces (Severe Fuel Damage tests), met mounts, small plastic and metal containers, Tygon tubing, etc.

Comprehensive Inventory Database ver. **2.01** Data ver. **D.12.01**
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: **AW-5649N**

Appendix A
Waste Profile Report

Site	Material and Fuels Complex	Summary Category	S3000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	CH TRU ATR Complex			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)			
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		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	0.00	Am-241	2.41E-03
Aluminum-based Metal/Alloys	0.00	Np-237	2.76E-09
Other Metal/Alloys	0.00	Pu-238	3.40E-05
Other Inorganic Materials	0.00	Pu-239	1.18E-02
Cellulose	0.00	Pu-240	5.86E-03
Rubber	0.00	Pu-241	8.36E-02
Plastic	0.00	Th-229	2.56E-18
Cement	0.00	Th-230	7.20E-15
Solidified Inorganic Material	67.79	Th-232	6.85E-20
Solidified Organic Material	0.00	U-233	2.24E-14
Soil	0.00	U-234	3.89E-10
Vitrified	0.00	U-235	4.64E-11
Packaging Material, Cellulosics	0.00	U-236	6.94E-10
Packaging Material, Plastic	0.00		
Packaging Material, Rubber	0.57		
Packaging Material, Steel	130.77		
Packaging Material, Lead	0.00		

No Hazardous Waste Numbers Provided

TRUCON Code(s)

113/213

Waste Stream Description
This waste stream consists of solidified actinide solutions using Aquaset-II.

Waste Stream ID: **AW-5882N****Appendix A****Waste Profile Report**

Site	Material and Fuels Complex	Summary Category	S5000	Defense Determination	Pending Determination	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	RH TRU INL ATR Complex ARMF Capsules			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-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/o Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	1.24
Other Metal/Alloys	0.00
Other Inorganic Materials	0.14
Cellulose	0.00
Rubber	0.00
Plastic	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.00E-01
Cs-137	3.46E-01
Np-237	5.22E-07
Sr-90	3.41E-01
Th-229	2.11E-15
Th-230	1.46E-13
U-233	9.00E-12
U-234	3.97E-09
U-235	2.29E-04
U-238	1.78E-04

No Hazardous
Waste Numbers
Provided

TRUCON Code(s)

325

Waste Stream Description

ARMF/CRMF encapsulated irradiated fuel examination waste and ATR hot-cell debris.

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

Appendix A
Waste Profile Report

Site	Material and Fuels Complex	Summary Category	S5000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	MFC CH-MTRU Due to RCRA Metals			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D006, D007, D008, D011
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	1.0	4.4	5.4	Iron-based Metal/Alloys	70.47	Am-241	9.43E-02	
Current Form Total	1.0	4.4	5.4	Aluminum-based Metal/Alloys	2.06	Am-243	1.10E-16	
Final Form Volumes				Other Metal/Alloys	5.77	Cm-244	1.51E-10	TRUCON Code(s)
Container Type	Stored	Proj.	Total	Other Inorganic Materials	44.51	Cs-137	2.61E-03	125/225
55-gal Drum Dir Ld w/o Liner	1.0	4.4	5.4	Cellulose	2.06	Cs-237	1.74E-04	
Final Form Total	1.0	4.4	5.4	Rubber	0.00	Pu-238	1.50E-02	
				Plastic	3.30	Pu-239	2.61E-01	
				Cement	0.00	Pu-240	1.15E-01	
				Solidified Inorganic Material	0.00	Pu-241	5.56E-01	
				Solidified Organic Material	1.24	Pu-242	3.16E-05	
				Soil	0.00	Sr-90	5.24E-03	
				Vitrified	0.00	Th-229	3.00E-13	
				Packaging Material, Cellulosics	0.00	Th-230	2.00E-07	
				Packaging Material, Plastic	0.00	Th-232	3.38E-10	
				Packaging Material, Rubber	0.57	U-233	2.27E-09	
				Packaging Material, Steel	130.77	U-234	5.81E-04	
				Packaging Material, Lead	0.00	U-235	1.96E-05	
						U-236	2.11E-06	
						U-238	1.88E-07	

Waste Stream Description

This waste stream is debris generated in the Casting Lab, Analytical Laboratory and Fuel Manufacturing Facility glove boxes. This waste stream consists of miscellaneous discarded equipment and process materials (e.g., lead-lined gloves, metals, cellulose, plastics, water (dried) and/or air filters, crucibles, tools, etc.) contaminated with transuranic actinides, activation and fission products, and RCRA-metals (typically cadmium, lead, chromium, silver).

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

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

Appendix A
Waste Profile Report

Site	Material and Fuels Complex	Summary Category	S5000	Defense Determination	Pending Determination	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	RH TRU Hot Cell Waste	Activity Concentrations Decayed to CY			2012		

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	2.3	9.6	11.9
Canister - (MFC) o/p 45-gal Drums	2.0	41.6	43.6
Canister - (SL-type)	0.9	0.0	0.9
Liner - RSWF	0.4	0.0	0.4
Current Form Total	5.5	51.2	56.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	8.7	56.8	65.5
Final Form Total	8.7	56.8	65.5

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	521.14	Am-241	1.31E+00
Aluminum-based Metal/Alloys	4.04	Am-243	5.99E-11
Other Metal/Alloys	159.88	Cm-244	1.80E-08
Other Inorganic Materials	5.83	Cs-137	1.93E+02
Cellulose	4.95	Np-237	5.63E-04
Rubber	0.82	Pu-238	2.15E-02
Plastic	5.46	Pu-239	4.85E+00
Cement	0.00	Pu-240	2.13E+00
Solidified Inorganic Material	0.79	Pu-241	1.32E-01
Solidified Organic Material	0.00	Pu-242	5.81E-05
Soil	0.00	Sr-90	2.99E+02
Vitrified	0.00	Th-229	1.08E-13
Packaging Material, Cellulosics	0.00	Th-230	8.46E-09
Packaging Material, Plastic	8.70	Th-232	9.90E-16
Packaging Material, Rubber	0.57	U-233	2.45E-09
Packaging Material, Steel	931.09	U-234	9.20E-04
Packaging Material, Lead	0.00	U-235	6.52E-06
		U-236	2.01E-05
		U-238	1.53E-09

No Hazardous Waste Numbers Provided
TRUCON Code(s)
325

Waste Stream Description

This waste stream is remote-handled (RH) radioactive transuranic miscellaneous debris waste generated in the hot-cells of the Fuel Conditioning Facility (FCF), Hot Fuel Examination Facility (HFEF), and Analytical Lab (AL). These process materials are: AL sampling process waste, metals, cellulose, plastics, rubber, glass labware, solidified samples, filters, discarded equipment and tools, etc. It may also contain small pieces and fines of post-irradiation fuel examination waste (FEW) and subassembly hardware.

Comprehensive Inventory Database ver. **2.01** Data ver. **D.12.01**
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: **AW-T033.1325****Appendix A****Waste Profile Report**

Site	Material and Fuels Complex	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	MFC CH-TRU Waste			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	1.5	26.2	27.7
Current Form Total	1.5	26.2	27.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	1.5	26.2	27.7
Final Form Total	1.5	26.2	27.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	123.13
Aluminum-based Metal/Alloys	28.22
Other Metal/Alloys	52.45
Other Inorganic Materials	101.15
Cellulose	0.00
Rubber	6.44
Plastic	42.96
Cement	0.00
Solidified Inorganic Material	7.99
Solidified Organic Material	22.23
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.13E+00
Am-243	4.67E-03
Cm-244	3.21E-02
Cs-137	2.54E-04
Np-237	2.04E-03
Pu-238	3.51E-02
Pu-239	7.79E-01
Pu-240	1.92E-01
Pu-241	3.76E+01
Pu-242	3.45E-05
Sr-90	7.98E-04
Th-229	3.51E-12
Th-230	1.16E-07
Th-232	9.92E-12
U-233	2.66E-08
U-234	3.40E-04
U-235	9.12E-06
U-236	1.91E-06
U-238	6.82E-07

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description

Miscellaneous process debris waste (e.g., plastics, cellulose, rubber, labware, filters, etc.) generated from the Casting Laboratory (CL) formerly known as Plutonium Casting Lab (PCL), the Experimental Fuels Lab (EFL), Fuel Manufacturing Facility (FMF), Fuels and Applied Science Building (FASB), and Analytical Laboratory (AL) operations. This waste is typically packaged in 55-gallon drums w/o poly liners.

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

Appendix A
Waste Profile Report

Site	Material and Fuels Complex	Summary Category	S5000	Defense Determination	Pending Determination	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	RH MTRU Hot Cell Waste			Activity Concentrations Decayed to CY	2012		
Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides	
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Container Type	Stored	Proj.	Total				
30-gal Drum	0.1	0.0	0.1	Iron-based Metal/Alloys	790.60	Am-241	4.21E-01
45-gal IWC	0.0	21.4	21.4	Aluminum-based Metal/Alloys	5.82	Cs-137	2.53E+02
55-gal Drum Dir Ld w/o Liner	0.2	0.0	0.2	Other Metal/Alloys	15.65	Np-237	3.49E-04
Canister - (MFC) o/p 45-gal Drums	0.7	0.0	0.7	Other Inorganic Materials	29.54	Pu-238	8.56E-01
Liner - RSWF	0.1	0.0	0.1	Cellulose	14.26	Pu-239	1.31E+00
Current Form Total	1.1	21.4	22.5	Rubber	0.00	Pu-240	1.56E-01
Final Form Volumes				Plastic	18.54	Pu-241	2.26E+00
Container Type	Stored	Proj.	Total	Cement	0.00	Pu-242	5.20E-05
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	1.9	26.2	28.1	Solidified Inorganic Material	5.88	Sr-90	1.84E+02
Final Form Total	1.9	26.2	28.1	Solidified Organic Material	0.00	Th-229	4.69E-10
				Soil	0.00	Th-230	1.12E-07
				Vitrified	0.00	Th-232	1.72E-14
				Packaging Material, Cellulosics	0.00	U-233	1.78E-06
				Packaging Material, Plastic	8.70	U-234	4.06E-03
				Packaging Material, Rubber	0.57	U-235	1.70E-04
				Packaging Material, Steel	931.09	U-236	1.16E-04
				Packaging Material, Lead	0.00	U-238	1.54E-04

Haz. Waste No(s).
D006, D007, D008, D009

TRUCON Code(s)
325

Waste Stream Description

This waste stream consists of miscellaneous FCF, HFEF and AL generated debris: metals, cellulosics, plastics, water (dried) and/or air filters, crucibles, discarded tools, etc. The waste is also contaminated with any or all of these RCRA metals: cadmium, chromium, lead, mercury.

Waste Stream ID: BT-T001

Appendix A
Waste Profile Report

Site	Bettis Atomic Power Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Irradiated TRU material waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	
Container Type	Stored	Proj.	Total					
Hot Cell	0.0	4.8	4.8	Iron-based Metal/Alloys	0.00	Am-241	8.59E-03	
Current Form Total	0.0	4.8	4.8	Aluminum-based Metal/Alloys	0.00	Am-243	3.57E-05	
				Other Metal/Alloys	268.83	Cs-137	1.92E+01	
Final Form Volumes				Other Inorganic Materials	0.00	Np-237	5.11E-05	
Container Type	Stored	Proj.	Total	Cellulose	44.87	Pu-238	4.11E-01	
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	0.0	5.0	5.0	Rubber	0.00	Pu-239	3.25E-04	
Final Form Total	0.0	5.0	5.0	Plastic	134.42	Pu-241	6.89E-02	
				Cement	0.00	Pu-242	5.87E-06	
				Solidified Inorganic Material	0.00	Sr-90	1.91E+01	
				Solidified Organic Material	0.00	Th-229	1.16E-05	
				Soil	0.00	Th-230	8.77E-10	
				Vitrified	0.00	Th-232	7.36E-16	
				Packaging Material, Cellulosics	0.00	U-233	3.23E-03	
				Packaging Material, Plastic	8.70	U-234	9.59E-05	
				Packaging Material, Rubber	0.57	U-235	1.24E-06	
				Packaging Material, Steel	931.09	U-236	1.49E-05	
				Packaging Material, Lead	0.00	U-238	5.93E-09	

TRUCON Code(s)
322

Waste Stream Description
Specimen processing fines, material, and debris.

Waste Stream ID: IN-AE-AGHC-02

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	MFC Retrievable ANL-E RH TRU Containers - Stage 2			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D006, D007, D008, D009, D010, D011, D019, D028, D029, F002, F005
Container Type	Stored	Proj.	Total					
55-gal Drum	37.2	0.0	37.2	Iron-based Metal/Alloys	46.89	Cs-137	1.19E+02	
Canister - (ANL-E)	0.8	0.0	0.8	Aluminum-based Metal/Alloys	3.19	Pu-239	3.31E+00	
Current Form Total	38.0	0.0	38.0	Other Metal/Alloys	4.82	Pu-240	1.65E+00	
				Other Inorganic Materials	3.19	Sr-90	1.83E+02	
Final Form Volumes				Cellulose	5.79	Th-230	1.60E-12	
Container Type	Stored	Proj.	Total	Rubber	1.06	Th-232	6.88E-08	
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	115.4	0.0	115.4	Plastic	8.82	U-234	2.18E-08	
Final Form Total	115.4	0.0	115.4	Cement	0.00	U-235	3.48E-04	
				Solidified Inorganic Material	0.00	U-236	7.83E-07	TRUCON Code(s) 321, 322, 325
				Solidified Organic Material	0.14	U-238	4.86E-04	
				Soil	0.00			
				Vitrified	0.00			
				Packaging Material, Cellulosics	0.00			
				Packaging Material, Plastic	8.70			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	931.09			
				Packaging Material, Lead	0.00			

Waste Stream Description
The Stage 2 waste consists of 13 ANL-E Canisters and 179 55 gallon drums; filled with combustible and non-combustible scrap, recoverable and non-recoverable fissile material, bonded clad material, irradiated structural material, grinding papers, fuel fines, fuel pin pieces, and fuel impregnated with epoxy, from the destructive examination of irradiated fuel pins in the Alpha-Gamma Hot Cell at ANL-E. One canister, ANLE44, is noted to have a single 2R inner container, that contains 39 whole elements.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

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

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Noncompliant Waste segregated From Waste stream IN-AE-AGHC-02 during repackaging.			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D006, D007, D008, D009, D010, D011, D019, D028, D029, F002, F005
Container Type	Stored	Proj.	Total					
55-gal Drum	1.0	0.0	1.0	Iron-based Metal/Alloys	60.24	Cs-137	1.59E+02	
Current Form Total				Aluminum-based Metal/Alloys	4.10	Pu-239	4.44E+00	
	1.0	0.0	1.0	Other Metal/Alloys	6.20	Pu-240	2.21E+00	
Final Form Volumes				Other Inorganic Materials	4.10	Sr-90	2.45E+02	
Container Type	Stored	Proj.	Total	Cellulose	7.44	Th-230	2.15E-12	
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	1.2	0.0	1.2	Rubber	1.37	Th-232	9.20E-08	
Final Form Total				Plastic	11.33	U-234	2.92E-08	
	1.2	0.0	1.2	Cement	0.00	U-235	4.66E-04	
				Solidified Inorganic Material	0.00	U-236	1.05E-06	TRUCON Code(s) 321, 322, 325
				Solidified Organic Material	0.18	U-238	6.50E-04	
				Soil	0.00			
				Vitrified	0.00			
				Packaging Material, Cellulosics	0.00			
				Packaging Material, Plastic	8.70			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	931.09			
				Packaging Material, Lead	0.00			

Waste Stream Description

This waste stream consists of five 55 gallon drums . The waste contained in these five drums had experienced either vigorous reaction or spontaneous combustion during waste sorting and repackaging operations. The waste in these drums was generated at ANL-E during destructive examination of the irradiated fuel pins and mostly contains fuel pieces and fines. In response to the spontaneous combustion Met-L-X was added to extinguish the fire and Sodium Carbonate was added to prevent further reactions. The waste will be treated in future for meeting WIPP disposition requirements.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-BN004

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Special Setups Waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D006, D007, D008, D011, D029, F001, F002, F005, F006, F007, F009
Container Type	Stored	Proj.	Total	Iron-based Metal/Alloys	0.02	Am-241	4.84E-01	
55-gal Drum Dir Ld w/ Liner	225.3	0.0	225.3	Aluminum-based Metal/Alloys	0.00	Cm-244	1.41E-03	
Box - Misc	3.2	0.0	3.2	Other Metal/Alloys	0.03	Cs-137	1.89E-09	
Current Form Total	228.4	0.0	228.4	Other Inorganic Materials	2.35	Np-237	1.89E-05	
Final Form Volumes				Cellulose	0.03	Pu-238	3.97E-02	
Container Type	Stored	Proj.	Total	Rubber	0.01	Pu-239	1.05E+00	
SWB w/ 4 - 55-gal Drums w/ Liners	542.4	0.0	542.4	Plastic	0.22	Pu-240	2.36E-01	
Final Form Total	542.4	0.0	542.4	Cement	272.94	Pu-241	1.31E+00	
				Solidified Inorganic Material	175.34	Pu-242	2.28E-05	TRUCON Code(s) 111/211
				Solidified Organic Material	0.00	Sr-90	2.07E-09	
				Soil	0.00	Th-229	3.21E-14	
				Vitrified	0.00	Th-230	3.04E-10	
				Packaging Material, Cellulosics	0.00	Th-232	1.55E-18	
				Packaging Material, Plastic	16.30	U-233	2.44E-10	
				Packaging Material, Rubber	0.44	U-234	1.12E-05	
				Packaging Material, Steel	211.11	U-235	1.78E-06	
				Packaging Material, Lead	0.00	U-236	2.09E-08	
						U-238	8.43E-05	

Waste Stream Description

IN-BN004 (Special Setups) waste was generated from a waste treatment process that solidified process waste (predominately laboratory waste) generated in support of plutonium operations at Rocky Flats. Resins and electrochemical milling sludges were also solidified with the liquid waste.

Waste Stream ID: IN-BN050

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Solidified Solutions			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	
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					
				Iron-based Metal/Alloys	185.10	Np-237	3.33E-04	
				Aluminum-based Metal/Alloys	0.00	Pu-239	1.20E-01	
				Other Metal/Alloys	0.00	Th-229	3.35E-11	
				Other Inorganic Materials	2.75	U-233	3.31E-08	
				Cellulose	123.56	U-235	2.72E-09	
				Rubber	0.00			
				Plastic	1.64			
				Cement	0.00			
				Solidified Inorganic Material	0.00			
				Solidified Organic Material	0.00			
				Soil	0.00			
				Vitrified	0.00			
				Packaging Material, Cellulosics	0.00			
				Packaging Material, Plastic	37.07			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			

No TRUCON Codes Provided

Waste Stream Description

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

Waste Stream ID: **IN-BN090****Appendix A****Waste Profile Report**

Site	Idaho National Laboratory	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Spill Clean-ups/Emergency Response Actions	Waste Matrix Code Group	Contaminated Soil/Debris Waste	Inventory Date	12/31/2012		
Stream Name	Dirt			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	544.3	0.0	544.3
Final Form Total	544.3	0.0	544.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.85
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	6.65
Cellulose	3.45
Rubber	0.00
Plastic	0.36
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.24
Soil	463.19
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.42E-03
Cs-137	5.98E-12
Np-237	3.16E-08
Pu-238	1.03E-04
Pu-239	2.64E-03
Pu-240	5.58E-04
Pu-241	3.01E-03
Pu-242	6.20E-08
Sr-90	6.61E-12
Th-229	5.29E-17
Th-230	3.59E-11
Th-232	3.67E-21
U-233	4.04E-13
U-234	1.30E-06
U-235	3.22E-07
U-236	4.96E-11
U-238	4.61E-06

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

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

Waste Stream ID: IN-BN203

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Paper, Cloth, Metal, Glass			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	No TRUCON Codes Provided
Container Type	Stored	Proj.	Total	Iron-based Metal/Alloys	0.00	Am-241	2.16E-01	
55-gal Drum Dir Ld w/ Liner	5.4	0.0	5.4	Aluminum-based Metal/Alloys	0.00	Cs-137	3.56E-08	
Bin - Misc	21.0	0.0	21.0	Other Metal/Alloys	0.00	Np-237	6.14E-06	
Current Form Total	26.4	0.0	26.4	Other Inorganic Materials	0.00	Pu-238	2.88E-02	
Final Form Volumes				Cellulose	0.00	Pu-239	4.81E-01	
Container Type	Stored	Proj.	Total	Rubber	0.00	Pu-240	1.16E-01	
TDOP w/ 10 - 55-gal Drums w/ Liners	36.0	0.0	36.0	Plastic	0.00	Pu-241	9.06E-01	
Final Form Total	36.0	0.0	36.0	Cement	0.00	Pu-242	1.34E-05	
				Solidified Inorganic Material	0.03	Sr-90	3.91E-08	
				Solidified Organic Material	0.00	Th-229	4.63E-15	
				Soil	0.00	Th-230	7.26E-10	
				Vitrified	0.00	Th-232	3.40E-19	
				Packaging Material, Cellulosics	0.00	U-233	5.28E-11	
				Packaging Material, Plastic	17.13	U-234	3.95E-05	
				Packaging Material, Rubber	0.44	U-235	1.23E-05	
				Packaging Material, Steel	231.11	U-236	6.89E-09	
				Packaging Material, Lead	0.00	U-238	2.08E-05	

Waste Stream Description
This waste stream was generated by D&D activities at the Battelle Columbus Laboratory. It consists of a mixture of combustible and non-combustible items in roughly equal weights. The combustible wastes are primarily paper and plastic products and the non-combustible wastes are primarily metal with some glass.

Waste Stream ID: IN-BN204

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Solidified Solutions			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.5	0.0	1.5
Current Form Total	1.5	0.0	1.5
Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	3.8	0.0	3.8
Final Form Total	3.8	0.0	3.8

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)
Iron-based Metal/Alloys	0.00	Am-241	7.39E-02
Aluminum-based Metal/Alloys	0.00	Cs-137	8.08E-08
Other Metal/Alloys	0.00	Np-237	6.72E-06
Other Inorganic Materials	196.75	Pu-238	1.36E+00
Cellulose	0.00	Pu-239	9.50E-02
Rubber	0.00	Pu-240	2.67E-02
Plastic	0.00	Pu-241	1.88E-01
Cement	0.00	Pu-242	1.83E-05
Solidified Inorganic Material	199.14	Sr-90	8.84E-08
Solidified Organic Material	0.00	Th-229	1.98E-14
Soil	0.00	Th-230	4.18E-10
Vitrified	0.00	Th-232	3.12E-19
Packaging Material, Cellulosics	0.00	U-233	1.13E-10
Packaging Material, Plastic	16.30	U-234	1.91E-05
Packaging Material, Rubber	0.44	U-235	1.06E-06
Packaging Material, Steel	211.11	U-236	3.16E-09
Packaging Material, Lead	0.00	U-238	1.13E-14

No Hazardous
Waste Numbers
Provided

No TRUCON
Codes Provided

Waste Stream Description

This waste comes from Battelle Columbus Labs. It is a turco soap decontamination solution (used to decontaminate glove boxes from a Pu lab) which is solidified in plaster-of-paris.

Waste Stream ID: IN-BN222

Appendix A
Waste Profile Report

Site	Idaho National Laboratory			Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH	
Source Cat.	Pollution Control or Waste Treatment Process			Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012		
Stream Name	Solidified Plutonium Recovery Incinerator Waste					Activity Concentrations Decayed to CY				2012
Waste Volume Detail (m³)				Waste Material Parameters			Final Form Radionuclides		Haz. Waste No(s).	
Current Form Volumes									D004, D005, D006, D007, D008, D009, D010, D011, D022, F001, F002, F005, F006, F007, F009	
Container Type	Stored	Proj.	Total							
55-gal Drum Dir Ld w/ Liner	83.2	0.0	83.2							
Current Form Total	83.2	0.0	83.2							
Final Form Volumes										
Container Type	Stored	Proj.	Total							
SWB w/ 4 - 55-gal Drums w/o Liners	200.3	0.0	200.3							
Final Form Total	200.3	0.0	200.3							
				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)			
				Iron-based Metal/Alloys	4.32	Am-241	7.75E-01			
				Aluminum-based Metal/Alloys	0.02	Np-237	1.47E-04			
				Other Metal/Alloys	0.13	Pu-238	1.46E-01			
				Other Inorganic Materials	1.74	Pu-239	3.81E+00			
				Cellulose	0.02	Pu-240	8.67E-01			
				Rubber	0.04	Pu-241	5.17E+00			
				Plastic	12.80	Pu-242	6.72E-05			
				Cement	79.65	Th-229	1.35E-12			
				Solidified Inorganic Material	93.50	Th-230	1.35E-10			
				Solidified Organic Material	0.00	Th-232	3.10E-17			
				Soil	0.00	U-233	4.39E-09			
				Vitrified	0.00	U-234	3.56E-06			
				Packaging Material, Cellulosics	0.00	U-235	1.65E-07			
				Packaging Material, Plastic	0.00	U-236	1.80E-07			
				Packaging Material, Rubber	0.44	U-238	1.74E-07			
				Packaging Material, Steel	211.11					
				Packaging Material, Lead	0.00					

Waste Stream Description

The waste is comprised of plutonium recovery incinerator waste. This waste stream includes solidified ash from the incinerator burn chamber and solidified soot and scrubber sludge from the incinerator off-gas system of the plutonium recovery incinerator.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-BN290

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics			Inventory Date	12/31/2012
Stream Name	Filter Sludge				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m ³)			
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		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	12.20	Am-241	3.66E-01
Aluminum-based Metal/Alloys	0.00	Np-237	3.93E-06
Other Metal/Alloys	0.00	Pu-238	7.92E-02
Other Inorganic Materials	22.44	Pu-239	1.92E+00
Cellulose	0.00	Pu-240	4.25E-01
Rubber	0.00	Pu-241	1.79E+00
Plastic	4.47	Pu-242	3.16E-05
Cement	0.00	Th-229	2.89E-15
Solidified Inorganic Material	111.56	Th-230	4.15E-12
Solidified Organic Material	0.00	Th-232	1.24E-18
Soil	0.00	U-233	3.32E-11
Vitrified	0.00	U-234	4.50E-07
Packaging Material, Cellulosics	0.00	U-235	3.78E-09
Packaging Material, Plastic	17.13	U-236	2.52E-08
Packaging Material, Rubber	0.44	U-238	9.80E-15
Packaging Material, Steel	231.11		
Packaging Material, Lead	0.00		

Haz. Waste No(s).
D006, D008, F001, F002

No TRUCON
Codes Provided

Waste Stream Description

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

Waste Stream ID: IN-BN311

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Process Heels			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m³)
Iron-based Metal/Alloys	1.02
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.33
Other Inorganic Materials	91.67
Cellulose	0.00
Rubber	0.00
Plastic	19.67
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	17.13
Packaging Material, Rubber	0.44
Packaging Material, Steel	231.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m³)
Am-241	1.99E+00
Np-237	2.32E-05
Pu-238	6.14E-01
Pu-239	1.05E+01
Pu-240	2.46E+00
Pu-241	1.16E+01
Pu-242	1.93E-04
Th-229	3.61E-13
Th-230	8.40E-10
Th-232	1.80E-16
U-233	8.64E-10
U-234	1.80E-05
U-235	1.03E-07
U-236	7.29E-07
U-238	2.99E-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.

Waste Stream ID: IN-BN375

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Oil-Dri-Residue From Incinerator			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	F001, F002
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					TRUCON Code(s) 122/222
SWB w/ 4 - 55-gal Drums w/ Liners	9.5	0.0	9.5					
Final Form Total	9.5	0.0	9.5					
				Iron-based Metal/Alloys	7.08	Am-241	5.88E-01	
				Aluminum-based Metal/Alloys	0.00	Np-237	6.93E-06	
				Other Metal/Alloys	0.89	Pu-238	3.76E-02	
				Other Inorganic Materials	137.57	Pu-239	1.03E+00	
				Cellulose	1.83	Pu-240	2.41E-01	
				Rubber	0.04	Pu-241	1.27E+00	
				Plastic	7.84	Pu-242	2.21E-05	
				Cement	0.00	Th-229	2.95E-14	
				Solidified Inorganic Material	0.00	Th-230	1.47E-10	
				Solidified Organic Material	0.00	Th-232	4.40E-18	
				Soil	0.00	U-233	1.38E-10	
				Vitrified	0.00	U-234	3.47E-06	
				Packaging Material, Cellulosics	0.00	U-235	3.10E-07	
				Packaging Material, Plastic	16.30	U-236	3.56E-08	
				Packaging Material, Rubber	0.44	U-238	1.71E-14	
				Packaging Material, Steel	211.11			
				Packaging Material, Lead	0.00			

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

Waste Stream ID: **IN-BN409****Appendix A****Waste Profile Report**

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Salt Waste	Inventory Date	12/31/2012		
Stream Name	Chloride Salts			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

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

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.18E+01
Cs-137	3.18E-09
Np-237	9.97E-05
Pu-238	6.08E-01
Pu-239	1.09E+01
Pu-240	2.52E+00
Pu-241	1.62E+01
Pu-242	4.31E-04
Sr-90	3.50E-09
Th-229	5.72E-13
Th-230	2.95E-10
Th-232	6.63E-17
U-233	2.26E-09
U-234	1.06E-05
U-235	7.29E-08
U-236	4.48E-07
U-238	4.01E-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.

Waste Stream ID: IN-BN421

Appendix A
Waste Profile Report

Site	Idaho National Laboratory			Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents			Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Uncemented Ash/Soot					Activity Concentrations Decayed to CY 2012			
Waste Volume Detail (m ³)				Waste Material Parameters			Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, F001, F002, F005	
Container Type	Stored	Proj.	Total						
55-gal Drum Dir Ld w/ Liner	47.8	0.0	47.8	Iron-based Metal/Alloys	2.72	Am-241	5.69E+00	TRUCON Code(s) 114/214	
Current Form Total	47.8	0.0	47.8	Aluminum-based Metal/Alloys	0.00	Cs-137	4.20E-08		
Final Form Volumes				Other Metal/Alloys	0.22	Np-237	8.28E-05		
Container Type	Stored	Proj.	Total	Other Inorganic Materials	28.17	Pu-238	1.16E+00		
TDOP w/ 10 - 55-gal Drums w/ Liners	72.0	0.0	72.0	Cellulose	0.00	Pu-239	2.23E+01		
Final Form Total	72.0	0.0	72.0	Rubber	0.00	Pu-240	5.16E+00		
				Plastic	33.78	Pu-241	2.52E+01		
				Cement	0.00	Pu-242	4.55E-04		
				Solidified Inorganic Material	0.00	Sr-90	4.58E-08		
				Solidified Organic Material	0.00	Th-229	3.59E-13		
				Soil	0.00	Th-230	4.54E-10		
				Vitrified	0.00	Th-232	9.43E-17		
				Packaging Material, Cellulosics	0.00	U-233	1.67E-09		
				Packaging Material, Plastic	17.13	U-234	1.82E-05		
				Packaging Material, Rubber	0.44	U-235	4.67E-07		
				Packaging Material, Steel	231.11	U-236	7.64E-07		
				Packaging Material, Lead	0.00	U-238	4.73E-07		

Waste Stream Description

This waste stream includes ash materials generated from the treatment of plutonium-containing combustible materials that were generated during plutonium production and recovery operations at Rocky Flats.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: **IN-BN425**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Fluid Bed Ash			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)

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

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

Waste Material Parameters

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

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.45E-04
Np-237	2.00E-10
Pu-238	1.58E-04
Pu-239	5.70E-03
Pu-240	1.27E-03
Pu-241	9.30E-03
Pu-242	1.66E-07
Th-229	4.27E-19
Th-230	1.49E-10
Th-232	5.92E-20
U-233	2.38E-15
U-234	2.03E-06
U-235	2.79E-07
U-236	3.00E-10
U-238	1.91E-05

Haz. Waste No(s).

D007, F005

TRUCON Code(s)

114/214

Waste Stream Description

This waste consists of fluidized bed ash which is a fine powder generated by the fluid bed incinerator (FBI) .

Waste Stream ID: IN-BN432

Appendix A
Waste Profile Report

Site	Idaho National Laboratory			Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources			Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2012	
Stream Name	Solidified Ion Exchange Resin from Actinide Recovery					Activity Concentrations Decayed to CY		2012	
Waste Volume Detail (m ³)				Waste Material Parameters			Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D007, D008, D022, D029, F001, F002, F005	
Container Type	Stored	Proj.	Total						
55-gal Drum Dir Ld w/ Liner	80.1	0.0	80.1	Iron-based Metal/Alloys	7.43	Am-241	4.58E+00	TRUCON Code(s) 126/226	
Current Form Total	80.1	0.0	80.1	Aluminum-based Metal/Alloys	0.00	Cs-137	2.99E-06		
				Other Metal/Alloys	9.45	Np-237	4.51E-05		
Final Form Volumes				Other Inorganic Materials	6.33	Pu-238	1.37E-01		
Container Type	Stored	Proj.	Total	Cellulose	0.35	Pu-239	3.15E+00		
TDOP w/ 10 - 55-gal Drums w/ Liners	184.5	0.0	184.5	Rubber	0.00	Pu-240	7.21E-01		
Final Form Total	184.5	0.0	184.5	Plastic	10.87	Pu-241	4.29E+00		
				Cement	73.06	Pu-242	6.33E-05		
				Solidified Inorganic Material	0.00	Sr-90	3.25E-06		
				Solidified Organic Material	85.77	Th-229	2.65E-13		
				Soil	0.00	Th-230	8.46E-11		
				Vitrified	0.00	Th-232	1.89E-17		
				Packaging Material, Cellulosics	0.00	U-233	1.04E-09		
				Packaging Material, Plastic	17.13	U-234	2.71E-06		
				Packaging Material, Rubber	0.44	U-235	1.23E-07		
				Packaging Material, Steel	231.11	U-236	1.28E-07		
				Packaging Material, Lead	0.00	U-238	5.89E-14		

Waste Stream Description

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

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-BN510

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Supercompacted Debris Waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D022, D028, D029, F001, F002, F005, F006, F007, F009
Container Type	Stored	Proj.	Total					
100-gal Drum Dir Ld w/o Liner	50.8	0.0	50.8	Iron-based Metal/Alloys	303.69	Am-241	3.12E-01	
Current Form Total				Aluminum-based Metal/Alloys	2.13	Am-243	7.34E-08	
	50.8	0.0	50.8	Other Metal/Alloys	6.23	Cm-244	2.31E-04	
Final Form Volumes						Cs-137	1.07E-07	
Container Type	Stored	Proj.	Total	Other Inorganic Materials	21.92	Np-237	1.25E-05	
100-gal Drum Dir Ld w/o Liner	50.8	0.0	50.8	Cellulose	206.68	Pu-238	1.88E-01	
Final Form Total				Rubber	6.74	Pu-239	1.26E+00	
	50.8	0.0	50.8	Plastic	121.57	Pu-240	2.74E-01	TRUCON Code(s) 121/221
				Cement	0.00	Pu-241	1.72E+00	
				Solidified Inorganic Material	0.08	Pu-242	2.52E-05	
				Solidified Organic Material	0.01	Sr-90	1.92E-07	
				Soil	0.08	Th-229	4.11E-09	
				Vitrified	0.00	Th-230	5.64E-09	
				Packaging Material, Cellulosics	0.00	Th-232	4.99E-18	
				Packaging Material, Plastic	0.00	U-233	9.35E-06	
				Packaging Material, Rubber	0.31	U-234	1.24E-04	
				Packaging Material, Steel	113.72	U-235	1.13E-04	
				Packaging Material, Lead	0.00	U-236	4.05E-08	
						U-238	3.76E-06	

Waste Stream Description
BN510 is a debris waste stream generated from supercompacted 55-gallon containers of debris waste.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-BN510.1

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Supercompacted Debris Waste				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	5571.1	0.0	5571.1
Bin - Misc	406.0	0.0	406.0
Box - Misc	3360.2	0.0	3360.2
Current Form Total	9337.3	0.0	9337.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
100-gal Drum Dir Ld w/o Liner	3380.3	0.0	3380.3
SWB Dir Ld w/o Liner	185.2	0.0	185.2
Final Form Total	3565.5	0.0	3565.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	30.43
Aluminum-based Metal/Alloys	0.03
Other Metal/Alloys	0.31
Other Inorganic Materials	0.98
Cellulose	7.27
Rubber	0.24
Plastic	3.12
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.02
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.31
Packaging Material, Steel	115.78
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.56E-02
Am-243	8.50E-11
Cs-137	4.33E-09
Np-237	6.63E-07
Pu-238	3.96E-01
Pu-239	6.14E-02
Pu-240	1.33E-02
Pu-241	7.49E-02
Pu-242	1.78E-06
Sr-90	4.77E-09
U-233	1.53E-06
U-234	6.90E-07
U-235	1.96E-07
U-238	2.01E-06

Haz. Waste No(s).

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

TRUCON Code(s)

121/221

Waste Stream Description

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

Waste Profile Report

Waste Volume Detail (m³)

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	56.4	96.3	152.7
Final Form Total	56.4	96.3	152.7

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.28E-02
Cs-137	7.17E-09
Np-237	1.19E-06
Pu-238	9.94E-03
Pu-239	2.66E-01
Pu-240	5.98E-02
Pu-241	2.76E-01
Pu-242	5.02E-06
Sr-90	7.87E-09
Th-229	2.26E-16
Th-230	9.26E-12
Th-232	4.37E-20
U-233	5.15E-12
U-234	1.02E-06
U-235	1.03E-07
U-236	1.77E-09
U-238	1.09E-05

Haz. Waste No(s).

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

TRUCON Code(s)

125/225

AMWTP WMF-676 PCB contaminated debris is generated as a result of removing prohibited PCB waste within the AMWTF WMF-676 north and south box lines and the drummed waste packaging glovebox (DWPG) and special-case waste (SCW) areas.

Waste Stream ID: **IN-BN806****Appendix A****Waste Profile Report**

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Solidified Process Solids			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)

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

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

Waste Material Parameters

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

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.27E-01
Cs-137	1.26E-08
Np-237	3.70E-06
Pu-238	6.51E-02
Pu-239	1.52E+00
Pu-240	3.47E-01
Pu-241	2.34E+00
Pu-242	2.50E-05
Sr-90	1.37E-08
Th-229	3.12E-14
Th-230	4.30E-11
Th-232	1.24E-17
U-233	1.04E-10
U-234	1.32E-06
U-235	1.05E-08
U-236	7.19E-08
U-238	2.71E-14

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

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

Waste Stream ID: **IN-BN811**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Pollution Control or Waste Treatment Process	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Evaporator and Dissolver Sludge				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

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

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

Waste Material Parameters

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

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.95E-02
Np-237	3.69E-06
Pu-238	2.02E+01
Pu-239	4.40E-02
Pu-240	2.62E-02
Pu-241	7.81E-02
Pu-242	2.83E-05
Th-229	3.27E-13
Th-230	1.57E-07
Th-232	1.01E-17
U-233	3.35E-10
U-234	1.44E-03
U-235	9.97E-10
U-236	1.79E-08
U-238	5.98E-05

No Hazardous
Waste Numbers
Provided

No TRUCON
Codes Provided

Waste Stream Description

"This waste stream, generated at Mound Laboratory, consists of dry evaporator and dissolver sludge in the form of powder or sand-like particles.

Waste Stream ID: **IN-BN817**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics	Inventory Date	12/31/2012		
Stream Name	Cemented Sand, Slag, Crucible Heels	Activity Concentrations Decayed to CY	2012				

Waste Volume Detail (m³)

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

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

Waste Material Parameters

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

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.54E-01
Np-237	2.72E-06
Pu-238	5.10E-02
Pu-239	1.15E+00
Pu-240	2.62E-01
Pu-241	1.70E+00
Pu-242	1.85E-05
Th-229	2.98E-14
Th-230	4.41E-11
Th-232	1.23E-17
U-233	8.69E-11
U-234	1.19E-06
U-235	9.04E-09
U-236	6.22E-08
U-238	2.30E-14

Haz. Waste No(s).

D007

**No TRUCON
Codes Provided**

Waste Stream Description

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

Waste Stream ID: IN-BN823

Appendix A
Waste Profile Report

Site	Idaho National Laboratory			Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents			Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Cemented Miscellaneous Sludge					Activity Concentrations Decayed to CY 2012			

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.7	0.0	3.7
Current Form Total	3.7	0.0	3.7

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

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

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m ³)
Am-241	3.21E-03
Np-237	2.87E-02
Pu-238	1.39E-03
Pu-239	2.53E-02
Pu-240	5.79E-03
Pu-241	3.98E-02
Pu-242	6.35E-07
Th-229	3.47E-10
Th-230	1.20E-12
Th-232	2.71E-19
U-233	9.85E-07
U-234	3.23E-08
U-235	1.99E-10
U-236	1.37E-09
U-238	7.88E-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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Profile Report

Waste Volume Detail (m³)

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	69.9	0.0	69.9
Final Form Total	69.9	0.0	69.9

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.06E-02
Cs-137	2.58E-08
Np-237	8.64E-06
Pu-238	1.99E+00
Pu-239	2.91E-03
Pu-240	1.86E-03
Pu-241	7.41E-03
Pu-242	2.08E-06
Sr-90	2.82E-08
Th-229	4.03E-14
Th-230	6.67E-10
Th-232	3.39E-20
U-233	1.84E-10
U-234	2.87E-05
U-235	2.34E-09
U-236	2.75E-10
U-238	9.85E-07

Haz. Waste No(s).

TRUCON Code(s)

111/211

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

Waste Stream ID: IN-BN836

Appendix A
Waste Profile Report

Site	Idaho National Laboratory			Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Pollution Control or Waste Treatment Process			Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Cemented Sludge					Activity Concentrations Decayed to CY 2012			
Waste Volume Detail (m ³)				Waste Material Parameters			Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, F001, F002, F005	
Container Type	Stored	Proj.	Total						
55-gal Drum Dir Ld w/ Liner	61.8	0.0	61.8	Iron-based Metal/Alloys	0.00	Am-241	3.04E-05	TRUCON Code(s) 111/211	
Current Form Total	61.8	0.0	61.8	Aluminum-based Metal/Alloys	0.00	Cs-137	5.37E-06		
				Other Metal/Alloys	0.01	Np-237	8.12E-07		
Final Form Volumes				Other Inorganic Materials	0.21	Pu-238	7.51E-02		
Container Type	Stored	Proj.	Total	Cellulose	0.11	Pu-239	2.30E-03		
SWB w/ 4 - 55-gal Drums w/ Liners	149.3	0.0	149.3	Rubber	0.00	Pu-240	6.49E-04		
Final Form Total	149.3	0.0	149.3	Plastic	0.05	Pu-241	4.18E-03		
				Cement	216.74	Pu-242	1.72E-07		
Solidified Inorganic Material				285.45	Sr-90	5.87E-06			
Solidified Organic Material				0.00	Th-229	2.42E-15			
Soil				0.00	Th-230	1.59E-11			
Vitrified				0.00	Th-232	7.58E-21			
Packaging Material, Cellulosics				0.00	U-233	1.38E-11			
Packaging Material, Plastic				16.30	U-234	8.62E-07			
Packaging Material, Rubber				0.44	U-235	9.05E-12			
Packaging Material, Steel				211.11	U-236	7.68E-11			
Packaging Material, Lead				0.00	U-238	1.07E-16			

Waste Stream Description

IN-BN836 consists of drums containing Mound cemented sludge (IDC 836). The sludge was originally generated from the treatment of alpha-contaminated wastewaters at the Waste Disposal Building.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-BN842

Appendix A
Waste Profile Report

Site	Idaho National Laboratory			Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste			Waste Matrix Code Group	Contaminated Soil/Debris Waste		Inventory Date	12/31/2012	
Stream Name	Contaminated Soil					Activity Concentrations Decayed to CY 2012			
Waste Volume Detail (m ³)				Waste Material Parameters			Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes									No TRUCON Codes Provided
Container Type	Stored	Proj.	Total						
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2						
Box - Misc	123.6	0.0	123.6						
Current Form Total	123.8	0.0	123.8						
Final Form Volumes									
Container Type	Stored	Proj.	Total						
SWB w/ 4 - 55-gal Drums w/ Liners	77.5	0.0	77.5						
Final Form Total	77.5	0.0	77.5						
Material Parameter			Average Density (kg/m ³)	Isotope		Typical Concentration (Ci/m ³)			
Iron-based Metal/Alloys			0.00	Am-241		3.67E-05			
Aluminum-based Metal/Alloys			0.00	Np-237		3.75E-11			
Other Metal/Alloys			0.00	Pu-238		5.24E-02			
Other Inorganic Materials			34.59	Pu-239		1.55E-03			
Cellulose			0.00	Pu-240		3.83E-04			
Rubber			0.00	Pu-241		2.31E-03			
Plastic			0.00	Pu-242		1.07E-07			
Cement			0.00	Th-229		3.21E-20			
Solidified Inorganic Material			0.00	Th-230		1.11E-11			
Solidified Organic Material			0.00	Th-232		4.48E-21			
Soil			1444.85	U-233		2.89E-16			
Vitrified			0.00	U-234		6.00E-07			
Packaging Material, Cellulosics			0.00	U-235		6.12E-12			
Packaging Material, Plastic			16.30	U-236		4.54E-11			
Packaging Material, Rubber			0.44	U-238		6.65E-17			
Packaging Material, Steel			211.11						
Packaging Material, Lead			0.00						

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 inches) 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. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-BN976

Appendix A
Waste Profile Report

Site	Idaho National Laboratory			Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste			Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Bldg. 776 Process Sludge					Activity Concentrations Decayed to CY 2012			
Waste Volume Detail (m ³)				Waste Material Parameters			Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D006, D007, D008, D009, D022, D028, F001, F002, F003	
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				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	No TRUCON Codes Provided	
Container Type	Stored	Proj.	Total						
SWB w/ 4 - 55-gal Drums w/ Liners	52.9	0.0	52.9						
Final Form Total	52.9	0.0	52.9						

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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: **IN-BN978**

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Laundry Sludge				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

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

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

Waste Material Parameters

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

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.95E-03
Np-237	9.37E-09
Pu-238	5.79E-04
Pu-239	2.15E-02
Pu-240	4.78E-03
Pu-241	2.92E-02
Pu-242	6.21E-07
Th-229	2.09E-17
Th-230	3.98E-10
Th-232	1.26E-19
U-233	1.19E-13
U-234	7.22E-06
U-235	1.53E-06
U-236	8.48E-10
U-238	4.01E-05

No Hazardous
Waste Numbers
Provided

No TRUCON
Codes Provided

Waste Stream Description

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

Waste Stream ID: IN-BNINW216

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Pollution Control or Waste Treatment Process	Waste Matrix Code Group	Solidified Inorganics			Inventory Date	12/31/2012
Stream Name	First/Second Stage Sludge				Activity Concentrations Decayed to CY		

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D022, F001, F002, F003, F005, F006, F007, F009
Container Type	Stored	Proj.	Total	Iron-based Metal/Alloys	0.05	Am-241	3.61E+00	
55-gal Drum Dir Ld w/ Liner	2381.8	0.0	2381.8	Aluminum-based Metal/Alloys	0.00	Am-243	7.69E-09	
Box - Misc	22.2	0.0	22.2	Other Metal/Alloys	0.07	Cs-137	4.26E-09	
Current Form Total	2404.0	0.0	2404.0	Other Inorganic Materials	3.73	Np-237	4.70E-05	
Final Form Volumes				Cellulose	0.03	Pu-238	2.31E-02	
Container Type	Stored	Proj.	Total	Rubber	0.02	Pu-239	2.95E-01	
SWB w/ 4 - 55-gal Drums w/ Liners	5709.7	0.0	5709.7	Plastic	0.33	Pu-240	1.98E-01	
Final Form Total	5709.7	0.0	5709.7	Cement	45.74	Pu-241	7.53E-01	
				Solidified Inorganic Material	338.61	Pu-242	2.28E-05	TRUCON Code(s) 111/211, 132/232
				Solidified Organic Material	0.00	Sr-90	4.67E-09	
				Soil	0.00	Th-229	7.69E-14	
				Vitrified	0.00	Th-230	5.33E-10	
				Packaging Material, Cellulosics	0.00	Th-232	1.30E-18	
				Packaging Material, Plastic	16.30	U-233	5.90E-10	
				Packaging Material, Rubber	0.44	U-234	1.94E-05	
				Packaging Material, Steel	211.11	U-235	4.10E-06	
				Packaging Material, Lead	0.00	U-236	1.76E-08	
						U-238	1.03E-04	

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, ID-RF-741. ID-RF-742 and ID-RF-800. ID-RF-741 and ID-RF-742 are used to identify first and second stage sludge drums retrieved from the INL Subsurface Disposal Area (SDA) Pits 11 and 12 prior to 1979. 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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-BNINW218

Appendix A
Waste Profile Report

Site	Idaho National Laboratory			Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents			Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Building 374 Sludge					Activity Concentrations Decayed to CY 2012			
Waste Volume Detail (m ³)				Waste Material Parameters			Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D006, D007, D008, D009, D010, D011, D032, F001, F002, F005, F006, F007, F009	
Container Type	Stored	Proj.	Total						
55-gal Drum Dir Ld w/ Liner	211.7	0.0	211.7						
Box - Misc	6.3	0.0	6.3						
Current Form Total	218.1	0.0	218.1						
Final Form Volumes									
Container Type	Stored	Proj.	Total						
SWB w/ 4 - 55-gal Drums w/ Liners	510.3	0.0	510.3						
Final Form Total	510.3	0.0	510.3						
				Packaging Material, Plastic	16.30	U-234	2.68E-04		
				Packaging Material, Rubber	0.44	U-235	2.43E-05		
				Packaging Material, Steel	211.11	U-236	1.67E-09		
				Packaging Material, Lead	0.00	U-238	3.18E-03		

Waste Stream Description

The Building 374 Sludge waste stream (BNINW218) consists of two waste matrix codes because the cementation immobilization process for this waste stream was changed in the 1986-1987 timeframe. Waste matrix code S3121, Waste Water Treatment Sludge (DC 007 and IDC 807) was secondary sludge or filtercake from waste water treatment processes or heavy metal sludge resulting from recovery. Waste matrix code S3150, Solidified Homogeneous Solids (IDC 803) were from a direct cementation process. The aqueous sludge wastes from Building 374 were immobilized with cement and cured into a solidified form.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

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

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Solidified Waste Sludge from Bettis Atomic Power Lab.			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	89.74
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	1.50
Other Inorganic Materials	0.13
Cellulose	0.00
Rubber	0.00
Plastic	0.00
Cement	53.51
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.27E-03
Am-243	5.52E-04
Cs-137	3.28E+01
Np-237	5.82E-04
Pu-238	4.46E+00
Pu-239	4.95E-03
Pu-240	4.99E-03
Pu-242	4.82E-05
Sr-90	3.11E+01
Th-229	2.40E-04
Th-230	3.78E-08
Th-232	1.18E-05
U-233	1.14E-01
U-234	3.33E-04
U-235	6.39E-05
U-236	3.55E-09
U-238	1.80E-13

Haz. Waste No(s).

D004, D005, D006, D007, D008, D010, D011, D039, D040, F002

TRUCON Code(s)

327

Waste Stream Description

This waste stream consists of predominantly inorganic waste materials generated during sectioning of fuel elements, grinding, mounting and polishing of metallographic specimens solidified in concrete matrix and placed in IN-41 containers (5 in dia. x16 in long). Thirteen of these IN-41 containers were shipped from BAPL to ANL-W where IN-41 containers were placed in HFEF-5 liners (6 ft. tall x 12 in dia.). The HFEF-5 liners were sent to RWMC for interim storage in 1988. The HFEF liners have been retrieved and repackaged into 4-55 gallon drums for characterization and shipment to WIPP.

Waste Stream ID: IN-ID-EBR-S5000

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Uncategorized Metal Waste		Inventory Date	12/31/2012	
Stream Name	RH-TRU Debris Waste From Experimental Breeder Reactor			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	
Container Type	Stored	Proj.	Total					
55-gal Drum	4.4	0.0	4.4	Iron-based Metal/Alloys	3.66	Cs-137	6.39E+00	
Current Form Total				Aluminum-based Metal/Alloys	0.00	Pu-239	1.83E+00	
	4.4	0.0	4.4	Other Metal/Alloys	77.84	Sr-90	6.89E+00	
Final Form Volumes				Other Inorganic Materials	0.00	Th-230	4.24E-05	
Container Type	Stored	Proj.	Total	Cellulose	0.46	U-234	2.88E-01	
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	4.4	0.0	4.4	Rubber	0.00	U-235	1.34E-02	
Final Form Total				Plastic	0.82	U-238	2.87E-01	
	4.4	0.0	4.4	Cement	0.00			
				Solidified Inorganic Material	0.00			
				Solidified Organic Material	0.00			
				Soil	0.00			
				Vitrified	0.00			
				Packaging Material, Cellulosics	0.00			
				Packaging Material, Plastic	8.70			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	931.09			
				Packaging Material, Lead	0.00			

TRUCON Code(s)	
321, 322, 325	

Waste Stream Description

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

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-ID-HFEF-S5000-RP

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Sodium contaminated RH TRU Waste from Materials and Fuels Complex at INL.			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D038, F002, F005
Container Type	Stored	Proj.	Total					
HFEF-5 RH Insert	3.7	0.0	3.7	Iron-based Metal/Alloys	213.68	Am-241	5.44E-04	
RSWF Liner	1.2	0.0	1.2	Aluminum-based Metal/Alloys	2.74	Cs-137	9.26E+01	
SLSF Canister	1.4	0.0	1.4	Other Metal/Alloys	54.90	Np-237	3.77E-06	
Current Form Total	6.3	0.0	6.3	Other Inorganic Materials	5.49	Pu-238	1.72E-02	
				Cellulose	2.74	Pu-239	3.79E+00	
				Rubber	0.27	Pu-240	1.91E+00	
				Plastic	2.74	Sr-90	8.71E+01	
				Cement	0.00	U-233	5.01E-12	
Final Form Volumes				Solidified Inorganic Material	0.00	U-234	7.83E-12	
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.00	U-235	3.42E-04	
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	16.8	0.0	16.8	Soil	0.00	U-236	2.52E-09	
Final Form Total	16.8	0.0	16.8	Vitrified	0.00	U-238	8.07E-04	
				Packaging Material, Cellulosics	0.00			
				Packaging Material, Plastic	8.70			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	931.09			
				Packaging Material, Lead	0.00			

TRUCON Code(s)	
321, 322, 325	

Waste Stream Description
This waste consists 26 HFEF inserts, two SLSF canisters, and 1 RSWF liner.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

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

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	RH-TRU Debris Waste From Materials and Fuels Complex Hot Fuel Examination Facility at the INL.			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D038, F002, F005
Container Type	Stored	Proj.	Total	Iron-based Metal/Alloys	24.46	Am-241	9.81E-02	
55-gal Drum	11.9	0.0	11.9	Aluminum-based Metal/Alloys	0.45	Am-243	5.46E-13	
HFEF-5 RH Insert	0.1	0.0	0.1	Other Metal/Alloys	1.36	Cm-244	4.99E-02	
Current Form Total	12.0	0.0	12.0	Other Inorganic Materials	5.43	Cs-137	5.08E+01	
Final Form Volumes				Cellulose	5.88	Np-237	2.70E-05	
Container Type	Stored	Proj.	Total	Rubber	0.45	Pu-238	1.75E-01	
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	23.1	0.0	23.1	Plastic	6.77	Pu-239	4.17E-01	
Final Form Total	23.1	0.0	23.1	Cement	0.00	Pu-240	1.32E-01	
				Solidified Inorganic Material	0.45	Pu-241	4.27E-01	TRUCON Code(s) 321, 322, 325
				Solidified Organic Material	0.04	Pu-242	5.03E-03	
				Soil	0.00	Pu-244	6.04E-25	
				Vitrified	0.00	Sr-90	5.01E+01	
				Packaging Material, Cellulosics	0.00	Th-229	6.58E-07	
				Packaging Material, Plastic	8.70	Th-230	3.69E-07	
				Packaging Material, Rubber	0.57	Th-232	6.53E-07	
				Packaging Material, Steel	931.09	U-233	4.68E-04	
				Packaging Material, Lead	0.00	U-234	2.51E-03	
						U-235	1.86E-04	
						U-236	1.91E-05	
						U-238	2.14E-03	

Waste Stream Description

This waste stream consists of 1 HFEF insert (12 in. Dia. x 6 ft. tall) and 57 55-gallon drums. Three 55-gallon will be placed in a RH TRU Removable Lid Canister for transport to WIPP. Some of the containers in this waste stream have hazardous waste codes applied by the generator. One of the drum was received from AMWTP in 2009 as Suspect RH TRU waste

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-ID-MFC-S5400

Appendix A
Waste Profile Report

Site	Idaho National Laboratory			Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste			Waste Matrix Code Group	Heterogeneous Debris Waste			Inventory Date	12/31/2012
Stream Name	MFC generated debris waste (Leaded Gloves)						Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Current Form Total	0.6	0.0	0.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	280.45
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.29E-02
Cs-137	1.12E-05
Np-237	1.63E-06
Pu-238	2.52E-03
Pu-239	8.03E-02
Pu-240	1.80E-02
Pu-241	1.37E-01
Pu-242	2.80E-06
Sr-90	1.23E-05
Th-229	3.09E-16
Th-230	1.30E-10
Th-232	1.31E-20
U-233	7.03E-12
U-234	1.41E-05
U-235	3.78E-07
U-236	5.32E-10
U-238	4.35E-16

Haz. Waste No(s).

D008

TRUCON Code(s)

125/225, 127/227, 154

Waste Stream Description

Heterogeneous debris from plutonium alloy casting operations and analytical laboratory operations conducted in the MFC Analytical Laboratory. Originally generated from the MFC and were repackaged at INTEC in Building CPP-659.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-ID-MFC-SOLID

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	RH-TRU Waste From Materials and Fuels Complex at the INL.			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D038, F002, F005
Container Type	Stored	Proj.	Total					
55-gal Drum	0.8	0.0	0.8	Iron-based Metal/Alloys	59.29	Cs-137	3.38E+01	
Current Form Total				Aluminum-based Metal/Alloys	12.22	Pu-239	2.35E-01	
	0.8	0.0	0.8	Other Metal/Alloys	0.26	Pu-240	1.41E-01	
Final Form Volumes				Other Inorganic Materials	0.30	Sr-90	3.52E+01	
Container Type	Stored	Proj.	Total	Cellulose	4.63	Th-230	2.99E-13	
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	1.2	0.0	1.2	Rubber	0.00	Th-232	2.64E-17	
Final Form Total				Plastic	13.29	U-234	4.06E-09	
	1.2	0.0	1.2	Cement	0.00	U-235	4.36E-04	
				Solidified Inorganic Material	17.90	U-236	6.68E-08	TRUCON Code(s) 311
				Solidified Organic Material	0.00	U-238	9.05E-05	
				Soil	0.00			
				Vitrified	0.00			
				Packaging Material, Cellulosics	0.00			
				Packaging Material, Plastic	8.70			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	931.09			
				Packaging Material, Lead	0.00			

Waste Stream Description
This waste stream consists of 4 55-gallon drums of repackaged waste from 24-inch diameter by 148-inch long carbon steel liners each containing one 1-litre bottle of solidified sample solution from Analytical Laboratory hot cells.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-ID-Miscellaneous

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Uncategorized Metal Waste		Inventory Date	12/31/2012	
Stream Name	AMWTP Suspect RH TRU Sources			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D008, D009
Container Type	Stored	Proj.	Total					
55-gal Drum	3.3	0.0	3.3	Iron-based Metal/Alloys	75.32	Am-241	1.12E+00	No TRUCON Codes Provided
Current Form Total				Aluminum-based Metal/Alloys	75.32	Cm-244	7.48E+01	
	3.3	0.0	3.3	Other Metal/Alloys	188.30	Cs-137	3.31E-05	
Final Form Volumes				Other Inorganic Materials	18.80	Np-237	1.94E-05	
Container Type	Stored	Proj.	Total	Cellulose	9.42	Pu-238	3.13E+01	
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	3.7	0.0	3.7	Rubber	0.00	Pu-239	1.28E+00	
Final Form Total				Plastic	18.80	Pu-240	9.88E-01	
	3.7	0.0	3.7	Cement	0.00	Pu-241	4.39E+00	
				Solidified Inorganic Material	0.00	Pu-242	7.48E-05	
				Solidified Organic Material	0.00	Sr-90	3.70E-05	
				Soil	0.00	U-234	1.65E-05	
				Vitrified	0.00	U-235	5.83E-05	
				Packaging Material, Cellulosics	0.00	U-238	3.94E-06	
				Packaging Material, Plastic	8.70			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	931.09			
				Packaging Material, Lead	0.00			

Waste Stream Description

This waste stream consists of 16 55 gallon drum of miscellaneous sources and scrap material received from on-site and off-site generators

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-ID-RF-S3114

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Organics	Inventory Date	12/31/2012		
Stream Name	Organic Setups			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D022, D026, D027, D028, D029, D030, D032, D034, D036, D037, F001, F002, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	1490.7	0.0	1490.7	Iron-based Metal/Alloys	1.69	Am-241	2.91E-02	
Box - Misc	38.0	0.0	38.0	Aluminum-based Metal/Alloys	0.00	Cs-137	7.15E-10	
Current Form Total	1528.8	0.0	1528.8	Other Metal/Alloys	0.21	Np-237	3.62E-06	
				Other Inorganic Materials	3.12	Pu-238	2.34E-03	
				Cellulose	0.02	Pu-239	6.43E-02	
				Rubber	0.14	Pu-240	1.38E-02	
				Plastic	1.55	Pu-241	9.52E-02	
				Cement	0.00	Pu-242	1.39E-06	
Final Form Volumes				Solidified Inorganic Material	0.22	Sr-90	7.86E-10	TRUCON Code(s) 112/212, 154
Container Type	Stored	Proj.	Total	Solidified Organic Material	149.07	Th-229	2.77E-15	
SWB w/ 4 - 55-gal Drums w/ Liners	323.2	0.0	323.2	Soil	0.00	Th-230	1.26E-11	
TDOP w/ 10 - 55-gal Drums w/ Liners	3249.0	0.0	3249.0	Vitrified	0.00	Th-232	4.04E-20	
Final Form Total	3572.2	0.0	3572.2	Packaging Material, Cellulosics	0.00	U-233	3.15E-11	
				Packaging Material, Plastic	17.06	U-234	6.92E-07	
				Packaging Material, Rubber	0.44	U-235	1.24E-07	
				Packaging Material, Steel	229.30	U-236	8.19E-10	
				Packaging Material, Lead	0.00	U-238	4.52E-06	

Waste Stream Description

This waste consists of various organic liquids that were transferred to Building 774 where they were immobilized using Micro-cel E (a synthetic calcium silicate) to form a grease or paste-like material. The organic liquids were primarily a mixture of oils and chlorinated solvents. Small amounts of Oil-Dri were sometimes added to the mixture as well. Small quantities of debris may be present. This process was shutdown in 1985 and replaced by the OASIS process. Organic setups or "grease" historically generated prior to the development of IDC 003 (prior to 1971) are categorized as "743 series sludge" or "743 grease". Drums of the pre-IDC 003 grease assigned IDC 743 were retrieved from Pits 11 and 12 in the Subsurface Disposal Area (SDA).

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-ID-RF-S3150-A

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2012	
Stream Name	Organic and Sludge Immobilization System Waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D022, D028, D029, D030, D032, D034, D036, D043, F001, F002, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	25.4	0.0	25.4	Iron-based Metal/Alloys	0.06	Am-241	7.48E-02	
Current Form Total				Aluminum-based Metal/Alloys	0.00	Cs-137	6.30E-08	
	25.4	0.0	25.4	Other Metal/Alloys	17.64	Np-237	3.86E-06	
Final Form Volumes				Other Inorganic Materials	4.46	Pu-238	2.70E-02	
Container Type	Stored	Proj.	Total	Cellulose	0.00	Pu-239	6.39E-01	TRUCON Code(s) 112/212, 154
SWB w/ 4 - 55-gal Drums w/ Liners	20.8	0.0	20.8	Rubber	1.62	Pu-240	1.39E-01	
TDOP w/ 10 - 55-gal Drums w/ Liners	4.5	0.0	4.5	Plastic	3.13	Pu-241	1.13E+00	
Final Form Total				Cement	6.76	Pu-242	1.14E-05	
	25.3	0.0	25.3	Solidified Inorganic Material	0.00	Sr-90	6.89E-08	
				Solidified Organic Material	633.87	Th-229	1.13E-14	
				Soil	0.00	Th-230	1.94E-11	
				Vitrified	0.00	Th-232	1.62E-18	
				Packaging Material, Cellulosics	0.00	U-233	6.47E-11	
				Packaging Material, Plastic	16.45	U-234	6.82E-07	
				Packaging Material, Rubber	0.44	U-235	6.28E-08	
				Packaging Material, Steel	214.67	U-236	1.64E-08	
				Packaging Material, Lead	0.00	U-238	7.10E-15	

Waste Stream Description

This waste consists of various organic liquids immobilized into a solid monolith by the Organic and Sludge Immobilization System (OASIS) in Building 774. Oil and chlorinated solvent mixtures were the primary liquids. The organic liquids were immobilized by mixing water, Envirostone emulsifier, accelerator, and gypsum cement. The emulsifier was a polyethylene glycol ether, and the accelerator contained gypsum and potassium sulfate. This waste may also include small amounts of metal and plastic wastes.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-ID-RF-S5000-RH

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Rocky Flats Generated Suspect RH TRU waste received from AMWTP				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D008, D022, D029, F001, F002, F003, F005
Container Type	Stored	Proj.	Total					
55-gal Drum	2.9	0.0	2.9	Iron-based Metal/Alloys	0.00	Am-241	9.20E+01	TRUCON Code(s) 321
85-gal Drum	0.6	0.0	0.6	Aluminum-based Metal/Alloys	0.00	Np-237	7.60E-04	
Current Form Total	3.6	0.0	3.6	Other Metal/Alloys	1.68	Pu-238	4.33E-02	
Final Form Volumes				Other Inorganic Materials	21.72	Pu-239	2.81E+00	
Container Type	Stored	Proj.	Total	Cellulose	21.72	Pu-240	4.03E-01	
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	6.9	0.0	6.9	Rubber	71.39	Pu-241	2.69E+00	
Final Form Total	6.9	0.0	6.9	Plastic	58.64	Pu-242	4.46E-05	
				Cement	21.42	Th-229	1.21E-12	
				Solidified Inorganic Material	0.00	Th-230	5.13E-12	
				Solidified Organic Material	0.00	Th-232	2.65E-18	
				Soil	0.00	U-233	9.35E-09	
				Vitrified	0.00	U-234	3.70E-07	
				Packaging Material, Cellulosics	0.00	U-235	8.30E-09	
				Packaging Material, Plastic	8.70	U-236	3.58E-08	
				Packaging Material, Rubber	0.57	U-238	2.07E-14	
				Packaging Material, Steel	931.09			
				Packaging Material, Lead	0.00			

Waste Stream Description
This waste stream generated at Rocky Flats plant, consists of various types filters, plastics such as Teflon, PE, PVE, and nonleaded rubber.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: **IN-ID-RF-S5126****Appendix A****Waste Profile Report**

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Graphite Waste	Inventory Date	12/31/2012		
Stream Name	Rocky Flats Transuranic Graphite Debris	Activity Concentrations Decayed to CY		2012			

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
SWB w/ 4 - 55-gal Drums w/ Liners	22.7	0.0	22.7
Final Form Total	22.7	0.0	22.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.18
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.01
Other Inorganic Materials	93.70
Cellulose	2.16
Rubber	0.02
Plastic	1.90
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.30
Packaging Material, Rubber	0.44
Packaging Material, Steel	211.11
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.83E-01
Np-237	1.34E-04
Pu-238	1.12E-01
Pu-239	3.06E+00
Pu-240	7.00E-01
Pu-241	3.40E+00
Pu-242	5.57E-05
Th-229	9.03E-13
Th-230	5.42E-11
Th-232	1.84E-17
U-233	3.43E-09
U-234	1.95E-06
U-235	1.81E-08
U-236	1.24E-07
U-238	5.19E-14

Haz. Waste No(s).

D008, D029, F001, F002, F005

TRUCON Code(s)

115/215, 154

Waste Stream Description

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

Waste Stream ID: IN-ID-RF-S5300-A

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Combustible Waste		Inventory Date	12/31/2012	
Stream Name	Rocky Flats Combustibles and Plastic Stored at INL				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2566.9	0.0	2566.9
Current Form Total	2566.9	0.0	2566.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 4 - 55-gal Drums w/ Liners	134.2	0.0	134.2
TDOP w/ 10 - 55-gal Drums w/ Liners	5431.5	0.0	5431.5
Final Form Total	5565.7	0.0	5565.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	2.02
Aluminum-based Metal/Alloys	0.09
Other Metal/Alloys	0.21
Other Inorganic Materials	2.98
Cellulose	26.31
Rubber	2.30
Plastic	22.68
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	17.11
Packaging Material, Rubber	0.44
Packaging Material, Steel	230.63
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.34E-01
Cm-244	7.99E-04
Cs-137	1.13E-08
Np-237	2.00E-06
Pu-238	4.97E-03
Pu-239	1.62E-01
Pu-240	3.56E-02
Pu-241	2.14E-01
Pu-242	4.39E-06
Sr-90	1.23E-08
Th-229	1.41E-08
Th-230	1.54E-11
Th-232	9.35E-19
U-233	2.67E-05
U-234	3.22E-07
U-235	5.35E-08
U-236	6.32E-09
U-238	1.13E-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)

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

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-ID-SDA-Debris

Appendix A
Waste Profile Report

Site	Idaho National Laboratory			Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH	
Source Cat.	Remediation/D&D Waste			Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012		
Stream Name	ICP Retrieved Debris Waste (Filters/Graphite)					Activity Concentrations Decayed to CY			2012	
Waste Volume Detail (m ³)				Waste Material Parameters			Final Form Radionuclides		Haz. Waste No(s).	
Current Form Volumes									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	
Container Type	Stored	Proj.	Total							
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6	Material Parameter			Average Density (kg/m ³)	Isotope		Typical Concentration (Ci/m ³)
55-gal Drum Equivalent	609.0	0.0	609.0	Iron-based Metal/Alloys			1.42	Am-241		8.50E-01
Current Form Total	609.6	0.0	609.6	Aluminum-based Metal/Alloys			0.24	Cs-137		1.67E-06
Final Form Volumes				Other Metal/Alloys			0.27	Np-237		1.36E-05
Container Type	Stored	Proj.	Total	Other Inorganic Materials			234.11	Pu-238		7.06E-02
55-gal Drum Dir Ld w/ Liner	743.4	0.0	743.4	Cellulose			101.53	Pu-239		1.99E+00
Final Form Total	743.4	0.0	743.4	Rubber			0.68	Pu-240		4.46E-01
				Plastic			9.63	Pu-241		2.06E+00
				Cement			0.92	Pu-242		4.59E-05
				Solidified Inorganic Material			4.74	Sr-90		1.83E-06
				Solidified Organic Material			1.12	Th-229		3.08E-09
				Soil			20.56	Th-230		7.56E-09
				Vitrified			0.00	Th-232		6.51E-13
				Packaging Material, Cellulosics			0.00	U-233		1.17E-05
				Packaging Material, Plastic			37.07	U-234		2.74E-04
				Packaging Material, Rubber			0.57	U-235		6.96E-06
				Packaging Material, Steel			130.77	U-236		3.96E-08
				Packaging Material, Lead			0.00	U-238	5.41E-04	

Waste Stream Description

Pre-1970 buried waste retrieved for the Idaho Completion Project

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-ID-SDA-Sludge

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	ICP Retrieved Sludge Waste (Inorganic/Organic Sludge/Roaster Oxide)			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	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
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	85.3	0.0	85.3	Iron-based Metal/Alloys	0.18	Am-241	1.91E+00	
55-gal Drum Equivalent	2075.0	0.0	2075.0	Aluminum-based Metal/Alloys	0.01	Cm-244	3.01E-05	
Current Form Total	2160.3	0.0	2160.3	Other Metal/Alloys	0.01	Cs-137	1.53E-05	
				Other Inorganic Materials	44.61	Np-237	3.06E-05	
Final Form Volumes				Cellulose	0.44	Pu-238	2.52E-02	
Container Type	Stored	Proj.	Total	Rubber	0.12	Pu-239	5.99E-01	
55-gal Drum Dir Ld w/ Liner	2745.6	0.0	2745.6	Plastic	0.84	Pu-240	1.34E-01	
Final Form Total	2745.6	0.0	2745.6	Cement	0.17	Pu-241	9.89E-01	
				Solidified Inorganic Material	189.40	Pu-242	2.36E-05	TRUCON Code(s) 111/211, 112/212, 122/222, 127/227, 154
				Solidified Organic Material	392.70	Sr-90	1.67E-05	
				Soil	20.49	Th-229	6.08E-09	
				Vitrified	0.00	Th-230	9.86E-09	
				Packaging Material, Cellulosics	0.00	Th-232	8.83E-19	
				Packaging Material, Plastic	37.07	U-233	2.30E-05	
				Packaging Material, Rubber	0.57	U-234	3.58E-04	
				Packaging Material, Steel	130.77	U-235	9.43E-06	
				Packaging Material, Lead	0.00	U-236	1.19E-08	
						U-238	1.55E-03	

Waste Stream Description
Pre-1970 buried waste retrieved for the Idaho Completion Project

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-ID-SDA-Soil

Appendix A
Waste Profile Report

Site	Idaho National Laboratory			Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste			Waste Matrix Code Group	Contaminated Soil/Debris Waste		Inventory Date	12/31/2012	
Stream Name	ICP Retrieved Soils					Activity Concentrations Decayed to CY 2012			
Waste Volume Detail (m ³)				Waste Material Parameters			Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	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	
Container Type	Stored	Proj.	Total						
55-gal Drum Dir Ld w/ Liner	1.2	0.0	1.2						
55-gal Drum Equivalent	457.2	0.0	457.2						
Current Form Total	458.4	0.0	458.4						
Final Form Volumes									
Container Type	Stored	Proj.	Total						
55-gal Drum Dir Ld w/ Liner	558.7	0.0	558.7						
Final Form Total	558.7	0.0	558.7						
				Solidified Organic Material	5.66	Th-229	8.79E-10		
				Soil	586.78	Th-230	8.89E-09		
				Vitrified	0.00	Th-232	4.34E-10		
				Packaging Material, Cellulosics	0.00	U-233	3.33E-06		
				Packaging Material, Plastic	37.07	U-234	3.22E-04		
				Packaging Material, Rubber	0.57	U-235	4.90E-05		
				Packaging Material, Steel	130.77	U-236	1.43E-08		
				Packaging Material, Lead	0.00	U-238	9.86E-04		

Waste Stream Description
Pre-1970 buried waste retrieved for the Idaho Completion Project

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Profile Report

Waste Volume Detail (m³)

Final Form Volumes			
Container Type	Stored	Proj.	Total
TDOP w/ 10 - 55-gal Drums w/o Liners	45.0	0.0	45.0
Final Form Total	45.0	0.0	45.0

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.72E-01
Am-243	5.05E-04
Cm-244	3.60E-03
Cs-137	3.93E-05
Np-237	7.57E-05
Pu-238	1.37E-01
Pu-239	4.62E-02
Pu-240	1.52E-02
Pu-241	1.47E-01
Pu-242	5.72E-06
Sr-90	4.31E-05
Th-229	5.79E-14
Th-230	1.15E-08
Th-232	1.07E-12
U-233	6.58E-10
U-234	2.61E-06
U-235	5.84E-07
U-236	2.06E-07
U-238	7.38E-08

D006, D007, D008, D011

125/225

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

Waste Stream ID: IN-NRF-SPC

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	RH TRU Sludge Pan Container waste from Naval Reactor Facility at Idaho Site.			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D010, D011
Container Type	Stored	Proj.	Total					
55-gal Drum	4.2	0.0	4.2	Iron-based Metal/Alloys	184.75	Am-241	5.38E-03	TRUCON Code(s) 321, 322, 325
Current Form Total				Aluminum-based Metal/Alloys	27.01	Cs-137	2.50E+00	
	4.2	0.0	4.2	Other Metal/Alloys	0.18	Pu-238	1.78E-01	
Final Form Volumes				Other Inorganic Materials	6.32	Pu-239	1.06E-03	
Container Type	Stored	Proj.	Total	Cellulose	3.66	Pu-240	4.14E-04	
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	4.4	0.0	4.4	Rubber	0.15	Pu-241	3.32E-02	
Final Form Total				Plastic	4.67	Pu-242	9.41E-08	
	4.4	0.0	4.4	Cement	0.00	Sr-90	5.36E+00	
				Solidified Inorganic Material	0.00	U-233	5.56E-03	
				Solidified Organic Material	0.00	U-234	7.39E-04	
				Soil	0.00	U-235	1.52E-05	
				Vitrified	0.00	U-238	7.51E-08	
				Packaging Material, Cellulosics	0.00			
				Packaging Material, Plastic	8.70			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	931.09			
				Packaging Material, Lead	0.00			

Waste Stream Description
This waste stream was generated at the Naval Reactors Facility. A total of 83 RH TRU containers were generated by this waste stream. The 83 SPCs were shipped to INTEC. Out of 83, 63 SPC's were repackaged, characterized and disposed at WIPP. The remaining 20 SPCs are awaiting to be over-packed into canisters for shipment to WIPP.

Waste Stream ID: IN-NRF-SPC-103

Appendix A
Waste Profile Report

Site	Idaho National Laboratory			Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste			Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	RH-TRU Debris Waste from the Naval Nuclear Propulsion Program (NNPP)					Activity Concentrations Decayed to CY		2012	
Waste Volume Detail (m³)				Waste Material Parameters			Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	No TRUCON Codes Provided	
Container Type	Stored	Proj.	Total						
Can	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	36.8	0.0	36.8						
Final Form Total	36.8	0.0	36.8						

Waste Stream Description

This waste stream was generated at NNPP facilities and consists of 103 containers in storage at the INL and 6 containers in the Expended Core Facility (ECF) water pools and ECF hot cells. Waste was generated during the same or similar process that generated the SPC waste. AK information is being collected to assure the waste stream meets WIPP requirements. Waste stream includes debris waste generated during analysis of post-irradiated nuclear fuel from Naval Reactors programs using destructive examination methods.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-W170

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	D&D Waste Comp. And Comb. Solids			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D006, D008, F003
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4	Iron-based Metal/Alloys	22.50	Am-241	4.94E+00	No TRUCON Codes Provided
Current Form Total				Aluminum-based Metal/Alloys	0.00	Np-237	3.75E-05	
	0.4	0.0	0.4	Other Metal/Alloys	0.00	Pu-239	2.06E+01	
Final Form Volumes				Other Inorganic Materials	1.60	Th-229	1.27E-12	
Container Type	Stored	Proj.	Total	Cellulose	130.30	U-233	1.88E-09	
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4	Rubber	1.50	U-235	4.67E-07	
Final Form Total				Plastic	0.00			
	0.4	0.0	0.4	Cement	0.00			
				Solidified Inorganic Material	0.00			
				Solidified Organic Material	0.00			
				Soil	0.00			
				Vitrified	0.00			
				Packaging Material, Cellulosics	0.00			
				Packaging Material, Plastic	37.07			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			

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)..

Waste Stream ID: IN-W171

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Research Generated Waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D006, D008, F003
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4	Iron-based Metal/Alloys	2.90	Am-241	1.52E+00	No TRUCON Codes Provided
Box - Misc	3.2	0.0	3.2	Aluminum-based Metal/Alloys	0.00	Am-243	1.70E-03	
Current Form Total	3.6	0.0	3.6	Other Metal/Alloys	0.00	Np-237	7.95E-06	
Final Form Volumes				Other Inorganic Materials	2.90	Pu-239	5.12E+00	
Container Type	Stored	Proj.	Total	Cellulose	175.90	Pu-241	1.71E+01	
55-gal Drum Dir Ld w/ Liner	1.5	0.0	1.5	Rubber	2.00	Th-229	1.96E-13	
Final Form Total	1.5	0.0	1.5	Plastic	22.00	U-233	3.29E-10	
				Cement	0.00	U-235	1.16E-07	
				Solidified Inorganic Material	0.00			
				Solidified Organic Material	0.00			
				Soil	0.00			
				Vitrified	0.00			
				Packaging Material, Cellulosics	0.00			
				Packaging Material, Plastic	37.07			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			

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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-W259

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Alpha Hot Cell Waste	Activity Concentrations Decayed to CY	2012				

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D008
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	54.1	0.0	54.1	Iron-based Metal/Alloys	70.99	Pu-239	2.08E-01	No TRUCON Codes Provided
Bin - Misc	21.0	0.0	21.0	Aluminum-based Metal/Alloys	0.00	Pu-240	2.30E-02	
Current Form Total	75.1	0.0	75.1	Other Metal/Alloys	0.08	Th-232	8.88E-18	
Final Form Volumes				Other Inorganic Materials	1.78	U-235	5.17E-05	
Container Type	Stored	Proj.	Total	Cellulose	59.70	U-236	1.56E-08	
TDOP w/ 10 - 55-gal Drums w/ Liners	139.5	0.0	139.5	Rubber	5.35			
Final Form Total	139.5	0.0	139.5	Plastic	47.89			
				Cement	0.00			
				Solidified Inorganic Material	0.00			
				Solidified Organic Material	0.00			
				Soil	0.00			
				Vitrified	0.00			
				Packaging Material, Cellulosics	0.00			
				Packaging Material, Plastic	17.13			
				Packaging Material, Rubber	0.44			
				Packaging Material, Steel	231.11			
				Packaging Material, Lead	0.00			

Waste Stream Description

This waste stream, generated at Argonne National Laboratory-East, contains alpha hot cell waste. Noncombustible and combustible wastes are segregated. Sodium in the waste is reacted with ethyl alcohol, mixed with pelletized clay, and dried.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Profile Report

Waste Volume Detail (m³)

Waste Material Parameters

Final Form Radionuclides

Haz. Waste No(s).

D008

**No TRUCON
Codes Provided**

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-W322

Appendix A
Waste Profile Report

Site	Idaho National Laboratory			Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH	
Source Cat.	Other/Multiple Sources			Waste Matrix Code Group	Uncategorized Metal Waste		Inventory Date	12/31/2012		
Stream Name	Sample Fuel					Activity Concentrations Decayed to CY		2012		
Waste Volume Detail (m ³)				Waste Material Parameters			Final Form Radionuclides		Haz. Waste No(s).	
Current Form Volumes							Typical Concentration (Ci/m ³)		D008	
Container Type	Stored	Proj.	Total							
100-gal Drum Dir Ld w/o Liner	0.4	0.0	0.4							
55-gal Drum Dir Ld w/ Liner	2.5	0.0	2.5							
Current Form Total	2.9	0.0	2.9							
Final Form Volumes									Average Density (kg/m ³)	
Container Type	Stored	Proj.	Total				Material Parameter			
100-gal Drum Dir Ld w/o Liner	0.4	0.0	0.4				Iron-based Metal/Alloys	0.00		
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	3.5	0.0	3.5				Aluminum-based Metal/Alloys	0.00		
Final Form Total	3.9	0.0	3.9				Other Metal/Alloys	0.00		
							Other Inorganic Materials	201.15		
							Cellulose	0.00		
							Rubber	0.00		
							Plastic	0.00		
							Cement	0.00		
							Solidified Inorganic Material	0.00		
							Solidified Organic Material	0.00		
							Soil	0.00		
							Vitrified	0.00		
							Packaging Material, Cellulosics	0.00		
							Packaging Material, Plastic	21.63		
							Packaging Material, Rubber	0.69		
							Packaging Material, Steel	190.26		
							Packaging Material, Lead	0.00		

Waste Stream ID: IN-W323

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Combustible Lab Waste			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	
Container Type	Stored	Proj.	Total	Iron-based Metal/Alloys	12.15	Am-241	3.35E-02	No TRUCON Codes Provided
55-gal Drum Dir Ld w/ Liner	6.7	0.0	6.7	Aluminum-based Metal/Alloys	0.00	Np-237	1.49E-07	
Current Form Total	6.7	0.0	6.7	Other Metal/Alloys	0.00	Pu-238	5.99E-01	
Final Form Volumes				Other Inorganic Materials	0.86	Pu-239	1.32E-01	
Container Type	Stored	Proj.	Total	Cellulose	70.39	Pu-241	5.07E-01	
SWB w/ 4 - 55-gal Drums w/ Liners	15.1	0.0	15.1	Rubber	0.79	Th-229	2.87E-15	
Final Form Total	15.1	0.0	15.1	Plastic	7.03	Th-230	4.64E-09	
				Cement	0.00	U-233	5.40E-12	
				Solidified Inorganic Material	0.00	U-234	4.26E-05	
				Solidified Organic Material	0.00	U-235	5.07E-05	
				Soil	0.00			
				Vitrified	0.00			
				Packaging Material, Cellulosics	0.00			
				Packaging Material, Plastic	16.30			
				Packaging Material, Rubber	0.44			
				Packaging Material, Steel	211.11			
				Packaging Material, Lead	0.00			

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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-W337

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Inorganic Nonmetal Waste	Inventory Date	12/31/2012		
Stream Name	Sources			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	
Container Type	Stored	Proj.	Total	Iron-based Metal/Alloys	0.00	Pu-239	1.46E+01	No TRUCON Codes Provided
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2	Aluminum-based Metal/Alloys	0.00	Pu-240	3.03E+00	
Current Form Total	0.2	0.0	0.2	Other Metal/Alloys	0.00	Th-232	1.17E-15	
				Other Inorganic Materials	139.10	U-235	3.96E-04	
				Cellulose	0.00	U-236	2.06E-06	
Final Form Volumes				Rubber	0.00			
Container Type	Stored	Proj.	Total	Plastic	0.00			
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2	Cement	0.00			
Final Form Total	0.2	0.0	0.2	Solidified Inorganic Material	0.00			
				Solidified Organic Material	0.00			
				Soil	0.00			
				Vitrified	0.00			
				Packaging Material, Cellulosics	0.00			
				Packaging Material, Plastic	37.07			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			

Waste Stream Description

"This waste was generated at the Idaho National Engineering Laboratory. It consists of a neutron source. No other wastes were included in the drum."

Waste Stream ID: IN-W342R

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Miscellaneous Radionuclide Sources			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2
Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	0.00	Am-241	3.38E+00
Aluminum-based Metal/Alloys	0.00	Np-237	2.57E-05
Other Metal/Alloys	158.69	Pu-239	3.04E-02
Other Inorganic Materials	0.00	Pu-240	3.17E-17
Cellulose	0.00	Pu-244	3.02E-14
Rubber	0.00	Th-229	8.70E-13
Plastic	0.00	Th-232	1.62E-33
Cement	0.00	U-233	1.29E-09
Solidified Inorganic Material	0.00	U-235	6.88E-10
Solidified Organic Material	0.00	U-236	6.37E-24
Soil	0.00		
Vitrified	0.00		
Packaging Material, Cellulosics	0.00		
Packaging Material, Plastic	45.67		
Packaging Material, Rubber	0.57		
Packaging Material, Steel	931.09		
Packaging Material, Lead	0.00		

No Hazardous
Waste Numbers
Provided

No TRUCON
Codes Provided

Waste Stream Description

This waste stream generated at the INEL, is believed to contain radionuclide sources (e.g., Pu-239, Cf-252 and Am-241) from calibration units across the INL site.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-W345

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	TRU Scrap			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.5	0.0	3.5
Box - Misc	3.2	0.0	3.2
Current Form Total	6.7	0.0	6.7
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	7.1	0.0	7.1
Final Form Total	7.1	0.0	7.1

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)
Iron-based Metal/Alloys	96.20	Am-241	5.74E+00
Aluminum-based Metal/Alloys	0.00	Np-237	4.36E-05
Other Metal/Alloys	0.10	Pu-238	1.39E+00
Other Inorganic Materials	2.40	Pu-239	1.35E+00
Cellulose	80.90	Pu-240	8.57E-01
Rubber	7.30	Th-229	1.48E-12
Plastic	64.90	Th-230	1.08E-08
Cement	0.00	Th-232	3.91E-05
Solidified Inorganic Material	0.00	U-233	2.19E-09
Solidified Organic Material	0.00	U-234	9.91E-05
Soil	0.00	U-235	1.79E-05
Vitrified	0.00	U-236	5.84E-07
Packaging Material, Cellulosics	0.00		
Packaging Material, Plastic	37.07		
Packaging Material, Rubber	0.57		
Packaging Material, Steel	130.77		
Packaging Material, Lead	0.00		

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream, generated at the Idaho Engineering Laboratory, consists of a plastic glovebox, hydraulic pump containing oil, vacuum pumps, centrifuges, tools and experimental fuel capsules.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Profile Report

Waste Volume Detail (m³)

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	38.1	0.0	38.1
Final Form Total	38.1	0.0	38.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	54.88
Cellulose	0.00
Rubber	0.00
Plastic	0.00
Cement	0.00
Solidified Inorganic Material	117.54
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.62E+00
Cs-137	4.46E-06
Np-237	3.42E-05
Pu-238	2.04E-01
Pu-239	3.05E+00
Pu-240	9.77E-01
Pu-241	7.10E+00
Pu-242	1.08E-04
Sr-90	4.88E-06
Th-229	5.71E-14
Th-230	1.09E-09
Th-232	6.42E-18
U-233	4.36E-10
U-234	4.05E-05
U-235	9.33E-06
U-236	8.67E-08
U-238	1.59E-04

Haz. Waste No(s).

F003

**No TRUCON
Codes Provided**

Waste Stream Description

This waste comes from Argonne National Laboratory-East. It consists of liquids adjusted to pH 10 using NaOH which are then absorbed in vermiculite.

Waste Stream ID: IN-W351

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Empty Bottles and Absorbent			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	
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					

Material Parameter	Average Density (kg/m³)
Iron-based Metal/Alloys	3.40
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	3.40
Cellulose	202.10
Rubber	2.30
Plastic	25.30
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Isotope	Typical Concentration (Ci/m³)
Am-241	1.43E+00
Np-237	1.45E-05
Pu-238	1.73E-01
Pu-239	1.66E+00
Pu-240	8.69E-01
Pu-241	7.84E+00
Pu-242	2.90E-04
Th-229	2.34E-14
Th-230	2.05E-11
Th-232	5.71E-18
U-233	1.81E-10
U-234	1.48E-06
U-235	4.91E-09
U-236	7.72E-08
U-238	1.35E-13

No TRUCON Codes Provided

Waste Stream Description
This waste stream, generated at Argonne National Laboratory-East, consists of polyethylene and glass bottles used to collect liquid waste are emptied and filled with vermiculite to absorb any remaining liquid. The tops were replaced to contain the liquid. No free liquids should be present, except for small quantities of wet vermiculite.

Waste Stream ID: IN-W358

Appendix A
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Uncategorized Metal Waste		Inventory Date	12/31/2012	
Stream Name	PU Neutron Sources			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	No TRUCON Codes Provided
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	1.5	0.0	1.5					
Final Form Total	1.5	0.0	1.5					
				Iron-based Metal/Alloys	82.46	Pu-238	4.98E+02	
				Aluminum-based Metal/Alloys	0.69	Pu-239	2.59E+00	
				Other Metal/Alloys	0.09	Pu-240	4.97E+00	
				Other Inorganic Materials	2.06	Th-230	2.04E-06	
				Cellulose	69.34	Th-232	1.05E-15	
				Rubber	6.26	U-234	2.56E-02	
				Plastic	55.63	U-235	4.33E-08	
				Cement	0.00	U-236	2.50E-06	
				Solidified Inorganic Material	0.00			
				Solidified Organic Material	0.00			
				Soil	0.00			
				Vitrified	0.00			
				Packaging Material, Cellulosics	0.00			
				Packaging Material, Plastic	37.07			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			

Waste Stream Description

This waste stream was generated at the ANL-W, NRF, TAN and INTEC (formerly CPP) generating areas within the INL. A generic IN-152 was also used for this waste stream to indicate the INEL in general. This waste includes Pu-Be sources, Pu standard, Pu foil, tools, and non-combustible waste.

Waste Stream ID: KA-T001

Appendix A
Waste Profile Report

Site	Knolls Atomic Power Laboratory - Schenectady	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Transuranic Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	
Container Type	Stored	Proj.	Total					
Can	0.0	0.1	0.1	Iron-based Metal/Alloys	1.87	Am-241	9.21E-04	
				Aluminum-based Metal/Alloys	0.01	Am-243	1.34E-07	
				Other Metal/Alloys	0.00	Cm-244	5.27E-04	
				Other Inorganic Materials	0.05	Cs-137	2.31E+00	
				Cellulose	1.54	Np-237	6.86E-06	
				Rubber	0.14	Pu-238	3.91E-02	
				Plastic	1.24	Pu-239	6.11E-05	
				Cement	0.00	Pu-240	4.93E-05	
				Solidified Inorganic Material	0.00	Pu-241	1.50E-02	
				Solidified Organic Material	0.00	Pu-242	3.10E-07	
				Soil	0.00	Pu-244	4.34E-15	
				Vitrified	0.00	Sr-90	2.31E+00	
				Packaging Material, Cellulosics	0.00	Th-229	2.42E-12	
				Packaging Material, Plastic	45.67	Th-230	3.82E-09	
				Packaging Material, Rubber	0.57	Th-232	1.05E-13	
				Packaging Material, Steel	931.09	U-233	1.01E-09	
				Packaging Material, Lead	0.00	U-234	4.55E-05	
						U-235	9.54E-07	
						U-236	9.21E-06	
						U-238	3.66E-09	

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.0	12.5	12.5
Final Form Total	0.0	12.5	12.5

TRUCON Code(s)
325

Waste Stream Description
Organic and inorganic particulate and debris.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: KA-W016

Appendix A
Waste Profile Report

Site	Knolls Atomic Power Laboratory - Schenectady	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Transuranic Debris			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D018, D035, D039, D040, F001, F002, F003, F005 TRUCON Code(s) 325
Container Type	Stored	Proj.	Total					
Can	0.0	0.0	0.0	Iron-based Metal/Alloys	18.73	Am-241	3.11E-04	
Current Form Total	0.0	0.0	0.0	Aluminum-based Metal/Alloys	0.11	Am-243	1.32E-06	
Final Form Volumes				Other Metal/Alloys	0.02	Cm-244	1.79E-04	
Container Type	Stored	Proj.	Total	Other Inorganic Materials	0.46	Cs-137	7.83E-01	
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.0	0.6	0.6	Cellulose	15.43	Np-237	2.32E-06	
Final Form Total	0.0	0.6	0.6	Rubber	1.39	Pu-238	1.33E-02	
				Plastic	12.38	Pu-239	2.07E-05	
				Cement	0.00	Pu-240	1.67E-05	
				Solidified Inorganic Material	0.00	Pu-241	5.08E-03	
				Solidified Organic Material	0.00	Pu-242	1.05E-07	
				Soil	0.00	Pu-244	4.30E-14	
				Vitrified	0.00	Sr-90	7.82E-01	
				Packaging Material, Cellulosics	0.00	Th-229	2.40E-11	
				Packaging Material, Plastic	45.67	Th-230	3.39E-08	
				Packaging Material, Rubber	0.57	Th-232	1.04E-12	
				Packaging Material, Steel	931.09	U-233	9.68E-09	
				Packaging Material, Lead	0.00	U-234	1.54E-05	
						U-235	3.22E-07	
						U-236	3.11E-06	
						U-238	1.24E-09	

Waste Stream Description

This transuranic mixed waste has not yet been generated. Waste will be segregated to the extent possible (considering ALARA) into inorganic, organic and heterogeneous waste streams and packaged separately. Details of waste characteristics will be developed upon generation.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: KN-B234TRU

Appendix A
Waste Profile Report

Site	Knolls Atomic Power Laboratory - Nuclear Fuel Services	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Contaminated Soil/Debris Waste	Inventory Date	12/31/2012		
Stream Name	Building 234 TRU Waste			Activity Concentrations Decayed to CY	2012		
Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides	
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Container Type	Stored	Proj.	Total				
55-gal Drum Dir Ld w/ Liner	47.8	0.0	47.8	Iron-based Metal/Alloys	21.92	Am-241	1.54E+00
55-gal Drum Dir Ld w/o Liner	4.8	0.0	4.8	Aluminum-based Metal/Alloys	1.59	Np-237	1.97E-06
Box - Crate	28.0	0.0	28.0	Other Metal/Alloys	0.00	Pu-238	1.78E-01
Uncontained	0.0	453.4	453.4	Other Inorganic Materials	20.64	Pu-239	5.51E+00
Current Form Total	80.6	453.4	534.1	Cellulose	3.13	Pu-240	5.51E+00
Final Form Volumes				Rubber	0.18	Pu-241	6.74E+00
Container Type	Stored	Proj.	Total	Plastic	19.36	Th-229	6.95E-06
55-gal Drum Dir Ld w/ Liner	78.0	453.4	531.4	Cement	0.00	Th-230	3.06E-03
Final Form Total	78.0	453.4	531.4	Solidified Inorganic Material	367.95	Th-232	1.02E-03
				Solidified Organic Material	0.00	U-233	1.97E-02
				Soil	982.05	U-234	1.97E-02
				Vitrified	0.00	U-235	3.74E-03
				Packaging Material, Cellulosics	0.00	U-236	3.74E-03
				Packaging Material, Plastic	37.07	U-238	4.83E-04
				Packaging Material, Rubber	0.57		
				Packaging Material, Steel	130.77		
				Packaging Material, Lead	0.00		

No Hazardous
Waste Numbers
Provided

TRUCON Code(s)
111/211, 125/225

Waste Stream Description

This waste is non-hazardous soil and debris from Building 234 decommissioning. The majority of the waste to be generated, estimated 90%, will be soil. All process equipment and glove boxes were removed in the early 1990s and are not part of this waste stream. The remaining debris consists of concrete block, metal, PPE, plywood, plexiglass, plastic, HEPA filters, piping, duct work, glass, cheese cloth, paper, rubber and small tools.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-CIN01.001

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics			Inventory Date	12/31/2012
Stream Name	Cemented TRU Waste				Activity Concentrations Decayed to CY		2012

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum w/ 1 - 55-gal Drum w/ Liner	6.4	0.0	6.4
55-gal Drum Dir Ld w/ Liner	250.6	87.4	338.0
55-gal POC - 12" w/ Liner	4.8	0.0	4.8
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	254.4	0.0	254.4
Cask - Misc w/ 1 - 30-gal Drum	4.4	0.0	4.4
Cask - Misc w/ 2 - 30-gal Drums	0.8	0.0	0.8
Current Form Total	521.4	87.4	608.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	430.8	87.4	518.1
55-gal POC - 12" w/ Liner	4.8	0.0	4.8
Final Form Total	435.6	87.4	522.9

Waste Material Parameters	
Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	33.41
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	5.94
Cement	934.57
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	1.24
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	134.41
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m ³)
Am-241	6.44E+01
Am-243	1.52E-03
Cs-137	7.69E-04
Np-237	2.28E-04
Pu-238	6.23E+00
Pu-239	1.57E+01
Pu-240	4.31E+00
Pu-241	7.12E+01
Pu-242	3.40E-02
Pu-244	1.68E-09
Sr-90	7.64E-04
Th-229	7.90E-08
Th-230	3.56E-08
Th-232	4.08E-06
U-233	2.24E-04
U-234	1.00E-03
U-235	1.64E-05
U-236	1.12E-06
U-238	5.17E-04

Haz. Waste No(s).
D006, D007, D008, D009, D011, D019, D021, D039, F001, F002, F003

TRUCON Code(s)
114/214, 125/225, 126/226

Waste Stream Description
Inorganic homogenous solid waste (cemented TRU waste) generated in TA-55.

Waste Stream ID: LA-CIN02.001

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics			Inventory Date	12/31/2012
Stream Name	Cemented TRU Waste				Activity Concentrations Decayed to CY		2012

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D006, D007, D008, D009, D010, D011, F001, F002, F005
Container Type	Stored	Proj.	Total					
110-gal Drum w/ 1 - 55-gal Drum w/ Liner	4.6	0.0	4.6	Iron-based Metal/Alloys	0.00	Am-241	2.18E+00	
55-gal Drum Dir Ld w/ Liner	13.3	65.5	78.8	Aluminum-based Metal/Alloys	0.00	Am-243	8.73E-06	
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	7.1	0.0	7.1	Other Metal/Alloys	0.00	Cs-137	6.84E-06	
SWB Dir Ld w/ Liner	2.1	0.0	2.1	Other Inorganic Materials	0.00	Np-237	1.87E-05	
SWB w/ 4 - 55-gal Drums w/ Liners	150.1	0.0	150.1	Cellulose	0.00	Pu-238	2.19E-01	
Current Form Total	177.2	65.5	242.7	Rubber	0.00	Pu-239	2.81E+00	
				Plastic	0.56	Pu-240	2.16E-01	
				Cement	559.80	Pu-241	1.53E+00	
Final Form Volumes				Solidified Inorganic Material	0.00	Pu-242	3.52E-05	TRUCON Code(s) 111/211, 125/225
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.00	Sr-90	6.79E-06	
55-gal Drum Dir Ld w/ Liner	20.6	65.5	86.1	Soil	0.00	Th-229	3.30E-09	
SWB Dir Ld w/ Liner	3.8	0.0	3.8	Vitrified	0.00	Th-230	5.57E-10	
SWB w/ 4 - 55-gal Drums w/ Liners	149.3	0.0	149.3	Packaging Material, Cellulosics	0.00	Th-232	7.73E-19	
Final Form Total	173.7	65.5	239.2	Packaging Material, Plastic	23.54	U-233	1.88E-05	
				Packaging Material, Rubber	0.48	U-234	3.09E-05	
				Packaging Material, Steel	181.28	U-235	5.57E-06	
				Packaging Material, Lead	0.00	U-236	1.42E-08	
						U-238	1.48E-06	

Waste Stream Description
Homogeneous cemented inorganics generated in the TA-50-01 RLWTF pretreatment process.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-CIN03.001

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Cemented TRU Waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D007, F001, F002
Container Type	Stored	Proj.	Total					TRUCON Code(s) 126/226
55-gal Drum Dir Ld w/ Liner	1.9	0.0	1.9	Iron-based Metal/Alloys	0.00	Am-241	7.41E-03	
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	1.6	0.0	1.6	Aluminum-based Metal/Alloys	0.00	Am-243	8.46E-06	
Current Form Total	3.5	0.0	3.5	Other Metal/Alloys	0.00	Cs-137	4.00E-05	
				Other Inorganic Materials	0.00	Np-237	5.78E-06	
Final Form Volumes				Cellulose	0.00	Pu-238	3.38E-02	
Container Type	Stored	Proj.	Total	Rubber	0.00	Pu-239	2.08E-01	
55-gal Drum Dir Ld w/ Liner	2.9	0.0	2.9	Plastic	1.90	Pu-240	9.15E-03	
Final Form Total	2.9	0.0	2.9	Cement	630.19	Pu-241	6.51E-02	
				Solidified Inorganic Material	0.00	Pu-242	3.39E-07	
				Solidified Organic Material	0.00	Sr-90	3.98E-05	
				Soil	0.00	Th-229	2.05E-07	
				Vitrified	0.00	Th-230	4.01E-09	
				Packaging Material, Cellulosics	0.00	Th-232	6.02E-20	
				Packaging Material, Plastic	37.07	U-233	7.54E-11	
				Packaging Material, Rubber	0.57	U-234	1.45E-04	
				Packaging Material, Steel	130.77	U-235	3.46E-06	
				Packaging Material, Lead	0.00	U-236	8.13E-10	
						U-238	2.06E-04	

Waste Stream Description
Cemented TRU waste generated in the CMR during facility and equipment operations and maintenance processes.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-LAMHD02238

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Heterogeneous Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Current Form Total	0.4	0.0	0.4
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters	
Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	160.47
Aluminum-based Metal/Alloys	0.65
Other Metal/Alloys	19.23
Other Inorganic Materials	104.07
Cellulose	13.28
Rubber	19.92
Plastic	61.44
Cement	0.00
Solidified Inorganic Material	2.56
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m ³)
Am-241	1.43E-01
Pu-238	1.99E+02
Pu-239	1.19E-01
Pu-240	5.98E-02
Pu-241	4.59E+00
Pu-242	4.92E-05
U-234	2.25E-02
U-235	6.00E-09

Haz. Waste No(s).
D005, D006, D007, D008, D009, D010, D011

TRUCON Code(s)
125/225

Waste Stream Description

Mixed heterogeneous debris waste generated during TA-55 R&D/fabrication and associated recovery, facility and equipment maintenance, decontamination and decommissioning (D&D), waste repackaging, and below-grade retrieval operations.

Waste Stream ID: LA-LAMIN04S

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Salt Waste	Inventory Date	12/31/2012		
Stream Name	INORGANIC HOMOGENEOUS WASTE	Activity Concentrations Decayed to CY	2012				

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
55-gal Drum Dir Ld w/ Liner	1.7	0.0	1.7
Final Form Total	1.7	0.0	1.7

Waste Material Parameters	
Material Parameter	Average Density (kg/m³)
Iron-based Metal/Alloys	8.12
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.50
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	4.25
Cement	0.00
Solidified Inorganic Material	25.80
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m³)
Am-241	3.60E+00
Pu-238	8.97E-01
Pu-239	3.05E+01
Pu-240	7.13E+00
Pu-241	1.08E+02
Pu-242	4.13E-04
U-234	6.52E-05
U-235	1.13E-06

Haz. Waste No(s).
D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005
TRUCON Code(s)
124/224

Waste Stream Description
INORGANIC HOMOGENEOUS WASTE

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-LANHD02238

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	NON-MIXED HETEROGENEOUS DEBRIS WASTE, PU238				Activity Concentrations Decayed to CY	2012	

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/m³)
Iron-based Metal/Alloys	44.75
Aluminum-based Metal/Alloys	0.18
Other Metal/Alloys	5.36
Other Inorganic Materials	29.02
Cellulose	3.70
Rubber	5.56
Plastic	17.13
Cement	0.00
Solidified Inorganic Material	0.71
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m³)
Am-241	1.15E-01
Pu-238	1.60E+02
Pu-239	9.55E-02
Pu-240	4.81E-02
Pu-241	3.69E+00
Pu-242	3.96E-05
U-234	1.81E-02
U-235	4.82E-09

No Hazardous Waste Numbers Provided

TRUCON Code(s)

125/225

Waste Stream Description
NON-MIXED HETEROGENEOUS DEBRIS WASTE, PU238

Waste Stream ID: LA-LANIN03NC

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Salt Waste	Inventory Date	12/31/2012		
Stream Name	NON-CEMENTED SOLID INORGANIC (HOMOGENEOUS)			Activity Concentrations Decayed to CY	2012		

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
55-gal POC - 12" w/ Liner	0.2	0.0	0.2
Current Form Total	3.1	0.0	3.1
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.9	0.0	2.9
55-gal POC - 12" w/ Liner	0.2	0.0	0.2
Final Form Total	3.1	0.0	3.1

Waste Material Parameters	
Material Parameter	Average Density (kg/m³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	0.12
Cement	0.00
Solidified Inorganic Material	21.82
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	9.01
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	157.31
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m³)
Am-241	5.12E+00
Pu-238	1.01E+00
Pu-239	3.53E+01
Pu-240	7.96E+00
Pu-241	1.20E+02
Pu-242	4.73E-04
U-234	7.27E-05
U-235	1.31E-06

No Hazardous Waste Numbers Provided

TRUCON Code(s)
124/224

Waste Stream Description
NON-CEMENTED SOLID INORGANIC (HOMOGENEOUS)

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-MHD01.001

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Heterogeneous Debris				Activity Concentrations Decayed to CY		2012

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum w/ 1 - 55-gal Drum w/ Liner	1.0	0.0	1.0
55-gal Drum Dir Ld w/ Liner	150.8	2568.8	2719.6
55-gal POC - 12" w/ Liner	25.2	0.0	25.2
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	67.6	0.0	67.6
Box - Crate	62.8	0.0	62.8
Box - FRP	148.2	0.0	148.2
Cask - Misc w/ 1 - 30-gal Drum	65.6	0.0	65.6
Cask - Misc w/ 2 - 30-gal Drums	4.0	0.0	4.0
Other	278.0	0.0	278.0
Other - Sphere	16.7	0.0	16.7
Other - Tritium Torpedo	3.7	0.0	3.7
SWB Dir Ld w/ Liner	44.1	114.0	158.1
SWB w/ 4 - 55-gal Drums w/ Liners	41.8	0.0	41.8
Current Form Total	909.6	2682.8	3592.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	347.8	2568.8	2916.6
55-gal POC - 12" w/ Liner	25.2	0.0	25.2
SWB Dir Ld w/ Liner	553.8	113.4	667.2
SWB w/ 4 - 55-gal Drums w/ Liners	41.6	0.0	41.6
Final Form Total	968.3	2682.2	3650.5

Waste Material Parameters	
Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	75.46
Aluminum-based Metal/Alloys	0.31
Other Metal/Alloys	9.04
Other Inorganic Materials	48.94
Cellulose	6.24
Rubber	9.37
Plastic	28.89
Cement	0.00
Solidified Inorganic Material	1.20
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.93
Packaging Material, Plastic	30.28
Packaging Material, Rubber	0.50
Packaging Material, Steel	138.57
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m ³)
Am-241	1.70E+00
Am-243	1.03E-04
Cm-244	8.71E-03
Cs-137	2.77E-04
Np-237	3.47E-05
Pu-238	1.25E+01
Pu-239	3.86E+00
Pu-240	1.02E+00
Pu-241	1.21E+01
Pu-242	9.47E-04
Pu-244	3.46E-11
Sr-90	2.76E-04
Th-229	1.65E-08
Th-230	5.11E-08
Th-232	1.06E-17
U-233	6.25E-05
U-234	1.91E-03
U-235	8.70E-07
U-236	1.17E-07
U-238	2.13E-05

Haz. Waste No(s).
D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005
TRUCON Code(s)
112/212, 116/216, 117/217, 118/218, 119/219, 122/222, 124/224, 125/225

Waste Stream Description
Mixed heterogeneous debris waste generated in TA-55.

Waste Stream ID: LA-MHD03.001

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Heterogeneous Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)			
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	4.6	0.0	4.6
55-gal Drum Dir Ld w/ Liner	80.4	131.0	211.4
55-gal POC - 12" w/ Liner	1.2	0.0	1.2
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	17.4	0.0	17.4
Box - Crate	6.8	0.0	6.8
Box - FRP	19.5	0.0	19.5
Cask - Misc w/ 1 - 30-gal Drum	0.8	0.0	0.8
Other	14.3	0.0	14.3
SWB Dir Ld w/ Liner	26.8	0.0	26.8
SWB w/ 4 - 55-gal Drums w/ Liners	1.9	0.0	1.9
Current Form Total	174.7	131.0	305.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	98.4	131.0	229.4
55-gal POC - 12" w/ Liner	1.2	0.0	1.2
SWB Dir Ld w/ Liner	69.9	0.0	69.9
SWB w/ 4 - 55-gal Drums w/ Liners	1.9	0.0	1.9
Final Form Total	171.5	131.0	302.5

Waste Material Parameters	
Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	29.70
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	9.72
Other Inorganic Materials	47.11
Cellulose	37.95
Rubber	3.85
Plastic	111.42
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.75
Vitrified	0.00
Packaging Material, Cellulosics	0.56
Packaging Material, Plastic	28.65
Packaging Material, Rubber	0.48
Packaging Material, Steel	138.15
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m ³)
Am-241	1.22E-01
Am-243	4.66E-05
Cm-244	8.51E-01
Cs-137	2.92E-03
Np-237	3.90E-04
Pu-238	9.92E-01
Pu-239	3.54E-01
Pu-240	9.13E-02
Pu-241	1.33E+00
Pu-242	1.71E-04
Pu-244	1.28E-10
Sr-90	3.44E-03
Th-229	1.28E-07
Th-230	1.07E-08
Th-232	1.21E-16
U-233	4.85E-04
U-234	3.91E-04
U-235	1.69E-05
U-236	8.19E-07
U-238	2.97E-07

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, 125/225, 126/226, 154

Waste Stream Description

Mixed heterogeneous combustible and non-combustible debris.

Waste Stream ID: LA-MHD04.001

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Heterogeneous Debris	Activity Concentrations	Decayed to CY	2012			

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D006, D007, D008, D009, F001, F002
Container Type	Stored	Proj.	Total					
110-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.4	0.0	0.4	Iron-based Metal/Alloys	21.14	Am-241	6.56E-02	TRUCON Code(s) 117/217, 125/225, 154
30-gal Drum	0.1	0.0	0.1	Aluminum-based Metal/Alloys	8.06	Am-243	5.49E-09	
55-gal Drum Dir Ld w/ Liner	1.5	0.0	1.5	Other Metal/Alloys	16.20	Cs-137	1.96E-06	
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	2.9	0.0	2.9	Other Inorganic Materials	4.61	Np-237	1.09E-06	
Box - Crate	810.4	0.0	810.4	Cellulose	13.74	Pu-238	1.78E+00	
Box - FRP	465.9	0.0	465.9	Rubber	10.61	Pu-239	3.06E-01	
Other	146.3	0.0	146.3	Plastic	7.90	Pu-240	5.55E-02	
SWB Dir Ld w/ Liner	34.2	0.0	34.2	Cement	0.00	Pu-241	4.54E-01	
Current Form Total	1461.7	0.0	1461.7	Solidified Inorganic Material	0.00	Pu-242	3.54E-06	
				Solidified Organic Material	0.00	Sr-90	1.69E-06	
Final Form Volumes				Soil	0.00	Th-229	3.10E-15	
Container Type	Stored	Proj.	Total	Vitrified	0.00	Th-230	2.92E-09	
55-gal Drum Dir Ld w/ Liner	3.7	0.0	3.7	Packaging Material, Cellulosics	0.00	Th-232	8.11E-19	
SWB Dir Ld w/ Liner	1457.2	0.0	1457.2	Packaging Material, Plastic	1.29	U-233	1.78E-11	
Final Form Total	1460.9	0.0	1460.9	Packaging Material, Rubber	0.19	U-234	8.94E-05	
				Packaging Material, Steel	153.38	U-235	4.65E-08	
				Packaging Material, Lead	0.00	U-236	7.40E-09	
						U-238	1.06E-07	

Waste Stream Description
Mixed heterogeneous combustible and non-combustible debris generated during plutonium processing and associated operations.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: **LA-MHD05-ITRI.001****Appendix A****Waste Profile Report**

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Heterogeneous Debris Waste	Activity Concentrations Decayed to CY				2012	

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
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Current Form Total	5.6	0.0	5.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.5	0.0	3.5
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Final Form Total	5.4	0.0	5.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	145.23
Aluminum-based Metal/Alloys	4.49
Other Metal/Alloys	8.71
Other Inorganic Materials	21.65
Cellulose	4.49
Rubber	7.13
Plastic	7.13
Cement	0.00
Solidified Inorganic Material	58.09
Solidified Organic Material	7.13
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	24.57
Packaging Material, Rubber	0.44
Packaging Material, Steel	138.67
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.64E+00
Am-243	8.66E-05
Cm-244	1.73E-04
Np-237	2.94E-06
Pu-238	2.74E-01
Pu-239	5.40E-02
Pu-240	1.76E-02
Pu-241	6.86E-02
Pu-242	1.23E-06
Th-229	1.05E-15
Th-230	7.97E-10
Th-232	5.14E-20
U-233	1.53E-11
U-234	4.41E-05
U-235	1.06E-10
U-236	1.04E-09
U-238	3.81E-16

Haz. Waste No(s).

D008

TRUCON Code(s)

125/225, 154

Waste Stream Description

Mixed CH-TRU waste stored at LANL resulting from the preparation of aerosols of TRU isotopes for inhalation studies performed at the LRRI.

Waste Stream ID: LA-MHD08.001

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Heterogeneous Debris Waste	Activity Concentrations Decayed to CY 2012					

Waste Volume Detail (m ³)			
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		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	7.75	Am-241	2.15E-06
Aluminum-based Metal/Alloys	0.00	Am-243	6.67E-04
Other Metal/Alloys	2.58	Cm-244	4.08E-05
Other Inorganic Materials	12.49	Cs-137	6.62E-09
Cellulose	10.02	Np-237	3.45E-03
Rubber	1.02	Pu-238	3.96E-03
Plastic	29.50	Pu-239	1.10E-01
Cement	0.00	Pu-240	1.37E-08
Solidified Inorganic Material	0.00	Pu-241	2.40E-15
Solidified Organic Material	0.00	Pu-242	1.20E-01
Soil	0.00	Sr-90	6.59E-09
Vitrified	0.00	Th-229	4.76E-06
Packaging Material, Cellulosics	0.00	Th-230	1.79E-11
Packaging Material, Plastic	37.07	Th-232	1.32E-07
Packaging Material, Rubber	0.57	U-233	4.51E-08
Packaging Material, Steel	130.77	U-234	6.66E-07
Packaging Material, Lead	0.00	U-235	3.24E-10
		U-236	6.20E-16
		U-238	5.59E-11

Haz. Waste No(s).
D004, D005, D006,
D007, D008, D009,
D010, D011, D022,
F001, F002, F005

TRUCON Code(s)
111/211, 116/216,
125/225, 154

Waste Stream Description
Mixed heterogeneous combustible and non-combustible debris generated during plutonium and uranium R&D processes in the TA48 Alpha Facility.

Waste Stream ID: LA-MHD09.001

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Heterogeneous Debris	Activity Concentrations Decayed to CY	2012				

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D007, D008, D009, F001
Container Type	Stored	Proj.	Total					TRUCON Code(s) 125/225, 154
55-gal Drum Dir Ld w/ Liner	1.2	0.0	1.2	Iron-based Metal/Alloys	160.03	Am-241	3.11E+00	
55-gal POC - 12" w/ Liner	0.8	0.0	0.8	Aluminum-based Metal/Alloys	58.25	Am-243	3.79E-04	
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	1.3	0.0	1.3	Other Metal/Alloys	59.12	Cs-137	5.08E-04	
Other	29.6	0.0	29.6	Other Inorganic Materials	6.50	Np-237	1.51E-04	
SWB Dir Ld w/ Liner	15.2	0.0	15.2	Cellulose	11.97	Pu-238	6.19E-01	
Current Form Total	48.2	0.0	48.2	Rubber	11.03	Pu-239	3.05E-01	
Final Form Volumes				Plastic	12.09	Pu-240	7.19E-02	
Container Type	Stored	Proj.	Total	Cement	0.00	Pu-241	1.17E+00	
55-gal Drum Dir Ld w/ Liner	2.1	0.0	2.1	Solidified Inorganic Material	2.67	Pu-242	1.24E-05	
55-gal POC - 12" w/ Liner	0.8	0.0	0.8	Solidified Organic Material	0.00	Sr-90	5.07E-04	
SWB Dir Ld w/ Liner	45.4	0.0	45.4	Soil	0.00	Th-229	2.88E-14	
Final Form Total	48.3	0.0	48.3	Vitrified	0.00	Th-230	8.12E-10	
				Packaging Material, Cellulosics	2.33	Th-232	5.25E-20	
				Packaging Material, Plastic	3.36	U-233	6.56E-10	
				Packaging Material, Rubber	0.21	U-234	8.91E-05	
				Packaging Material, Steel	158.93	U-235	4.36E-07	
				Packaging Material, Lead	0.00	U-236	2.13E-09	
						U-238	1.93E-15	

Waste Stream Description
Mixed heterogeneous combustible and non-combustible debris from TA-50.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-MHD10.001

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	TA-39 Heterogeneous Debris			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D008
Container Type	Stored	Proj.	Total					
Box - Crate	22.5	0.0	22.5	Iron-based Metal/Alloys	110.96	Am-241	2.33E-02	
SWB Dir Ld w/ Liner	19.0	0.0	19.0	Aluminum-based Metal/Alloys	19.84	Cs-137	8.17E-06	
Current Form Total	41.5	0.0	41.5	Other Metal/Alloys	19.84	Np-237	1.37E-08	
				Other Inorganic Materials	61.26	Pu-238	2.33E-02	
Final Form Volumes				Cellulose	2.18	Pu-239	2.28E-01	
Container Type	Stored	Proj.	Total	Rubber	1.96	Pu-240	6.02E-02	
SWB Dir Ld w/ Liner	41.6	0.0	41.6	Plastic	1.96	Pu-241	6.69E-01	
Final Form Total	41.6	0.0	41.6	Cement	0.00	Pu-242	6.30E-06	
				Solidified Inorganic Material	0.00	Sr-90	8.15E-06	
				Solidified Organic Material	0.00	Th-229	1.68E-18	
				Soil	0.00	Th-230	2.51E-12	
				Vitrified	0.00	Th-232	4.40E-20	
				Packaging Material, Cellulosics	0.00	U-233	4.36E-14	
				Packaging Material, Plastic	1.20	U-234	3.05E-07	
				Packaging Material, Rubber	0.19	U-235	4.37E-09	
				Packaging Material, Steel	153.44	U-236	1.78E-09	
				Packaging Material, Lead	0.00	U-238	9.78E-16	

Waste Stream Description

Mixed heterogeneous debris generated during plutonium and uranium R&D operations in the TA-39, Building 69, Two-Stage Gas Gun Facility.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-MIN02-V.001

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Organics	Inventory Date	12/31/2012		
Stream Name	Absorbed Liquid Waste			Activity Concentrations Decayed to CY	2012		
Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides	
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Container Type	Stored	Proj.	Total				
55-gal Drum Dir Ld w/ Liner	46.9	0.0	46.9	Iron-based Metal/Alloys	23.03	Am-241	2.84E+00
55-gal POC - 12" w/ Liner	13.5	0.0	13.5	Aluminum-based Metal/Alloys	0.00	Am-243	1.06E-05
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	24.2	0.0	24.2	Other Metal/Alloys	0.00	Cs-137	9.18E-04
SWB Dir Ld w/ Liner	1.9	0.0	1.9	Other Inorganic Materials	0.00	Np-237	8.31E-06
Current Form Total	86.5	0.0	86.5	Cellulose	0.00	Pu-238	1.08E+00
Final Form Volumes				Rubber	0.00	Pu-239	1.42E+01
Container Type	Stored	Proj.	Total	Plastic	22.64	Pu-240	3.61E+00
55-gal Drum Dir Ld w/ Liner	62.4	0.0	62.4	Cement	0.00	Pu-241	4.78E+01
55-gal POC - 12" w/ Liner	13.5	0.0	13.5	Solidified Inorganic Material	397.33	Pu-242	1.29E-03
SWB Dir Ld w/ Liner	1.9	0.0	1.9	Solidified Organic Material	52.30	Sr-90	9.11E-04
Final Form Total	77.8	0.0	77.8	Soil	0.00	Th-229	4.73E-08
				Vitrified	0.00	Th-230	1.06E-08
				Packaging Material, Cellulosics	23.47	Th-232	1.36E-16
				Packaging Material, Plastic	36.20	U-233	1.08E-04
				Packaging Material, Rubber	0.56	U-234	2.39E-04
				Packaging Material, Steel	200.49	U-235	7.57E-06
				Packaging Material, Lead	0.00	U-236	8.20E-07
						U-238	2.77E-04

Haz. Waste No(s).
D004, D005, D006,
D007, D008, D009,
D010, D011, D018,
D019, D021, D022,
D035, D038, D039,
D040, F001, F002,
F003, F005

TRUCON Code(s)
112/212, 125/225

Waste Stream Description
Inorganic particulate waste generated in TA-55.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-MIN03-NC.001

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Homogeneous Inorganic Solids			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005
Container Type	Stored	Proj.	Total					
110-gal Drum w/ 1 - 55-gal Drum w/ Liner	2.0	0.0	2.0	Iron-based Metal/Alloys	0.08	Am-241	4.63E-01	
55-gal Drum Dir Ld w/ Liner	31.0	0.0	31.0	Aluminum-based Metal/Alloys	0.00	Am-243	2.29E-06	
55-gal POC - 12" w/ Liner	0.2	0.0	0.2	Other Metal/Alloys	0.00	Cs-137	8.40E-06	
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	61.8	0.0	61.8	Other Inorganic Materials	0.00	Np-237	1.52E-06	
Current Form Total	95.0	0.0	95.0	Cellulose	0.00	Pu-238	1.15E-01	
				Rubber	0.00	Pu-239	5.78E-01	
				Plastic	4.39	Pu-240	6.85E-02	
				Cement	0.00	Pu-241	1.13E+00	TRUCON Code(s) 111/211, 122/222, 125/225
Final Form Volumes				Solidified Inorganic Material	824.56	Pu-242	8.07E-06	
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.00	Sr-90	8.34E-06	
55-gal Drum Dir Ld w/ Liner	70.9	0.0	70.9	Soil	0.00	Th-229	4.65E-08	
55-gal POC - 12" w/ Liner	0.2	0.0	0.2	Vitrified	0.00	Th-230	1.11E-09	
Final Form Total	71.1	0.0	71.1	Packaging Material, Cellulosics	0.40	Th-232	1.91E-18	
				Packaging Material, Plastic	37.07	U-233	2.45E-11	
				Packaging Material, Rubber	0.57	U-234	2.49E-05	
				Packaging Material, Steel	131.93	U-235	8.25E-07	
				Packaging Material, Lead	0.00	U-236	1.28E-08	
						U-238	1.19E-06	

Waste Stream Description
Homogeneous dewatered sludge generated in the TA-50-01 RLWTF main treatment process.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-MIN04-S.001

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Salt Waste			Inventory Date	12/31/2012
Stream Name	Salt Waste					Activity Concentrations Decayed to CY	2012

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
55-gal POC - 12" w/ Liner	10.4	0.0	10.4
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3
Current Form Total	16.5	0.0	16.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	6.0	0.0	6.0
55-gal POC - 12" w/ Liner	10.4	0.0	10.4
Final Form Total	16.4	0.0	16.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	29.28
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	1.81
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	15.34
Cement	0.00
Solidified Inorganic Material	92.99
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	85.50
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	382.72
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.63E+01
Am-243	2.10E-03
Cs-137	1.14E-04
Np-237	1.44E-04
Pu-238	2.25E+00
Pu-239	1.75E+01
Pu-240	4.92E+00
Pu-241	4.41E+01
Pu-242	9.29E-03
Sr-90	1.14E-04
Th-229	2.69E-14
Th-230	1.70E-09
Th-232	3.59E-18
U-233	6.17E-10
U-234	1.88E-04
U-235	4.33E-07
U-236	1.46E-07
U-238	1.65E-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)

124/224, 125/225

Waste Stream Description

Consists primarily of inorganic homogeneous solid waste (salt waste) generated in TA-55.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

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Waste Stream ID: LA-MSG04.001

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Spill Clean-ups/Emergency Response Actions	Waste Matrix Code Group	Contaminated Soil/Debris Waste	Inventory Date	12/31/2012		
Stream Name	Contaminated Soil			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D004, D005, D006, D007, D008, D009, D010, D011, D022, F001, F002, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	10.0	0.0	10.0	Iron-based Metal/Alloys	0.06	Am-241	1.07E-02	
Box - Crate	19.0	0.0	19.0	Aluminum-based Metal/Alloys	0.00	Cs-137	8.33E-04	
SWB Dir Ld w/ Liner	36.1	0.0	36.1	Other Metal/Alloys	0.00	Np-237	3.06E-07	
Current Form Total	65.1	0.0	65.1	Other Inorganic Materials	0.00	Pu-238	5.40E-04	
				Cellulose	0.00	Pu-239	1.14E-01	
				Rubber	0.00	Pu-240	2.16E-04	
				Plastic	2.46	Pu-242	4.61E-07	
				Cement	0.00	Pu-244	2.70E-06	
Final Form Volumes				Solidified Inorganic Material	14.99	Sr-90	1.92E-04	TRUCON Code(s) 111/211, 125/225
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.00	Th-229	7.03E-12	
55-gal Drum Dir Ld w/ Liner	10.0	0.0	10.0	Soil	568.01	Th-230	4.99E-10	
SWB Dir Ld w/ Liner	54.8	0.0	54.8	Vitrified	0.00	Th-232	1.58E-22	
Final Form Total	64.8	0.0	64.8	Packaging Material, Cellulosics	0.00	U-233	7.99E-08	
				Packaging Material, Plastic	6.73	U-234	5.43E-05	
				Packaging Material, Rubber	0.25	U-235	6.06E-06	
				Packaging Material, Steel	149.95	U-236	6.39E-12	
				Packaging Material, Lead	0.00	U-238	2.56E-05	

Waste Stream Description
Mixed contaminated soil generated at the TA-21 DP West Facility.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-NCD01

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Heterogeneous Debris	Activity Concentrations Decayed to CY	2012				

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters	
Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	36.31
Aluminum-based Metal/Alloys	0.15
Other Metal/Alloys	4.35
Other Inorganic Materials	23.55
Cellulose	3.01
Rubber	4.51
Plastic	13.90
Cement	0.00
Solidified Inorganic Material	0.58
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m ³)
Am-241	1.02E+00
Pu-238	2.56E-01
Pu-239	8.68E+00
Pu-240	2.03E+00
Pu-241	3.09E+01
Pu-242	1.18E-04
U-234	1.86E-05
U-235	3.23E-07

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description
Non-mixed combustible debris waste generated in TA-55.

Waste Stream ID: LA-OS-00-01.001

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Uncategorized Metal Waste		Inventory Date	12/31/2012	
Stream Name	Defense Sealed Sources			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal POC - 12" w/ Liner	4.2	0.0	4.2
55-gal POC - 6" w/ Liner	8.5	0.0	8.5
Current Form Total	12.7	0.0	12.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal POC - 12" w/ Liner	4.2	0.0	4.2
55-gal POC - 6" w/ Liner	8.5	0.0	8.5
Final Form Total	12.7	0.0	12.7

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)
Iron-based Metal/Alloys	44.55	Am-241	3.65E+01
Aluminum-based Metal/Alloys	0.00	Cm-244	2.49E+02
Other Metal/Alloys	7.86	Cs-137	8.10E-02
Other Inorganic Materials	0.00	Pu-238	1.99E+01
Cellulose	0.00	Pu-239	2.87E+00
Rubber	0.00	Pu-240	1.96E+00
Plastic	0.00	Pu-241	1.54E+00
Cement	0.00	U-233	4.47E-09
Solidified Inorganic Material	0.00	U-234	6.69E-04
Solidified Organic Material	0.00	U-235	2.21E-10
Soil	0.00	U-238	2.99E-11
Vitrified	0.00		
Packaging Material, Cellulosics	188.74		
Packaging Material, Plastic	37.07		
Packaging Material, Rubber	0.57		
Packaging Material, Steel	388.93		
Packaging Material, Lead	0.00		

No Hazardous Waste Numbers Provided

TRUCON Code(s)
120/220

Waste Stream Description
Manufactured sealed sources in metal or Lexan containers placed inside POCs. Sealed sources are encapsulated in various metals. Sealed sources contain varying amounts and combinations of Pu, Am, or other TRU nuclides, and may contain Be, Li, or other light elements.

Waste Stream ID: LA-OS-00-04

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Uncategorized Metal Waste		Inventory Date	12/31/2012	
Stream Name	Mixed Waste Sealed Sources			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D006, D008
Container Type	Stored	Proj.	Total					TRUCON Code(s) 120/220
55-gal POC - 12" w/ Liner	0.2	0.0	0.2	Iron-based Metal/Alloys	16.35	Am-241	2.25E+00	
Current Form Total				Aluminum-based Metal/Alloys	0.00	Pu-238	3.14E-01	
				Other Metal/Alloys	2.89	Pu-239	7.16E+00	
Final Form Volumes				Other Inorganic Materials	0.00	Pu-240	2.34E+00	
Container Type	Stored	Proj.	Total	Cellulose	0.00	Pu-241	3.52E+00	
55-gal POC - 12" w/ Liner	0.2	0.0	0.2	Rubber	0.00	Pu-242	2.84E-04	
Final Form Total				Plastic	0.00			
				Cement	0.00			
				Solidified Inorganic Material	0.00			
				Solidified Organic Material	0.00			
				Soil	0.00			
				Vitrified	0.00			
				Packaging Material, Cellulosics	135.10			
				Packaging Material, Plastic	37.07			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	528.85			
				Packaging Material, Lead	0.00			

Waste Stream Description
Manufactured sealed sources in metal or Lexan containers which are placed inside 55-gallon metal POC configuration drums.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-TA-00-01

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	TA-39 Heterogeneous Debris	Activity Concentrations Decayed to CY 2012					
Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides	
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Container Type	Stored	Proj.	Total				
55-gal Drum Dir Ld w/ Liner	8.5	0.0	8.5	Iron-based Metal/Alloys	107.44	Am-241	9.39E-03
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	1.0	0.0	1.0	Aluminum-based Metal/Alloys	19.21	Am-243	6.45E-10
Box - Crate	68.7	0.0	68.7	Other Metal/Alloys	19.21	Cs-137	9.86E-09
Other	2.7	0.0	2.7	Other Inorganic Materials	59.31	Np-237	2.58E-05
Other - Tritium Torpedo	3.0	0.0	3.0	Cellulose	2.11	Pu-238	1.89E-02
Current Form Total	83.8	0.0	83.8	Rubber	1.90	Pu-239	1.66E-02
Final Form Volumes				Plastic	1.90	Pu-240	6.22E-04
Container Type	Stored	Proj.	Total	Cement	0.00	Pu-241	9.56E-03
55-gal Drum Dir Ld w/ Liner	9.2	0.0	9.2	Solidified Inorganic Material	0.00	Pu-242	3.01E-08
SWB Dir Ld w/ Liner	73.7	0.0	73.7	Solidified Organic Material	0.00	Sr-90	9.81E-09
Final Form Total	82.9	0.0	82.9	Soil	0.00	Th-229	4.45E-14
				Vitrified	0.00	Th-230	2.24E-12
				Packaging Material, Cellulosics	0.00	Th-232	4.09E-21
				Packaging Material, Plastic	5.16	U-233	3.37E-10
				Packaging Material, Rubber	0.23	U-234	1.62E-07
				Packaging Material, Steel	150.94	U-235	4.92E-11
				Packaging Material, Lead	0.00	U-236	5.52E-11
						U-238	1.40E-17

Waste Stream Description

Mixed heterogeneous debris generated during plutonium and uranium R&D operations in the TA-39, Building 69, Two-Stage Gas Gun Facility.

Waste Stream ID: LA-TA-00-03

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	NON-PN EQUIPMENT			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
Canister - (LANL-RH)	2.1	0.0	2.1
Current Form Total	2.1	0.0	2.1
Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	1.8	0.0	1.8
Final Form Total	1.8	0.0	1.8

Waste Material Parameters	
Material Parameter	Average Density (kg/m³)
Iron-based Metal/Alloys	0.37
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	19.45
Cement	0.00
Solidified Inorganic Material	3650.35
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.00
Packaging Material, Steel	560.67
Packaging Material, Lead	0.00

Final Form Radionuclides		Haz. Waste No(s).
Isotope	Typical Concentration (Ci/m³)	D008
Pu-239	7.06E+00	No TRUCON Codes Provided
U-235	2.23E-07	

Waste Stream Description
LAMPRE REACTOR VESSEL SEALED IN CASK VESSEL

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-TA-03-01

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2012	
Stream Name	Solidified Organics				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters	
Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	17.14
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	16.84
Cement	0.00
Solidified Inorganic Material	295.65
Solidified Organic Material	38.92
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m ³)
Am-241	1.80E-01
Np-237	3.24E-05
Pu-238	2.55E-02
Pu-239	9.04E-01
Pu-240	2.11E-01
Pu-241	2.50E+00
Pu-242	1.22E-05
Th-229	1.51E-13
Th-230	8.49E-12
Th-232	3.86E-18
U-233	6.88E-10
U-234	3.67E-07
U-235	4.45E-09
U-236	3.13E-08
U-238	9.44E-15

Haz. Waste No(s).
D006, D008, D009, D011, D019, D021, F001, F002, F005
TRUCON Code(s)
112/212

Waste Stream Description
Solidified Organics

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-TA-03-10

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Combined Combustible and NonCombustible			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Other	64.0	0.0	64.0
Current Form Total	64.6	0.0	64.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
SWB Dir Ld w/ Liner	64.3	0.0	64.3
Final Form Total	64.9	0.0	64.9

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	0.24	Am-241	6.16E-02
Aluminum-based Metal/Alloys	0.00	Am-243	3.82E-09
Other Metal/Alloys	0.08	Np-237	4.35E-05
Other Inorganic Materials	0.38	Pu-238	2.78E-02
Cellulose	0.31	Pu-239	1.06E-01
Rubber	0.03	Pu-240	2.62E-02
Plastic	0.90	Pu-241	3.83E-01
Cement	0.00	Pu-242	2.03E-06
Solidified Inorganic Material	0.00	Th-229	1.83E-07
Solidified Organic Material	0.00	Th-230	1.97E-10
Soil	0.01	Th-232	2.16E-18
Vitrified	0.00	U-233	1.04E-03
Packaging Material, Cellulosics	0.00	U-234	1.08E-05
Packaging Material, Plastic	1.55	U-235	3.17E-07
Packaging Material, Rubber	0.20	U-236	2.27E-08
Packaging Material, Steel	153.22	U-238	1.31E-08
Packaging Material, Lead	0.00		

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225, 154

Waste Stream Description
Combined Combustible and NonCombustible

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: **LA-TA-03-14****Appendix A****Waste Profile Report**

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Metals and Miscellaneous Equipment Debris			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Crate	8.8	0.0	8.8
Current Form Total	8.8	0.0	8.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	9.5	0.0	9.5
Final Form Total	9.5	0.0	9.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	56.34
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	18.43
Other Inorganic Materials	89.36
Cellulose	71.98
Rubber	7.30
Plastic	211.34
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	1.41
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.20
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	2.91E-01
Pu-239	6.65E-04
Th-230	6.68E-09
U-234	3.64E-05
U-235	2.49E-11

Haz. Waste No(s).

D008

TRUCON Code(s)

125/225, 154

Waste Stream Description

Metals and Miscellaneous Equipment Debris

Waste Stream ID: LA-TA-03-27

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Combined combustible and noncombustible debris waste (RH-TRU) of the CMR facility				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	
Container Type	Stored	Proj.	Total					
Canister - (LANL-RH)	76.2	0.0	76.2	Iron-based Metal/Alloys	232.24	Am-241	6.00E-02	
RH Can w/ Fxd Lid - Dir Ld	1.0	0.0	1.0	Aluminum-based Metal/Alloys	0.00	Cs-137	1.01E+01	
Current Form Total	77.2	0.0	77.2	Other Metal/Alloys	75.97	Np-237	4.68E-07	
Final Form Volumes				Other Inorganic Materials	368.38	Pu-238	1.62E-02	
Container Type	Stored	Proj.	Total	Cellulose	296.74	Pu-239	1.05E+00	
RH Can w/ Fxd Lid - Dir Ld	0.9	0.0	0.9	Rubber	30.09	Pu-240	3.27E-02	
RH Can w/ Remov Lid - Dir Ld	76.5	0.0	76.5	Plastic	871.22	Pu-241	2.92E-01	
Final Form Total	77.4	0.0	77.4	Cement	0.00	Pu-242	1.96E-05	
				Solidified Inorganic Material	0.00	Sr-90	6.81E+00	
				Solidified Organic Material	0.00	Th-229	2.16E-14	
				Soil	5.83	Th-230	6.82E-09	
				Vitrified	0.00	Th-232	1.73E-16	
				Packaging Material, Cellulosics	0.00	U-233	2.69E-11	
				Packaging Material, Plastic	0.00	U-234	2.63E-05	
				Packaging Material, Rubber	0.00	U-235	1.08E-04	
				Packaging Material, Steel	559.21	U-236	1.35E-07	
				Packaging Material, Lead	5.33	U-238	5.32E-07	

TRUCON Code(s)
117/217

Waste Stream Description
Combined combustible and noncombustible debris waste (RH-TRU) from wing 9 of the CMR facility. Combustible/noncombustible waste is generated from facility and equipment operations and maintenance

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-TA-03-28

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics			Inventory Date	12/31/2012
Stream Name	Cement paste from CMR building (mixed)					Activity Concentrations Decayed to CY	2012

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	3.05
Cement	1015.09
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	2.54E+00
Th-230	6.16E-08
U-234	3.27E-04

Haz. Waste No(s).

D007, 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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-TA-03-30

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2012	
Stream Name	Absorbed Organics on vermiculite			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.1	0.0	0.1
Current Form Total	0.1	0.0	0.1
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters	
Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	25.09
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	24.66
Cement	0.00
Solidified Inorganic Material	432.83
Solidified Organic Material	56.98
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m ³)
Pu-238	2.46E-01
Th-230	5.65E-09
U-234	3.08E-05

No Hazardous
Waste Numbers
Provided

No TRUCON
Codes Provided

Waste Stream Description
SILICON-BASED OIL - LIQUID

Waste Stream ID: LA-TA-03-42

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	HEPA filter debris waste from wings 2, 3, 4, 5, and 7 of CMR Building				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	TRUCON Code(s) 119/219
Container Type	Stored	Proj.	Total					
SWB Dir Ld w/ Liner	1.9	0.0	1.9	Iron-based Metal/Alloys	14.55	Am-241	2.09E-03	
Current Form Total	1.9	0.0	1.9	Aluminum-based Metal/Alloys	0.00	Am-243	1.17E-06	
				Other Metal/Alloys	4.76	Cs-137	3.09E-06	
Final Form Volumes				Other Inorganic Materials	23.08	Np-237	1.63E-07	
Container Type	Stored	Proj.	Total	Cellulose	18.59	Pu-238	3.97E-02	
SWB Dir Ld w/ Liner	1.9	0.0	1.9	Rubber	1.89	Pu-239	3.47E-03	
Final Form Total	1.9	0.0	1.9	Plastic	54.59	Pu-240	8.09E-04	
				Cement	0.00	Pu-241	8.08E-03	
				Solidified Inorganic Material	0.00	Pu-242	4.67E-08	
				Solidified Organic Material	0.00	Th-229	2.44E-15	
				Soil	0.37	Th-230	4.38E-11	
				Vitrified	0.00	Th-232	4.79E-20	
				Packaging Material, Cellulosics	0.00	U-233	6.20E-12	
				Packaging Material, Plastic	1.20	U-234	1.05E-06	
				Packaging Material, Rubber	0.19	U-235	3.08E-11	
				Packaging Material, Steel	153.44	U-236	2.16E-10	
				Packaging Material, Lead	0.00	U-238	6.52E-17	

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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-TA-21-05

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Graphite	Activity Concentrations Decayed to CY			2012		

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		Final Form Radionuclides	
Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)
Iron-based Metal/Alloys	49.00	Am-241	5.50E-01
Aluminum-based Metal/Alloys	18.68	Cs-137	7.94E-05
Other Metal/Alloys	37.56	Np-237	5.81E-06
Other Inorganic Materials	10.68	Pu-238	5.87E-02
Cellulose	31.84	Pu-239	2.55E+00
Rubber	24.59	Pu-240	6.08E-01
Plastic	18.30	Pu-241	1.52E+00
Cement	0.00	Pu-242	4.08E-05
Solidified Inorganic Material	0.00	Sr-90	7.49E-05
Solidified Organic Material	0.00	Th-229	4.67E-13
Soil	0.00	Th-230	3.45E-09
Vitrified	0.00	Th-232	6.42E-16
Packaging Material, Cellulosics	0.00	U-233	4.42E-10
Packaging Material, Plastic	37.07	U-234	1.34E-05
Packaging Material, Rubber	0.57	U-235	4.76E-05
Packaging Material, Steel	130.77	U-236	6.85E-07
Packaging Material, Lead	0.00	U-238	2.40E-13

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225, 154

Waste Stream Description
Graphite

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-TA-21-06

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Combustible debris waste (mixed)			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	F001, F002
Container Type	Stored	Proj.	Total					TRUCON Code(s) 125/225, 154
30-gal Drum	14.9	0.0	14.9	Iron-based Metal/Alloys	26.35	Am-241	2.37E-01	
55-gal Drum Dir Ld w/ Liner	184.7	0.0	184.7	Aluminum-based Metal/Alloys	10.05	Cs-137	2.15E-05	
85-gal Drum w/ 1 - 55-gal Drum w/ Liner	0.3	0.0	0.3	Other Metal/Alloys	20.20	Np-237	2.35E-06	
Cask - Misc w/ 1 - 30-gal Drum	7.9	0.0	7.9	Other Inorganic Materials	5.74	Pu-238	4.04E+01	
Cask - Misc w/ 2 - 30-gal Drums	73.5	0.0	73.5	Cellulose	17.12	Pu-239	6.29E-01	
Current Form Total	281.3	0.0	281.3	Rubber	13.23	Pu-240	1.91E-01	
				Plastic	9.84	Pu-241	7.36E-01	
Final Form Volumes				Cement	0.00	Pu-242	3.57E-05	
Container Type	Stored	Proj.	Total	Solidified Inorganic Material	0.00	Sr-90	2.04E-05	
55-gal Drum Dir Ld w/ Liner	326.4	0.0	326.4	Solidified Organic Material	0.00	Th-229	1.69E-13	
Final Form Total	326.4	0.0	326.4	Soil	0.00	Th-230	1.14E-06	
				Vitrified	0.00	Th-232	1.81E-16	
				Packaging Material, Cellulosics	0.00	U-233	1.69E-10	
				Packaging Material, Plastic	37.07	U-234	5.69E-03	
				Packaging Material, Rubber	0.57	U-235	2.88E-06	
				Packaging Material, Steel	130.77	U-236	2.03E-07	
				Packaging Material, Lead	0.00	U-238	2.00E-13	

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. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-TA-21-07

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Metal			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	5.7	0.0	5.7
55-gal Drum Dir Ld w/ Liner	66.6	0.0	66.6
Box - Crate	482.3	0.0	482.3
Cask - Misc w/ 1 - 30-gal Drum	3.1	0.0	3.1
Cask - Misc w/ 2 - 30-gal Drums	43.9	0.0	43.9
Other	7.8	0.0	7.8
Current Form Total	609.4	0.0	609.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	142.1	0.0	142.1
SWB Dir Ld w/ Liner	489.5	0.0	489.5
Final Form Total	631.6	0.0	631.6

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	38.86	Am-241	5.78E-02
Aluminum-based Metal/Alloys	14.82	Cs-137	7.94E-06
Other Metal/Alloys	29.79	Np-237	5.76E-07
Other Inorganic Materials	8.47	Pu-238	1.65E+01
Cellulose	25.25	Pu-239	2.85E-01
Rubber	19.51	Pu-240	6.00E-02
Plastic	14.52	Pu-241	1.77E-01
Cement	0.00	Pu-242	5.34E-06
Solidified Inorganic Material	0.00	Sr-90	7.51E-06
Solidified Organic Material	0.00	Th-229	4.15E-14
Soil	0.00	Th-230	3.53E-07
Vitrified	0.00	Th-232	5.69E-17
Packaging Material, Cellulosics	0.00	U-233	4.15E-11
Packaging Material, Plastic	9.27	U-234	1.99E-03
Packaging Material, Rubber	0.28	U-235	1.91E-08
Packaging Material, Steel	148.34	U-236	6.40E-08
Packaging Material, Lead	0.00	U-238	2.98E-14

Haz. Waste No(s).
D008

TRUCON Code(s)
125/225, 154

Waste Stream Description
Metal

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-TA-21-08

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Glass	Activity Concentrations Decayed to CY				2012	

Waste Volume Detail (m³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.3	0.0	0.3
55-gal Drum Dir Ld w/ Liner	2.1	0.0	2.1
Cask - Misc w/ 2 - 30-gal Drums	1.1	0.0	1.1
Current Form Total	3.5	0.0	3.5
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.2	0.0	4.2
Final Form Total	4.2	0.0	4.2

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)
Iron-based Metal/Alloys	32.11	Am-241	2.10E-01
Aluminum-based Metal/Alloys	12.24	Cs-137	2.09E-05
Other Metal/Alloys	24.61	Np-237	2.14E-06
Other Inorganic Materials	7.00	Pu-238	2.14E+01
Cellulose	20.86	Pu-239	6.47E-01
Rubber	16.12	Pu-240	1.82E-01
Plastic	11.99	Pu-241	6.31E-01
Cement	0.00	Pu-242	2.70E-05
Solidified Inorganic Material	0.00	Sr-90	1.97E-05
Solidified Organic Material	0.00	Th-229	1.62E-13
Soil	0.00	Th-230	4.65E-07
Vitrified	0.00	Th-232	1.82E-16
Packaging Material, Cellulosics	0.00	U-233	1.58E-10
Packaging Material, Plastic	37.07	U-234	2.60E-03
Packaging Material, Rubber	0.57	U-235	4.75E-08
Packaging Material, Steel	130.77	U-236	2.00E-07
Packaging Material, Lead	0.00	U-238	1.55E-13

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225, 154

Waste Stream Description
Glass

Waste Stream ID: LA-TA-21-09

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Hepa Filters			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.1	0.0	0.1
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Cask - Misc w/ 2 - 30-gal Drums	7.4	0.0	7.4
Current Form Total	8.1	0.0	8.1
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	14.1	0.0	14.1
Final Form Total	14.1	0.0	14.1

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	29.88	Am-241	5.26E-03
Aluminum-based Metal/Alloys	11.39	Cs-137	7.96E-07
Other Metal/Alloys	22.90	Np-237	5.56E-08
Other Inorganic Materials	6.51	Pu-238	1.03E+02
Cellulose	19.42	Pu-239	2.56E-02
Rubber	15.00	Pu-240	5.98E-03
Plastic	11.16	Pu-241	1.44E-02
Cement	0.00	Pu-242	3.45E-07
Solidified Inorganic Material	0.00	Sr-90	7.51E-07
Solidified Organic Material	0.00	Th-229	4.47E-15
Soil	0.00	Th-230	2.36E-06
Vitrified	0.00	Th-232	6.32E-18
Packaging Material, Cellulosics	0.00	U-233	4.23E-12
Packaging Material, Plastic	37.07	U-234	1.29E-02
Packaging Material, Rubber	0.57	U-235	1.91E-09
Packaging Material, Steel	130.77	U-236	6.74E-09
Packaging Material, Lead	0.00	U-238	2.04E-15

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225, 154

Waste Stream Description
Hepa Filters

Waste Stream ID: LA-TA-21-12

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Non-combustible and combustible debris waste				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	3.6	0.0	3.6
55-gal Drum Dir Ld w/ Liner	113.4	0.0	113.4
Box - Crate	6.3	0.0	6.3
Cask - Misc w/ 1 - 30-gal Drum	32.4	0.0	32.4
Cask - Misc w/ 2 - 30-gal Drums	89.4	0.0	89.4
Current Form Total	245.1	0.0	245.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	335.7	0.0	335.7
SWB Dir Ld w/ Liner	5.7	0.0	5.7
Final Form Total	341.4	0.0	341.4

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	25.88	Am-241	4.03E-01
Aluminum-based Metal/Alloys	9.87	Cs-137	3.18E-05
Other Metal/Alloys	19.84	Np-237	3.97E-06
Other Inorganic Materials	5.64	Pu-238	1.15E+02
Cellulose	16.82	Pu-239	8.05E-01
Rubber	12.99	Pu-240	2.71E-01
Plastic	9.67	Pu-241	1.18E+00
Cement	0.00	Pu-242	7.63E-05
Solidified Inorganic Material	0.00	Sr-90	3.01E-05
Solidified Organic Material	0.00	Th-229	3.78E-04
Soil	0.00	Th-230	4.20E-06
Vitrified	0.00	Th-232	2.43E-16
Packaging Material, Cellulosics	0.00	U-233	1.23E-01
Packaging Material, Plastic	36.47	U-234	1.93E-02
Packaging Material, Rubber	0.56	U-235	5.80E-06
Packaging Material, Steel	131.15	U-236	2.81E-07
Packaging Material, Lead	0.00	U-238	4.14E-13

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225, 154

Waste Stream Description
COMBINED COMBUSTIBLE/NON-COMBUSTIBLE LAB TRASH

Waste Profile Report

Waste Volume Detail (m³)

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	442.3	0.0	442.3
Final Form Total	457.4	0.0	457.4

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.29E+01
Cs-137	4.30E-04
Np-237	1.49E-05
Pu-238	6.88E-02
Pu-239	1.38E-01
Pu-241	1.10E-04
Sr-90	3.02E-04
Th-229	3.80E-15
Th-230	2.59E-10
Th-232	1.25E-20
U-233	6.47E-11
U-234	1.43E-05
U-235	4.73E-05
U-236	1.27E-10
U-238	2.40E-05

D007, F001, F002

**No TRUCON
Codes Provided**

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 concremented absorbent.

Waste Stream ID: LA-TA-21-15

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2012	
Stream Name	Solidified organics			Activity Concentrations Decayed to CY		2012	

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	3.5	0.0	3.5
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		Final Form Radionuclides	
Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)
Iron-based Metal/Alloys	26.42	Am-241	1.42E-01
Aluminum-based Metal/Alloys	0.00	Cs-137	6.64E-05
Other Metal/Alloys	0.00	Np-237	2.11E-07
Other Inorganic Materials	0.00	Pu-238	2.82E-02
Cellulose	0.00	Pu-239	1.35E+00
Rubber	0.00	Pu-240	2.34E-01
Plastic	25.96	Pu-241	2.77E+00
Cement	0.00	Pu-242	1.34E-05
Solidified Inorganic Material	455.78	Sr-90	6.59E-05
Solidified Organic Material	60.00	Th-229	3.14E-16
Soil	0.00	Th-230	1.08E-10
Vitrified	0.00	Th-232	4.27E-18
Packaging Material, Cellulosics	0.00	U-233	2.18E-12
Packaging Material, Plastic	37.07	U-234	2.55E-06
Packaging Material, Rubber	0.57	U-235	4.38E-08
Packaging Material, Steel	130.77	U-236	3.46E-08
Packaging Material, Lead	0.00	U-238	1.04E-14

No Hazardous
Waste Numbers
Provided

No TRUCON
Codes Provided

Waste Stream Description
Solidified organics

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-TA-21-16

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	SOLIDIFIED INORGANIC PROCESS SOLID			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	25.9	0.0	25.9
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	57.7	0.0	57.7
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	57.4	0.0	57.4
Final Form Total	57.4	0.0	57.4

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	7.34	Am-241	1.72E+00
Aluminum-based Metal/Alloys	0.00	Cs-137	7.27E-04
Other Metal/Alloys	0.00	Np-237	2.55E-06
Other Inorganic Materials	0.00	Pu-238	4.32E-01
Cellulose	0.00	Pu-239	1.12E+01
Rubber	0.00	Pu-240	2.66E+00
Plastic	1.31	Pu-241	3.41E+01
Cement	205.35	Pu-242	2.17E-04
Solidified Inorganic Material	0.00	Sr-90	7.21E-04
Solidified Organic Material	0.00	Th-229	3.80E-15
Soil	0.00	Th-230	1.83E-09
Vitrified	0.00	Th-232	4.86E-17
Packaging Material, Cellulosics	0.00	U-233	2.63E-11
Packaging Material, Plastic	37.07	U-234	4.28E-05
Packaging Material, Rubber	0.57	U-235	5.76E-05
Packaging Material, Steel	130.77	U-236	3.94E-07
Packaging Material, Lead	0.00	U-238	1.69E-13

Haz. Waste No(s).
D008

No TRUCON
Codes Provided

Waste Stream Description
LEACHED PROCESS RESIDUES

Waste Stream ID: LA-TA-21-17

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Process solids			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	
Container Type	Stored	Proj.	Total					
30-gal Drum	0.1	0.0	0.1	Iron-based Metal/Alloys	29.57	Am-241	8.70E-03	
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4	Aluminum-based Metal/Alloys	11.28	Cs-137	1.32E-06	
Current Form Total	0.5	0.0	0.5	Other Metal/Alloys	22.67	Np-237	9.20E-08	
Final Form Volumes				Other Inorganic Materials	6.44	Pu-238	9.21E-04	
Container Type	Stored	Proj.	Total	Cellulose	19.22	Pu-239	4.24E-02	
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6	Rubber	14.84	Pu-240	9.88E-03	
Final Form Total	0.6	0.0	0.6	Plastic	11.05	Pu-241	2.38E-02	
				Cement	0.00	Pu-242	5.71E-07	
				Solidified Inorganic Material	0.00	Sr-90	1.24E-06	
				Solidified Organic Material	0.00	Th-229	7.39E-15	
				Soil	0.00	Th-230	5.29E-11	
				Vitrified	0.00	Th-232	1.04E-17	
				Packaging Material, Cellulosics	0.00	U-233	7.00E-12	
				Packaging Material, Plastic	37.07	U-234	2.06E-07	
				Packaging Material, Rubber	0.57	U-235	3.16E-09	
				Packaging Material, Steel	130.77	U-236	1.11E-08	
				Packaging Material, Lead	0.00	U-238	3.37E-15	

TRUCON Code(s)
125/225, 154

Waste Stream Description
Special items (precious metals) requiring tracking by CST-7

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-TA-50-18

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Cemented caustic liquid waste (mixed)			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D007, F001, F002
Container Type	Stored	Proj.	Total					TRUCON Code(s) 111/211
55-gal Drum Dir Ld w/ Liner	0.8	0.0	0.8	Iron-based Metal/Alloys	0.00	Am-241	1.42E+00	
Current Form Total				Aluminum-based Metal/Alloys	0.00	Np-237	8.86E-06	
				Other Metal/Alloys	0.00	Pu-238	8.11E-01	
Final Form Volumes				Other Inorganic Materials	0.00	Pu-239	5.05E-01	
Container Type	Stored	Proj.	Total	Cellulose	0.00	Pu-240	1.21E-01	
55-gal Drum Dir Ld w/ Liner	0.8	0.0	0.8	Rubber	0.00	Th-229	2.05E-13	
Final Form Total				Plastic	1.07	Th-230	1.65E-06	
				Cement	1071.20	Th-232	5.32E-08	
				Solidified Inorganic Material	0.00	U-233	3.66E-10	
				Solidified Organic Material	0.00	U-234	9.47E-03	
				Soil	0.00	U-235	4.73E-06	
				Vitrified	0.00	U-236	6.81E-08	
				Packaging Material, Cellulosics	0.00	U-238	8.75E-07	
				Packaging Material, Plastic	37.07			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			

Waste Stream Description
Cemented Caustic Liquid Waste Solidified (through cementation) caustic aqueous waste from TA-55. The sludge is a residue from numerous treatment and filtration operations involving aqueous liquid radioactive waste.

Waste Stream ID: LA-TA-50-19

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Homogeneous Inorganic Solids			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	F001
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	62.4	0.0	62.4	Iron-based Metal/Alloys	0.09	Am-241	3.49E-01	TRUCON Code(s) 111/211
Current Form Total				Aluminum-based Metal/Alloys	0.00	Np-237	3.95E-06	
				Other Metal/Alloys	0.00	Pu-238	2.38E-02	
				Other Inorganic Materials	0.00	Pu-239	2.25E-02	
				Cellulose	0.00	Th-229	2.94E-13	
				Rubber	0.00	Th-230	4.27E-10	
				Plastic	4.54	U-233	2.94E-10	
				Cement	0.00	U-234	2.62E-06	
				Solidified Inorganic Material	851.28	U-235	7.54E-10	
				Solidified Organic Material	0.00			
				Soil	0.00			
				Vitrified	0.00			
				Packaging Material, Cellulosics	0.00			
				Packaging Material, Plastic	37.07			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			
Final Form Volumes								
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	62.4	0.0	62.4					
Final Form Total	62.4	0.0	62.4					

Waste Stream Description

Homogeneous dewatered sludge generated in the TA-50-01 RLWTF main treatment process.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-TA-55-19

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Combustible debris waste (mixed)			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	42.2	0.0	42.2	Iron-based Metal/Alloys	65.35	Am-241	5.43E+00	
Cask - Misc w/ 1 - 30-gal Drum	0.4	0.0	0.4	Aluminum-based Metal/Alloys	0.26	Cs-137	2.21E-04	
Current Form Total	42.6	0.0	42.6	Other Metal/Alloys	7.83	Np-237	8.01E-05	
				Other Inorganic Materials	42.38	Pu-238	2.70E+00	
				Cellulose	5.41	Pu-239	5.92E+00	
				Rubber	8.11	Pu-240	2.90E+00	
				Plastic	25.02	Pu-241	2.23E+01	
				Cement	0.00	Pu-242	2.30E-03	
Final Form Volumes				Solidified Inorganic Material	1.04	Pu-244	7.46E-10	TRUCON Code(s) 125/225
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.00	Sr-90	2.11E-04	
55-gal Drum Dir Ld w/ Liner	43.1	0.0	43.1	Soil	0.00	Th-229	9.10E-12	
Final Form Total	43.1	0.0	43.1	Vitrified	0.00	Th-230	1.48E-06	
				Packaging Material, Cellulosics	0.00	Th-232	3.24E-14	
				Packaging Material, Plastic	37.07	U-233	7.57E-09	
				Packaging Material, Rubber	0.57	U-234	5.18E-03	
				Packaging Material, Steel	130.77	U-235	1.41E-04	
				Packaging Material, Lead	0.00	U-236	2.19E-05	
						U-238	3.28E-05	

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. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-TA-55-21

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Metal debris waste (mixed)			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes					Average Density (kg/m ³)		Typical Concentration (Ci/m ³)	D008
Container Type	Stored	Proj.	Total	Material Parameter		Isotope		
55-gal Drum Dir Ld w/ Liner	2.3	0.0	2.3	Iron-based Metal/Alloys	121.06	Am-241	1.34E-01	
Current Form Total				Aluminum-based Metal/Alloys	0.49	Cs-137	1.04E-05	TRUCON Code(s)
	2.3	0.0	2.3	Other Metal/Alloys	14.51	Np-237	1.22E-06	125/225
Final Form Volumes				Other Inorganic Materials	78.51	Pu-238	7.59E+00	
Container Type	Stored	Proj.	Total	Cellulose	10.02	Pu-239	2.56E-01	
55-gal Drum Dir Ld w/ Liner	2.3	0.0	2.3	Rubber	15.03	Pu-240	9.12E-02	
Final Form Total				Plastic	46.35	Pu-241	4.71E-01	
	2.3	0.0	2.3	Cement	0.00	Pu-242	2.50E-05	
				Solidified Inorganic Material	1.93	Sr-90	9.90E-06	
				Solidified Organic Material	0.00	Th-229	7.40E-14	
				Soil	0.00	Th-230	5.85E-07	
				Vitrified	0.00	Th-232	7.27E-17	
				Packaging Material, Cellulosics	0.00	U-233	8.06E-11	
				Packaging Material, Plastic	37.07	U-234	2.31E-03	
				Packaging Material, Rubber	0.57	U-235	1.77E-08	
				Packaging Material, Steel	130.77	U-236	8.93E-08	
				Packaging Material, Lead	0.00	U-238	8.92E-07	

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).

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-TA-55-30

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Non-combustible and combustible debris waste (mixed)				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	69.7	0.0	69.7	Iron-based Metal/Alloys	82.33	Am-241	3.78E+00	
55-gal POC - 12" w/ Liner	0.2	0.0	0.2	Aluminum-based Metal/Alloys	0.33	Cs-137	9.74E-05	
Current Form Total	69.9	0.0	69.9	Other Metal/Alloys	9.87	Np-237	3.22E-05	
				Other Inorganic Materials	53.39	Pu-238	2.15E+00	
Final Form Volumes				Cellulose	6.81	Pu-239	2.61E+00	
Container Type	Stored	Proj.	Total	Rubber	10.22	Pu-240	1.52E+00	
55-gal Drum Dir Ld w/ Liner	69.7	0.0	69.7	Plastic	31.52	Pu-241	1.51E+01	
55-gal POC - 12" w/ Liner	0.2	0.0	0.2	Cement	0.00	Pu-242	2.06E-03	TRUCON Code(s) 124/224, 125/225
Final Form Total	69.9	0.0	69.9	Solidified Inorganic Material	1.31	Pu-244	3.78E-10	
				Solidified Organic Material	0.00	Sr-90	9.29E-05	
				Soil	0.00	Th-229	1.72E-12	
				Vitrified	0.00	Th-230	1.89E-07	
				Packaging Material, Cellulosics	0.40	Th-232	1.83E-15	
				Packaging Material, Plastic	37.07	U-233	2.00E-09	
				Packaging Material, Rubber	0.57	U-234	7.66E-04	
				Packaging Material, Steel	131.95	U-235	9.43E-06	
				Packaging Material, Lead	0.00	U-236	1.89E-06	
						U-238	1.21E-04	

Waste Stream Description
Non-combustible and combustible waste generated from facility and equipment operations and maintenance. This waste includes, but may not be limited to, small tools, small equipment, cans, motors, pumps, process equipment, gloveboxes, ventilation ductwork, metal-based HEPA filters, pipes, glass, slag and crucibles, salt, discarded lab ware, windows, and bottles. The waste stream may also contain a smaller fraction of combustible solids (e.g., paper, rags, plastic, rubber, leaded gloves) and a small fraction of homogeneous solids (e.g., leached solids, ash, hydroxide cakes, impure oxides).

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LA-TA-55-38

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics			Inventory Date	12/31/2012
Stream Name	Cemented inorganics (mixed)			Activity Concentrations Decayed to CY		2012	

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
Current Form Total	0.4	0.0	0.4

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.66
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	0.12
Cement	18.46
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.75E-02
Cs-137	3.96E-06
Np-237	2.64E-07
Pu-238	1.94E+01
Pu-239	2.08E-02
Pu-240	1.03E-02
Pu-241	2.42E-02
Pu-242	1.07E-05
Sr-90	3.79E-06
Th-229	1.49E-14
Th-230	1.30E-06
Th-232	6.79E-18
U-233	1.71E-11
U-234	5.62E-03
U-235	1.40E-09
U-236	9.18E-09
U-238	4.99E-14

Haz. Waste No(s).

D008

TRUCON Code(s)

126/226

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****Waste Profile Report**

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Combustible debris waste			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	4.58
Aluminum-based Metal/Alloys	0.02
Other Metal/Alloys	0.55
Other Inorganic Materials	2.97
Cellulose	0.38
Rubber	0.57
Plastic	1.76
Cement	0.00
Solidified Inorganic Material	0.07
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.60E-02
Np-237	1.20E-07
Pu-238	1.44E+02
Pu-239	9.16E-02
Pu-240	4.64E-02
Pu-241	2.17E+00
Pu-242	3.80E-05
Th-229	5.91E-16
Th-230	2.86E-07
Th-232	4.88E-18
U-233	2.17E-12
U-234	5.10E-03
U-235	1.08E-09
U-236	1.65E-08
U-238	7.07E-14

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 116/216
Waste Stream Description

PU238 COMBUSTIBLE: 55-GALLON DRUM

Waste Stream ID: LA-TRU-Empty-55

Appendix A
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Empty containers			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner (LANL)	1.0	0.0	1.0	Iron-based Metal/Alloys	50.88	Am-241	3.39E-03	
Current Form Total	1.0	0.0	1.0	Aluminum-based Metal/Alloys	0.00	Am-243	1.58E-06	
				Other Metal/Alloys	0.00	Np-237	6.33E-07	
Final Form Volumes				Other Inorganic Materials	0.00	Pu-238	9.44E-02	
				Cellulose	0.00	Pu-239	1.36E-02	
Container Type	Stored	Proj.	Total	Rubber	0.22	Pu-240	3.18E-03	
SWB Dir Ld w/ Liner	1.9	0.0	1.9	Plastic	14.42	Pu-241	2.25E-02	
Final Form Total	1.9	0.0	1.9	Cement	0.00	Th-229	4.56E-09	
				Solidified Inorganic Material	0.00	Th-230	4.27E-10	
				Solidified Organic Material	0.00	Th-232	2.09E-20	
				Soil	0.00	U-233	8.25E-12	
				Vitrified	0.00	U-234	1.59E-05	
				Packaging Material, Cellulosics	0.00	U-235	4.02E-11	
				Packaging Material, Plastic	1.20	U-236	2.83E-10	
				Packaging Material, Rubber	0.19			
				Packaging Material, Steel	153.44			
				Packaging Material, Lead	0.00			

TRUCON Code(s)

125/225

Waste Stream Description
Empty containers identified as TRU resulting from repackaging/remediation of debris waste streams

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Profile Report

Waste Volume Detail (m³)

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	39.7	0.0	39.7
Final Form Total	39.7	0.0	39.7

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.39E-01
Am-243	1.34E-04
Cs-137	4.20E-08
Np-237	7.90E-06
Pu-238	2.88E-01
Pu-239	3.54E-01
Pu-240	9.11E-02
Pu-241	8.13E-01
Pu-242	3.75E-10
Sr-90	4.19E-08
Th-229	6.50E-08
Th-230	8.84E-10
Th-232	4.86E-19
U-233	6.78E-11
U-234	4.89E-05
U-235	3.91E-08
U-236	7.62E-09
U-238	3.23E-07

TRUCON Code(s)

116/216, 117/217,
123/223, 125/225

Empty containers identified as TRU resulting from repackaging/remediation of debris waste streams

Waste Stream ID: LB-T001

Appendix A
Waste Profile Report

Site	Lawrence Berkeley National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	LBL-Non Mixed Waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
12.2-gal Drum	0.0	0.0	0.1
Current Form Total	0.0	0.0	0.1
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		Final Form Radionuclides	
Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)
Iron-based Metal/Alloys	0.00	Am-241	3.56E-05
Aluminum-based Metal/Alloys	0.00	Am-243	4.81E-08
Other Metal/Alloys	0.19	Cs-137	4.36E-07
Other Inorganic Materials	2.36	Np-237	4.11E-05
Cellulose	4.95	Pu-239	1.48E-03
Rubber	0.00	Pu-240	4.81E-05
Plastic	1.86	Pu-241	7.05E-04
Cement	0.00	Pu-242	4.32E-17
Solidified Inorganic Material	0.58	Pu-244	3.22E-15
Solidified Organic Material	0.00	Th-229	7.86E-15
Soil	0.00	Th-230	2.20E-20
Vitrified	0.00	Th-232	2.69E-06
Packaging Material, Cellulosics	0.00	U-233	1.79E-10
Packaging Material, Plastic	37.07	U-234	4.79E-15
Packaging Material, Rubber	0.57	U-235	1.46E-12
Packaging Material, Steel	130.77	U-236	1.42E-12
Packaging Material, Lead	0.00	U-238	1.88E-09

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description
Heterogeneous transuranic, non mixed waste

Waste Stream ID: LB-T002

Appendix A
Waste Profile Report

Site	Lawrence Berkeley National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	LBL - Mixed Waste	Activity Concentrations Decayed to CY	2012				

Waste Volume Detail (m³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
2.5-gal Drum	0.0	0.0	0.0
Current Form Total	0.0	0.0	0.0
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal 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/m³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.53
Cellulose	1.78
Rubber	0.00
Plastic	0.00
Cement	0.00
Solidified Inorganic Material	0.03
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m³)
Am-241	4.31E-05
Am-243	5.77E-08
Np-237	2.79E-07
Pu-239	2.64E-04
Pu-241	2.93E-04
Th-229	5.34E-17
U-233	1.21E-12
U-235	2.60E-13

Haz. Waste No(s).
D007
TRUCON Code(s)
125/225

Waste Stream Description
Heterogeneous transuranic mixed waste

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LL-M001

Appendix A
Waste Profile Report

Site	Lawrence Livermore National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	R&D Glovebox Waste (Form 1)			Activity Concentrations Decayed to CY		2012	

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
55-gal Drum Dir Ld w/o Liner	39.5	393.1	432.6
55-gal POC - 12" w/ Liner	2.9	18.7	21.6
SWB Dir Ld w/o Liner	5.7	49.1	54.8
Current Form Total	62.2	461.0	523.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	53.7	393.1	446.8
55-gal POC - 12" w/ Liner	2.9	18.7	21.6
SWB Dir Ld w/o Liner	5.7	49.1	54.8
Final Form Total	62.2	461.0	523.2

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)
Iron-based Metal/Alloys	62.50	Am-241	2.76E+00
Aluminum-based Metal/Alloys	8.61	Am-243	4.40E-04
Other Metal/Alloys	16.78	Cm-244	1.43E+00
Other Inorganic Materials	9.40	Cs-137	1.32E-03
Cellulose	32.11	Np-237	3.07E-05
Rubber	16.74	Pu-238	3.54E+00
Plastic	43.46	Pu-239	3.28E+00
Cement	14.83	Pu-240	9.39E-01
Solidified Inorganic Material	4.85	Pu-241	9.85E+00
Solidified Organic Material	0.14	Pu-242	2.96E-04
Soil	0.09	Pu-244	7.78E-13
Vitrified	0.00	Sr-90	1.32E-03
Packaging Material, Cellulosics	5.59	Th-229	2.96E-06
Packaging Material, Plastic	1.53	Th-230	5.17E-07
Packaging Material, Rubber	0.53	Th-232	2.67E-08
Packaging Material, Steel	149.60	U-233	7.38E-04
Packaging Material, Lead	0.00	U-234	1.36E-04
		U-235	5.15E-06
		U-236	8.33E-08
		U-238	2.01E-05

Haz. Waste No(s).
D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D028, D029, D035, D040, F001, F002, F005
TRUCON Code(s)
116/216

Waste Stream Description

Specific waste items in this waste stream may include paper cartons, cardboard, Kimwipes, cotton swabs, tissues, cheesecloth, grinding paper, plastic (e.g., bags, sheet, tape, containers, pipette tips, and glovebox windows), Neoprene and Hypalon gloves (leaded and non-leaded), aluminum foil, tin cans, hardware (e.g., nuts, bolts, washers, fittings, gauges, fixtures, thermocouples), metal tools (e.g., screwdrivers and pliers), metal parts, equipment (with or without circuit boards), copper (wire, tubing, flanges, rods, and molds), sealed sources, aerosol cans, glass (e.g., beakers, vials, and ion exchange columns with resin), graphite molds, crucibles (magnesium oxide, tantalum), epoxy resin chunks, lead metal (e.g., bricks, foil), Kaufman cans (lead seams), lead-lined and cadmium-lined steel cans, mercury batteries, fluorescent and incandescent light bulbs, and small quantities of pyrochemical salts and solidified aqueous or organic liquids (individual drums contain less than 50 percent, by volume, solidified liquids, and/or salts).

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LL-T004

Appendix A
Waste Profile Report

Site	Lawrence Livermore National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Salt Waste	Inventory Date	12/31/2012		
Stream Name	Pyrochemical salt waste (Form 4)			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	0.2	0.0	0.2	Iron-based Metal/Alloys	120.00	Am-241	1.28E-01	
Current Form Total				Aluminum-based Metal/Alloys	0.00	Cm-244	8.42E-03	
	0.2	0.0	0.2	Other Metal/Alloys	0.00	Np-237	1.01E-06	
Final Form Volumes				Other Inorganic Materials	1740.00	Pu-238	4.91E-02	
Container Type	Stored	Proj.	Total	Cellulose	12.00	Pu-239	2.38E-01	
55-gal Drum Dir Ld w/o Liner	0.2	0.0	0.2	Rubber	0.00	Pu-240	1.15E-01	
Final Form Total				Plastic	120.00	Pu-241	1.17E+00	
	0.2	0.0	0.2	Cement	0.00	Pu-242	3.74E-05	
				Solidified Inorganic Material	0.00	Th-229	1.60E-15	
				Solidified Organic Material	0.00	Th-230	5.82E-12	
				Soil	0.00	Th-232	7.58E-19	
				Vitrified	0.00	U-233	1.24E-11	
				Packaging Material, Cellulosics	0.00	U-234	4.20E-07	
				Packaging Material, Plastic	0.00	U-235	7.05E-10	
				Packaging Material, Rubber	0.57	U-236	1.02E-08	
				Packaging Material, Steel	130.77	U-238	1.74E-14	
				Packaging Material, Lead	0.00			

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. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: **LL-W018-S5100****Appendix A****Waste Profile Report**

Site	Lawrence Livermore National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Combined metal scrap & incidental combust.(Form 3)				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Misc	120.6	0.0	120.6
SLB2 Dir Ld	0.0	141.5	141.5
SWB Dir Ld w/o Liner	20.8	138.0	158.8
Current Form Total	141.4	279.5	420.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
SLB2 Dir Ld	118.9	141.5	260.4
SWB Dir Ld w/o Liner	20.8	138.0	158.8
Final Form Total	139.7	279.5	419.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	55.05
Aluminum-based Metal/Alloys	3.35
Other Metal/Alloys	13.24
Other Inorganic Materials	0.56
Cellulose	14.72
Rubber	2.78
Plastic	2.13
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	2.65
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.16
Packaging Material, Steel	192.02
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.45E-02
Cm-244	4.38E-05
Np-237	1.22E-07
Pu-238	5.91E-03
Pu-239	5.12E-02
Pu-240	1.54E-02
Pu-241	3.56E-01
Pu-242	3.31E-06
Th-229	1.98E-16
Th-230	1.97E-12
Th-232	2.80E-19
U-233	1.32E-12
U-234	8.51E-08
U-235	2.52E-10
U-236	2.27E-09
U-238	2.57E-15

Haz. Waste No(s).

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

TRUCON Code(s)

125/225

Waste Stream Description

This waste stream is composed primarily of objects which, because of physical size, cannot be packaged in a 55-gallon drum. Typical objects include decommissioned gloveboxes, hoods, and large pieces of equipment (lathes, mills, etc.). This waste stream may contain lead metal (e.g., bricks, foil), Kaufman cans (lead seams), lead-lined and cadmium-lined steel cans, mercury batteries, fluorescent and incandescent light bulbs. The void space in boxes may be filled with other TRU waste items or with foam in plastic bags.

Waste Stream ID: LL-W018-SS

Appendix A
Waste Profile Report

Site	Lawrence Livermore National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Sealed Sources			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	4.2	0.0	4.2
55-gal POC - 12" w/ Liner	0.0	4.2	4.2
Current Form Total	4.2	4.2	8.3
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal POC - 12" w/ Liner	4.2	4.2	8.3
Final Form Total	4.2	4.2	8.3

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	7.11	Am-241	1.89E+01
Aluminum-based Metal/Alloys	1.52	Am-243	2.50E-06
Other Metal/Alloys	4.31	Cm-244	1.80E-04
Other Inorganic Materials	3.78	Cs-137	3.43E-03
Cellulose	1.54	Np-237	3.24E-05
Rubber	0.00	Pu-238	3.03E+00
Plastic	0.03	Pu-239	1.44E-01
Cement	0.00	Pu-240	4.61E-04
Solidified Inorganic Material	9.30	Pu-241	8.21E-02
Solidified Organic Material	4.92	Pu-244	4.14E-23
Soil	0.00	Sr-90	1.06E-02
Vitrified	0.00	Th-229	5.59E-14
Packaging Material, Cellulosics	135.10	Th-230	1.01E-09
Packaging Material, Plastic	37.07	Th-232	8.42E-21
Packaging Material, Rubber	0.57	U-233	3.63E-10
Packaging Material, Steel	528.85	U-234	4.36E-05
Packaging Material, Lead	0.00	U-235	1.04E-07
		U-236	6.83E-11

No Hazardous Waste Numbers Provided
TRUCON Code(s)
117/217

Waste Stream Description

Specific waste items in this waste stream include sealed sources composed primarily of metal or metal encapsulated in a plastic or resin disk. Other waste items consist of packaging including cans, ice cream cartons, and plastic bags, sheet, and tape, bentonite clay or other inorganic absorbents such as Floor Dry

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: LL-W019

Appendix A
Waste Profile Report

Site	Lawrence Livermore National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Organics			Inventory Date	12/31/2012
Stream Name	Solidified Waste (Form 2)					Activity Concentrations Decayed to CY	2012

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	15.4	0.0	15.4
55-gal Drum Dir Ld w/o Liner	5.6	19.8	25.4
Current Form Total	21.0	19.8	40.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	21.0	19.8	40.8
Final Form Total	21.0	19.8	40.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	21.82
Aluminum-based Metal/Alloys	1.41
Other Metal/Alloys	1.99
Other Inorganic Materials	4.24
Cellulose	3.80
Rubber	5.72
Plastic	41.02
Cement	162.32
Solidified Inorganic Material	0.00
Solidified Organic Material	37.08
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.84E+00
Am-243	1.02E-07
Cm-244	7.86E-04
Cs-137	1.75E-06
Np-237	8.42E-05
Pu-238	4.08E+00
Pu-239	4.90E+00
Pu-240	1.31E+00
Pu-241	1.48E+01
Pu-242	2.21E-04
Sr-90	3.69E-07
Th-229	1.43E-05
Th-230	4.85E-10
Th-232	8.63E-18
U-233	5.41E-02
U-234	3.50E-05
U-235	2.44E-08
U-236	1.17E-07
U-238	6.14E-07

Haz. Waste No(s).

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

TRUCON Code(s)

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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

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Waste Stream ID: ND-T001

Appendix A
Waste Profile Report

Site	Nuclear Radiation Development Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	AmO2 Bagout/ Silver Bagout			Activity Concentrations Decayed to CY	2012		

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/m³)
Iron-based Metal/Alloys	211.54
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	10.63
Other Inorganic Materials	5.41
Cellulose	211.54
Rubber	31.73
Plastic	52.88
Cement	0.00
Solidified Inorganic Material	531.73
Solidified Organic Material	10.63
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides		Haz. Waste No(s).
Isotope	Typical Concentration (Ci/m³)	D008, D011, D035, D040, F001, F002, F005
Am-241	7.13E+01	
Np-237	2.31E-05	
Th-229	1.48E-15	
U-233	5.03E-11	
		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).

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: ND-T002

Appendix A
Waste Profile Report

Site	Nuclear Radiation Development Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Returned Smoke Detector Sources			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	1.5	0.8	2.3	Iron-based Metal/Alloys	36.33	Am-241	2.24E+00	
Current Form Total				Aluminum-based Metal/Alloys	0.00	Np-237	2.18E-06	
	1.5	0.8	2.3	Other Metal/Alloys	3.63	Th-229	1.25E-15	
Final Form Volumes				Other Inorganic Materials	0.00	U-233	1.43E-11	
Container Type	Stored	Proj.	Total	Cellulose	0.00			
55-gal Drum Dir Ld w/o Liner	1.5	0.8	2.3	Rubber	0.00			
Final Form Total				Plastic	0.00			
	1.5	0.8	2.3	Cement	0.00			
				Solidified Inorganic Material	0.00			
				Solidified Organic Material	0.00			
				Soil	0.00			
				Vitrified	0.00			
				Packaging Material, Cellulosics	0.00			
				Packaging Material, Plastic	0.00			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			

TRUCON Code(s)	
125/225	

Waste Stream Description
Sealed sources returned from smoke detector manufacturers or other end users.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: **NT-JAS-01****Appendix A****Waste Profile Report**

Site	Nevada National Security Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Combined metal scrap and incidental combustibles			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	41.6	45.4	86.9
Current Form Total	41.6	45.4	86.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	41.6	45.4	86.9
Final Form Total	41.6	45.4	86.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	721.50
Aluminum-based Metal/Alloys	3.68
Other Metal/Alloys	0.00
Other Inorganic Materials	3.68
Cellulose	0.00
Rubber	3.68
Plastic	3.68
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.23E-02
Np-237	8.63E-07
Pu-238	4.61E-02
Pu-239	1.47E+00
Pu-240	3.34E-01
Pu-241	1.98E+00
Pu-242	1.52E-05
Th-229	1.08E-14
Th-230	5.08E-11
Th-232	1.98E-17
U-233	2.88E-11
U-234	1.21E-06
U-235	1.30E-08
U-236	8.90E-08
U-238	2.12E-14

No Hazardous Waste Numbers Provided

TRUCON Code(s)
 125/225
Waste Stream Description

Waste stream consists of spent Primary Target Chambers from Jasper gas gun experiments. PTCs are metal chambers used to contain debris from the impact of a sabot on a disk of plutonium metal.

Waste Stream ID: NT-W021

Appendix A
Waste Profile Report

Site	Nevada National Security Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	V3XA Spheres			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	
Container Type	Stored	Proj.	Total					
Box - Crate	5.1	0.0	5.1	Iron-based Metal/Alloys	464.11	Am-241	1.35E+00	
Current Form Total	5.1	0.0	5.1	Aluminum-based Metal/Alloys	0.98	Np-237	8.63E-07	
				Other Metal/Alloys	1.56	Pu-238	2.48E-01	
Final Form Volumes				Other Inorganic Materials	0.00	Pu-239	9.44E+00	
Container Type	Stored	Proj.	Total	Cellulose	1.50	Pu-240	2.17E+00	
55-gal Drum Dir Ld w/o Liner	5.4	0.0	5.4	Rubber	0.00	Pu-241	1.14E+01	
Final Form Total	5.4	0.0	5.4	Plastic	0.00	Pu-242	1.92E-04	
				Cement	2.22	Th-229	6.85E-14	
				Solidified Inorganic Material	81.08	Th-230	2.38E-08	
				Solidified Organic Material	0.00	Th-232	6.33E-18	
				Soil	0.00	U-233	3.92E-10	
				Vitrified	0.00	U-234	1.29E-03	
				Packaging Material, Cellulosics	0.00	U-235	8.90E-06	
				Packaging Material, Plastic	0.00	U-236	1.28E-07	
				Packaging Material, Rubber	0.57	U-238	4.59E-04	
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			

TRUCON Code(s)
125/225

Waste Stream Description

The two steel vessels are 1-inch thick by 3-feet diameter, weighing about 3300 lbs. each. The vessels contain heterogeneous mixtures of the following materials: Plutonium, D-38, Beryllium metal, Completely burned high explosive, Stainless steel, Brass, Polystyrene foam, Aluminum, Coke (degassed coal), Water absorbed by the coke, Steel, Glass, Epoxy resin, Thermalite (aerated cement block), Plaster, Hortag (fly-ash and clay), Wood, and Krypton-85 tracer gas for leak detection. The UK has had similar vessels in storage for over ten years, but none containing plutonium have ever been opened. Vessels containing D-38 only have been opened, with small amounts of water vapor and some loose debris found inside. The bulk of the materials were found to be trapped within the thick coke layer lining the inner surface of the vessel. No more wastes of this type are planned to be generated.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: OR-CHEM-CH-HET

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	ORNL Analytical Chemistry CH-TRU Debris Waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D011, D019, D022, F002, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	16.8	0.0	16.8	Iron-based Metal/Alloys	19.94	Am-241	1.02E+00	
79-gal Drum Dir Ld	0.3	0.0	0.3	Aluminum-based Metal/Alloys	2.39	Am-243	2.52E-03	
Box - Misc	0.3	0.0	0.3	Other Metal/Alloys	3.22	Cm-244	3.47E-01	
Current Form Total	17.4	0.0	17.4	Other Inorganic Materials	4.66	Cs-137	3.11E-01	
				Cellulose	36.65	Np-237	1.98E-06	
				Rubber	23.40	Pu-238	1.56E+01	
				Plastic	28.89	Pu-239	6.33E-01	
				Cement	0.00	Pu-240	2.30E-01	
Final Form Volumes				Solidified Inorganic Material	0.00	Pu-241	1.71E+00	TRUCON Code(s) 125/225
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.24	Pu-242	4.68E-04	
55-gal Drum Dir Ld w/o Liner	17.5	0.0	17.5	Soil	0.00	Sr-90	3.44E-01	
Final Form Total	17.5	0.0	17.5	Vitrified	0.00	Th-229	2.49E-05	
				Packaging Material, Cellulosics	0.00	Th-232	9.39E-08	
				Packaging Material, Plastic	0.00	U-233	5.69E-02	
				Packaging Material, Rubber	0.57	U-234	2.27E-04	
				Packaging Material, Steel	130.77	U-235	2.85E-06	
				Packaging Material, Lead	0.00	U-236	6.70E-10	
						U-238	1.42E-04	

Waste Stream Description
Waste consists of CH-TRU debris from analytical chemistry operations at ORNL

Waste Stream ID: OR-GENR-CH-HET

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	ORNL General Research & Development CH-TRU Debris Waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D028, F002, F005
Container Type	Stored	Proj.	Total	Iron-based Metal/Alloys	18.01	Am-241	1.03E-01	
110-gal Drum Dir Ld	1.2	0.0	1.2	Aluminum-based Metal/Alloys	4.48	Am-243	1.61E-02	
55-gal Drum Dir Ld w/o Liner	23.9	0.0	23.9	Other Metal/Alloys	4.48	Cm-244	2.67E-01	
Current Form Total	25.2	0.0	25.2	Other Inorganic Materials	18.01	Cs-137	3.22E-05	
Final Form Volumes				Cellulose	33.18	Np-237	3.51E-04	
Container Type	Stored	Proj.	Total	Rubber	21.83	Pu-238	2.94E-01	
55-gal Drum Dir Ld w/o Liner	25.2	0.0	25.2	Plastic	9.06	Pu-239	1.63E-01	
Final Form Total	25.2	0.0	25.2	Cement	0.00	Pu-240	1.95E-02	
				Solidified Inorganic Material	0.00	Pu-241	1.12E-01	TRUCON Code(s) 125/225
				Solidified Organic Material	0.11	Pu-242	5.60E-03	
				Soil	0.00	Sr-90	3.22E-05	
				Vitrified	0.00	Th-229	2.78E-06	
				Packaging Material, Cellulosics	0.00	Th-232	5.71E-07	
				Packaging Material, Plastic	0.00	U-234	5.10E-05	
				Packaging Material, Rubber	0.57	U-235	7.98E-08	
				Packaging Material, Steel	130.77	U-236	1.43E-11	
				Packaging Material, Lead	0.00	U-238	3.00E-05	

Waste Stream Description
Waste consists of CH-TRU debris from general R&D at ORNL

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: OR-GENR-RH-HET

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	ORNL General Research & Development RH-TRU Debris Waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D028, F002, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	3.1	0.0	3.1	Iron-based Metal/Alloys	25.40	Am-241	3.60E-02	
Current Form Total				Aluminum-based Metal/Alloys	6.31	Am-243	5.81E-02	
	3.1	0.0	3.1	Other Metal/Alloys	6.31	Cm-244	1.03E-01	
Final Form Volumes				Other Inorganic Materials	25.40	Cs-137	8.28E-06	
Container Type	Stored	Proj.	Total	Cellulose	46.81	Np-237	2.22E-03	
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	3.1	0.0	3.1	Rubber	30.79	Pu-239	3.35E-01	
Final Form Total				Plastic	12.78	Pu-240	8.56E-04	
	3.1	0.0	3.1	Cement	0.00	Pu-241	9.16E-05	
				Solidified Inorganic Material	0.15	Pu-242	1.70E-02	TRUCON Code(s) 325
				Solidified Organic Material	0.00	Pu-244	9.68E-12	
				Soil	0.00	Sr-90	7.95E-06	
				Vitrified	0.00	Th-229	7.60E-04	
				Packaging Material, Cellulosics	0.00	Th-230	6.23E-13	
				Packaging Material, Plastic	45.67	Th-232	2.97E-19	
				Packaging Material, Rubber	0.57	U-233	3.20E-01	
				Packaging Material, Steel	931.09	U-234	4.95E-09	
				Packaging Material, Lead	0.00	U-235	8.92E-09	
						U-236	5.13E-10	
						U-238	6.43E-05	

Waste Stream Description
Waste consists of RH-TRU debris from general R&D at ORNL

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Profile Report

Waste Volume Detail (m³)

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	130.6	0.0	130.6
55-gal POC - 6" w/ Liner	5.4	0.0	5.4
Final Form Total	136.0	0.0	136.0

Waste Material Parameters

Final Form Radionuclides

Haz. Waste No(s).

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from isotopes production at ORNL

Waste Stream ID: OR-ISTP-RH-HET

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	ORNL Isotopes Facilities RH-TRU Debris Waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D005, D006, D007, D008, D009, D011, D019, D022, F002, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	14.4	0.0	14.4	Iron-based Metal/Alloys	191.78	Am-241	4.62E+00	
79-gal Drum w/ 1 - 55-gal Drum	0.6	0.0	0.6	Aluminum-based Metal/Alloys	10.06	Am-243	3.83E-03	
Cask - Misc	8.3	0.0	8.3	Other Metal/Alloys	55.05	Cm-244	1.28E+01	
Current Form Total	23.3	0.0	23.3	Other Inorganic Materials	11.84	Cs-137	7.04E-06	
				Cellulose	95.89	Np-237	5.76E-04	
				Rubber	52.68	Pu-238	1.51E+01	
				Plastic	173.43	Pu-239	4.23E-01	
				Cement	0.00	Pu-240	6.89E-01	
Final Form Volumes				Solidified Inorganic Material	1.18	Pu-241	3.05E+00	TRUCON Code(s) 325
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.00	Pu-242	7.20E-04	
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	22.5	0.0	22.5	Soil	0.00	Pu-244	2.36E-10	
Final Form Total	22.5	0.0	22.5	Vitrified	0.00	Sr-90	6.76E-06	
				Packaging Material, Cellulosics	0.00	Th-229	2.14E-05	
				Packaging Material, Plastic	45.67	Th-230	2.35E-07	
				Packaging Material, Rubber	0.57	Th-232	4.66E-05	
				Packaging Material, Steel	931.09	U-233	7.69E-03	
				Packaging Material, Lead	0.00	U-234	1.56E-03	
						U-235	2.72E-06	
						U-236	5.30E-07	
						U-238	7.65E-07	

Waste Stream Description

Waste consists of RH-TRU debris from isotopes production at ORNL

Waste Stream ID: OR-NBL-CH-HET

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	New Brunswick Laboratory CH-TRU Debris Waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D004, D005, D007, D008, D009, D011, D022, F002, F005
Container Type	Stored	Proj.	Total					
110-gal Drum Dir Ld	0.8	0.0	0.8	Iron-based Metal/Alloys	26.40	Am-241	2.73E-02	
55-gal Drum Dir Ld w/o Liner	12.5	0.0	12.5	Aluminum-based Metal/Alloys	1.73	Am-243	2.30E-04	
79-gal Drum Dir Ld	0.3	0.0	0.3	Other Metal/Alloys	34.17	Cm-244	2.45E+00	
Current Form Total	13.6	0.0	13.6	Other Inorganic Materials	70.75	Cs-137	1.35E-03	
				Cellulose	10.35	Np-237	1.85E-06	
				Rubber	18.46	Pu-238	1.31E-01	
				Plastic	10.35	Pu-239	1.62E-01	
				Cement	0.00	Pu-240	6.20E-02	
Final Form Volumes				Solidified Inorganic Material	0.00	Pu-241	1.15E-01	TRUCON Code(s) 125/225
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.35	Pu-242	1.58E-06	
55-gal Drum Dir Ld w/o Liner	13.5	0.0	13.5	Soil	0.00	Sr-90	2.31E-02	
Final Form Total	13.5	0.0	13.5	Vitrified	0.00	Th-229	1.07E-06	
				Packaging Material, Cellulosics	0.00	Th-232	5.74E-06	
				Packaging Material, Plastic	0.00	U-233	1.56E-04	
				Packaging Material, Rubber	0.57	U-234	2.66E-04	
				Packaging Material, Steel	130.77	U-235	2.62E-05	
				Packaging Material, Lead	0.00	U-238	1.55E-04	

Waste Stream Description
Waste consists of CH-TRU debris from NBL

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: OR-NFS-CH-HET

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Nuclear Fuel Services CH-TRU Waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D006, D008, D009, D011, F002
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	48.5	0.0	48.5	Iron-based Metal/Alloys	112.56	Am-241	1.16E+00	TRUCON Code(s) 125/225
Box - Misc	2.6	0.0	2.6	Aluminum-based Metal/Alloys	9.93	Am-243	8.99E-07	
Current Form Total	51.0	0.0	51.0	Other Metal/Alloys	9.10	Cm-244	4.74E-04	
Final Form Volumes				Other Inorganic Materials	603.34	Cs-137	7.54E-07	
Container Type	Stored	Proj.	Total	Cellulose	23.17	Np-237	1.44E-06	
55-gal Drum Dir Ld w/o Liner	51.0	0.0	51.0	Rubber	4.97	Pu-238	4.24E-01	
Final Form Total	51.0	0.0	51.0	Plastic	63.73	Pu-239	2.90E+00	
				Cement	0.00	Pu-240	1.65E+00	
				Solidified Inorganic Material	0.00	Pu-241	3.01E+01	
				Solidified Organic Material	0.83	Pu-242	1.60E-04	
				Soil	0.00	Sr-90	7.54E-07	
				Vitrified	0.00	Th-229	4.87E-07	
				Packaging Material, Cellulosics	0.00	Th-232	5.20E-07	
				Packaging Material, Plastic	0.00	U-233	2.01E-04	
				Packaging Material, Rubber	0.57	U-234	9.78E-02	
				Packaging Material, Steel	130.77	U-235	5.49E-06	
				Packaging Material, Lead	0.00	U-238	1.05E-04	

Waste Stream Description
Waste consists of CH-TRU debris from NFS

Waste Stream ID: **OR-NFS-CH-HOM****Appendix A****Waste Profile Report**

Site	Oak Ridge National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Nuclear Fuel Services CH-TRU Homogeneous Waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)

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

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	11.2	0.0	11.2
Final Form Total	11.2	0.0	11.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	6.77
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	79.77
Cellulose	0.00
Rubber	0.00
Plastic	13.53
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	10.87
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.20E+00
Cs-137	5.62E-06
Np-237	2.68E-05
Pu-238	1.05E+00
Pu-239	1.08E+01
Pu-240	3.84E+00
Pu-241	4.91E+01
Pu-242	4.81E-04
Sr-90	5.62E-06
Th-229	1.45E-06
Th-232	4.31E-06
U-233	1.13E-03
U-234	7.32E-02
U-235	9.77E-06
U-238	2.15E-04

Haz. Waste No(s).

D006, D009

TRUCON Code(s)

111/211

Waste Stream Description

Waste consists of homogeneous waste from NFS

Waste Stream ID: **OR-NFS-CH-SOIL****Appendix A****Waste Profile Report**

Site	Oak Ridge National Laboratory	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Contaminated Soil/Debris Waste	Inventory Date	12/31/2012		
Stream Name	Nuclear Fuel Services CH-TRU Soil Waste	Activity Concentrations Decayed to CY	2012				

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	64.1	0.0	64.1
Current Form Total	64.1	0.0	64.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	64.1	0.0	64.1
Final Form Total	64.1	0.0	64.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	2.59
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	17.28
Soil	844.02
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	9.68E-02
Cs-137	9.09E-06
Np-237	3.71E-07
Pu-238	1.77E-02
Pu-239	1.73E-01
Pu-240	5.92E-02
Pu-241	2.68E-01
Pu-242	7.76E-06
Sr-90	1.37E-07
Th-230	3.56E-07
Th-232	1.11E-06
U-233	3.86E-04
U-234	1.45E-05
U-235	3.69E-07
U-238	9.72E-06

Haz. Waste No(s).

F002

TRUCON Code(s)

111/211

Waste Stream Description

Waste consists of soils from NFS

Waste Stream ID: OR-PGDP-CH-HET

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Paducah Gaseous Diffusion Plant CH-TRU Debris Waste	Activity Concentrations Decayed to CY	2012				

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o 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/o Liner	5.6	0.0	5.6
Final Form Total	5.6	0.0	5.6

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	122.26	Am-241	1.63E-02
Aluminum-based Metal/Alloys	22.23	Cs-137	5.08E-06
Other Metal/Alloys	55.57	Np-237	2.01E-02
Other Inorganic Materials	11.11	Pu-238	5.25E-03
Cellulose	94.47	Pu-239	1.32E-01
Rubber	77.80	Pu-240	1.66E-02
Plastic	144.49	Pu-241	1.89E-02
Cement	0.00	Pu-242	1.60E-06
Solidified Inorganic Material	0.00	Sr-90	4.88E-06
Solidified Organic Material	27.79	Th-229	2.79E-09
Soil	0.00	Th-230	1.66E-07
Vitrified	0.00	Th-232	7.80E-06
Packaging Material, Cellulosics	0.00	U-233	2.35E-06
Packaging Material, Plastic	0.00	U-234	6.71E-04
Packaging Material, Rubber	0.57	U-235	9.91E-05
Packaging Material, Steel	130.77	U-236	6.08E-01
Packaging Material, Lead	0.00	U-238	2.71E-03

Haz. Waste No(s).
D008
TRUCON Code(s)
125/225

Waste Stream Description
Waste consists of CH-TRU debris from PGDP

Waste Stream ID: OR-RADP-CH-HET

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	ORNL Radiochemical Processing Research & Development CH-TRU Debris Waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)			
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	24.5	0.0	24.5
Box - Misc	2.6	0.0	2.6
Current Form Total	27.5	0.0	27.5
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	27.5	0.0	27.5
Final Form Total	27.5	0.0	27.5

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	50.43	Am-241	1.87E-01
Aluminum-based Metal/Alloys	1.88	Am-243	3.77E-03
Other Metal/Alloys	6.99	Cm-244	2.28E+00
Other Inorganic Materials	5.78	Cs-137	1.14E-03
Cellulose	29.05	Np-237	6.00E-04
Rubber	7.13	Pu-238	7.15E-01
Plastic	32.14	Pu-239	5.02E-01
Cement	0.00	Pu-240	1.70E-01
Solidified Inorganic Material	0.00	Pu-241	4.00E-01
Solidified Organic Material	1.08	Pu-242	7.00E-05
Soil	0.00	Sr-90	1.14E-03
Vitrified	0.00	Th-229	4.57E-06
Packaging Material, Cellulosics	0.00	Th-232	1.15E-06
Packaging Material, Plastic	0.00	U-233	6.23E-04
Packaging Material, Rubber	0.57	U-234	1.33E-04
Packaging Material, Steel	130.77	U-235	1.11E-06
Packaging Material, Lead	0.00	U-238	1.44E-06

Haz. Waste No(s).
D004, D005, D006, D007, D008, D009, D010, D011, D028, F002, F005

TRUCON Code(s)
125/225

Waste Stream Description
Waste consists of CH-TRU debris from radiochemical processing R&D at ORNL

Waste Stream ID: **OR-RADP-CH-SOILS****Appendix A****Waste Profile Report**

Site	Oak Ridge National Laboratory	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Contaminated Soil/Debris Waste	Inventory Date	12/31/2012		
Stream Name	ORNL Radiochemical Processing Research & Development CH-TRU Soil Waste				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	1.96
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	3.93
Soil	190.39
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.29E-02
Am-243	7.00E-06
Np-237	4.57E-07
Pu-238	5.46E-03
Pu-239	7.18E-02
Pu-240	2.85E-02
Pu-241	5.25E-02
Pu-242	6.77E-06
Th-229	2.09E-14
Th-230	5.96E-11
Th-232	1.52E-17
U-233	2.65E-11
U-234	4.63E-07
U-235	1.91E-09
U-236	2.28E-08
U-238	4.04E-09

Haz. Waste No(s).

F002

TRUCON Code(s)

111/211

Waste Stream Description

Waste consists of CH-TRU soils from radiochemical processing R&D at ORNL

Waste Stream ID: **OR-RADP-RH-HET****Appendix A****Waste Profile Report**

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	ORNL Radiochemical Processing Research & Development RH-TRU Debris Waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	70.09
Aluminum-based Metal/Alloys	2.62
Other Metal/Alloys	9.72
Other Inorganic Materials	8.04
Cellulose	40.37
Rubber	9.91
Plastic	44.67
Cement	0.00
Solidified Inorganic Material	1.50
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.47E-03
Am-243	5.41E-01
Cm-244	2.33E+00
Np-237	1.13E-04
Pu-239	4.16E-01
Pu-240	1.70E-02
Pu-244	6.56E-15
Th-229	1.79E-08
Th-232	5.50E-18
U-233	7.57E-06
U-235	1.39E-05
U-236	9.77E-09

Haz. Waste No(s).D004, D005, D006,
D007, D008, D009,
D010, D011, D028,
F002, F005**TRUCON Code(s)**

325

Waste Stream Description

Waste consists of RH-TRU debris from radiochemical processing R&D at ORNL

Waste Stream ID: OR-REDC-CH-HET

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Radiochemical Engineering Development Center CH-TRU Waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)			
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	346.1	20.0	366.1
85-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Box - Misc	17.8	0.0	17.8
Current Form Total	365.4	20.0	385.4
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	364.6	20.0	384.6
Final Form Total	364.6	20.0	384.6

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	40.79	Am-241	1.04E-01
Aluminum-based Metal/Alloys	1.98	Am-243	4.11E-03
Other Metal/Alloys	1.24	Cm-244	3.64E+00
Other Inorganic Materials	15.82	Cs-137	1.32E-02
Cellulose	5.93	Np-237	1.42E-04
Rubber	1.61	Pu-238	6.13E-01
Plastic	56.25	Pu-239	7.44E-02
Cement	0.00	Pu-240	1.47E-01
Solidified Inorganic Material	0.00	Pu-241	1.11E+01
Solidified Organic Material	0.00	Pu-242	1.60E-04
Soil	0.00	Pu-244	1.38E-09
Vitrified	0.00	Sr-90	1.47E-01
Packaging Material, Cellulosics	0.00	Th-229	7.40E-06
Packaging Material, Plastic	0.00	Th-230	1.01E-09
Packaging Material, Rubber	0.57	Th-232	5.59E-08
Packaging Material, Steel	130.77	U-233	2.33E-03
Packaging Material, Lead	0.00	U-234	1.10E-04
		U-235	1.35E-06
		U-236	3.48E-04
		U-238	6.20E-07

Haz. Waste No(s).
D004, D005, D006, D007, D008, D009, D010, D011, D019, F002, F005

TRUCON Code(s)
125/225

Waste Stream Description
Waste consists of CH-TRU debris from REDC at ORNL

Waste Stream ID: OR-REDC-RH-HET

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Radiochemical Engineering Development Center RH-TRU Waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	8.3	0.0	8.3
Cask - Misc	218.1	139.4	357.5
Current Form Total	226.4	139.4	365.9
Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 30-gal w/ Liner	51.2	64.1	115.3
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	169.7	65.5	235.2
Final Form Total	220.9	129.6	350.5

Waste Material Parameters	
Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	219.21
Aluminum-based Metal/Alloys	0.04
Other Metal/Alloys	21.91
Other Inorganic Materials	62.21
Cellulose	24.76
Rubber	6.15
Plastic	31.96
Cement	0.00
Solidified Inorganic Material	4.49
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	58.30
Packaging Material, Rubber	0.72
Packaging Material, Steel	1156.48
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m ³)
Am-241	2.00E-02
Am-243	1.39E-03
Cm-244	7.40E-01
Cs-137	2.24E-02
Np-237	2.27E-05
Pu-238	6.58E-03
Pu-239	2.87E-03
Pu-240	8.98E-03
Pu-241	2.50E-02
Pu-242	8.14E-05
Pu-244	1.13E-10
Sr-90	1.42E-01
Th-229	1.01E-08
Th-230	1.94E-08
Th-232	7.76E-13
U-233	4.26E-06
U-234	8.70E-07
U-235	1.10E-09
U-236	8.49E-09
U-238	2.13E-07

Haz. Waste No(s).
D004, D005, D006, D007, D008, D009, D010, D011, D019, F002, F005

TRUCON Code(s)
325

Waste Stream Description
Waste consists of RH-TRU debris from REDC at ORNL

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: OR-RF-CH-HET

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	ORNL Reactor Fuels Research & Development CH-TRU Debris Waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D006, D007, D008, D009, D011, D019, F001, F002, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	57.0	0.0	57.0	Iron-based Metal/Alloys	66.27	Am-241	3.84E-01	
79-gal Drum Dir Ld	0.3	0.0	0.3	Aluminum-based Metal/Alloys	12.05	Am-243	2.10E-04	
Box - Misc	22.9	0.0	22.9	Other Metal/Alloys	30.12	Cm-244	2.19E-01	
Current Form Total	80.2	0.0	80.2	Other Inorganic Materials	6.02	Cs-137	3.30E-02	TRUCON Code(s) 125/225
Final Form Volumes				Cellulose	51.21	Np-237	9.09E-06	
Container Type	Stored	Proj.	Total	Rubber	42.17	Pu-238	2.49E+00	
55-gal Drum Dir Ld w/o Liner	79.5	0.0	79.5	Plastic	78.32	Pu-239	1.55E+00	
Final Form Total	79.5	0.0	79.5	Cement	0.00	Pu-240	6.94E-01	
				Solidified Inorganic Material	15.06	Pu-241	4.27E+01	
				Solidified Organic Material	0.00	Pu-242	8.14E-05	
				Soil	0.00	Sr-90	3.05E-03	
				Vitrified	0.00	Th-229	1.43E-04	
				Packaging Material, Cellulosics	0.00	Th-232	9.72E-06	
				Packaging Material, Plastic	0.00	U-233	9.09E-02	
				Packaging Material, Rubber	0.57	U-234	1.17E-03	
				Packaging Material, Steel	130.77	U-235	3.53E-06	
				Packaging Material, Lead	0.00	U-236	5.99E-08	
						U-238	7.22E-06	

Waste Stream Description

Waste consists of CH-TRU debris from reactor fuels R&D at ORNL

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: OR-RF-CH-HOM

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	ORNL Reactor Fuels Research & Development CH-TRU Homogeneous Waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D006, D007, D008, D009, D010
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	4.0	0.0	4.0	Iron-based Metal/Alloys	12.50	Am-241	6.06E-02	
Current Form Total				Aluminum-based Metal/Alloys	0.00	Cs-137	7.24E-04	
				Other Metal/Alloys	0.00	Np-237	5.27E-07	
				Other Inorganic Materials	150.00	Pu-238	1.54E-02	
				Cellulose	0.00	Pu-239	9.00E-02	
				Rubber	0.00	Pu-240	4.45E-02	
				Plastic	25.00	Pu-241	4.58E-02	
				Cement	0.00	Pu-242	1.30E-05	
				Solidified Inorganic Material	0.00	Sr-90	5.38E-03	
				Solidified Organic Material	20.83	Th-229	2.43E-14	
				Soil	0.00	Th-230	2.02E-08	
				Vitrified	0.00	Th-232	2.37E-17	
				Packaging Material, Cellulosics	0.00	U-233	3.07E-11	
				Packaging Material, Plastic	0.00	U-234	8.19E-05	
				Packaging Material, Rubber	0.57	U-235	1.58E-06	
				Packaging Material, Steel	130.77	U-236	3.56E-08	
				Packaging Material, Lead	0.00	U-238	1.17E-05	
Final Form Volumes								
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	4.0	0.0	4.0					
Final Form Total								

Waste Stream Description

Waste consists of homogeneous waste from reactor fuels R&D at ORNL

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: OR-RF-RH-HET

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	ORNL Reactor Fuels Research & Development RH-TRU Debris Waste				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	13.7	0.0	13.7
79-gal Drum Dir Ld	0.6	0.0	0.6
Cask - Misc	48.1	10.0	58.1
Current Form Total	62.5	10.0	72.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	59.9	10.0	69.9
Final Form Total	59.9	10.0	69.9

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)
Iron-based Metal/Alloys	249.03	Am-241	7.25E-02
Aluminum-based Metal/Alloys	56.60	Am-243	8.84E-05
Other Metal/Alloys	50.94	Cm-244	1.46E-02
Other Inorganic Materials	56.60	Cs-137	2.54E+00
Cellulose	79.24	Np-237	5.69E-06
Rubber	16.98	Pu-238	1.34E-02
Plastic	45.28	Pu-239	1.10E-01
Cement	0.00	Pu-240	5.02E-02
Solidified Inorganic Material	11.32	Pu-241	3.68E-02
Solidified Organic Material	0.00	Pu-242	1.93E-06
Soil	0.00	Pu-244	4.43E-16
Vitrified	0.00	Sr-90	3.56E-01
Packaging Material, Cellulosics	0.00	Th-229	7.26E-04
Packaging Material, Plastic	45.67	Th-230	2.18E-08
Packaging Material, Rubber	0.57	Th-232	4.64E-06
Packaging Material, Steel	931.09	U-233	3.06E-01
Packaging Material, Lead	0.00	U-234	8.82E-05
		U-235	5.06E-06
		U-236	3.87E-06
		U-238	8.11E-06

Haz. Waste No(s).
D008, D009, D011
TRUCON Code(s)
325

Waste Stream Description

Waste consists of RH-TRU debris from reactor fuels R&D at ORNL

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: OR-SWSA-CH-HET

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	ORNL Solid Waste Storage Area 5 North 7802N Trench Area Debris Waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D019, D028, F001, F002, F005
Container Type	Stored	Proj.	Total	Iron-based Metal/Alloys	6.49	Am-241	8.76E-04	
55-gal Drum Dir Ld w/o Liner	2.3	0.0	2.3	Aluminum-based Metal/Alloys	0.00	Am-243	2.88E-06	
Current Form Total	2.3	0.0	2.3	Other Metal/Alloys	0.00	Cm-244	5.67E+00	
Final Form Volumes				Other Inorganic Materials	160.98	Cs-137	9.83E-06	
Container Type	Stored	Proj.	Total	Cellulose	0.85	Np-237	3.38E-05	
55-gal Drum Dir Ld w/o Liner	2.3	0.0	2.3	Rubber	0.00	Pu-238	3.13E-03	
Final Form Total	2.3	0.0	2.3	Plastic	0.85	Pu-239	8.70E-04	
				Cement	0.00	Pu-240	2.18E-04	
				Solidified Inorganic Material	0.00	Pu-241	1.28E-03	
				Solidified Organic Material	0.00	Pu-242	2.02E-08	TRUCON Code(s) 125/225
				Soil	1.71	Sr-90	9.83E-06	
				Vitrified	0.00	Th-229	4.85E-07	
				Packaging Material, Cellulosics	0.00	Th-232	3.85E-13	
				Packaging Material, Plastic	0.00	U-233	1.68E-02	
				Packaging Material, Rubber	0.57	U-234	5.55E-07	
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			

Waste Stream Description
Waste consists of CH-TRU debris from SWSA 5 7802N Trench area

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: OR-SWSA-CH-SOIL

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory			Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste			Waste Matrix Code Group	Contaminated Soil/Debris Waste			Inventory Date	12/31/2012
Stream Name	ORNL Solid Waste Storage Area 5 North 7802N Trench Area Soil Waste						Activity Concentrations Decayed to CY	2012	

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
55-gal Drum Dir Ld w/ Liner	5.4	0.0	5.4
Final Form Total	5.4	0.0	5.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	2.91
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	1.45
Other Inorganic Materials	6.54
Cellulose	2.91
Rubber	0.00
Plastic	15.98
Cement	0.00
Solidified Inorganic Material	117.69
Solidified Organic Material	2.91
Soil	576.11
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.71E+00
Am-243	1.50E-05
Cm-244	6.92E-01
Cs-137	2.57E-06
Np-237	6.55E-05
Pu-238	2.98E-02
Pu-239	7.38E-02
Pu-240	3.82E-03
Pu-241	3.41E-02
Pu-242	6.51E-06
Sr-90	2.57E-06
Th-229	4.43E-07
Th-232	1.76E-07
U-233	6.62E-03
U-234	2.22E-06
U-235	2.48E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D028, F001, F002, F005

TRUCON Code(s)

111/211

Waste Stream Description

Waste consists of CH-TRU soils from SWSA 5 7802N Trench area

Waste Stream ID: OR-TBD-CH-HET

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	TBD CH-TRU Debris Waste				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D022, F001, F002, F004, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	13.9	0.0	13.9	Iron-based Metal/Alloys	40.65	Am-241	8.73E+00	TRUCON Code(s) 125/225
79-gal Drum Dir Ld	1.8	0.0	1.8	Aluminum-based Metal/Alloys	7.39	Am-243	2.04E-01	
Current Form Total	15.7	0.0	15.7	Other Metal/Alloys	18.48	Cm-244	7.36E-02	
Final Form Volumes				Other Inorganic Materials	3.70	Cs-137	1.11E-02	
Container Type	Stored	Proj.	Total	Cellulose	31.41	Np-237	3.26E-03	
55-gal Drum Dir Ld w/o Liner	15.6	0.0	15.6	Rubber	25.87	Pu-238	1.36E+01	
Final Form Total	15.6	0.0	15.6	Plastic	48.04	Pu-239	3.33E+00	
				Cement	0.00	Pu-240	7.53E+00	
				Solidified Inorganic Material	0.00	Pu-241	2.60E+00	
				Solidified Organic Material	9.24	Pu-242	7.80E-04	
				Soil	0.00	Pu-244	3.71E-05	
				Vitrified	0.00	Sr-90	2.58E-03	
				Packaging Material, Cellulosics	0.00	Th-229	1.17E-04	
				Packaging Material, Plastic	0.00	Th-230	4.24E-07	
				Packaging Material, Rubber	0.57	Th-232	3.32E-07	
				Packaging Material, Steel	130.77	U-233	4.90E-02	
				Packaging Material, Lead	0.00	U-234	1.38E-03	
						U-235	1.40E-05	
						U-236	6.05E-06	
						U-238	7.64E-04	

Waste Stream Description
CH-TRU Debris Waste Needing Further Evaluation

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: OR-TBD-RH-HET

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	TBD RH-TRU Debris Waste				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D005, D006, D007, D008, D009, D011
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	2.9	0.0	2.9	Iron-based Metal/Alloys	235.47	Am-241	8.88E-01	TRUCON Code(s) 325
Cask - Misc	47.5	6.6	54.1	Aluminum-based Metal/Alloys	53.52	Am-243	5.80E-11	
Current Form Total	50.4	6.6	57.0	Other Metal/Alloys	48.16	Cm-244	8.37E-02	
Final Form Volumes				Other Inorganic Materials	53.52	Cs-137	3.67E+01	
Container Type	Stored	Proj.	Total	Cellulose	74.92	Np-237	9.89E-06	
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	48.7	7.5	56.2	Rubber	16.05	Pu-238	9.85E-01	
Final Form Total	48.7	7.5	56.2	Plastic	42.81	Pu-239	1.38E-01	
				Cement	0.00	Pu-240	7.64E-02	
				Solidified Inorganic Material	0.00	Pu-241	9.65E-02	
				Solidified Organic Material	10.70	Pu-242	3.19E-07	
				Soil	0.00	Pu-244	6.82E-08	
				Vitrified	0.00	Sr-90	2.25E+01	
				Packaging Material, Cellulosics	0.00	Th-229	9.34E-05	
				Packaging Material, Plastic	45.67	Th-230	7.97E-08	
				Packaging Material, Rubber	0.57	Th-232	4.68E-07	
				Packaging Material, Steel	931.09	U-233	3.94E-02	
				Packaging Material, Lead	0.00	U-234	3.61E-04	
						U-235	1.13E-05	
						U-236	6.10E-08	
						U-238	2.44E-06	

Waste Stream Description
RH-TRU Debris Waste Needing Further Evaluation

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: OR-W203

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	ORNL Newly Generated Debris - Post 2013			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	84.9	84.9
Current Form Total	0.0	84.9	84.9
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	84.9	84.9
Final Form Total	0.0	84.9	84.9

Waste Material Parameters	
Material Parameter	Average Density (kg/m³)
Iron-based Metal/Alloys	79.33
Aluminum-based Metal/Alloys	3.85
Other Metal/Alloys	2.40
Other Inorganic Materials	30.77
Cellulose	11.54
Rubber	3.13
Plastic	109.38
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m³)
Am-241	1.14E-02
Am-243	8.13E-04
Cm-244	9.79E-03
Cs-137	4.24E-02
Pu-238	8.57E-03
Pu-239	1.56E-04
Pu-240	7.37E-03
Pu-241	1.02E-01
Pu-242	1.07E-04
Sr-90	3.14E-01
U-234	1.44E-07
U-235	6.35E-09
U-236	7.25E-10
U-238	5.12E-08

No Hazardous Waste Numbers Provided

TRUCON Code(s)

125/225

Waste Stream Description
Hot Cell Debris Waste

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: OR-W213-RH-SOILS

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S4000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Contaminated Soil/Debris Waste		Inventory Date	12/31/2012	
Stream Name	ER RH TRU Soils			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
10-gal Drum Dir Ld w/o Liner	1.6	0.0	1.6
55-gal Drum Dir Ld w/o Liner	0.2	0.0	0.2
5-gal Drum Dir Ld w/o Liner	0.0	0.0	0.0
Box - Misc	43.7	0.0	43.7
Current Form Total	45.6	0.0	45.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	10.6	0.0	10.6
Final Form Total	10.6	0.0	10.6

Waste Material Parameters

Material Parameter	Average Density (kg/m³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	25.30
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	50.59
Soil	2453.73
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m³)
Am-241	1.06E-01
Am-243	3.26E-05
Cm-244	2.64E-04
Cs-137	9.79E-01
Np-237	1.09E-04
Pu-238	1.90E-02
Pu-239	5.18E-02
Pu-240	4.93E-04
Pu-241	1.84E-01
Pu-242	2.86E-05
Sr-90	8.03E-03
Th-229	7.63E-02
Th-230	1.29E-04
Th-232	1.22E-03
U-233	9.91E-02
U-234	5.65E-03
U-235	8.41E-05
U-236	8.91E-05
U-238	1.07E-03

No Hazardous Waste Numbers Provided

TRUCON Code(s)
311

Waste Stream Description

This waste is made up of soils.

Waste Stream ID: OR-WSTR-CH-HET

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	ORNL-Liquid Waste Treatment CH-TRU Debris Waste				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D008
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	5.8	0.0	5.8	Iron-based Metal/Alloys	39.42	Cm-244	1.65E-03	
Current Form Total				Aluminum-based Metal/Alloys	7.17	Pu-238	7.49E-03	
	5.8	0.0	5.8	Other Metal/Alloys	17.92	Pu-239	2.06E+00	
				Other Inorganic Materials	3.58	Pu-240	8.23E-06	
Final Form Volumes				Cellulose	30.46	Th-230	8.18E-11	
Container Type	Stored	Proj.	Total	Rubber	25.09	Th-232	1.84E-21	
55-gal Drum Dir Ld w/o Liner	5.8	0.0	5.8	Plastic	46.59	U-234	6.36E-07	
Final Form Total				Cement	0.00	U-235	5.48E-08	
	5.8	0.0	5.8	Solidified Inorganic Material	0.00	U-236	3.85E-12	
				Solidified Organic Material	8.96			
				Soil	0.00			
				Vitrified	0.00			
				Packaging Material, Cellulosics	0.00			
				Packaging Material, Plastic	0.00			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			

Waste Stream Description
Waste consists of CH-TRU debris from ORNL liquids waste system.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: OR-Y12-CH-HET

Appendix A
Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Oak Ridge Y-12 CH-TRU Debris Waste	Activity Concentrations Decayed to CY	2012				

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D008
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	0.8	0.0	0.8	Iron-based Metal/Alloys	29.00	Np-237	8.70E-03	
79-gal Drum w/ 1 - 55-gal Drum	0.6	0.0	0.6	Aluminum-based Metal/Alloys	5.27	Pu-238	2.94E-04	
Current Form Total	1.4	0.0	1.4	Other Metal/Alloys	13.18	Pu-239	4.25E-02	TRUCON Code(s)
				Other Inorganic Materials	2.64	Pu-240	1.78E-05	125/225
				Cellulose	22.41	Th-229	1.21E-09	
Final Form Volumes				Rubber	18.45	Th-230	2.53E-07	
Container Type	Stored	Proj.	Total	Plastic	34.27	Th-232	9.50E-21	
55-gal Drum Dir Ld w/o Liner	1.5	0.0	1.5	Cement	0.00	U-233	1.02E-06	
Final Form Total	1.5	0.0	1.5	Solidified Inorganic Material	0.00	U-234	1.02E-03	
				Solidified Organic Material	6.59	U-235	1.03E-04	
				Soil	0.00	U-236	1.43E-11	
				Vitrified	0.00	U-238	8.44E-04	
				Packaging Material, Cellulosics	0.00			
				Packaging Material, Plastic	0.00			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			

Waste Stream Description
Waste consists of CH-TRU debris from Y-12

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: **RL100D-08****Appendix A****Waste Profile Report**

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	RH-TRU Non Mixed Debris Waste from 100-D			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Current Form Total	0.3	0.0	0.3

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	1714.74
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.50E-02
Am-243	2.15E-05
Cs-137	7.29E-01
Np-237	3.61E-06
Pu-238	9.68E-03
Pu-239	1.34E-02
Pu-240	1.73E-02
Pu-241	1.34E+00
Pu-242	6.75E-06
Sr-90	5.24E-01
U-235	3.51E-06
U-238	2.60E-05

No Hazardous
Waste Numbers
Provided

TRUCON Code(s)

325

Waste Stream Description

Not available

Waste Stream ID: RL105-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site			Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste			Waste Matrix Code Group	Heterogeneous Debris Waste			Inventory Date	12/31/2012
Stream Name	105-C, 105KE, and 105-N Bldg TRU CH Non-mixed Debris						Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	29.7	0.0	29.7
85-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Box - Misc	54.2	0.0	54.2
Current Form Total	84.6	0.0	84.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	37.9	0.0	37.9
SWB Dir Ld w/ Liner	68.0	0.0	68.0
Final Form Total	105.9	0.0	105.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	75.59
Aluminum-based Metal/Alloys	3.85
Other Metal/Alloys	0.00
Other Inorganic Materials	25.04
Cellulose	15.41
Rubber	13.48
Plastic	28.50
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	14.02
Packaging Material, Rubber	0.33
Packaging Material, Steel	145.34
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.82E-01
Am-243	5.20E-04
Cm-244	8.81E-03
Cs-137	1.23E+00
Np-237	2.29E-04
Pu-238	4.40E-02
Pu-239	1.44E-01
Pu-240	5.80E-02
Pu-241	5.25E+00
Pu-242	1.72E-05
Sr-90	4.36E-01
Th-229	3.94E-13
Th-230	1.01E-09
Th-232	1.07E-15
U-233	2.99E-09
U-234	3.67E-05
U-235	2.04E-05
U-236	7.24E-06
U-238	3.33E-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

CH TRU Combustible and noncombustible debris from Hanford production reactor storage basin operations. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, cartridge-type water filters from the Primary Recirculation System, and absorbed liquids.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

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Waste Stream ID: RL105-03

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site			Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste			Waste Matrix Code Group	Solidified Inorganics			Inventory Date	12/31/2012
Stream Name	NLOP sludge						Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	68.4	0.0	68.4
Current Form Total	68.4	0.0	68.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	68.4	0.0	68.4
Final Form Total	68.4	0.0	68.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	36.09
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	12.59
Cellulose	0.00
Rubber	0.00
Plastic	0.00
Cement	930.62
Solidified Inorganic Material	620.41
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.31E-01
Cs-137	1.58E+00
Np-237	9.17E-06
Pu-238	6.70E-02
Pu-239	3.38E-01
Pu-240	1.86E-01
Pu-241	7.33E+00
Pu-242	8.86E-05
Sr-90	7.89E+00
Th-229	2.60E-14
Th-230	2.20E-08
Th-232	2.17E-18
U-233	1.50E-10
U-234	5.98E-04
U-235	2.25E-05
U-236	2.20E-08
U-238	4.82E-04

No Hazardous Waste Numbers Provided

TRUCON Code(s)

111/211

Waste Stream Description

Solidified inorganic CH TRU waste generated from Facility/Equipment Operation and Maintenance activities at the Reactor facility.

Waste Stream ID: RL105-08

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	105-C, 105KE, and 105-N Bldg RH-TRU Mixed Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D034, D037, D043, F001, F002, F003, F004, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	3.7	0.0	3.7	Iron-based Metal/Alloys	106.95	Am-241	9.46E-02	
Box - Misc	120.5	0.0	120.5	Aluminum-based Metal/Alloys	5.45	Am-243	3.77E-08	
SWB Dir Ld w/ Liner	3.8	0.0	3.8	Other Metal/Alloys	0.00	Cm-244	9.63E-04	
Current Form Total	128.0	0.0	128.0	Other Inorganic Materials	35.42	Cs-137	1.61E+00	
				Cellulose	21.80	Np-237	1.00E-06	
				Rubber	19.07	Pu-238	2.45E-02	
				Plastic	38.15	Pu-239	7.76E-02	
				Cement	0.00	Pu-240	4.22E-02	
Final Form Volumes				Solidified Inorganic Material	0.00	Pu-241	9.70E-01	TRUCON Code(s) 325
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.00	Pu-242	1.73E-06	
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	161.0	0.0	161.0	Soil	0.00	Sr-90	7.40E-01	
Final Form Total	161.0	0.0	161.0	Vitrified	0.00	Th-229	3.50E-14	
				Packaging Material, Cellulosics	0.00	Th-230	2.06E-09	
				Packaging Material, Plastic	45.67	Th-232	4.95E-08	
				Packaging Material, Rubber	0.57	U-233	7.07E-11	
				Packaging Material, Steel	931.09	U-234	3.23E-05	
				Packaging Material, Lead	0.00	U-235	1.61E-06	
						U-236	5.63E-06	
						U-238	3.89E-05	

Waste Stream Description

The 105-KE RH waste stream is composed solely of cartridge-type water filters from the Primary Recirculation System. The water filters, accumulated waste and associated packaging. Other 100 area drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters. The waste stream ranges from contaminated clothing to process equipment. The waste is generated from Reactor Facility/Equipment Operation and Maintenance Waste activities.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RL105-09

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	105KE TRU RH Non-mixed solidified inorganics			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	
Container Type	Stored	Proj.	Total					
85-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6	Iron-based Metal/Alloys	156.95	Am-241	8.16E-02	
Sludge Transport and Storage Container	0.0	161.9	161.9	Aluminum-based Metal/Alloys	0.00	Cs-137	2.44E-01	
Current Form Total	0.6	161.9	162.6	Other Metal/Alloys	0.00	Np-237	1.39E-05	
Final Form Volumes				Other Inorganic Materials	5.86	Pu-238	1.05E-02	
Container Type	Stored	Proj.	Total	Cellulose	0.00	Pu-239	5.27E-02	
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	1.2	634.0	635.2	Rubber	0.00	Pu-240	2.90E-02	
Final Form Total	1.2	634.0	635.2	Plastic	0.00	Pu-241	1.16E+00	
				Cement	576.13	Pu-242	1.39E-05	
				Solidified Inorganic Material	0.00	Sr-90	9.12E-02	
				Solidified Organic Material	0.00	Th-229	9.32E-14	
				Soil	0.00	Th-230	5.12E-09	
				Vitrified	0.00	Th-232	4.18E-14	
				Packaging Material, Cellulosics	0.00	U-233	3.54E-10	
				Packaging Material, Plastic	45.67	U-234	9.28E-05	
				Packaging Material, Rubber	0.57	U-235	3.49E-06	
				Packaging Material, Steel	931.09	U-236	1.41E-04	
				Packaging Material, Lead	0.00	U-238	7.55E-05	

TRUCON Code(s)

311

Waste Stream Description
Solidified inorganic RH TRU waste generated from Facility/Equipment Operation and Maintenance activities at the Reactor facility.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RL200-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Misc 200 Area TRU Mixed Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, F001, F002, F003, F004, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	71.1	0.0	71.1	Iron-based Metal/Alloys	567.18	Am-241	5.40E-01	
Box - Misc	46.3	0.0	46.3	Aluminum-based Metal/Alloys	128.32	Cs-137	3.30E-03	
SWB Dir Ld w/ Liner	1.9	0.0	1.9	Other Metal/Alloys	0.00	Np-237	1.05E-06	
Current Form Total	119.3	0.0	119.3	Other Inorganic Materials	33.59	Pu-238	9.21E-04	
				Cellulose	24.62	Pu-239	6.36E-03	
				Rubber	8.49	Pu-240	2.28E-03	
				Plastic	33.60	Pu-241	3.29E-02	
				Cement	0.00	Pu-242	2.21E-07	
Final Form Volumes				Solidified Inorganic Material	5.39	Sr-90	2.46E-04	TRUCON Code(s) 125/225
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.00	Th-229	2.39E-15	
55-gal Drum Dir Ld w/ Liner	88.8	0.0	88.8	Soil	2.90	Th-230	4.44E-13	
SWB Dir Ld w/ Liner	60.5	0.0	60.5	Vitrified	0.00	Th-232	5.99E-20	
Final Form Total	149.3	0.0	149.3	Packaging Material, Cellulosics	0.00	U-233	1.35E-11	
				Packaging Material, Plastic	22.54	U-234	1.60E-08	
				Packaging Material, Rubber	0.42	U-235	3.76E-11	
				Packaging Material, Steel	139.95	U-236	4.05E-10	
				Packaging Material, Lead	0.00	U-238	2.05E-16	

Waste Stream Description
Containers with both combustible and noncombustible waste items from various general operations/maintenance/evaporator in 200 area. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: RL200-02

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site			Summary Category	S4000	Defense Determination	Defense-Related		Handling	CH
Source Cat.	Other/Multiple Sources			Waste Matrix Code Group	Contaminated Soil/Debris Waste			Inventory Date	12/31/2012	
Stream Name	Soil from Groundwater projects. And contaminated soil from PFP						Activity Concentrations Decayed to CY		2012	

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	3.2	0.0	3.2
Uncontained	0.0	1841.4	1841.4
Current Form Total	10.5	1841.4	1851.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	10.4	0.0	10.4
SWB Dir Ld w/ Liner	0.0	1491.2	1491.2
Final Form Total	10.4	1491.2	1501.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	3.59
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	513.52
Cellulose	4.73
Rubber	2.19
Plastic	9.25
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	543.68
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.45
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.28
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.77E-01
Cs-137	3.09E-04
Np-237	1.21E-05
Pu-238	7.59E-02
Pu-239	1.66E+00
Pu-240	4.38E-01
Pu-241	2.81E+00
Pu-242	3.31E-05
Sr-90	2.80E-04
Th-229	9.10E-15
Th-230	3.98E-12
Th-232	1.28E-18
U-233	1.04E-10
U-234	4.32E-07
U-235	3.28E-09
U-236	2.59E-08
U-238	1.03E-14

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D027, D028, D030, D039, D040, D043, F001, F002, F003, F005

TRUCON Code(s)

125/225

Waste Stream Description

Crib and soil characterization and remediation wastes

Waste Stream ID: RL201-03

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site			Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste			Waste Matrix Code Group	Solidified Inorganics			Inventory Date	12/31/2012
Stream Name	201C TRU Mixed Solid Inorganic						Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	11.4	0.0	11.4
Current Form Total	11.4	0.0	11.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	13.5	0.0	13.5
Final Form Total	13.5	0.0	13.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	27.63
Other Inorganic Materials	9.16
Cellulose	64.47
Rubber	119.33
Plastic	32.23
Cement	0.00
Solidified Inorganic Material	0.93
Solidified Organic Material	0.00
Soil	314.38
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.10E+00
Cs-137	1.95E-01
Np-237	6.80E-07
Pu-238	6.82E-05
Pu-239	1.39E-01
Pu-240	3.43E-02
Pu-241	3.33E-03
Pu-242	5.00E-08
Sr-90	5.04E+00
Th-229	4.34E-17
Th-230	6.97E-15
Th-232	2.51E-20
U-233	1.48E-12
U-234	1.52E-09
U-235	1.37E-10
U-236	1.02E-09
U-238	5.18E-04

Haz. Waste No(s).

D007, D010

TRUCON Code(s)

122/222

Waste Stream Description

Generated from tank CX-70 sludge cleanout/remediation. A vacuuming process loaded sludge waste into cloth lined 16 gal drums. A 16 gal drum was placed into each 55 gal drum. Diatomaceous earth was added to ensure no free liquid process waste.

Waste Stream ID: RL202S-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site			Summary Category	S5000	Defense Determination	Defense-Related		Handling	CH
Source Cat.	Remediation/D&D Waste			Waste Matrix Code Group	Heterogeneous Debris Waste			Inventory Date	12/31/2012	
Stream Name	202S TRU Mixed Debris					Activity Concentrations Decayed to CY 2012				
Waste Volume Detail (m³)				Waste Material Parameters				Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D006, D007, D008, D009		
Container Type	Stored	Proj.	Total							
55-gal Drum Dir Ld w/ Liner	0.8	0.0	0.8	Iron-based Metal/Alloys	2.74	Am-241	4.72E-02	TRUCON Code(s) 125/225		
Current Form Total	0.8	0.0	0.8	Aluminum-based Metal/Alloys	0.91	Cs-137	1.08E-07			
Final Form Volumes				Other Metal/Alloys	0.77	Np-237	1.87E-06			
Container Type	Stored	Proj.	Total	Other Inorganic Materials	0.00	Pu-238	1.07E-02			
55-gal Drum Dir Ld w/ Liner	1.0	0.0	1.0	Cellulose	3.34	Pu-239	6.29E-02			
Final Form Total	1.0	0.0	1.0	Rubber	0.77	Pu-240	2.35E-02			
				Plastic	53.09	Pu-241	1.45E-01			
				Cement	0.00	Pu-242	2.70E-06			
				Solidified Inorganic Material	3.59	Sr-90	9.79E-08			
				Solidified Organic Material	0.00	Th-229	1.41E-15			
				Soil	0.00	Th-230	5.63E-13			
				Vitrified	0.00	Th-232	6.87E-20			
				Packaging Material, Cellulosics	0.00	U-233	1.61E-11			
				Packaging Material, Plastic	37.07	U-234	6.11E-08			
				Packaging Material, Rubber	0.57	U-235	1.24E-10			
				Packaging Material, Steel	130.77	U-236	1.39E-09			
				Packaging Material, Lead	0.00	U-238	8.39E-16			

Waste Stream Description

Generated from investigations at the North Sample Gallery of the 202-S Canyon (REDOX CANYON AND SERVICE FACILITY). Debris waste of personal protective equipment, sharp metal objects, and cleanup material generated in S canyon investigation, waste characterization samples. Predominant debris waste consists of over 80% plastic.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RL209E-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	209E TRU Mixed Debris			Activity Concentrations Decayed to CY	2012		
Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides	
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Container Type	Stored	Proj.	Total				
55-gal Drum Dir Ld w/ Liner	12.1	0.0	12.1	Iron-based Metal/Alloys	70.85	Am-241	7.39E+00
85-gal Drum Dir Ld w/ Liner	1.6	0.0	1.6	Aluminum-based Metal/Alloys	0.03	Cs-137	1.51E-08
Box - Misc	213.8	0.0	213.8	Other Metal/Alloys	0.72	Np-237	6.36E-05
SWB Dir Ld w/ Liner	66.2	0.0	66.2	Other Inorganic Materials	8.56	Pu-238	1.54E+00
Current Form Total	293.6	0.0	293.6	Cellulose	39.53	Pu-239	1.09E+01
Final Form Volumes				Rubber	15.06	Pu-240	3.99E+00
Container Type	Stored	Proj.	Total	Plastic	34.22	Pu-241	4.43E+01
55-gal Drum Dir Ld w/ Liner	15.4	0.0	15.4	Cement	0.00	Pu-242	5.85E-04
SWB Dir Ld w/ Liner	334.5	0.0	334.5	Solidified Inorganic Material	0.00	Sr-90	1.37E-08
Final Form Total	349.9	0.0	349.9	Solidified Organic Material	0.00	Th-229	1.19E-14
				Soil	0.00	Th-230	2.05E-09
				Vitrified	0.00	Th-232	2.92E-18
				Packaging Material, Cellulosics	0.00	U-233	2.72E-10
				Packaging Material, Plastic	2.78	U-234	2.25E-04
				Packaging Material, Rubber	0.21	U-235	8.09E-06
				Packaging Material, Steel	152.44	U-236	1.18E-07
				Packaging Material, Lead	0.00	U-238	2.07E-05

Haz. Waste No(s).

D006, D007, D008, D018, D019, D043, F002, F003, F005

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated during operations, 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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RL209E-08

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	209E TRU RH Mixed Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D006, D007, D018, D019, F002, F003, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2					
Current Form Total	0.2	0.0	0.2					
Final Form Volumes								
Container Type	Stored	Proj.	Total					
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6					
Final Form Total	0.6	0.0	0.6					
				Iron-based Metal/Alloys	2.40	Am-241	4.16E+00	
				Aluminum-based Metal/Alloys	0.00	Np-237	3.57E-05	
				Other Metal/Alloys	0.00	Pu-238	8.33E-01	
				Other Inorganic Materials	0.80	Pu-239	5.59E+00	
				Cellulose	24.04	Pu-240	1.96E+00	
				Rubber	3.21	Pu-241	1.89E+01	
				Plastic	23.08	Pu-242	2.44E-04	
				Cement	0.00	Th-229	1.46E-13	
				Solidified Inorganic Material	0.00	Th-230	2.77E-10	
				Solidified Organic Material	0.00	Th-232	3.58E-17	
				Soil	0.00	U-233	6.89E-10	
				Vitrified	0.00	U-234	1.20E-05	
				Packaging Material, Cellulosics	0.00	U-235	2.76E-08	
				Packaging Material, Plastic	45.67	U-236	2.90E-07	
				Packaging Material, Rubber	0.57	U-238	1.89E-13	
				Packaging Material, Steel	931.09			
				Packaging Material, Lead	0.00			
						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. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RL216Z-02

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Contaminated Soil/Debris Waste	Inventory Date	12/31/2012		
Stream Name	216-Z-9 TRU Mixed Soil	Activity Concentrations Decayed to CY 2012					

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D005, D006, D007, D008, D009, D011, D039, F001, F002, F003, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	183.5	0.0	183.5	Iron-based Metal/Alloys	2.12	Am-241	4.26E+00	
85-gal Drum Dir Ld w/ Liner	28.7	0.0	28.7	Aluminum-based Metal/Alloys	0.00	Np-237	2.82E-06	
Box - Misc	12.7	0.0	12.7	Other Metal/Alloys	0.00	Pu-238	1.21E+00	
SWB Dir Ld w/ Liner	1.9	0.0	1.9	Other Inorganic Materials	17.18	Pu-239	1.46E+01	
Current Form Total	226.7	0.0	226.7	Cellulose	0.35	Pu-240	3.43E+00	
				Rubber	0.00	Pu-241	5.15E+01	
				Plastic	1.06	Pu-242	2.05E-04	
				Cement	0.00	Th-229	3.65E-16	
Final Form Volumes				Solidified Inorganic Material	18.83	Th-230	1.58E-11	TRUCON Code(s) 125/225
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.00	Th-232	2.50E-18	
55-gal Drum Dir Ld w/ Liner	290.4	0.0	290.4	Soil	18.85	U-233	9.30E-12	
SWB Dir Ld w/ Liner	18.9	0.0	18.9	Vitrified	0.00	U-234	3.44E-06	
Final Form Total	309.3	0.0	309.3	Packaging Material, Cellulosics	0.00	U-235	1.43E-08	
				Packaging Material, Plastic	34.88	U-236	1.01E-07	
				Packaging Material, Rubber	0.54	U-238	3.17E-14	
				Packaging Material, Steel	132.15			
				Packaging Material, Lead	0.00			

Waste Stream Description

Soil contaminated with large quantities of plutonium, americium, organics, and neutralized acid waste solutions that were removed from the 216-Z-9 Crib. Original packaging material (e.g., 10-L stainless steel slip-lid cans, plastic bags, and vermiculite) now waste due to deterioration and TRU contamination.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RL221T-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	221-T TRU Non-Mixed Debris			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	6.9	0.0	6.9	Iron-based Metal/Alloys	142.38	Am-241	1.81E-02	
Current Form Total	6.9	0.0	6.9	Aluminum-based Metal/Alloys	22.44	Np-237	2.00E-07	
				Other Metal/Alloys	0.00	Pu-238	2.11E-03	
Final Form Volumes				Other Inorganic Materials	11.09	Pu-239	1.08E-02	
				Cellulose	27.08	Pu-240	6.11E-03	
Container Type	Stored	Proj.	Total	Rubber	11.61	Pu-241	3.76E-02	
55-gal Drum Dir Ld w/ Liner	8.7	0.0	8.7	Plastic	27.60	Pu-242	2.47E-07	
Final Form Total	8.7	0.0	8.7	Cement	0.00	Th-229	1.68E-14	
				Solidified Inorganic Material	3.87	Th-230	4.85E-11	
				Solidified Organic Material	0.00	Th-232	6.46E-18	
				Soil	4.64	U-233	1.56E-11	
				Vitrified	0.00	U-234	2.64E-07	
				Packaging Material, Cellulosics	0.00	U-235	4.06E-10	
				Packaging Material, Plastic	37.07	U-236	6.88E-09	
				Packaging Material, Rubber	0.57	U-238	1.46E-15	
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			

TRUCON Code(s)
125/225

Waste Stream Description
Materials contaminated with TRU radionuclides during characterization and certification activities (visual exam, repackaging, and removal and remediation of prohibited items) and generated as waste during maintenance and cleanup operations at 221-T. Include glovebox gloves, rags and other decontamination materials, and plastics contaminated during glovebox operations. Debris items such as equipment and room contamination materials: combustibles include plastic, shoe covers, rags, paper

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RL221U-03

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site			Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste			Waste Matrix Code Group	Solidified Inorganics			Inventory Date	12/31/2012
Stream Name	221U moved from RL200-01						Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	9.89
Aluminum-based Metal/Alloys	1.38
Other Metal/Alloys	0.41
Other Inorganic Materials	1.84
Cellulose	1.06
Rubber	0.25
Plastic	0.93
Cement	0.00
Solidified Inorganic Material	0.17
Solidified Organic Material	0.00
Soil	0.19
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.59E-04
Cs-137	1.47E-03
Np-237	1.80E-10
Pu-238	7.68E-05
Pu-239	3.26E-03
Pu-240	7.45E-04
Pu-241	4.44E-03
Pu-242	6.35E-08
Sr-90	1.33E-03
Th-229	1.15E-20
Th-230	1.00E-15
Th-232	5.44E-22
U-233	3.92E-16
U-234	2.18E-10
U-235	3.22E-12
U-236	2.21E-11
U-238	9.85E-18

Haz. Waste No(s).

D006, D007, D008, D009, D011, D027, D030, D032, D033, D034, D036, D037, F001, F002

TRUCON Code(s)

122/222

Waste Stream Description

Solidified sludge and laboratory sample debris (e.g., glass sample bottles, plastic, and tape) from characterization efforts of U Plant.

Waste Stream ID: **RL221U-09****Appendix A****Waste Profile Report**

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	U Plant Tank 10 Projected Waste				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Misc	28.1	0.0	28.1
Current Form Total	28.1	0.0	28.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	35.6	0.0	35.6
Final Form Total	35.6	0.0	35.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	0.00
Cement	0.00
Solidified Inorganic Material	193.99
Solidified Organic Material	1.96
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.62E-01
Am-243	1.45E-08
Cm-244	1.98E-02
Cs-137	1.44E+01
Np-237	1.77E-03
Pu-238	1.83E-01
Pu-239	1.37E+00
Pu-240	3.88E-01
Pu-241	1.80E+01
Pu-242	3.92E-05
Sr-90	1.10E+01
Th-229	8.93E-12
Th-230	1.95E-07
Th-232	2.66E-07
U-233	4.54E-08
U-234	7.08E-03
U-235	7.42E-06
U-236	3.45E-08
U-238	1.39E-04

Haz. Waste No(s).

D007, D008, D010

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

RH-TRU Nitrate Salts in the heel of U Plant Tank 10. Waste is under a CERCLA ROD to dispose of TRU constituents at WIPP.

Waste Stream ID: RL222S-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	222S TRU Mixed Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D030, D039, F001, F002, F003, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	54.5	0.0	54.5	Iron-based Metal/Alloys	520.54	Am-241	1.68E-01	
85-gal Drum Dir Ld w/ Liner	1.9	0.0	1.9	Aluminum-based Metal/Alloys	103.27	Am-243	3.40E-07	
Box - Misc	44.0	0.0	44.0	Other Metal/Alloys	0.01	Cs-137	1.32E-03	
Current Form Total	100.4	0.0	100.4	Other Inorganic Materials	34.65	Np-237	2.49E-05	
				Cellulose	52.66	Pu-238	1.11E-02	
				Rubber	20.79	Pu-239	6.03E-02	
				Plastic	58.43	Pu-240	2.73E-02	
				Cement	0.00	Pu-241	6.69E-01	
Final Form Volumes				Solidified Inorganic Material	0.00	Pu-242	1.96E-06	TRUCON Code(s) 125/225
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.00	Sr-90	1.18E-03	
55-gal Drum Dir Ld w/ Liner	66.8	0.0	66.8	Soil	8.69	Th-229	4.52E-08	
SWB Dir Ld w/ Liner	56.7	0.0	56.7	Vitrified	0.00	Th-230	2.93E-12	
Final Form Total	123.5	0.0	123.5	Packaging Material, Cellulosics	0.00	Th-232	7.96E-20	
				Packaging Material, Plastic	20.60	U-233	2.57E-04	
				Packaging Material, Rubber	0.39	U-234	1.91E-07	
				Packaging Material, Steel	141.18	U-235	4.64E-09	
				Packaging Material, Lead	0.00	U-236	1.61E-09	
						U-238	1.12E-04	

Waste Stream Description

Combustible waste and Noncombustible waste - TRU wastes were generated from multiple operations, primarily from the hot cells, the hoods, or from within the gloveboxes (for standards laboratory tasks) located in the Analytical laboratory.

Waste Stream ID: RL222S-08

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	222S TRU RH Mixed Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D039, F001, F002, F003, F004, F005
Container Type	Stored	Proj.	Total	Iron-based Metal/Alloys	379.68	Am-241	1.22E-01	
55-gal Drum Dir Ld w/ Liner	0.8	0.0	0.8	Aluminum-based Metal/Alloys	59.95	Am-243	1.02E-02	
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3	Other Metal/Alloys	0.00	Cs-137	1.06E-01	
Box - Misc	0.1	0.0	0.1	Other Inorganic Materials	29.31	Np-237	1.12E-03	
Current Form Total	1.3	0.0	1.3	Cellulose	72.03	Pu-238	2.30E-02	
Final Form Volumes				Rubber	30.74	Pu-239	2.52E+00	
Container Type	Stored	Proj.	Total	Plastic	73.76	Pu-240	6.45E-02	
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	2.5	0.0	2.5	Cement	0.00	Pu-241	5.86E+00	
Final Form Total	2.5	0.0	2.5	Solidified Inorganic Material	0.00	Pu-242	2.24E-04	TRUCON Code(s) 325
				Solidified Organic Material	0.00	Pu-244	9.32E-07	
				Soil	10.55	Sr-90	1.75E-01	
				Vitrified	0.00	Th-229	9.26E-05	
				Packaging Material, Cellulosics	0.00	Th-230	1.12E-11	
				Packaging Material, Plastic	45.67	Th-232	1.70E-18	
				Packaging Material, Rubber	0.57	U-233	1.76E-01	
				Packaging Material, Steel	931.09	U-234	4.02E-07	
				Packaging Material, Lead	0.00	U-235	4.25E-06	
						U-236	1.15E-08	
						U-238	1.57E-04	

Waste Stream Description
Combustible waste and Noncombustible waste- TRU wastes were generated from multiple operations, primarily from the hot cells, the hoods, or from within the gloveboxes (for standards laboratory tasks) located in the Analytical laboratory.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RL231Z-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	231-Z TRU Mixed Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D034, D035, D037, D043, F001, F002, F003, F004, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	147.7	0.0	147.7	Iron-based Metal/Alloys	102.36	Am-241	1.73E-01	
85-gal Drum Dir Ld w/ Liner	13.5	0.0	13.5	Aluminum-based Metal/Alloys	0.44	Am-243	3.20E-06	
Box - Misc	1054.9	0.0	1054.9	Other Metal/Alloys	1.64	Cs-137	3.78E-05	
SWB Dir Ld w/ Liner	26.5	0.0	26.5	Other Inorganic Materials	15.50	Np-237	1.47E-05	
Current Form Total	1242.6	0.0	1242.6	Cellulose	20.06	Pu-238	4.50E-02	
				Rubber	3.68	Pu-239	3.88E-01	
				Plastic	26.34	Pu-240	1.03E-01	
				Cement	0.00	Pu-241	1.20E+00	
Final Form Volumes				Solidified Inorganic Material	0.00	Pu-242	1.24E-05	TRUCON Code(s) 125/225
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.00	Sr-90	3.42E-05	
55-gal Drum Dir Ld w/ Liner	193.9	0.0	193.9	Soil	0.00	Th-229	1.12E-14	
SWB Dir Ld w/ Liner	1345.7	0.0	1345.7	Vitrified	0.00	Th-230	1.01E-09	
Final Form Total	1539.5	0.0	1539.5	Packaging Material, Cellulosics	0.00	Th-232	3.02E-19	
				Packaging Material, Plastic	5.72	U-233	1.27E-10	
				Packaging Material, Rubber	0.24	U-234	5.52E-05	
				Packaging Material, Steel	150.58	U-235	1.46E-06	
				Packaging Material, Lead	0.00	U-236	6.12E-09	
						U-238	9.12E-06	

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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RL231Z-03

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site			Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH	
Source Cat.	R&D/R&D Laboratory Waste			Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012		
Stream Name	231Z TRU Mixed Solid Inorganic					Activity Concentrations Decayed to CY				2012
Waste Volume Detail (m ³)										
Current Form Volumes										
Container Type	Stored	Proj.	Total							
85-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				Final Form Radionuclides			Haz. Waste No(s).			
			Average Density (kg/m ³)			D006, D007, D008, D009, F001, F002, F003, F005				
Material Parameter						TRUCON Code(s)				
Iron-based Metal/Alloys			0.00	Am-241		122/222				
Aluminum-based Metal/Alloys			0.00	Np-237						
Other Metal/Alloys			104.98	Pu-238						
Other Inorganic Materials			0.19	Pu-239						
Cellulose			6.57	Pu-240						
Rubber			1.56	Pu-241						
Plastic			20.58	Pu-242						
Cement			0.00	Th-229						
Solidified Inorganic Material			93.37	Th-230						
Solidified Organic Material			0.00	Th-232						
Soil			0.00	U-233						
Vitrified			0.00	U-234						
Packaging Material, Cellulosics			0.00	U-235						
Packaging Material, Plastic			37.07	U-236						
Packaging Material, Rubber			0.57	U-238						
Packaging Material, Steel			130.77							
Packaging Material, Lead			0.00							

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. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RL233S-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	233S TRU Mixed Debris				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	6.9	0.0	6.9
85-gal Drum Dir Ld w/ Liner	3.5	0.0	3.5
SWB Dir Ld w/ Liner	28.4	0.0	28.4
Current Form Total	38.8	0.0	38.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	10.0	0.0	10.0
SWB Dir Ld w/ Liner	34.0	0.0	34.0
Final Form Total	44.0	0.0	44.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	197.17
Aluminum-based Metal/Alloys	0.83
Other Metal/Alloys	1.80
Other Inorganic Materials	4.49
Cellulose	13.49
Rubber	2.92
Plastic	16.01
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.52
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	9.34
Packaging Material, Rubber	0.28
Packaging Material, Steel	148.30
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.18E-01
Cs-137	3.76E-05
Np-237	1.77E-04
Pu-238	8.42E-02
Pu-239	6.31E-01
Pu-240	2.06E-01
Pu-241	1.92E+00
Pu-242	6.20E-05
Sr-90	3.42E-05
Th-229	1.35E-13
Th-230	6.52E-11
Th-232	6.01E-19
U-233	1.54E-09
U-234	3.78E-06
U-235	1.12E-07
U-236	1.22E-08
U-238	1.66E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, F002, F003

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated during cleanout, stabilization, and D&D activities of the 233-S Building (Plutonium Concentration Facility) at Hanford. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: RL233S-03

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	233S solidified inorganic waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D007
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	4.2	0.0	4.2	Iron-based Metal/Alloys	0.04	Am-241	7.40E-02	TRUCON Code(s) 122/222
Current Form Total	4.2	0.0	4.2	Aluminum-based Metal/Alloys	0.00	Cs-137	1.13E-06	
				Other Metal/Alloys	0.00	Np-237	6.00E-05	
				Other Inorganic Materials	513.33	Pu-238	1.76E-02	
Final Form Volumes	5.2	0.0	5.2	Cellulose	0.00	Pu-239	7.02E-02	
				Rubber	0.04	Pu-240	2.83E-02	
				Plastic	0.65	Pu-241	1.47E-01	
				Cement	0.00	Pu-242	1.79E-05	
				Solidified Inorganic Material	0.00	Sr-90	9.43E-07	
				Solidified Organic Material	0.00	Th-229	1.03E-13	
				Soil	0.00	Th-230	2.08E-12	
				Vitrified	0.00	Th-232	1.86E-19	
				Packaging Material, Cellulosics	0.00	U-233	7.83E-10	
				Packaging Material, Plastic	37.07	U-234	1.50E-07	
Packaging Material, Rubber	0.57	U-235	2.07E-10					
Packaging Material, Steel	130.77	U-236	2.51E-09					
Packaging Material, Lead	0.00	U-238	8.35E-15					

Waste Stream Description
Solidified inorganic CH TRU waste generated from 233 Facility/Equipment Operation and Maintenance activities

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RL300-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	300 Area TRU Mixed Debris				Activity Concentrations Decayed to CY	2012	

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	10.0	0.0	10.0
Box - Misc	89.5	0.0	89.5
SWB Dir Ld w/ Liner	35.9	0.0	35.9
Current Form Total	152.9	0.0	152.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	26.6	0.0	26.6
SWB Dir Ld w/ Liner	149.3	0.0	149.3
Final Form Total	175.9	0.0	175.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	61.70
Aluminum-based Metal/Alloys	0.09
Other Metal/Alloys	6.71
Other Inorganic Materials	27.52
Cellulose	10.03
Rubber	2.09
Plastic	17.80
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	6.63
Packaging Material, Rubber	0.25
Packaging Material, Steel	150.01
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.55E+00
Am-243	2.87E-05
Cs-137	1.47E-04
Np-237	3.60E-05
Pu-238	4.43E-01
Pu-239	2.21E+00
Pu-240	1.02E+00
Pu-241	1.51E+01
Pu-242	1.97E-04
Sr-90	1.33E-04
Th-229	6.84E-15
Th-230	4.35E-09
Th-232	1.92E-06
U-233	1.56E-10
U-234	4.73E-04
U-235	2.13E-05
U-236	3.01E-08
U-238	4.97E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D034, D037, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated from operations, including fuel fabrication, reactor studies, research and development, maintenance, and laboratory operations in the Hanford 300 Area. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

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Waste Stream ID: RL300-03

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	300 Area Mixed Solidified Inorganics				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D034, D037, D043, F001, F002, F003, F004, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	2.5	0.0	2.5	Iron-based Metal/Alloys	2.89	Am-241	3.21E+00	
85-gal Drum Dir Ld w/ Liner	1.3	0.0	1.3	Aluminum-based Metal/Alloys	0.00	Cs-137	5.66E-04	
Current Form Total	3.8	0.0	3.8	Other Metal/Alloys	0.00	Np-237	2.03E-05	
				Other Inorganic Materials	0.00	Pu-238	7.57E-01	
				Cellulose	0.00	Pu-239	4.01E+00	
				Rubber	0.00	Pu-240	2.05E+00	
				Plastic	30.55	Pu-241	3.11E+01	
				Cement	567.31	Pu-242	3.40E-04	
Final Form Volumes				Solidified Inorganic Material	0.00	Sr-90	7.04E-04	TRUCON Code(s) 122/222
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.00	Th-229	3.75E-15	
55-gal Drum Dir Ld w/ Liner	3.7	0.0	3.7	Soil	0.00	Th-230	4.52E-10	
Final Form Total	3.7	0.0	3.7	Vitrified	0.00	Th-232	1.50E-18	
				Packaging Material, Cellulosics	0.00	U-233	8.60E-11	
				Packaging Material, Plastic	37.07	U-234	5.02E-05	
				Packaging Material, Rubber	0.57	U-235	1.68E-06	
				Packaging Material, Steel	130.77	U-236	6.07E-08	
				Packaging Material, Lead	0.00	U-238	2.91E-05	

Waste Stream Description
Solidified inorganic CH TRU waste generated from operations, including fuel fabrication, reactor studies, research and development, maintenance, and laboratory operations in the Hanford 300 Area.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RL300-08

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	300 Area TRU RH Mixed Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D027, D028, D029, D030, D033, D034, D036, D039, D040, D043, F001, F002, F003, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	28.7	0.0	28.7	Iron-based Metal/Alloys	79.40	Am-241	3.62E+00	
85-gal Drum Dir Ld w/ Liner	1.0	0.0	1.0	Aluminum-based Metal/Alloys	0.00	Am-243	1.28E-02	
Box - Misc	202.7	0.0	202.7	Other Metal/Alloys	0.00	Cm-244	2.38E+00	
SWB Dir Ld w/ Liner	3.8	0.0	3.8	Other Inorganic Materials	607.94	Cs-137	7.09E+02	
Current Form Total	236.1	0.0	236.1	Cellulose	19.85	Np-237	8.96E-05	
				Rubber	0.00	Pu-238	1.01E+00	
				Plastic	4.96	Pu-239	2.54E-01	
				Cement	0.00	Pu-240	2.92E-01	
Final Form Volumes				Solidified Inorganic Material	0.00	Pu-241	2.44E+01	TRUCON Code(s) 325
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.00	Pu-242	9.98E-04	
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	295.8	0.0	295.8	Soil	0.00	Pu-244	1.11E-13	
Final Form Total	295.8	0.0	295.8	Vitrified	0.00	Sr-90	4.20E+02	
				Packaging Material, Cellulosics	0.00	Th-229	1.17E-07	
				Packaging Material, Plastic	45.67	Th-230	4.90E-09	
				Packaging Material, Rubber	0.57	Th-232	5.82E-15	
				Packaging Material, Steel	931.09	U-233	6.66E-04	
				Packaging Material, Lead	0.00	U-234	2.69E-04	
						U-235	5.39E-06	
						U-236	5.90E-05	
						U-238	1.68E-04	

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. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RL308-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	308 TRU Mixed Debris				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	24.5	0.0	24.5
85-gal Drum Dir Ld w/ Liner	5.2	0.0	5.2
Box - Misc	308.8	0.0	308.8
SWB Dir Ld w/ Liner	170.1	0.0	170.1
Current Form Total	508.6	0.0	508.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	31.8	0.0	31.8
SWB Dir Ld w/ Liner	557.6	0.0	557.6
Final Form Total	589.4	0.0	589.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	189.41
Aluminum-based Metal/Alloys	0.18
Other Metal/Alloys	3.56
Other Inorganic Materials	3.36
Cellulose	6.69
Rubber	1.49
Plastic	7.70
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	3.14
Packaging Material, Rubber	0.21
Packaging Material, Steel	152.22
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	1.66E-05
Pu-238	1.01E+01
Pu-239	1.61E+01
Pu-240	1.04E+01
Pu-241	2.16E+02
Pu-242	9.85E-03
Sr-90	2.86E-04
Th-229	1.12E-08
Th-230	2.34E-09
Th-232	8.99E-07
U-233	1.27E-04
U-234	2.69E-04
U-235	2.38E-05
U-236	3.08E-07
U-238	3.45E-04

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D030, D034, D037, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

Debris waste stream associated with the 308 Bldg. fuel development laboratory, fuel fabrication capabilities, and deactivation. Waste items include plutonium alloys, casting skulls, clad plates, plastic mounts, plutonium-aluminum scrap, metal mounts, Pu pellets, rags, wipes, HEPA filters, batteries, stainless steel tubing, tape, thermometers, electrical wire, and a variety of other solid debris items.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

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Waste Stream ID: RL308-03

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site			Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste			Waste Matrix Code Group	Solidified Inorganics			Inventory Date	12/31/2012
Stream Name	308 Building TRU Solid Inorganics						Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Current Form Total	0.3	0.0	0.3

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	94.95
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	7.21
Cement	228.97
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.06E-01
Np-237	4.63E-06
Pu-238	1.14E-01
Pu-239	8.03E-01
Pu-240	3.05E-01
Pu-241	1.50E+00
Pu-242	3.69E-05
Th-229	1.76E-13
Th-230	1.06E-09
Th-232	1.40E-16
U-233	2.44E-10
U-234	8.93E-06
U-235	1.98E-08
U-236	2.26E-07
U-238	1.43E-13

No Hazardous Waste Numbers Provided

TRUCON Code(s)

122/222

Waste Stream Description

Waste materials consist of inorganic debris (such as aluminum and iron-based metal containers) and absorbed liquids, including oils or hydraulic fluids. Materials associated with waste packaging include plastic liners and various absorbents (including Cleanup-IV, Nochar A610, vermiculite, diatomaceous earth, and Radsorb). A limited amount of debris waste materials (glassware, rags, wipes, etc.) may also be present in the container.

Waste Stream ID: RL308-08

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	308 Building TRU RH Non-Mixed Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2	Iron-based Metal/Alloys	16.36	Am-241	2.31E-03	
Current Form Total	0.2	0.0	0.2	Aluminum-based Metal/Alloys	0.04	Cs-137	1.93E-01	
				Other Metal/Alloys	2.50	Np-237	2.25E-09	
Final Form Volumes	Stored	Proj.	Total	Other Inorganic Materials	2.25	Pu-238	2.99E-03	
				Cellulose	2.88	Pu-239	4.28E-04	
				Rubber	0.92	Pu-240	7.21E-04	
				Plastic	6.26	Sr-90	1.01E+01	
				Cement	0.00	Th-229	1.30E-18	
				Solidified Inorganic Material	0.00	Th-230	3.55E-13	
				Solidified Organic Material	0.00	Th-232	4.74E-21	
				Soil	0.00	U-233	1.47E-14	
				Vitrified	0.00	U-234	2.56E-08	
				Packaging Material, Cellulosics	0.00	U-235	1.26E-12	
				Packaging Material, Plastic	45.67	U-236	6.40E-11	
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	931.09			
				Packaging Material, Lead	0.00			

TRUCON Code(s)
325

Waste Stream Description

Debris waste stream associated with the 308 Bldg. fuel development laboratory, fuel fabrication capabilities, and deactivation. Examples of waste items in this waste stream include plutonium alloys, casting skulls, clad plates, plastic mounts, plutonium-aluminum scrap, metal mounts, Pu pellets, rags, wipes, HEPA filters, batteries, stainless steel tubing, tape, thermometers, electrical wire, and a variety of other solid debris items.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RL325-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	325 TRU Mixed Debris				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D043, F001, F002, F003, F004, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	539.3	0.0	539.3	Iron-based Metal/Alloys	71.26	Am-241	1.49E+00	
85-gal Drum Dir Ld w/ Liner	39.0	0.0	39.0	Aluminum-based Metal/Alloys	0.28	Am-243	3.83E-04	
Box - Misc	301.5	0.0	301.5	Other Metal/Alloys	3.18	Cm-244	6.38E-03	
SWB Dir Ld w/ Liner	62.4	0.0	62.4	Other Inorganic Materials	22.73	Cs-137	8.12E-04	
Uncontained	0.0	58.3	58.3	Cellulose	12.59	Np-237	1.70E-04	
Current Form Total	942.1	58.3	1000.4	Rubber	3.26	Pu-238	7.23E-01	
				Plastic	21.89	Pu-239	1.44E+00	
				Cement	0.00	Pu-240	5.78E-01	
				Solidified Inorganic Material	0.00	Pu-241	9.91E+00	
				Solidified Organic Material	0.00	Pu-242	1.72E-04	
				Soil	0.24	Sr-90	8.10E-04	
				Vitrified	0.00	Th-229	4.02E-09	
				Packaging Material, Cellulosics	0.00	Th-230	2.44E-09	
				Packaging Material, Plastic	23.85	Th-232	1.56E-06	TRUCON Code(s) 125/225
				Packaging Material, Rubber	0.43	U-233	4.57E-05	
				Packaging Material, Steel	139.12	U-234	2.67E-04	
				Packaging Material, Lead	0.00	U-235	9.19E-06	
						U-236	1.71E-08	
						U-238	9.08E-05	

Waste Stream Description

Debris waste stream containing waste materials associated with the 325 Bldg. laboratory operations, sample analysis, facility cleanout, and facility waste treatment. Operations waste includes any discarded item used in laboratory analysis (e.g., glass beakers, tweezers, latex gloves, plastic tape, glass pipettes) and facility cleanout (e.g., glassware, wipes, and equipment). Maintenance waste may include filters, wipes, and various types of gloves. Small amounts of solid sample residues (unused samples) generated during lab operations are present in the waste.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RL325-03

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	325 TRU Mixed Solid Inorganic				Activity Concentrations Decayed to CY		2012

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	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
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	6.9	0.0	6.9	Iron-based Metal/Alloys	70.81	Am-241	2.92E+00	
85-gal Drum Dir Ld w/ Liner	9.3	0.0	9.3	Aluminum-based Metal/Alloys	0.00	Am-243	7.66E-03	
Current Form Total	16.2	0.0	16.2	Other Metal/Alloys	0.01	Cm-244	3.78E+00	
				Other Inorganic Materials	430.96	Cs-137	5.88E-03	
Final Form Volumes				Cellulose	1.81	Np-237	2.70E-04	
Container Type	Stored	Proj.	Total	Rubber	1.79	Pu-238	9.16E-01	
55-gal Drum Dir Ld w/ Liner	15.8	0.0	15.8	Plastic	16.65	Pu-239	3.29E+00	
Final Form Total	15.8	0.0	15.8	Cement	36.91	Pu-240	1.53E+00	
				Solidified Inorganic Material	0.00	Pu-241	3.79E+01	
				Solidified Organic Material	0.00	Pu-242	2.84E-04	
				Soil	78.24	Sr-90	2.29E-02	
				Vitrified	0.00	Th-229	5.16E-14	
				Packaging Material, Cellulosics	0.00	Th-230	5.14E-10	
				Packaging Material, Plastic	37.07	Th-232	1.11E-18	
				Packaging Material, Rubber	0.57	U-233	1.17E-09	TRUCON Code(s) 122/222
				Packaging Material, Steel	130.77	U-234	5.72E-05	
				Packaging Material, Lead	0.00	U-235	2.17E-06	
						U-236	4.51E-08	
						U-238	3.30E-05	

Waste Stream Description

The mixed solid inorganic portion of the 325 waste stream from liquid laboratory samples neutralized and solidified using nonhazardous absorbents. Small amounts of neutralized and solidified liquids from hazardous waste treatment may also be present in the waste. Corrosive liquids, such as hydrochloric acid and sodium hydroxide were neutralized and solidified in cement before being packaged as waste.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RL325-08

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	325 TRU RH Mixed Debris				Activity Concentrations Decayed to CY	2012	

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
85-gal Drum Dir Ld w/ Liner	2.3	0.0	2.3
Box - Misc	146.9	0.0	146.9
SWB Dir Ld w/ Liner	28.4	0.0	28.4
Uncontained	0.0	60.8	60.8
Current Form Total	211.6	60.8	272.4

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	258.3	59.3	317.6
Final Form Total	258.3	59.3	317.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	116.32
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	987.38
Cellulose	0.00
Rubber	0.00
Plastic	24.82
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.13E-01
Am-243	5.60E-04
Cm-244	1.24E-01
Cs-137	1.13E+00
Np-237	3.93E-04
Pu-238	6.55E-01
Pu-239	9.78E-02
Pu-240	9.84E-02
Pu-241	7.70E+00
Pu-242	1.27E-04
Sr-90	7.82E+00
Th-229	5.86E-11
Th-230	4.83E-10
Th-232	1.71E-07
U-233	3.70E-08
U-234	5.34E-05
U-235	3.15E-06
U-236	3.78E-09
U-238	4.91E-06

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D027, D028, D029, D030, D032, D033, D034, D036, D037, D038, D039, D040, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters. The waste is generated from R&D/R&D Laboratory Waste activities at the RADIOCHEMISTRY BUILDING.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

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Waste Profile Report

Waste Volume Detail (m³)

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	167.0	0.0	167.0
Final Form Total	167.0	0.0	167.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	12.73
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	22.99
Other Inorganic Materials	22.07
Cellulose	1.70
Rubber	3.39
Plastic	3.39
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	8.49
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.62E+00
Cs-137	2.00E+01
Np-237	7.02E-06
Pu-238	1.81E+00
Pu-239	7.86E-01
Pu-240	7.48E+00
Pu-241	4.96E+00
Pu-242	9.47E+00
Sr-90	1.81E+01
Th-229	1.58E-14
Th-230	8.71E-10
Th-232	1.97E-16
U-233	9.00E-11
U-234	3.13E-05
U-235	4.65E-09
U-236	1.33E-06
U-238	8.82E-09

TRUCON Code(s)
125/225

Waste Stream Description

Retrieved containerized debris waste from Burial Grounds 618 - 10 and 11

Waste Profile Report

Waste Volume Detail (m³)

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	664.6	0.0	664.6
Final Form Total	664.6	0.0	664.6

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.70E+00
Cs-137	2.05E+01
Np-237	7.17E-06
Pu-238	1.85E+00
Pu-239	8.03E-01
Pu-240	7.64E+00
Pu-241	5.07E+00
Pu-242	9.68E+00
Sr-90	1.85E+01
Th-229	1.62E-14
Th-230	8.90E-10
Th-232	2.01E-16
U-233	9.20E-11
U-234	3.20E-05
U-235	4.75E-09
U-236	1.36E-06
U-238	9.01E-09

TRUCON Code(s)
325

Retrieved containerized debris waste from Burial Grounds 618 - 10 and 11.

Waste Stream ID: **RLALE-02**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Contaminated Soil/Debris Waste		Inventory Date	12/31/2012	
Stream Name	TRU Soils/Absorbents from the Arid Lands Ecology Reserve			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4	Iron-based Metal/Alloys	2.56	Am-241	2.38E-04	
Current Form Total				Aluminum-based Metal/Alloys	0.00	Cs-137	5.42E-07	
	0.4	0.0	0.4	Other Metal/Alloys	0.00	Np-237	7.49E-11	
Final Form Volumes				Other Inorganic Materials	381.41	Pu-238	4.18E-05	
Container Type	Stored	Proj.	Total	Cellulose	0.00	Pu-239	8.49E-02	
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6	Rubber	3.21	Pu-240	2.75E-03	
Final Form Total				Plastic	81.41	Pu-241	8.34E-03	
	0.6	0.0	0.6	Cement	0.00	Pu-242	2.69E-07	
				Solidified Inorganic Material	0.00	Pu-244	3.64E-11	
				Solidified Organic Material	0.00	Sr-90	4.93E-07	
				Soil	0.00	Th-229	4.71E-21	
				Vitrified	0.00	Th-230	5.45E-16	
				Packaging Material, Cellulosics	0.00	Th-232	2.01E-21	
				Packaging Material, Plastic	37.07	U-233	1.62E-16	
				Packaging Material, Rubber	0.57	U-234	1.18E-10	
				Packaging Material, Steel	130.77	U-235	8.36E-11	
				Packaging Material, Lead	0.00	U-236	8.14E-11	
						U-238	4.17E-17	

TRUCON Code(s)
125/225

Waste Stream Description
Currently 2 drums of soils from the 6652H building.

Comprehensive Inventory Database ver. **2.01** Data ver. **D.12.01**
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: **RLARG-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Argonne Nat Lab TRU Mixed Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	10.6	0.0	10.6	Iron-based Metal/Alloys	478.69	Am-241	4.41E+00	
Current Form Total	10.6	0.0	10.6	Aluminum-based Metal/Alloys	64.94	Np-237	3.46E-05	
				Other Metal/Alloys	8.00	Pu-238	1.72E+01	
Final Form Volumes				Other Inorganic Materials	32.10	Pu-239	3.29E+00	
Container Type	Stored	Proj.	Total	Cellulose	78.38	Pu-240	1.67E+00	
55-gal Drum Dir Ld w/ Liner	13.3	0.0	13.3	Rubber	33.59	Pu-241	1.56E+01	
Final Form Total	13.3	0.0	13.3	Plastic	79.87	Pu-242	5.78E-05	
				Cement	0.00	Th-229	1.48E-12	
				Solidified Inorganic Material	0.00	Th-230	1.87E-07	
				Solidified Organic Material	0.00	Th-232	1.09E-06	
				Soil	21.15	U-233	1.92E-09	
				Vitrified	0.00	U-234	1.46E-03	
				Packaging Material, Cellulosics	0.00	U-235	8.75E-08	
				Packaging Material, Plastic	37.07	U-236	1.34E-06	
				Packaging Material, Rubber	0.57	U-238	2.42E-13	
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			

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. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: **RLBART-08**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site			Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste			Waste Matrix Code Group	Heterogeneous Debris Waste			Inventory Date	12/31/2012
Stream Name	Bartlesville RH-TRU Mixed Debris						Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	253.04
Aluminum-based Metal/Alloys	39.95
Other Metal/Alloys	0.00
Other Inorganic Materials	19.54
Cellulose	48.01
Rubber	20.49
Plastic	49.16
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	7.03
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.14E-01
Np-237	7.36E-06
Pu-238	6.80E-07
Pu-239	5.41E-06
Pu-240	2.62E-06
Pu-241	6.73E-06
Pu-242	7.57E-10
Th-229	4.56E-13
Th-230	1.00E-14
Th-232	1.84E-21
U-233	4.99E-10
U-234	6.74E-11
U-235	1.65E-13
U-236	2.41E-12
U-238	3.64E-18

No Hazardous Waste Numbers Provided

TRUCON Code(s)

325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RLBAT-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Battelle Columbus TRU Mixed Debris				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	13.3	0.0	13.3
85-gal Drum Dir Ld w/ Liner	3.9	0.0	3.9
Box - Misc	20.4	0.0	20.4
Current Form Total	37.6	0.0	37.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	18.7	0.0	18.7
SWB Dir Ld w/ Liner	26.5	0.0	26.5
Final Form Total	45.2	0.0	45.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	561.11
Aluminum-based Metal/Alloys	118.24
Other Metal/Alloys	0.00
Other Inorganic Materials	35.60
Cellulose	42.97
Rubber	16.03
Plastic	50.31
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	7.58
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	16.06
Packaging Material, Rubber	0.35
Packaging Material, Steel	144.05
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.73E-01
Np-237	3.09E-05
Pu-238	2.57E+00
Pu-239	2.43E-01
Pu-240	9.22E-02
Pu-241	1.99E+00
Pu-242	5.22E-06
Th-229	2.36E-14
Th-230	7.23E-09
Th-232	1.16E-07
U-233	2.68E-10
U-234	4.01E-04
U-235	1.46E-05
U-236	5.46E-09
U-238	1.24E-05

Haz. Waste No(s).

D005, D006, D007, D008, D009, D011, F001, F002, F003, F005

TRUCON Code(s)

125/225

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Comprehensive Inventory Database ver. **2.01** Data ver. **D.12.01**
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: **RLBAT-08**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	BATCO TRU RH Mixed Debris				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.2	0.0	4.2
Box - Misc	0.6	0.0	0.6
Current Form Total	4.7	0.0	4.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	6.9	0.0	6.9
Final Form Total	6.9	0.0	6.9

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	1492.62
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	13.33
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	6.71E-01
Am-243	4.18E-03
Cm-244	3.10E-01
Cs-137	8.94E+00
Np-237	2.02E-06
Pu-238	5.03E-01
Pu-239	6.98E-02
Pu-240	1.14E-01
Pu-241	5.65E+00
Pu-242	3.04E-04
Sr-90	5.78E+00
Th-229	1.64E-12
Th-230	6.16E-09
Th-232	5.69E-15
U-233	1.90E-09
U-234	7.42E-05
U-235	2.76E-06
U-236	1.15E-05
U-238	5.34E-05

Haz. Waste No(s).

D006, D008, P015

TRUCON Code(s)

325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: RLBET-08

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site			Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste			Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Bettis TRU Non-Mixed Debris					Activity Concentrations Decayed to CY 2012			
Waste Volume Detail (m³)				Waste Material Parameters			Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes									TRUCON Code(s) 325
Container Type	Stored	Proj.	Total						
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2						
Current Form Total	0.2	0.0	0.2						
Final Form Volumes									
Container Type	Stored	Proj.	Total						
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6						
Final Form Total	0.6	0.0	0.6						
				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)		
				Iron-based Metal/Alloys	108.39	Am-241	8.68E-03		
				Aluminum-based Metal/Alloys	17.08	Cs-137	1.49E-04		
				Other Metal/Alloys	0.00	Np-237	2.79E-09		
				Other Inorganic Materials	8.44	Pu-238	3.31E-03		
				Cellulose	20.62	Pu-239	1.58E-02		
				Rubber	8.84	Pu-240	8.88E-03		
				Plastic	21.01	Pu-241	9.02E-02		
				Cement	0.00	Pu-242	3.53E-07		
				Solidified Inorganic Material	0.00	Sr-90	1.35E-04		
				Solidified Organic Material	0.00	Th-229	1.77E-19		
				Soil	2.95	Th-230	2.37E-09		
				Vitrified	0.00	Th-232	6.48E-21		
				Packaging Material, Cellulosics	0.00	U-233	6.06E-15		
				Packaging Material, Plastic	45.67	U-234	2.58E-04		
				Packaging Material, Rubber	0.57	U-235	9.47E-06		
				Packaging Material, Steel	931.09	U-236	2.63E-10		
				Packaging Material, Lead	0.00	U-238	1.00E-07		

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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RLBW-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Babcock and Wilcox TRU Mixed Debris				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	18.5	0.0	18.5
85-gal Drum Dir Ld w/ Liner	29.3	0.0	29.3
Box - Misc	127.5	0.0	127.5
Current Form Total	175.3	0.0	175.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	43.7	0.0	43.7
SWB Dir Ld w/ Liner	160.7	0.0	160.7
Final Form Total	204.3	0.0	204.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	48.08
Aluminum-based Metal/Alloys	0.21
Other Metal/Alloys	4.84
Other Inorganic Materials	31.92
Cellulose	23.25
Rubber	4.97
Plastic	25.30
Cement	0.00
Solidified Inorganic Material	0.82
Solidified Organic Material	0.14
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.87
Packaging Material, Rubber	0.27
Packaging Material, Steel	148.59
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.52E+00
Am-243	8.83E-08
Cs-137	3.55E-04
Np-237	9.43E-06
Pu-238	3.58E-01
Pu-239	2.02E+00
Pu-240	9.61E-01
Pu-241	1.35E+01
Pu-242	1.72E-04
Sr-90	3.22E-04
Th-229	1.38E-08
Th-230	3.93E-10
Th-232	7.01E-19
U-233	1.57E-04
U-234	4.33E-05
U-235	1.13E-06
U-236	2.84E-08
U-238	2.44E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D030, D035, F001, F002, F003, F005

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated from operations and decontamination and decommissioning of the Babcock and Wilcox Parks Township Site Plutonium Facility. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

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Waste Stream ID: RLBW-03

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics			Inventory Date	12/31/2012
Stream Name	Babcock & Wilcox solidified inorganics					Activity Concentrations Decayed to CY	2012

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.5	0.0	1.5
85-gal Drum Dir Ld w/ Liner	1.3	0.0	1.3
Current Form Total	2.7	0.0	2.7

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2.7	0.0	2.7
Final Form Total	2.7	0.0	2.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	4.90
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	698.80
Cellulose	0.00
Rubber	0.00
Plastic	19.59
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.38E+00
Cs-137	2.59E-07
Np-237	2.16E-05
Pu-238	9.42E-01
Pu-239	4.97E+00
Pu-240	2.53E+00
Pu-241	3.72E+01
Pu-242	4.07E-04
Sr-90	2.40E-07
Th-229	1.51E-14
Th-230	2.23E-09
Th-232	7.39E-18
U-233	1.76E-10
U-234	1.24E-04
U-235	3.71E-06
U-236	1.50E-07
U-238	6.05E-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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

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Waste Stream ID: RLBW-08

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Babcock and Wilcox TRU RH Mixed Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D005, D006, D007, D008, D009, D011, F001, F002, F003, F005 TRUCON Code(s) 325
Container Type	Stored	Proj.	Total	Iron-based Metal/Alloys	4.08	Am-241	7.89E-01	
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2	Aluminum-based Metal/Alloys	0.00	Np-237	1.21E-06	
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3	Other Metal/Alloys	0.20	Pu-238	1.54E-01	
Current Form Total	0.5	0.0	0.5	Other Inorganic Materials	2.04	Pu-239	6.09E-01	
Final Form Volumes				Cellulose	27.35	Pu-240	3.44E-01	
Container Type	Stored	Proj.	Total	Rubber	0.31	Pu-241	1.04E+01	
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	1.2	0.0	1.2	Plastic	18.37	Pu-242	1.39E-05	
Final Form Total	1.2	0.0	1.2	Cement	0.00	Th-229	1.83E-15	
				Solidified Inorganic Material	0.00	Th-230	5.13E-11	
				Solidified Organic Material	0.00	Th-232	6.28E-18	
				Soil	0.00	U-233	1.26E-11	
				Vitrified	0.00	U-234	2.21E-06	
				Packaging Material, Cellulosics	0.00	U-235	3.00E-09	
				Packaging Material, Plastic	45.67	U-236	5.09E-08	
				Packaging Material, Rubber	0.57	U-238	1.08E-14	
				Packaging Material, Steel	931.09			
				Packaging Material, Lead	0.00			

Waste Stream Description
Combustible and noncombustible debris waste generated from operations and decontamination and decommissioning of the Babcock and Wilcox Parks Township Site Plutonium Facility. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: RLCFF-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site			Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH						
Source Cat.	Facility/Equipment Operation and Maintenance Waste			Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012							
Stream Name	Kerr McGee TRU Mixed Debris					Activity Concentrations Decayed to CY			2012						
Waste Volume Detail (m ³)				Waste Material Parameters			Final Form Radionuclides		Haz. Waste No(s).						
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D007, D008, D009, D040, F001, F002, F003							
Container Type	Stored	Proj.	Total												
55-gal Drum Dir Ld w/ Liner	1.2	0.0	1.2												
85-gal Drum Dir Ld w/ Liner	2.6	0.0	2.6												
Current Form Total	3.8	0.0	3.8												
Final Form Volumes															
Container Type	Stored	Proj.	Total												
55-gal Drum Dir Ld w/ Liner	3.3	0.0	3.3												
Final Form Total	3.3	0.0	3.3												
														TRUCON Code(s) 125/225	
										Iron-based Metal/Alloys	478.22	Am-241	1.84E+00		
										Aluminum-based Metal/Alloys	2.23	Cs-137	8.69E-08		
										Other Metal/Alloys	0.47	Np-237	1.57E-06		
										Other Inorganic Materials	48.06	Pu-238	3.65E-01		
										Cellulose	53.78	Pu-239	2.23E+00		
										Rubber	11.64	Pu-240	1.13E+00		
										Plastic	76.17	Pu-241	1.49E+01		
				Cement	0.00	Pu-242	1.84E-04								
				Solidified Inorganic Material	0.00	Sr-90	7.88E-08								
				Solidified Organic Material	0.00	Th-229	5.96E-16								
				Soil	0.12	Th-230	2.85E-10								
				Vitrified	0.00	Th-232	4.85E-09								
				Packaging Material, Cellulosics	0.00	U-233	8.49E-12								
				Packaging Material, Plastic	37.07	U-234	1.65E-05								
				Packaging Material, Rubber	0.57	U-235	5.08E-07								
				Packaging Material, Steel	130.77	U-236	6.69E-08								
				Packaging Material, Lead	0.00	U-238	1.35E-05								

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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Profile Report

Waste Volume Detail (m³)

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	5.0	0.0	5.0
Final Form Total	5.0	0.0	5.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	31.04
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	22.27
Other Inorganic Materials	456.10
Cellulose	8.21
Rubber	0.99
Plastic	34.11
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Haz. Waste No(s).

D007, D008, D009, F001, F002, F003	
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TRUCON Code(s)

122/222

Waste Stream Description

Waste generated from R&D/R&D Laboratory Waste activities at the Kerr McGee.

Waste Stream ID: RLCH2-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Tank Farms TRU Mixed Debris				Activity Concentrations Decayed to CY	2012	

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
Uncontained	0.0	7.7	7.7
Current Form Total	2.1	7.7	9.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	7.9	8.1
SWB Dir Ld w/ Liner	1.9	0.0	1.9
Final Form Total	2.1	7.9	10.0

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	21.50
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	19.01
Other Inorganic Materials	11.06
Cellulose	1.61
Rubber	0.01
Plastic	1.90
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	30.29
Packaging Material, Rubber	0.50
Packaging Material, Steel	135.05
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.37E-02
Cs-137	1.92E-01
Np-237	8.88E-09
Pu-238	1.29E-03
Pu-239	9.63E-03
Pu-240	2.47E-03
Pu-241	2.22E-02
Sr-90	8.53E-01
Th-229	1.32E-07
Th-230	6.88E-14
Th-232	7.22E-21
U-233	7.53E-04
U-234	7.46E-09
U-235	9.77E-07
U-236	1.46E-10
U-238	2.13E-05

Haz. Waste No(s).

D004, D006, D007, D008, D009, D010, F001, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

CH waste- Equipment removed from waste tanks (instrument trees, pumps, circulators, agitators, heaters, sluicers, steam coils, air lances, cameras). The waste stream ranges from contaminated clothing to process equipment contaminated with RCRA constituents.

Waste Stream ID: RLESG-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Energy Systems Group TRU Mixed Debris			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D006, D007, D008, F001, F002, F003
Container Type	Stored	Proj.	Total					TRUCON Code(s)
55-gal Drum Dir Ld w/ Liner	13.1	0.0	13.1	Iron-based Metal/Alloys	228.99	Am-241	7.27E-01	125/225
85-gal Drum Dir Ld w/ Liner	3.5	0.0	3.5	Aluminum-based Metal/Alloys	0.68	Cs-137	3.21E-03	
Box - Misc	14.9	0.0	14.9	Other Metal/Alloys	7.31	Np-237	6.28E-06	
Current Form Total	31.5	0.0	31.5	Other Inorganic Materials	30.12	Pu-238	1.09E-01	
				Cellulose	28.62	Pu-239	6.57E-01	
Final Form Volumes				Rubber	19.12	Pu-240	2.99E-01	
Container Type	Stored	Proj.	Total	Plastic	38.84	Pu-241	4.68E+00	
55-gal Drum Dir Ld w/ Liner	16.8	0.0	16.8	Cement	0.00	Pu-242	5.57E-05	
SWB Dir Ld w/ Liner	18.9	0.0	18.9	Solidified Inorganic Material	0.00	Sr-90	2.63E-03	
Final Form Total	35.7	0.0	35.7	Solidified Organic Material	0.00	Th-229	1.17E-15	
				Soil	0.00	Th-230	9.54E-09	
				Vitrified	0.00	Th-232	2.51E-07	
				Packaging Material, Cellulosics	0.00	U-233	2.68E-11	
				Packaging Material, Plastic	18.10	U-234	1.04E-03	
				Packaging Material, Rubber	0.37	U-235	2.65E-05	
				Packaging Material, Steel	142.75	U-236	8.86E-09	
				Packaging Material, Lead	0.00	U-238	2.59E-05	

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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RLESG-03

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Energy Systems Group TRU Solid Inorganics			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	0.8	0.0	0.8	Iron-based Metal/Alloys	29.72	Am-241	9.73E-03	
Current Form Total	0.8	0.0	0.8	Aluminum-based Metal/Alloys	29.72	Cs-137	3.65E-03	
				Other Metal/Alloys	0.00	Np-237	3.01E-09	
Final Form Volumes				Other Inorganic Materials	0.00	Pu-238	5.39E-03	
Container Type	Stored	Proj.	Total	Cellulose	29.72	Pu-239	1.58E-01	
55-gal Drum Dir Ld w/ Liner	1.0	0.0	1.0	Rubber	29.72	Pu-240	3.89E-02	
Final Form Total	1.0	0.0	1.0	Plastic	29.72	Pu-241	5.49E-01	
				Cement	22.43	Pu-242	2.54E-06	
				Solidified Inorganic Material	62.50	Sr-90	3.31E-03	
				Solidified Organic Material	0.00	Th-229	1.88E-19	
				Soil	126.03	Th-230	7.03E-14	
				Vitrified	0.00	Th-232	2.84E-20	
				Packaging Material, Cellulosics	0.00	U-233	6.46E-15	
				Packaging Material, Plastic	37.07	U-234	1.53E-08	
				Packaging Material, Rubber	0.57	U-235	1.56E-10	
				Packaging Material, Steel	130.77	U-236	1.15E-09	
				Packaging Material, Lead	0.00	U-238	3.94E-16	

TRUCON Code(s)
122/222

Waste Stream Description
Absorbed/solidified liquids from operations and decommissioning of the Nuclear Materials Development Facility.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RLESG-08

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site			Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste			Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Energy Systems Group RH TRU Mixed Debris					Activity Concentrations Decayed to CY 2012			
Waste Volume Detail (m³)				Waste Material Parameters			Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D006, D007, D008, F001, F002, F003	
Container Type	Stored	Proj.	Total						
55-gal Drum Dir Ld w/ Liner	12.9	0.0	12.9						
85-gal Drum Dir Ld w/ Liner	9.0	0.0	9.0						
Current Form Total	21.9	0.0	21.9						
Final Form Volumes								TRUCON Code(s) 325	
Container Type	Stored	Proj.	Total						
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	23.7	0.0	23.7						
Final Form Total	23.7	0.0	23.7						

Waste 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).

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RLEXX-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Exxon TRU Mixed Debris			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D019, D030
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	42.8	0.0	42.8	Iron-based Metal/Alloys	40.00	Am-241	2.26E+00	
85-gal Drum Dir Ld w/ Liner	1.3	0.0	1.3	Aluminum-based Metal/Alloys	0.16	Np-237	7.37E-06	
Current Form Total	44.1	0.0	44.1	Other Metal/Alloys	7.91	Pu-238	9.41E-01	
				Other Inorganic Materials	25.93	Pu-239	5.93E-01	
Final Form Volumes				Cellulose	4.75	Pu-240	5.06E-01	
Container Type	Stored	Proj.	Total	Rubber	1.09	Pu-241	1.49E+01	
55-gal Drum Dir Ld w/ Liner	129.8	0.0	129.8	Plastic	5.08	Pu-242	6.16E-04	
Final Form Total	129.8	0.0	129.8	Cement	0.00	Th-229	1.32E-15	TRUCON Code(s) 125/225
				Solidified Inorganic Material	0.00	Th-230	5.43E-10	
				Solidified Organic Material	0.00	Th-232	3.70E-19	
				Soil	0.00	U-233	3.05E-11	
				Vitrified	0.00	U-234	6.03E-05	
				Packaging Material, Cellulosics	0.00	U-235	7.60E-07	
				Packaging Material, Plastic	37.07	U-236	1.50E-08	
				Packaging Material, Rubber	0.57	U-238	3.04E-05	
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			

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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RLFFTF-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	FFTF TRU Non-Mixed Debris				Activity Concentrations Decayed to CY		2012

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	TRUCON Code(s) 125/225
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	0.8	0.0	0.8	Iron-based Metal/Alloys	116.67	Am-241	1.16E-02	
Current Form Total	0.8	0.0	0.8	Aluminum-based Metal/Alloys	0.47	Cs-137	1.09E-02	
				Other Metal/Alloys	23.06	Np-237	3.74E-09	
Final Form Volumes				Other Inorganic Materials	75.63	Pu-238	3.46E-03	
				Cellulose	13.85	Pu-239	1.06E-02	
Container Type	Stored	Proj.	Total	Rubber	3.19	Pu-240	9.15E-03	
55-gal Drum Dir Ld w/ Liner	1.0	0.0	1.0	Plastic	1.54	Pu-241	8.92E-02	
Final Form Total	1.0	0.0	1.0	Cement	0.00	Sr-90	7.38E-03	
				Solidified Inorganic Material	0.00	Th-229	2.38E-19	
				Solidified Organic Material	0.00	Th-230	4.51E-14	
				Soil	0.00	Th-232	6.68E-21	
				Vitrified	0.00	U-233	8.12E-15	
				Packaging Material, Cellulosics	0.00	U-234	9.80E-09	
				Packaging Material, Plastic	37.07	U-235	1.05E-11	
				Packaging Material, Rubber	0.57	U-236	2.71E-10	
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			

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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RLFFTF-08

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	FFTF RH-TRU Non-Mixed Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	
Container Type	Stored	Proj.	Total					
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3	Iron-based Metal/Alloys	2.64	Am-241	4.28E-03	
Current Form Total	0.3	0.0	0.3	Aluminum-based Metal/Alloys	0.01	Am-243	1.38E-11	
				Other Metal/Alloys	0.52	Cs-137	8.33E-01	
Final Form Volumes				Other Inorganic Materials	1.71	Np-237	4.03E-09	
Container Type	Stored	Proj.	Total	Cellulose	0.31	Pu-238	1.24E-03	
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6	Rubber	0.07	Pu-239	3.77E-03	
Final Form Total	0.6	0.0	0.6	Plastic	0.33	Pu-240	3.24E-03	
				Cement	0.00	Pu-241	5.73E-02	
				Solidified Inorganic Material	0.00	Sr-90	8.96E-04	
				Solidified Organic Material	0.00	Th-229	2.28E-18	
				Soil	0.00	Th-230	1.47E-13	
				Vitrified	0.00	Th-232	2.13E-20	
				Packaging Material, Cellulosics	0.00	U-233	2.60E-14	
				Packaging Material, Plastic	45.67	U-234	1.06E-08	
				Packaging Material, Rubber	0.57	U-235	1.11E-11	
				Packaging Material, Steel	931.09	U-236	2.87E-10	
				Packaging Material, Lead	0.00			

TRUCON Code(s)	
325	

Waste Stream Description

Combustible and noncombustible debris from Fast Flux Test Reactor operations, maintenance, and clean out. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RLGEV-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	GE San Jose and Vallecitos TRU Mixed Debris	Activity Concentrations Decayed to CY	2012				
Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides	
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Container Type	Stored	Proj.	Total				
55-gal Drum Dir Ld w/ Liner	17.3	0.0	17.3	Iron-based Metal/Alloys	231.42	Am-241	4.85E-01
85-gal Drum Dir Ld w/ Liner	7.7	0.0	7.7	Aluminum-based Metal/Alloys	0.26	Cs-137	1.34E-07
Box - Misc	147.2	0.0	147.2	Other Metal/Alloys	4.60	Np-237	2.18E-06
SWB Dir Ld w/ Liner	15.1	0.0	15.1	Other Inorganic Materials	24.63	Pu-238	1.19E-01
Current Form Total	187.3	0.0	187.3	Cellulose	20.70	Pu-239	6.31E-01
Final Form Volumes				Rubber	5.14	Pu-240	2.75E-01
Container Type	Stored	Proj.	Total	Plastic	51.89	Pu-241	4.45E+00
55-gal Drum Dir Ld w/ Liner	23.9	0.0	23.9	Cement	0.00	Pu-242	4.35E-05
SWB Dir Ld w/ Liner	200.3	0.0	200.3	Solidified Inorganic Material	0.00	Sr-90	1.21E-07
Final Form Total	224.3	0.0	224.3	Solidified Organic Material	0.00	Th-229	3.97E-16
				Soil	0.00	Th-230	2.74E-09
				Vitrified	0.00	Th-232	2.01E-19
				Packaging Material, Cellulosics	0.00	U-233	9.14E-12
				Packaging Material, Plastic	5.03	U-234	2.98E-04
				Packaging Material, Rubber	0.23	U-235	6.33E-06
				Packaging Material, Steel	151.02	U-236	8.15E-09
				Packaging Material, Lead	0.00	U-238	2.16E-04

Haz. Waste No(s).

D006, D007, D008, D011, D035

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste from decontamination and decommissioning of Building 102 at the GE-Vallecitos Nuclear Center. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: RLGEV-03

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site			Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste			Waste Matrix Code Group	Solidified Inorganics			Inventory Date	12/31/2012
Stream Name	GE Vallecitos TRU Homogeneous Solids						Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	4.72
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.24
Cellulose	5.42
Rubber	0.04
Plastic	9.41
Cement	0.00
Solidified Inorganic Material	427.04
Solidified Organic Material	6.56
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.50E+00
Cs-137	3.87E-08
Np-237	2.91E-06
Pu-238	9.60E-01
Pu-239	3.71E+00
Pu-240	2.09E+00
Pu-241	7.32E+01
Pu-242	8.45E-05
Sr-90	3.58E-08
Th-229	7.66E-16
Th-230	7.37E-11
Th-232	6.12E-18
U-233	1.28E-11
U-234	6.73E-06
U-235	5.02E-08
U-236	1.24E-07
U-238	6.41E-07

Haz. Waste No(s).

D006, D007, D008, D011, D035

TRUCON Code(s)

122/222

Waste Stream Description

Homogeneous solids from decontamination and decommissioning of Building 102 at the GE-Vallecitos Nuclear Center.

Waste Stream ID: **RLGEV-08**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site			Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Remediation/D&D Waste			Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	GE San Jose and Vallecitos TRU RH Non-Mixed Debris					Activity Concentrations Decayed to CY			2012
Waste Volume Detail (m³)				Waste Material Parameters			Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	TRUCON Code(s) 325	
Container Type	Stored	Proj.	Total						
Box - Misc	5.3	0.0	5.3						
Current Form Total	5.3	0.0	5.3						
Final Form Volumes									
Container Type	Stored	Proj.	Total						
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	6.9	0.0	6.9						
Final Form Total	6.9	0.0	6.9						
				Iron-based Metal/Alloys	1062.29	Am-241	1.73E+00		
				Aluminum-based Metal/Alloys	167.73	Cs-137	1.34E+00		
				Other Metal/Alloys	0.00	Np-237	1.65E-05		
				Other Inorganic Materials	82.01	Pu-238	7.17E-02		
				Cellulose	201.53	Pu-239	9.17E+01		
				Rubber	86.00	Pu-240	9.54E+00		
				Plastic	206.38	Pu-241	1.92E-01		
				Cement	0.00	Pu-242	3.86E-01		
				Solidified Inorganic Material	0.00	Sr-90	1.01E+00		
				Solidified Organic Material	0.00	Th-229	8.91E-13		
				Soil	29.52	Th-230	9.12E-10		
				Vitrified	0.00	Th-232	5.87E-15		
				Packaging Material, Cellulosics	0.00	U-233	1.05E-09		
				Packaging Material, Plastic	45.67	U-234	6.59E-06		
				Packaging Material, Rubber	0.57	U-235	2.62E-06		
				Packaging Material, Steel	931.09	U-236	8.20E-06		
				Packaging Material, Lead	0.00	U-238	1.74E-09		

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. **2.01** Data ver. **D.12.01**
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RLHAN-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Trench Designation waste stream			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D032, D033, D034, D035, D037, D038, D043, F001, F002, F003, F004, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	78.8	0.0	78.8	Iron-based Metal/Alloys	24.39	Am-241	4.54E-01	TRUCON Code(s) 125/225
85-gal Drum Dir Ld w/ Liner	108.2	0.0	108.2	Aluminum-based Metal/Alloys	0.09	Cs-137	8.62E-08	
Box - Misc	225.5	0.0	225.5	Other Metal/Alloys	5.76	Np-237	1.16E-06	
SWB Dir Ld w/ Liner	177.7	0.0	177.7	Other Inorganic Materials	8.04	Pu-238	7.01E-02	
Current Form Total	590.2	0.0	590.2	Cellulose	21.06	Pu-239	7.29E-01	
				Rubber	7.26	Pu-240	2.54E-01	
Final Form Volumes				Plastic	25.28	Pu-241	2.46E+00	
Container Type	Stored	Proj.	Total	Cement	0.00	Pu-242	3.83E-05	
55-gal Drum Dir Ld w/ Liner	166.8	0.0	166.8	Solidified Inorganic Material	0.00	Sr-90	7.81E-08	
SWB Dir Ld w/ Liner	459.3	0.0	459.3	Solidified Organic Material	0.00	Th-229	7.39E-16	
Final Form Total	626.1	0.0	626.1	Soil	0.00	Th-230	3.67E-12	
				Vitrified	0.00	Th-232	7.43E-19	
				Packaging Material, Cellulosics	0.00	U-233	8.82E-12	
				Packaging Material, Plastic	10.76	U-234	3.98E-07	
				Packaging Material, Rubber	0.29	U-235	1.44E-09	
				Packaging Material, Steel	147.40	U-236	1.51E-08	
				Packaging Material, Lead	0.00	U-238	1.19E-14	

Waste Stream Description
Combustible and noncombustible TRU debris waste retrieved from the Hanford low-level burial grounds that cannot be identified or assigned to an original generator. Combustible waste may include wood, plastics, paper, absorbents, rubber, and rags. Noncombustible waste may include failed machinery, tools, glass, concrete, plumbing, and fixtures.

Waste Stream ID: **RLHAN-03**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site			Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste			Waste Matrix Code Group	Solidified Inorganics			Inventory Date	12/31/2012
Stream Name	Trench Designation waste stream						Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	184.62
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	111.06
Cellulose	0.00
Rubber	0.00
Plastic	74.04
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.52E-01
Np-237	4.88E-08
Pu-238	1.88E-02
Pu-239	7.21E-02
Pu-240	4.07E-02
Pu-241	1.48E+00
Th-229	3.10E-18
Th-230	2.46E-13
Th-232	2.97E-20
U-233	1.06E-13
U-234	5.34E-08
U-235	7.10E-11
U-236	1.21E-09

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D034, D035, D037, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

114/214

Waste Stream Description
Trench Designation waste stream

Waste Stream ID: RLHAN-08

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Trench Designation waste stream				Activity Concentrations Decayed to CY	2012	

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	14.5	0.0	14.5
SWB Dir Ld w/ Liner	3.8	0.0	3.8
Current Form Total	18.5	0.0	18.5

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	31.99
Aluminum-based Metal/Alloys	0.11
Other Metal/Alloys	7.45
Other Inorganic Materials	10.55
Cellulose	27.83
Rubber	9.42
Plastic	33.62
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	2.95E-01
Am-243	2.66E-06
Cs-137	6.43E-02
Np-237	3.00E-06
Pu-238	1.74E-02
Pu-239	1.77E-01
Pu-240	2.86E-02
Pu-241	1.04E+00
Pu-242	1.14E-06
Sr-90	4.90E-02
Th-229	7.42E-09
Th-230	2.27E-13
Th-232	2.09E-20
U-233	8.43E-05
U-234	4.94E-08
U-235	1.74E-10
U-236	8.46E-10
U-238	1.77E-16

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D034, D035, D037, D043, F001, F002, F003, F004, F005

TRUCON Code(s)

325

Waste Stream Description

Combustible and noncombustible RH-TRU debris waste retrieved from the Hanford low-level burial grounds that cannot be identified or assigned to an original generator. Combustible waste may include wood, plastics, paper, absorbents, rubber, and rags. Noncombustible waste may include failed machinery, tools, glass, concrete, plumbing, and fixtures.

Waste Stream ID: RLIAEA-03

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	International Atomic Energy Agency TRU Non-Mixed Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2	Iron-based Metal/Alloys	552.00	Am-241	1.89E+00	
Current Form Total				Aluminum-based Metal/Alloys	87.00	Cs-137	4.13E-05	
	0.2	0.0	0.2	Other Metal/Alloys	0.00	Np-237	1.22E-06	
Final Form Volumes				Other Inorganic Materials	43.00	Pu-238	1.01E+00	
Container Type	Stored	Proj.	Total	Cellulose	105.00	Pu-239	5.31E-01	
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4	Rubber	45.00	Pu-240	6.83E-01	
Final Form Total				Plastic	107.00	Pu-241	4.06E+00	
	0.4	0.0	0.4	Cement	0.00	Pu-242	1.01E-03	
				Solidified Inorganic Material	0.00	Sr-90	3.75E-05	
				Solidified Organic Material	0.00	Th-229	3.11E-16	
				Soil	15.00	Th-230	5.29E-11	
				Vitrified	0.00	Th-232	1.99E-18	
				Packaging Material, Cellulosics	0.00	U-233	5.31E-12	
				Packaging Material, Plastic	37.07	U-234	5.73E-06	
				Packaging Material, Rubber	0.57	U-235	1.05E-09	
				Packaging Material, Steel	130.77	U-236	4.04E-08	
				Packaging Material, Lead	0.00	U-238	3.13E-13	

TRUCON Code(s)
122/222

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. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RLMLB-08

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site			Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste			Waste Matrix Code Group	Heterogeneous Debris Waste			Inventory Date	12/31/2012
Stream Name	Lawrence Berkeley Nat Lab TRU Mixed Debris						Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	401.22
Aluminum-based Metal/Alloys	63.24
Other Metal/Alloys	0.00
Other Inorganic Materials	31.25
Cellulose	76.32
Rubber	32.71
Plastic	77.77
Cement	0.00
Solidified Inorganic Material	10.90
Solidified Organic Material	0.00
Soil	13.08
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.36E-01
Cm-244	2.04E+01
Np-237	1.18E-06
Pu-238	1.73E-02
Pu-239	8.34E-02
Pu-240	1.68E-01
Pu-241	4.26E-01
Pu-242	1.90E-06
Th-229	6.20E-14
Th-230	2.37E-10
Th-232	6.52E-17
U-233	7.30E-11
U-234	1.65E-06
U-235	2.46E-09
U-236	1.06E-07
U-238	8.85E-15

Haz. Waste No(s).

D005, D007, D008, D009, D011, D019, F002, F003, F005

TRUCON Code(s)

325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. Drums may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: **RLMLL-01**

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Lawrence Livermore TRU Mixed Debris				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3
Current Form Total	0.7	0.0	0.7

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	393.83
Aluminum-based Metal/Alloys	62.07
Other Metal/Alloys	0.00
Other Inorganic Materials	30.68
Cellulose	74.91
Rubber	32.11
Plastic	76.34
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	10.70
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	8.36E-02
Np-237	9.52E-07
Pu-238	9.68E-03
Pu-239	5.00E-02
Pu-240	2.82E-02
Pu-241	1.66E-01
Pu-242	1.14E-06
Th-229	8.41E-14
Th-230	2.35E-10
Th-232	3.14E-17
U-233	7.63E-11
U-234	1.25E-06
U-235	1.92E-09
U-236	3.26E-08
U-238	6.90E-15

Haz. Waste No(s).

D006, D007, D008, D011

TRUCON Code(s)

125/225

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: RLP11-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	P11 Criticality Facility TRU Mixed Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D005, D006, D007
Container Type	Stored	Proj.	Total					TRUCON Code(s) 125/225
Box - Misc	51.2	0.0	51.2	Iron-based Metal/Alloys	22.61	Am-241	4.53E-02	
Current Form Total				Aluminum-based Metal/Alloys	11.34	Np-237	2.86E-08	
	51.2	0.0	51.2	Other Metal/Alloys	0.00	Pu-238	9.65E-03	
Final Form Volumes				Other Inorganic Materials	22.61	Pu-239	3.73E-02	
Container Type	Stored	Proj.	Total	Cellulose	11.28	Pu-240	2.11E-02	
SWB Dir Ld w/ Liner	64.3	0.0	64.3	Rubber	0.00	Pu-241	7.36E-01	
Final Form Total				Plastic	11.28	Pu-242	8.49E-07	
	64.3	0.0	64.3	Cement	11.34	Th-229	7.21E-18	
				Solidified Inorganic Material	0.10	Th-230	5.06E-13	
				Solidified Organic Material	0.10	Th-232	6.15E-20	
				Soil	0.00	U-233	1.23E-13	
				Vitrified	0.00	U-234	5.49E-08	
				Packaging Material, Cellulosics	0.00	U-235	7.34E-11	
				Packaging Material, Plastic	1.20	U-236	1.25E-09	
				Packaging Material, Rubber	0.19	U-238	2.64E-16	
				Packaging Material, Steel	153.44			
				Packaging Material, Lead	0.00			

Waste Stream Description
Misc. demolition debris.

Waste Stream ID: RLPFP-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	2345Z TRU Mixed Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D032, D034, D035, D036, D037, D043, F001, F002, F003, F004, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	1597.4	0.0	1597.4	Iron-based Metal/Alloys	60.84	Am-241	2.41E+00	
85-gal Drum Dir Ld w/ Liner	174.8	0.0	174.8	Aluminum-based Metal/Alloys	0.30	Am-243	4.51E-07	
Box - Misc	4349.6	0.0	4349.6	Other Metal/Alloys	1.31	Cs-137	1.17E-05	
SLB2 Dir Ld	56.6	0.0	56.6	Other Inorganic Materials	9.67	Np-237	3.96E-05	
SWB Dir Ld w/ Liner	447.9	0.0	447.9	Cellulose	15.16	Pu-238	6.84E-01	
Uncontained	0.0	2299.2	2299.2	Rubber	8.58	Pu-239	4.87E+00	
Current Form Total	6626.4	2299.2	8925.6	Plastic	23.88	Pu-240	1.60E+00	
				Cement	0.00	Pu-241	2.21E+01	
Final Form Volumes				Solidified Inorganic Material	0.02	Pu-242	3.04E-04	
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.02	Sr-90	1.06E-05	TRUCON Code(s) 125/225
55-gal Drum Dir Ld w/ Liner	2114.9	0.0	2114.9	Soil	0.17	Th-229	1.91E-08	
SLB2 Dir Ld	56.6	396.2	452.8	Vitrified	0.00	Th-230	2.02E-09	
SWB Dir Ld w/ Liner	5885.5	1903.2	7788.7	Packaging Material, Cellulosics	0.00	Th-232	3.42E-08	
Final Form Total	8057.0	2299.4	10356.4	Packaging Material, Plastic	8.47	U-233	2.17E-04	
				Packaging Material, Rubber	0.27	U-234	2.21E-04	
				Packaging Material, Steel	151.53	U-235	6.26E-06	
				Packaging Material, Lead	0.00	U-236	4.76E-08	
						U-238	1.15E-04	

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. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RLPFP-03

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics			Inventory Date	12/31/2012
Stream Name	PFP Absorbed Plutonium Nitrate Solutions					Activity Concentrations Decayed to CY	2012

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	0.6	0.0	0.6
Current Form Total	14.6	0.0	14.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	15.2	0.0	15.2
Final Form Total	15.2	0.0	15.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	3.34
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.01
Other Inorganic Materials	0.23
Cellulose	3.95
Rubber	0.04
Plastic	11.12
Cement	0.00
Solidified Inorganic Material	396.63
Solidified Organic Material	18.94
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	7.18E+00
Cs-137	3.89E-06
Np-237	3.85E-05
Pu-238	1.88E+00
Pu-239	1.44E+01
Pu-240	4.48E+00
Pu-241	6.12E+01
Pu-242	8.31E-04
Sr-90	3.53E-06
Th-229	7.08E-15
Th-230	9.92E-09
Th-232	3.27E-18
U-233	1.63E-10
U-234	1.08E-03
U-235	5.37E-06
U-236	1.33E-07
U-238	4.39E-05

Haz. Waste No(s).

D004, D006, D007, D008, D010, D011

TRUCON Code(s)

114/214

Waste Stream Description

Solidified inorganic waste generated from operations, maintenance, and D&D activities at the 325 Laboratory, the 209-E Critical Mass Laboratory, and the Plutonium Reclamation Facility (Bldg 236-Z) at the Plutonium Finishing Plant (PFP).

Waste Stream ID: RLPFP-04

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site			Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste			Waste Matrix Code Group	Solidified Organics			Inventory Date	12/31/2012
Stream Name	PFP Comprehensive Homogenous Solids						Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	15.8	0.0	15.8
85-gal Drum Dir Ld w/ Liner	2.3	0.0	2.3
Current Form Total	18.1	0.0	18.1

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	19.6	0.0	19.6
Final Form Total	19.6	0.0	19.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	17.98
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.50
Other Inorganic Materials	90.37
Cellulose	11.72
Rubber	0.23
Plastic	16.66
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.41
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.61E+00
Cs-137	1.27E-04
Np-237	3.23E-05
Pu-238	8.32E-01
Pu-239	9.53E+00
Pu-240	2.69E+00
Pu-241	3.82E+01
Pu-242	3.18E-04
Sr-90	1.15E-04
Th-229	6.03E-15
Th-230	1.73E-09
Th-232	1.97E-18
U-233	1.38E-10
U-234	1.90E-04
U-235	6.25E-06
U-236	7.97E-08
U-238	9.36E-05

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D030, D032, D033, 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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

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Waste Stream ID: RLPFP-08

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	2345Z RH-TRU Mixed Debris				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	19.8	0.0	19.8
85-gal Drum Dir Ld w/ Liner	7.7	0.0	7.7
Uncontained	0.0	183.0	183.0
Current Form Total	27.5	183.0	210.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	26.2	183.5	209.7
Final Form Total	26.2	183.5	209.7

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	38.06
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	23.30
Other Inorganic Materials	19.63
Cellulose	5.38
Rubber	10.51
Plastic	29.34
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.86E+00
Cs-137	5.98E-06
Np-237	1.07E-05
Pu-238	4.72E-01
Pu-239	2.64E+00
Pu-240	9.67E-01
Pu-241	1.99E+01
Pu-242	1.82E-04
Sr-90	5.44E-06
Th-229	1.98E-15
Th-230	9.72E-11
Th-232	7.48E-19
U-233	4.55E-11
U-234	1.12E-05
U-235	3.34E-07
U-236	2.95E-08
U-238	6.53E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D030, F001, F002, F003, F004, 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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RLPURX-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	202A and 202AL TRU Mixed Debris			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D034, D035, D037, D043, F001, F002, F003, F004, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	309.5	0.0	309.5	Iron-based Metal/Alloys	37.38	Am-241	3.92E+00	
85-gal Drum Dir Ld w/ Liner	2.9	0.0	2.9	Aluminum-based Metal/Alloys	0.13	Am-243	6.24E-07	
Box - Misc	260.2	0.0	260.2	Other Metal/Alloys	0.44	Cs-137	1.50E-02	
SWB Dir Ld w/ Liner	7.6	0.0	7.6	Other Inorganic Materials	11.61	Np-237	1.00E-05	
Current Form Total	580.2	0.0	580.2	Cellulose	14.97	Pu-238	1.87E+00	
				Rubber	14.29	Pu-239	9.70E+00	
				Plastic	25.30	Pu-240	3.70E+00	
				Cement	0.00	Pu-241	1.16E+02	
Final Form Volumes				Solidified Inorganic Material	0.00	Pu-242	8.69E-04	TRUCON Code(s) 125/225
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.00	Sr-90	1.36E-02	
55-gal Drum Dir Ld w/ Liner	387.3	0.0	387.3	Soil	0.01	Th-229	2.02E-07	
SWB Dir Ld w/ Liner	334.5	0.0	334.5	Vitrified	0.00	Th-230	7.36E-11	
Final Form Total	721.8	0.0	721.8	Packaging Material, Cellulosics	0.00	Th-232	2.70E-18	
				Packaging Material, Plastic	20.45	U-233	2.30E-03	
				Packaging Material, Rubber	0.39	U-234	1.07E-05	
				Packaging Material, Steel	141.28	U-235	1.87E-07	
				Packaging Material, Lead	0.00	U-236	1.09E-07	
						U-238	2.90E-06	

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. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RLPURX-08

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	202A & 202AL TRU RH Non-mixed Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D004, D005, D006, D007, D008, D009, D010, D011
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	13.1	0.0	13.1	Iron-based Metal/Alloys	21.10	Am-241	6.68E-02	
Box - Misc	11.5	0.0	11.5	Aluminum-based Metal/Alloys	0.00	Np-237	4.71E-07	
Current Form Total	24.6	0.0	24.6	Other Metal/Alloys	0.53	Pu-238	2.84E-03	
				Other Inorganic Materials	15.83	Pu-239	9.11E-03	
Final Form Volumes				Cellulose	10.55	Pu-240	2.17E-03	
Container Type	Stored	Proj.	Total	Rubber	35.88	Pu-241	5.00E-01	
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	31.8	0.0	31.8	Plastic	26.38	Pu-242	1.19E-07	
Final Form Total	31.8	0.0	31.8	Cement	0.00	Th-229	2.10E-14	
				Solidified Inorganic Material	0.00	Th-230	5.11E-11	
				Solidified Organic Material	0.00	Th-232	1.84E-18	
				Soil	0.00	U-233	2.61E-11	
				Vitrified	0.00	U-234	3.13E-07	
				Packaging Material, Cellulosics	0.00	U-235	3.05E-10	
				Packaging Material, Plastic	45.67	U-236	2.19E-09	
				Packaging Material, Rubber	0.57	U-238	6.25E-16	
				Packaging Material, Steel	931.09			
				Packaging Material, Lead	0.00			

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. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RLRFET-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Rocky Flats TRU Mixed Debris				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	198.0	0.0	198.0
85-gal Drum Dir Ld w/ Liner	6.8	0.0	6.8
Current Form Total	204.8	0.0	204.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	253.1	0.0	253.1
Final Form Total	253.1	0.0	253.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	362.70
Aluminum-based Metal/Alloys	50.51
Other Metal/Alloys	15.18
Other Inorganic Materials	67.36
Cellulose	38.72
Rubber	9.19
Plastic	34.16
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.01
Soil	6.41
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.12E-01
Np-237	2.87E-06
Pu-238	3.41E-03
Pu-239	1.61E-02
Pu-240	9.10E-03
Pu-241	9.09E-02
Pu-242	3.68E-07
Th-229	1.43E-13
Th-230	4.02E-11
Th-232	5.22E-18
U-233	1.75E-10
U-234	3.01E-07
U-235	4.45E-10
U-236	7.56E-09
U-238	1.60E-15

No Hazardous Waste Numbers Provided

TRUCON Code(s)

125/225

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

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Waste Stream ID: RLSAN-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	GE San Jose TRU Mixed Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	3.3	0.0	3.3	Iron-based Metal/Alloys	233.45	Am-241	1.29E+01	
Current Form Total				Aluminum-based Metal/Alloys	0.23	Np-237	1.08E-04	
	3.3	0.0	3.3	Other Metal/Alloys	5.58	Pu-238	1.66E+00	
Final Form Volumes				Other Inorganic Materials	21.84	Pu-239	7.93E+00	
Container Type	Stored	Proj.	Total	Cellulose	18.96	Pu-240	4.47E+00	
55-gal Drum Dir Ld w/ Liner	4.2	0.0	4.2	Rubber	4.64	Pu-241	4.25E+01	
Final Form Total				Plastic	49.67	Pu-242	1.79E-04	
	4.2	0.0	4.2	Cement	0.00	Th-229	5.31E-12	
				Solidified Inorganic Material	0.00	Th-230	2.11E-08	
				Solidified Organic Material	0.00	Th-232	2.75E-15	
				Soil	0.00	U-233	6.46E-09	
				Vitrified	0.00	U-234	1.53E-04	
				Packaging Material, Cellulosics	0.00	U-235	2.27E-07	
				Packaging Material, Plastic	37.07	U-236	3.85E-06	
				Packaging Material, Rubber	0.57	U-238	8.07E-13	
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			

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. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RLSWO-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	SWOC TRU Mixed Debris				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	33.3	0.0	33.3
85-gal Drum Dir Ld w/ Liner	13.5	0.0	13.5
Box - Misc	175.6	0.0	175.6
SWB Dir Ld w/ Liner	66.2	0.0	66.2
Uncontained	0.0	57.9	57.9
Current Form Total	288.6	57.9	346.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	44.1	59.9	104.0
SWB Dir Ld w/ Liner	285.4	0.0	285.4
Final Form Total	329.5	59.9	389.4

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	19.75
Aluminum-based Metal/Alloys	0.33
Other Metal/Alloys	0.58
Other Inorganic Materials	4.08
Cellulose	12.09
Rubber	43.26
Plastic	45.79
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.10
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	10.78
Packaging Material, Rubber	0.29
Packaging Material, Steel	147.38
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.71E-01
Am-243	5.85E-08
Cs-137	3.09E-05
Np-237	4.60E-06
Pu-238	1.09E-01
Pu-239	8.22E-01
Pu-240	2.72E-01
Pu-241	3.96E+00
Pu-242	4.13E-05
Sr-90	2.80E-05
Th-229	8.65E-16
Th-230	5.91E-11
Th-232	1.99E-19
U-233	1.97E-11
U-234	6.58E-06
U-235	2.31E-07
U-236	8.05E-09
U-238	1.68E-07

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D034, D035, D037, D039, D043, F001, F002, F003, F004, F005

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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

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Waste Stream ID: RLWAR-01

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Ward TRU Mixed Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D007, D008, D009, D035, F001, F002, F003, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	26.8	0.0	26.8					
85-gal Drum Dir Ld w/ Liner	10.6	0.0	10.6					
Box - Misc	328.3	0.0	328.3					
Current Form Total	365.8	0.0	365.8					
Final Form Volumes								
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	36.8	0.0	36.8					
SWB Dir Ld w/ Liner	412.0	0.0	412.0					
Final Form Total	448.8	0.0	448.8					

Material Parameter	Average Density (kg/m³)
Iron-based Metal/Alloys	88.52
Aluminum-based Metal/Alloys	0.40
Other Metal/Alloys	1.93
Other Inorganic Materials	14.40
Cellulose	18.71
Rubber	4.91
Plastic	27.66
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.01
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	4.14
Packaging Material, Rubber	0.22
Packaging Material, Steel	151.58
Packaging Material, Lead	0.00

Isotope	Typical Concentration (Ci/m³)
Am-241	7.16E-01
Am-243	9.70E-16
Cs-137	4.13E-08
Np-237	3.97E-06
Pu-238	2.63E-01
Pu-239	3.28E-01
Pu-240	2.08E-01
Pu-241	5.36E+00
Pu-242	1.63E-04
Sr-90	3.75E-08
Th-229	7.30E-16
Th-230	1.39E-09
Th-232	1.31E-08
U-233	1.68E-11
U-234	1.51E-04
U-235	5.64E-06
U-236	6.17E-09
U-238	3.12E-05

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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RLWAR-03

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics			Inventory Date	12/31/2012
Stream Name	WARD solidified inorganics				Activity Concentrations Decayed to CY		

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D007, D008, D009, D035, F001, F002, F003, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	4.8	0.0	4.8	Iron-based Metal/Alloys	0.80	Am-241	6.30E-01	TRUCON Code(s) 122/222
85-gal Drum Dir Ld w/ Liner	1.6	0.0	1.6	Aluminum-based Metal/Alloys	0.00	Cs-137	1.02E-07	
Current Form Total	6.4	0.0	6.4	Other Metal/Alloys	0.11	Np-237	2.36E-06	
Final Form Volumes				Other Inorganic Materials	0.00	Pu-238	1.64E-01	
Container Type	Stored	Proj.	Total	Cellulose	3.20	Pu-239	5.44E-01	
55-gal Drum Dir Ld w/ Liner	7.3	0.0	7.3	Rubber	0.00	Pu-240	2.64E-01	
Final Form Total	7.3	0.0	7.3	Plastic	41.39	Pu-241	5.11E+00	
				Cement	401.34	Pu-242	1.04E-04	
				Solidified Inorganic Material	0.00	Th-229	5.44E-15	
				Solidified Organic Material	0.00	Th-230	3.95E-09	
				Soil	0.00	Th-232	3.09E-18	
				Vitrified	0.00	U-233	3.32E-11	
				Packaging Material, Cellulosics	0.00	U-234	1.08E-04	
				Packaging Material, Plastic	37.07	U-235	5.22E-06	
				Packaging Material, Rubber	0.57	U-236	3.13E-08	
				Packaging Material, Steel	130.77	U-238	5.00E-06	
				Packaging Material, Lead	0.00			

Waste Stream Description
Solidified inorganic waste generated during decontamination and decommissioning of the Westinghouse Advanced Reactors Division facility in Cheswick, PA.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RLWTP-08

Appendix A
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Waste Treatment Plant TRU RH Mixed Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	TRUCON Code(s) 325
Container Type	Stored	Proj.	Total					
Uncontained	0.0	74.5	74.5	Iron-based Metal/Alloys	73.87	Am-241	6.98E-03	
Current Form Total	0.0	74.5	74.5	Aluminum-based Metal/Alloys	0.00	Cs-137	2.14E+00	
				Other Metal/Alloys	0.00	Np-237	7.37E-06	
Final Form Volumes				Other Inorganic Materials	19.59	Pu-238	4.99E-03	
				Cellulose	0.00	Pu-239	2.45E-03	
Container Type	Stored	Proj.	Total	Rubber	0.00	Pu-240	5.23E-04	
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.0	45.6	45.6	Plastic	0.00	Pu-241	1.22E-03	
Final Form Total	0.0	45.6	45.6	Cement	0.00	Sr-90	2.40E+00	
				Solidified Inorganic Material	0.00	Th-229	3.62E-08	
				Solidified Organic Material	0.00	Th-230	6.43E-10	
				Soil	0.00	Th-232	6.78E-17	
				Vitrified	0.00	U-233	6.87E-05	
				Packaging Material, Cellulosics	0.00	U-234	1.17E-05	
				Packaging Material, Plastic	45.67	U-235	4.58E-07	
				Packaging Material, Rubber	0.57	U-236	2.29E-07	
				Packaging Material, Steel	931.09	U-238	1.03E-05	
				Packaging Material, Lead	0.00			

Waste Stream Description
RH debris waste generated from future WTP operations

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SA-W136

Appendix A
Waste Profile Report

Site	Sandia National Laboratories	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Uncategorized Metal Waste		Inventory Date	12/31/2012	
Stream Name	CH TRU Debris waste from Z-machine			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	1.2	0.0	1.2	Iron-based Metal/Alloys	618.43	Am-241	1.38E-02	
SWB Dir Ld w/o Liner	3.8	47.3	51.0	Aluminum-based Metal/Alloys	7.89	Np-237	8.39E-09	
Current Form Total	5.0	47.3	52.3	Other Metal/Alloys	3.67	Pu-238	1.23E-02	
Final Form Volumes				Other Inorganic Materials	0.07	Pu-239	3.78E-01	
Container Type	Stored	Proj.	Total	Cellulose	0.00	Pu-240	8.69E-02	
55-gal Drum Dir Ld w/o Liner	1.2	0.0	1.2	Rubber	0.82	Pu-241	5.16E-01	
SWB Dir Ld w/o Liner	3.8	47.3	51.0	Plastic	0.54	Pu-242	7.46E-06	
Final Form Total	5.0	47.3	52.3	Cement	0.00	Th-229	2.07E-18	
				Solidified Inorganic Material	0.00	Th-230	6.46E-13	
				Solidified Organic Material	0.61	Th-232	2.54E-19	
				Soil	0.00	U-233	3.57E-14	
				Vitrified	0.00	U-234	7.00E-08	
				Packaging Material, Cellulosics	0.00	U-235	7.44E-10	
				Packaging Material, Plastic	0.00	U-236	5.14E-09	
				Packaging Material, Rubber	0.20	U-238	2.31E-15	
				Packaging Material, Steel	152.90			
				Packaging Material, Lead	0.00			

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: SA-W137

Appendix A
Waste Profile Report

Site	Sandia National Laboratories	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	CH TRU solidified waste			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
20-gal Pail	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/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/m³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	0.00
Cement	0.02
Solidified Inorganic Material	27.40
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m³)
Am-241	1.01E-05
Np-237	3.11E-12
Pu-239	6.25E-03
Pu-240	6.15E-04
Pu-241	6.18E-04
Th-229	1.93E-22
Th-232	4.49E-22
U-233	6.66E-18
U-235	6.16E-12
U-236	1.82E-11

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description
Solidified PuNO3 sample used for instrumental analysis

Waste Stream ID: SA-W138M

Appendix A
Waste Profile Report

Site	Sandia National Laboratories	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	CH TRU sealed source			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D008, D011
Container Type	Stored	Proj.	Total					
20-gal Pail	0.1	0.0	0.1	Iron-based Metal/Alloys	0.00	Am-241	5.71E-03	
5-gal Pail	0.0	0.0	0.0	Aluminum-based Metal/Alloys	0.00	Np-237	2.64E-09	TRUCON Code(s)
Current Form Total	0.1	0.0	0.1	Other Metal/Alloys	0.01	Th-229	2.97E-19	125/225
				Other Inorganic Materials	26.20	U-233	7.81E-15	
Final Form Volumes				Cellulose	0.00			
Container Type	Stored	Proj.	Total	Rubber	0.00			
55-gal Drum Dir Ld w/o Liner	0.2	0.0	0.2	Plastic	0.00			
Final Form Total	0.2	0.0	0.2	Cement	0.00			
				Solidified Inorganic Material	0.00			
				Solidified Organic Material	0.00			
				Soil	0.00			
				Vitrified	0.00			
				Packaging Material, Cellulosics	0.00			
				Packaging Material, Plastic	0.00			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			

Waste Stream Description
Sealed sources from instrumentation and on circuit boards.

Waste Stream ID: SR-221H-PuOx

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	221H Pu Oxide CH TRU Debris				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal POC - 12" w/ Liner	133.8	0.0	133.8
Current Form Total	133.8	0.0	133.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal POC - 12" w/ Liner	132.5	0.0	132.5
Final Form Total	132.5	0.0	132.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	181.67
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	48.85
Other Inorganic Materials	424.59
Cellulose	0.00
Rubber	0.00
Plastic	37.20
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	135.10
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	528.85
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.98E+01
Np-237	1.35E-04
Pu-238	7.22E+00
Pu-239	3.27E+01
Pu-240	9.48E+00
Pu-241	1.31E+02
Pu-242	4.77E-03
Th-229	2.50E-14
Th-230	9.42E-11
Th-232	6.92E-18
U-233	5.74E-10
U-234	2.05E-05
U-235	4.89E-05
U-236	2.81E-07
U-238	3.25E-06

Haz. Waste No(s).

D006, D007, D008, D011

TRUCON Code(s)

125/225

Waste Stream Description

The plutonium oxide material is being blended and packaged specifically for disposal at WIPP.

Waste Stream ID: SR-AGNS-HOM

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	SR-AGNS-HOM			Activity Concentrations Decayed to CY		2012	

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
SWB w/ 4 - 55-gal Drums w/ Liners	1.8	0.0	1.8
Current Form Total	2.2	0.0	2.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
SWB w/ 4 - 55-gal Drums w/ Liners	1.9	0.0	1.9
Final Form Total	2.3	0.0	2.3

Waste Material Parameters	
Material Parameter	Average Density (kg/m³)
Iron-based Metal/Alloys	51.17
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	0.00
Cement	1246.75
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	20.04
Packaging Material, Rubber	0.46
Packaging Material, Steel	196.62
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m³)
Am-241	3.64E-01
Np-237	2.94E-04
Pu-238	2.70E-01
Pu-239	5.82E-01
Pu-240	1.37E-01
Pu-241	1.34E+00
Pu-242	2.39E-05
Th-229	5.70E-11
Th-230	1.54E-08
Th-232	1.03E-16
U-233	4.06E-08
U-234	6.55E-05
U-235	1.89E-06
U-236	1.30E-07
U-238	4.02E-05

Haz. Waste No(s).
D004, D005, D006, D007, D008, D009, D011, F005

TRUCON Code(s)
111/211, 154

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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-BCLDP.003.001

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2012	
Stream Name	BCL JN-1 CH TRU Homogeneous Sludge				Activity Concentrations Decayed to CY		2012

Waste Volume Detail (m ³)			
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		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	1.61	Am-241	1.48E-01
Aluminum-based Metal/Alloys	0.00	Cs-137	3.26E-02
Other Metal/Alloys	0.00	Np-237	1.74E-06
Other Inorganic Materials	0.24	Pu-238	1.12E-01
Cellulose	1.88	Pu-239	1.56E-02
Rubber	0.00	Pu-240	2.55E-02
Plastic	6.17	Pu-241	1.32E+00
Cement	0.00	Pu-242	7.60E-05
Solidified Inorganic Material	93.09	Sr-90	3.22E-02
Solidified Organic Material	165.89	Th-229	1.50E-13
Soil	0.00	Th-230	1.89E-09
Vitrified	0.00	Th-232	1.51E-18
Packaging Material, Cellulosics	0.00	U-233	2.20E-10
Packaging Material, Plastic	0.00	U-234	2.43E-05
Packaging Material, Rubber	0.57	U-235	3.72E-07
Packaging Material, Steel	130.77	U-236	6.78E-09
Packaging Material, Lead	0.00	U-238	2.20E-06

Haz. Waste No(s).
D004, D005, D006, D007, D008, D009, D011, D019, F002, F005

TRUCON Code(s)
127/227

Waste Stream Description
This waste consists of CH Hydraulic Sludge and Debris

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-BCLDP.004.004

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	CH Mixed TRU Cartridge Water Filters(S5000)			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D011, D019, F002, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	0.2	0.0	0.2	Iron-based Metal/Alloys	0.00	Am-241	4.88E-02	TRUCON Code(s) 119/219
Current Form Total				Aluminum-based Metal/Alloys	0.00	Am-243	1.32E-04	
	0.2	0.0	0.2	Other Metal/Alloys	0.00	Cs-137	5.39E-03	
Final Form Volumes						Np-237	1.88E-05	
Container Type	Stored	Proj.	Total	Other Inorganic Materials	94.72	Pu-238	2.36E-01	
55-gal Drum Dir Ld w/o Liner	0.2	0.0	0.2	Cellulose	90.19	Pu-239	3.96E-03	
Final Form Total				Rubber	3.47	Pu-240	6.52E-03	
	0.2	0.0	0.2	Plastic	17.34	Pu-242	7.74E-08	
				Cement	0.00	Sr-90	5.32E-03	
				Solidified Inorganic Material	26.42	Th-229	1.62E-12	
				Solidified Organic Material	34.42	Th-230	4.01E-09	
				Soil	0.00	Th-232	3.86E-19	
				Vitrified	0.00	U-233	2.41E-09	
				Packaging Material, Cellulosics	0.00	U-234	5.15E-05	
				Packaging Material, Plastic	0.00	U-235	8.11E-07	
				Packaging Material, Rubber	0.57	U-236	1.74E-09	
				Packaging Material, Steel	130.77	U-238	1.57E-05	
				Packaging Material, Lead	0.00			

Waste Stream Description
This waste consists of CH Cartridge Water Filters

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-BCLDP-HET

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	BCL JN-4 CH TRU Heterogeneous Debris			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D005, D006, D007, D008, D009, D011, F002, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	1.7	0.0	1.7	Iron-based Metal/Alloys	119.17	Am-241	1.65E-02	TRUCON Code(s) 121/221
SWB Dir Ld w/o Liner	16.2	0.0	16.2	Aluminum-based Metal/Alloys	1.22	Np-237	4.58E-08	
Current Form Total	17.9	0.0	17.9	Other Metal/Alloys	0.61	Pu-238	4.39E+00	
Final Form Volumes				Other Inorganic Materials	2.44	Pu-239	1.59E-02	
Container Type	Stored	Proj.	Total	Cellulose	31.70	Pu-240	7.36E-03	
55-gal Drum Dir Ld w/ Liner	1.7	0.0	1.7	Rubber	7.01	Pu-241	1.10E-01	
SWB Dir Ld w/o Liner	17.0	0.0	17.0	Plastic	48.76	Pu-242	2.27E-06	
Final Form Total	18.7	0.0	18.7	Cement	0.00	Th-229	2.28E-16	
				Solidified Inorganic Material	94.17	Th-230	4.83E-09	
				Solidified Organic Material	0.00	Th-232	4.36E-19	
				Soil	0.00	U-233	8.71E-13	
				Vitrified	0.00	U-234	1.15E-04	
				Packaging Material, Cellulosics	0.00	U-235	1.41E-10	
				Packaging Material, Plastic	3.30	U-236	1.96E-09	
				Packaging Material, Rubber	0.23	U-238	3.18E-15	
				Packaging Material, Steel	151.42			
				Packaging Material, Lead	0.00			

Waste Stream Description
Heterogeneous debris waste from the D&D of Battelle Columbus Lab Building JN-4

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-DWPF-HET

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	CH TRU - Heterogeneous debris from the DWPF laboratory			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	0.2	0.0	0.2	Iron-based Metal/Alloys	7.05	Am-241	4.57E-01	
Current Form Total	0.2	0.0	0.2	Aluminum-based Metal/Alloys	3.52	Cs-137	1.45E-02	
				Other Metal/Alloys	0.00	Np-237	4.42E-06	
Final Form Volumes	0.2	0.0	0.2	Other Inorganic Materials	14.10	Pu-238	9.54E-02	
				Cellulose	34.06	Pu-239	1.49E-02	
Final Form Total	0.2	0.0	0.2	Rubber	0.00	Pu-240	2.35E-01	
				Plastic	58.73	Pu-241	3.78E-01	
				Cement	0.00	Sr-90	1.43E-02	
				Solidified Inorganic Material	0.00	Th-229	7.51E-06	
				Solidified Organic Material	0.00	Th-230	4.60E-11	
				Soil	0.00	Th-232	6.18E-18	
				Vitrified	0.00	U-233	1.42E-02	
				Packaging Material, Cellulosics	0.00	U-234	1.65E-06	
				Packaging Material, Plastic	0.00	U-235	1.97E-06	
				Packaging Material, Rubber	0.57	U-236	4.17E-08	
				Packaging Material, Steel	130.77	U-238	5.58E-05	
				Packaging Material, Lead	0.00			

TRUCON Code(s)
125/225, 154

Waste Stream Description
CH TRU waste consisting of contaminated laboratory debris

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-HBL-235F-HET

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Commingled waste from HBL and 235F.			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D029, D043, F002, F005, U133
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6	Iron-based Metal/Alloys	197.53	Am-241	2.75E-04	
SLB2 Dir Ld	33.2	0.0	33.2	Aluminum-based Metal/Alloys	13.60	Np-237	7.90E-05	
SWB Dir Ld w/o Liner	9.0	0.0	9.0	Other Metal/Alloys	21.81	Pu-238	5.25E-01	
Current Form Total	42.8	0.0	42.8	Other Inorganic Materials	21.81	Pu-239	4.32E-04	
				Cellulose	32.57	Pu-240	2.36E-04	
				Rubber	2.05	Pu-241	4.47E-03	
				Plastic	24.24	Pu-242	2.81E-07	
				Cement	0.00	Th-229	7.28E-12	
Final Form Volumes				Solidified Inorganic Material	1.58	Th-230	3.70E-09	TRUCON Code(s) 125/225, 154
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.00	Th-232	8.35E-20	
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6	Soil	0.00	U-233	7.53E-09	
SLB2 Dir Ld	28.3	0.0	28.3	Vitrified	0.00	U-234	3.56E-05	
SWB Dir Ld w/o Liner	9.5	0.0	9.5	Packaging Material, Cellulosics	0.00	U-235	9.36E-12	
Final Form Total	38.4	0.0	38.4	Packaging Material, Plastic	0.60	U-236	1.54E-10	
				Packaging Material, Rubber	0.16	U-238	9.60E-16	
				Packaging Material, Steel	198.87			
				Packaging Material, Lead	0.00			

Waste Stream Description

This waste consists of repackaged waste from a large steel box that was originally loaded from two separate SRS generator facilities (i.e. H-B line and 235F)

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-KAC-HET

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	CH TRU Heterogeneous debris from the K Area Plutonium surveillance program				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	1.3	8.4	9.7	Iron-based Metal/Alloys	24.60	Am-241	7.59E-01	
Current Form Total	1.3	8.4	9.7	Aluminum-based Metal/Alloys	0.00	Np-237	5.79E-06	
				Other Metal/Alloys	0.00	Pu-238	2.37E-01	
Final Form Volumes				Other Inorganic Materials	0.00	Pu-239	2.02E+00	
Container Type	Stored	Proj.	Total	Cellulose	2.28	Pu-240	5.24E-01	
55-gal Drum Dir Ld w/o Liner	1.2	8.3	9.6	Rubber	21.07	Pu-241	4.62E+00	
Final Form Total	1.2	8.3	9.6	Plastic	158.65	Pu-242	1.73E-04	
				Cement	0.00	Th-229	1.54E-14	
				Solidified Inorganic Material	0.00	Th-230	5.03E-11	
				Solidified Organic Material	0.00	Th-232	6.13E-18	
				Soil	0.00	U-233	9.00E-11	
				Vitrified	0.00	U-234	2.72E-06	
				Packaging Material, Cellulosics	0.00	U-235	3.85E-06	
				Packaging Material, Plastic	0.00	U-236	6.21E-08	
				Packaging Material, Rubber	0.57	U-238	1.35E-07	
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			

TRUCON Code(s)
125/225, 154

Waste Stream Description

This waste stream consists of plutonium contaminated debris resulting from destructive and non-destructive containers used to store plutonium material

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: **SR-LA-PAD1****Appendix A****Waste Profile Report**

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	CH TRU Heterogeneous debris from the Los Alamos Scientific Laboratory (LASL)				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	5.9	0.0	5.9
Current Form Total	5.9	0.0	5.9

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	71.01
Aluminum-based Metal/Alloys	0.06
Other Metal/Alloys	1.28
Other Inorganic Materials	7.39
Cellulose	8.59
Rubber	7.26
Plastic	8.68
Cement	0.00
Solidified Inorganic Material	0.20
Solidified Organic Material	0.01
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.15E+00
Am-243	4.16E-07
Cs-137	1.15E-06
Np-237	6.52E-05
Pu-238	3.32E+02
Pu-239	5.19E-01
Pu-240	8.19E-01
Pu-241	1.21E+00
Pu-242	1.04E-03
Sr-90	1.29E-06
Th-229	5.76E-07
Th-230	3.96E-05
Th-232	7.15E-08
U-233	1.60E-04
U-234	1.26E-01
U-235	1.26E-06
U-236	9.96E-07
U-238	6.64E-12

Haz. Waste No(s).

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

TRUCON Code(s)

125/225, 154

Waste Stream Description

This CH TRU waste stream consists of debris and Impure Oxide shipped to the SRS from the LASL in 1971 and 1972.

Waste Stream ID: SR-MD-HET

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from Mound Laboratories			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D030, D032, D034, D037, D043, F002, F003, F004, F005, F009
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	3.4	0.0	3.4	Iron-based Metal/Alloys	93.80	Am-241	4.60E-02	
55-gal Drum Dir Ld w/o Liner	0.4	0.0	0.4	Aluminum-based Metal/Alloys	0.32	Am-243	9.46E-08	
85-gal Drum Dir Ld w/ Liner	0.3	0.0	0.3	Other Metal/Alloys	1.77	Cm-244	1.02E-06	
SLB2 Dir Ld	92.8	0.0	92.8	Other Inorganic Materials	16.32	Cs-137	3.03E-06	
SWB Dir Ld w/o Liner	12.6	0.0	12.6	Cellulose	32.73	Np-237	8.50E-06	
Current Form Total	109.5	0.0	109.5	Rubber	4.85	Pu-238	5.01E+00	
				Plastic	23.60	Pu-239	9.66E-02	TRUCON Code(s) 125/225, 154, 425
Final Form Volumes				Cement	0.00	Pu-240	1.48E-02	
Container Type	Stored	Proj.	Total	Solidified Inorganic Material	0.62	Pu-241	5.92E-02	
55-gal Drum Dir Ld w/ Liner	3.3	0.0	3.3	Solidified Organic Material	0.00	Pu-242	9.40E-06	
55-gal Drum Dir Ld w/o Liner	0.4	0.0	0.4	Soil	5.56	Sr-90	2.85E-06	
SLB2 Dir Ld	79.2	0.0	79.2	Vitrified	0.00	Th-229	7.09E-06	
SWB Dir Ld w/o Liner	15.1	0.0	15.1	Packaging Material, Cellulosics	0.00	Th-230	3.30E-06	
Final Form Total	98.1	0.0	98.1	Packaging Material, Plastic	1.26	Th-232	2.89E-07	
				Packaging Material, Rubber	0.17	U-233	2.02E-03	
				Packaging Material, Steel	202.74	U-234	1.84E-03	
				Packaging Material, Lead	0.00	U-235	5.42E-07	
						U-236	1.76E-08	
						U-238	9.67E-06	

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. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-MD-PAD1

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	CH TRU Heterogeneous debris from the Mound Plant	Activity Concentrations Decayed to CY	2012				

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	21.2	0.0	21.2
SLB2 Dir Ld	126.0	0.0	126.0
SWB Dir Ld w/o Liner	48.6	0.0	48.6
Current Form Total	195.8	0.0	195.8

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	21.0	0.0	21.0
SLB2 Dir Ld	107.5	0.0	107.5
SWB Dir Ld w/o Liner	51.0	0.0	51.0
Final Form Total	179.6	0.0	179.6

Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	
Iron-based Metal/Alloys	64.97	Am-241	7.10E-01	D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D030, D032, D034, D037, D043, F002, F004, F005
Aluminum-based Metal/Alloys	0.13	Am-243	2.16E-06	
Other Metal/Alloys	0.81	Cm-244	2.78E-04	
Other Inorganic Materials	7.47	Cs-137	1.22E-03	
Cellulose	21.01	Np-237	7.22E-05	
Rubber	2.75	Pu-238	2.30E+02	
Plastic	12.20	Pu-239	3.77E-01	
Cement	0.00	Pu-240	5.12E-01	
Solidified Inorganic Material	0.65	Pu-241	7.45E-01	
Solidified Organic Material	0.30	Pu-242	6.27E-04	
Soil	0.00	Sr-90	1.14E-03	TRUCON Code(s) 125/225, 154, 425
Vitrified	0.00	Th-229	2.12E-11	
Packaging Material, Cellulosics	0.00	Th-230	2.76E-05	
Packaging Material, Plastic	4.34	Th-232	1.85E-06	
Packaging Material, Rubber	0.21	U-233	1.20E-08	
Packaging Material, Steel	187.98	U-234	8.80E-02	
Packaging Material, Lead	0.00	U-235	1.20E-06	
		U-236	6.22E-07	
		U-238	4.36E-06	

Waste Stream Description

This CH TRU waste stream consists of debris shipped to the SRS from the Mound Plant in 1971 and 1972.

Waste Stream ID: SR-MD-SOIL

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Contaminated Soil/Debris Waste	Inventory Date	12/31/2012		
Stream Name	CH Mixed TRU Soil / Gravel (S4000)			Activity Concentrations Decayed to CY	2012		
Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides	
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Container Type	Stored	Proj.	Total				
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6	Iron-based Metal/Alloys	0.11	Am-241	8.33E-03
55-gal Drum Dir Ld w/o Liner	2.1	0.0	2.1	Aluminum-based Metal/Alloys	0.00	Cs-137	2.43E-06
SLB2 Dir Ld	6.6	0.0	6.6	Other Metal/Alloys	0.00	Np-237	1.14E-06
Current Form Total	9.4	0.0	9.4	Other Inorganic Materials	76.41	Pu-238	5.72E-01
Final Form Volumes				Cellulose	0.38	Pu-239	1.39E-02
Container Type	Stored	Proj.	Total	Rubber	0.13	Pu-240	2.01E-03
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6	Plastic	5.61	Pu-241	2.43E-02
55-gal Drum Dir Ld w/o Liner	2.1	0.0	2.1	Cement	0.00	Pu-242	2.67E-06
SLB2 Dir Ld	5.7	0.0	5.7	Solidified Inorganic Material	22.31	Sr-90	2.42E-06
Final Form Total	8.4	0.0	8.4	Solidified Organic Material	0.00	Th-229	8.74E-16
				Soil	934.84	Th-230	1.84E-09
				Vitrified	0.00	Th-232	5.87E-21
				Packaging Material, Cellulosics	0.00	U-233	9.94E-12
				Packaging Material, Plastic	2.77	U-234	1.01E-04
				Packaging Material, Rubber	0.28	U-235	2.73E-11
				Packaging Material, Steel	188.14	U-236	1.19E-10
				Packaging Material, Lead	0.00	U-238	8.30E-16

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, F002, F003, F004, F005, F007, F009

TRUCON Code(s)

111/211, 411

Waste Stream Description

Soil mixed with absorbent and some commingled debris.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Profile Report

Waste Volume Detail (m³)

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

Final Form Radionuclides

**No Hazardous
Waste Numbers
Provided**

TRUCON Code(s)	125/225, 154
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Waste Stream Description

This material consist of a combination of unirradiated PuO/Uo fuel pellets, Pacemaker source and solidified Pu solutions

Waste Stream ID: SR-RH-221H.01

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	RH TRU Heterogeneous debris from the HB-Line				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.4	0.0	3.4
Current Form Total	3.4	0.0	3.4
Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	3.7	0.0	3.7
Final Form Total	3.7	0.0	3.7

Waste Material Parameters	
Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	54.18
Aluminum-based Metal/Alloys	3.13
Other Metal/Alloys	4.07
Other Inorganic Materials	21.92
Cellulose	18.48
Rubber	46.35
Plastic	163.80
Cement	0.00
Solidified Inorganic Material	0.94
Solidified Organic Material	0.31
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m ³)
Am-241	1.70E-01
Np-237	5.48E-01
Pu-238	2.86E+02
Pu-239	2.68E-01
Pu-240	1.38E-01
Pu-241	2.55E+00
Pu-242	1.60E-04
Th-229	5.06E-08
Th-230	2.80E-06
Th-232	4.14E-15
U-233	5.23E-05
U-234	2.32E-02
U-235	1.36E-05
U-236	3.86E-06
U-238	1.20E-08

Haz. Waste No(s).
D006, D008, D009, D019, D022, D029, D039, D040, D043, F001, F002, F003, F005, U133

TRUCON Code(s)
321, 322, 325

Waste Stream Description

This waste stream is defense related, remote handled TRU waste and is composed of dry heterogeneous organic and inorganic debris.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-RH-221H.02

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	RH TRU spent Berl saddles from H-Canyon disover off-gas system.			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D007, D009, D011
Container Type	Stored	Proj.	Total					TRUCON Code(s) 321
Cask - Steel	11.3	0.0	11.3	Iron-based Metal/Alloys	25.67	Np-237	1.37E-04	
Current Form Total				Aluminum-based Metal/Alloys	1.48	Pu-238	2.77E-01	
	11.3	0.0	11.3	Other Metal/Alloys	1.93	Pu-239	2.91E-03	
Final Form Volumes				Other Inorganic Materials	10.38	Pu-240	1.98E-03	
Container Type	Stored	Proj.	Total	Cellulose	8.75	Pu-242	3.42E-05	
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	11.9	0.0	11.9	Rubber	21.96	Th-229	1.63E-11	
Final Form Total				Plastic	77.59	Th-230	1.04E-08	
	11.9	0.0	11.9	Cement	0.00	Th-232	9.05E-19	
				Solidified Inorganic Material	0.45	U-233	1.48E-08	
				Solidified Organic Material	0.15	U-234	5.58E-05	
				Soil	0.00	U-235	7.16E-11	
				Vitrified	0.00	U-236	1.47E-09	
				Packaging Material, Cellulosics	0.00	U-238	1.33E-13	
				Packaging Material, Plastic	8.70			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	931.09			
				Packaging Material, Lead	0.00			

Waste Stream Description

This waste stream is defense related, remote handled TRU waste and is composed of spent Berl saddles (silicon dioxide and aluminum oxide).

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-RH-235F.01

Appendix A
Waste Profile Report

Site	Savannah River Site			Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste			Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	RH TRU Heterogeneous debris from the 235F facility.					Activity Concentrations Decayed to CY 2012			
Waste Volume Detail (m³)				Waste Material Parameters			Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, F002	
Container Type	Stored	Proj.	Total						
55-gal Drum Dir Ld w/ Liner	1.5	0.0	1.5	Iron-based Metal/Alloys	46.05	Am-241	1.46E+02	TRUCON Code(s) 322, 325	
Current Form Total			Aluminum-based Metal/Alloys	2.51	Np-237	2.37E-02			
			Other Metal/Alloys	1.23	Pu-238	2.00E+02			
			Other Inorganic Materials	13.38	Pu-239	1.92E+00			
			Cellulose	7.83	Pu-240	5.06E-01			
			Rubber	47.03	Pu-241	9.38E+02			
			Plastic	59.20	Pu-242	1.85E-04			
			Cement	0.00	Th-229	3.67E-09			
			Solidified Inorganic Material	0.55	Th-230	2.55E-06			
			Solidified Organic Material	0.11	Th-232	3.12E-16			
Final Form Volumes				Soil	0.00	U-233	2.90E-06		
Container Type	Stored	Proj.	Total	Vitrified	0.00	U-234	1.84E-02		
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	1.9	0.0	1.9	Packaging Material, Cellulosics	0.00	U-235	5.48E-08		
Final Form Total			Packaging Material, Plastic	45.67	U-236	4.35E-07			
			Packaging Material, Rubber	0.57	U-238	8.32E-13			
			Packaging Material, Steel	931.09					
			Packaging Material, Lead	0.00					

Waste Stream Description

This waste stream is defense related, remote handled TRU waste and is composed of metal equipment and debris

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-RH-772F.01

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	RH TRU Heterogeneous debris from the 772F and 772-1F laboratories.				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D028, D029, F002, F003, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4	Iron-based Metal/Alloys	116.34	Am-241	1.39E-02	
Current Form Total				Aluminum-based Metal/Alloys	8.54	Cs-137	1.13E+00	
	0.4	0.0	0.4	Other Metal/Alloys	23.48	Np-237	6.36E-06	
Final Form Volumes				Other Inorganic Materials	234.81	Pu-238	5.44E-02	
Container Type	Stored	Proj.	Total	Cellulose	58.70	Pu-239	4.29E-02	
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6	Rubber	43.76	Pu-240	1.31E-02	
Final Form Total				Plastic	581.68	Pu-241	8.64E-02	
	0.6	0.0	0.6	Cement	0.00	Pu-242	2.14E-06	
				Solidified Inorganic Material	1.07	Sr-90	1.11E+00	TRUCON Code(s) 322, 325
				Solidified Organic Material	0.00	Th-229	1.20E-13	
				Soil	0.00	Th-230	3.86E-10	
				Vitrified	0.00	Th-232	1.29E-16	
				Packaging Material, Cellulosics	0.00	U-233	2.73E-10	
				Packaging Material, Plastic	45.67	U-234	4.99E-06	
				Packaging Material, Rubber	0.57	U-235	2.96E-08	
				Packaging Material, Steel	931.09	U-236	2.64E-07	
				Packaging Material, Lead	0.00	U-238	3.32E-15	

Waste Stream Description
This waste stream is defense related remote handled mixed TRU waste. This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, other job control waste, small HEPAs liquids, sludges and resins may also be found in this waste.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: **SR-RH-773A.01****Appendix A****Waste Profile Report**

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	RH TRU Heterogeneous debris from the SRNL				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	13.7	0.0	13.7
55-gal Drum Dir Ld w/o Liner	0.0	3.8	3.8
Box - Concrete	3.2	0.0	3.2
Current Form Total	16.8	3.8	20.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	13.7	0.0	13.7
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	3.1	11.2	14.4
Final Form Total	16.8	11.2	28.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	194.76
Aluminum-based Metal/Alloys	2.14
Other Metal/Alloys	13.04
Other Inorganic Materials	128.22
Cellulose	69.78
Rubber	105.67
Plastic	218.85
Cement	0.00
Solidified Inorganic Material	4.42
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	26.78
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.54E-01
Am-243	5.26E-02
Cm-244	4.65E+00
Cs-137	9.88E-01
Np-237	3.82E-06
Pu-238	2.81E+00
Pu-239	7.45E-02
Pu-240	4.12E-02
Pu-241	6.06E-01
Pu-242	2.09E-05
Pu-244	1.84E-14
Sr-90	7.28E-01
Th-229	4.30E-14
Th-230	2.43E-09
Th-232	1.79E-18
U-233	1.24E-10
U-234	6.54E-05
U-235	5.87E-10
U-236	9.23E-09
U-238	2.59E-14

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D043, F002, F004, F005
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TRUCON Code(s)

321, 322, 325

Waste Stream Description

This waste stream is defense related remote handled mixed TRU waste. This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, other job control waste, small HEPAs liquids, sludges and resins may also be found in this waste.

Waste Stream ID: SR-RH-FBL01

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	RH TRU Heterogeneous debris from the FB-Line				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2
Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	18.40	Am-241	6.48E+00
Aluminum-based Metal/Alloys	0.21	Cs-137	9.86E-06
Other Metal/Alloys	0.47	Np-237	1.43E-05
Other Inorganic Materials	86.54	Pu-238	2.99E+00
Cellulose	4.07	Pu-239	2.94E+00
Rubber	6.19	Pu-240	2.90E+00
Plastic	51.56	Pu-241	2.95E+01
Cement	0.00	Pu-242	1.44E-04
Solidified Inorganic Material	0.06	Sr-90	9.75E-06
Solidified Organic Material	0.31	Th-229	1.29E-05
Soil	0.00	Th-230	2.15E-08
Vitrified	0.00	Th-232	1.04E-16
Packaging Material, Cellulosics	0.00	U-233	2.10E-02
Packaging Material, Plastic	45.67	U-234	3.64E-04
Packaging Material, Rubber	0.57	U-235	5.96E-06
Packaging Material, Steel	931.09	U-236	6.01E-07
Packaging Material, Lead	0.00	U-238	4.19E-05

Haz. Waste No(s).
D005, D006, D007, D008, D009, D011, D018, D019, D022, D029, D039, D040, D043, F002, F005, U002, U151
TRUCON Code(s)
321

Waste Stream Description
This waste stream consists primarily of dry heterogeneous organic debris.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-RH-FBL.02

Appendix A
Waste Profile Report

Site	Savannah River Site			Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste			Waste Matrix Code Group	Heterogeneous Debris Waste			Inventory Date	12/31/2012
Stream Name	RH TRU Heterogeneous debris from the F-Canyon dissolver off-gas system.						Activity Concentrations Decayed to CY	2012	

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
55-gal Drum Dir Ld w/o Liner	1.1	0.0	1.1
Cask - Concrete/Carbon Steel Liner	1.6	0.0	1.6
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/ Liner	5.0	0.0	5.0
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	3.1	0.0	3.1
Final Form Total	8.1	0.0	8.1

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	798.34
Cellulose	0.00
Rubber	0.00
Plastic	58.25
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	31.45
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.12E-02
Np-237	6.53E-04
Pu-238	7.82E-03
Pu-239	2.45E-01
Pu-240	5.48E-02
Pu-241	4.98E-01
Pu-242	4.31E-06
Th-229	6.03E-12
Th-230	5.40E-08
Th-232	8.91E-15
U-233	1.96E-08
U-234	8.39E-04
U-235	2.94E-05
U-236	2.58E-05
U-238	8.99E-04

Haz. Waste No(s).

D006, D007, D008, D009, D011, D019, D022, D029, F002, F005

TRUCON Code(s)

321

Waste Stream Description
This waste stream is primarily solids consisting silver coated ceramics (Berl or Beryl saddles) and debris materials.

Waste Stream ID: SR-RH-MNDPAD1.01

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	RH Debris from Mound Laboratories			Activity Concentrations Decayed to CY		2012	

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
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	2.5	0.0	2.5
Final Form Total	2.5	0.0	2.5

Waste Material Parameters	
Material Parameter	Average Density (kg/m³)
Iron-based Metal/Alloys	76.56
Aluminum-based Metal/Alloys	0.05
Other Metal/Alloys	0.60
Other Inorganic Materials	10.48
Cellulose	4.63
Rubber	3.64
Plastic	8.46
Cement	0.00
Solidified Inorganic Material	0.45
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	45.67
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m³)
Am-241	6.07E-02
Np-237	2.03E-08
Pu-238	9.44E+02
Pu-239	6.63E-01
Pu-240	3.63E-01
Pu-241	1.81E+01
Pu-242	4.32E-04
Th-229	2.66E-18
Th-230	4.95E-08
Th-232	1.06E-18
U-233	5.98E-14
U-234	5.37E-03
U-235	1.31E-09
U-236	2.15E-08
U-238	1.34E-13

Haz. Waste No(s).
D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D030, D032, D034, D037, D043, F002, F004, F005
TRUCON Code(s)
325

Waste Stream Description
Process equipment and exchange resin

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-SDD-HET-A

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	CH TRU - Heterogeneous debris from the D&D of the 211-F-Area				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.9	0.0	1.9
SWB Dir Ld w/o Liner	5.4	0.0	5.4
Current Form Total	7.3	0.0	7.3
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.9	0.0	1.9
SWB Dir Ld w/o Liner	5.7	0.0	5.7
Final Form Total	7.5	0.0	7.5

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)
Iron-based Metal/Alloys	50.77	Am-241	2.14E-03
Aluminum-based Metal/Alloys	0.50	Am-243	5.30E-07
Other Metal/Alloys	0.04	Cm-244	4.37E-05
Other Inorganic Materials	0.48	Cs-137	2.09E-05
Cellulose	2.25	Np-237	7.47E-06
Rubber	0.00	Pu-238	5.86E-01
Plastic	22.34	Pu-239	3.37E-02
Cement	1.06	Pu-240	4.72E-03
Solidified Inorganic Material	0.00	Pu-241	6.81E-02
Solidified Organic Material	0.00	Pu-242	4.17E-06
Soil	0.00	Sr-90	5.08E-03
Vitrified	0.00	Th-229	2.78E-10
Packaging Material, Cellulosics	0.00	Th-230	4.95E-10
Packaging Material, Plastic	9.20	Th-232	1.75E-17
Packaging Material, Rubber	0.29	U-233	5.27E-07
Packaging Material, Steel	147.81	U-234	1.40E-05
Packaging Material, Lead	0.00	U-235	8.08E-09
		U-236	5.94E-08
		U-238	1.69E-07

Haz. Waste No(s).
D004, D005, D006,
D007, D008, D009,
D010, D011

No TRUCON
Codes Provided

Waste Stream Description

This waste stream is defense related, contact handled TRU waste and is composed of metal equipment, tools and debris and small amounts of Portland cement

Waste Stream ID: SR-SDD-HOM-A

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2012	
Stream Name	Organic Sludge from D&D of the SRS F-Area 800 Series Underground Tanks			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
55-gal Drum Dir Ld w/o Liner	5.0	0.0	5.0
SWB Dir Ld w/o Liner	5.4	0.0	5.4
Current Form Total	10.9	0.0	10.9
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
55-gal Drum Dir Ld w/o Liner	5.0	0.0	5.0
SWB Dir Ld w/o Liner	5.7	0.0	5.7
Final Form Total	11.1	0.0	11.1

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	0.00	Am-241	2.96E-02
Aluminum-based Metal/Alloys	0.00	Am-243	1.40E-04
Other Metal/Alloys	0.00	Np-237	1.99E-02
Other Inorganic Materials	0.00	Pu-238	2.30E+00
Cellulose	0.00	Pu-239	2.13E-01
Rubber	0.00	Pu-240	4.05E-02
Plastic	7.70	Pu-241	4.57E-01
Cement	542.58	Pu-242	9.27E-02
Solidified Inorganic Material	0.00	Th-229	4.78E-05
Solidified Organic Material	0.00	Th-230	1.13E-05
Soil	0.00	Th-232	1.80E-13
Vitrified	0.00	U-233	9.07E-02
Packaging Material, Cellulosics	0.00	U-234	2.05E-01
Packaging Material, Plastic	1.39	U-235	1.62E-04
Packaging Material, Rubber	0.38	U-236	6.08E-04
Packaging Material, Steel	142.37	U-238	9.85E-03
Packaging Material, Lead	0.00		

Haz. Waste No(s).
D004, D005, D007, D008, D009, D011
TRUCON Code(s)
112/212

Waste Stream Description

Absorbed organic sludge packaged in 55-gallon drums

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-SDD-HOM-B

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Sludge from D&D of the SRS F-Area 800 Series Underground Tanks			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	5.0	0.0	5.0
55-gal Drum Dir Ld w/o Liner	10.3	0.0	10.3
SWB Dir Ld w/o Liner	9.0	0.0	9.0
Current Form Total	24.3	0.0	24.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	5.0	0.0	5.0
55-gal Drum Dir Ld w/o Liner	10.2	0.0	10.2
SWB Dir Ld w/o Liner	9.5	0.0	9.5
Final Form Total	24.6	0.0	24.6

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	39.18	Am-241	1.58E-01
Aluminum-based Metal/Alloys	0.00	Am-243	5.78E-05
Other Metal/Alloys	0.00	Cm-244	2.50E-03
Other Inorganic Materials	2.84	Cs-137	4.15E-04
Cellulose	14.95	Np-237	5.82E-04
Rubber	0.00	Pu-238	4.56E+01
Plastic	30.68	Pu-239	2.62E+00
Cement	170.39	Pu-240	3.67E-01
Solidified Inorganic Material	0.00	Pu-241	5.17E+00
Solidified Organic Material	0.00	Pu-242	1.27E-03
Soil	0.00	Sr-90	1.78E-04
Vitrified	0.00	Th-229	3.94E-12
Packaging Material, Cellulosics	0.00	Th-230	3.90E-08
Packaging Material, Plastic	7.51	Th-232	1.41E-15
Packaging Material, Rubber	0.42	U-233	1.49E-08
Packaging Material, Steel	139.47	U-234	1.10E-03
Packaging Material, Lead	0.00	U-235	2.55E-06
		U-236	4.78E-06
		U-238	7.49E-05

Haz. Waste No(s).
D004, D005, D006, D007, D008, D009, D010, D011
TRUCON Code(s)
127/227

Waste Stream Description
Absorbed sludge packaged in 55-gallon drums

Waste Stream ID: SR-SWMF-HET-A

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	CH Mixed TRU Debris (S5000)			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D008, F001, F002, F004, F005, F007, F009, U133, U151
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	2.1	0.0	2.1	Iron-based Metal/Alloys	61.61	Am-241	6.84E-02	
55-gal Drum Dir Ld w/o Liner	5.0	25.0	30.0	Aluminum-based Metal/Alloys	0.82	Am-243	5.29E-06	
85-gal Drum Dir Ld w/o Liner	0.3	0.0	0.3	Other Metal/Alloys	0.06	Cm-244	1.70E-03	
SLB2 Dir Ld	6.6	0.0	6.6	Other Inorganic Materials	1.94	Cs-137	5.73E-05	
SWB Dir Ld w/o Liner	57.6	0.0	57.6	Cellulose	7.41	Np-237	6.63E-05	
Current Form Total	71.7	25.0	96.7	Rubber	4.23	Pu-238	7.13E+00	
				Plastic	19.91	Pu-239	1.45E-01	
				Cement	0.00	Pu-240	4.09E-02	
Final Form Volumes				Solidified Inorganic Material	0.00	Pu-241	5.34E-01	TRUCON Code(s) 125/225, 154
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.00	Pu-242	1.06E-04	
55-gal Drum Dir Ld w/ Liner	1.9	0.0	1.9	Soil	0.00	Sr-90	5.69E-05	
55-gal Drum Dir Ld w/o Liner	5.2	24.8	30.0	Vitrified	0.00	Th-229	2.02E-09	
SLB2 Dir Ld	5.7	0.0	5.7	Packaging Material, Cellulosics	0.00	Th-230	3.40E-08	
SWB Dir Ld w/o Liner	62.4	0.0	62.4	Packaging Material, Plastic	0.69	Th-232	1.68E-09	
Final Form Total	75.1	24.8	99.9	Packaging Material, Rubber	0.31	U-233	5.76E-06	
				Packaging Material, Steel	149.73	U-234	9.64E-04	
				Packaging Material, Lead	0.00	U-235	1.36E-07	
						U-236	4.85E-09	
						U-238	5.00E-06	

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-B

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Spill Clean-ups/Emergency Response Actions	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Spill cleanup debris.			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
110-gal Drum Dir Ld w/o Liner	0.4	0.0	0.4
55-gal Drum Dir Ld w/ Liner	1.7	0.0	1.7
Current Form Total	2.1	0.0	2.1
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/o Liner	1.9	0.0	1.9
Final Form Total	3.6	0.0	3.6

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)
Iron-based Metal/Alloys	76.25	Am-241	1.96E-01
Aluminum-based Metal/Alloys	0.00	Am-243	2.49E-01
Other Metal/Alloys	0.00	Cm-244	7.03E+00
Other Inorganic Materials	18.96	Np-237	2.14E-06
Cellulose	15.17	Pu-238	3.12E-01
Rubber	0.00	Pu-239	7.42E-04
Plastic	14.41	Pu-240	1.35E-01
Cement	0.00	Pu-241	3.69E-02
Solidified Inorganic Material	0.00	Pu-242	7.91E-05
Solidified Organic Material	0.00	Pu-244	2.31E-14
Soil	0.00	Th-229	1.49E-13
Vitrified	0.00	Th-230	5.24E-09
Packaging Material, Cellulosics	0.00	Th-232	8.54E-17
Packaging Material, Plastic	17.36	U-233	1.54E-10
Packaging Material, Rubber	0.37	U-234	3.31E-05
Packaging Material, Steel	142.82	U-235	2.03E-11
Packaging Material, Lead	0.00	U-236	1.13E-07
		U-238	4.04E-13

Haz. Waste No(s).
D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D043, F002, F004, F005, U133
TRUCON Code(s)
125/225, 154

Waste Stream Description
Solid Waste Management Facility debris resulting from spill cleanup activities

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-W026-221F-HEPA

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Composite Filter Waste		Inventory Date	12/31/2012	
Stream Name	CH Mixed TRU HEPA Filters (S5000)			Activity Concentrations Decayed to CY		2012	

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
SWB Dir Ld w/o Liner	10.8	0.0	10.8
Current Form Total	11.2	0.0	11.2
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.2	0.0	1.2
SWB Dir Ld w/o Liner	9.5	0.0	9.5
Final Form Total	10.7	0.0	10.7

Waste Material Parameters	
Material Parameter	Average Density (kg/m³)
Iron-based Metal/Alloys	26.14
Aluminum-based Metal/Alloys	0.25
Other Metal/Alloys	0.00
Other Inorganic Materials	1.63
Cellulose	10.81
Rubber	0.00
Plastic	18.93
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	4.32
Packaging Material, Rubber	0.24
Packaging Material, Steel	150.79
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m³)
Am-241	3.26E-01
Am-243	4.24E-14
Cs-137	1.40E-07
Np-237	3.76E-06
Pu-238	6.58E-02
Pu-239	9.78E-01
Pu-240	2.63E-01
Pu-241	1.14E+00
Pu-242	3.32E-05
Sr-90	1.36E-07
Th-229	4.76E-07
Th-230	7.30E-09
Th-232	9.30E-17
U-233	2.46E-04
U-234	3.82E-05
U-235	7.53E-07
U-236	1.71E-07
U-238	5.35E-08

Haz. Waste No(s).
D005, D007, D009, D011, D019, D022, D028, D029, D043, F002, F005

TRUCON Code(s)
119/219, 154

Waste Stream Description
HEPA Filters in Filtered Polyethylene Boxes

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-W026-221F-HET

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	CH Mixed TRU/Thirds Heterogeneous debris from 221F	Activity Concentrations Decayed to CY	2012				

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D006, D007, D008, D009, D022, D028, D029, F001, F002, F003, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	1.3	0.0	1.3	Iron-based Metal/Alloys	50.48	Am-241	4.77E-01	TRUCON Code(s) 125/225, 154
55-gal Drum Dir Ld w/o Liner	0.2	0.0	0.2	Aluminum-based Metal/Alloys	0.53	Am-243	9.17E-07	
SLB2 Dir Ld	99.5	0.0	99.5	Other Metal/Alloys	0.62	Cm-244	4.64E-03	
SWB Dir Ld w/o Liner	10.8	0.0	10.8	Other Inorganic Materials	8.05	Cs-137	8.86E-05	
Current Form Total	111.7	0.0	111.7	Cellulose	35.14	Np-237	6.36E-06	
				Rubber	8.39	Pu-238	4.41E-01	
				Plastic	37.26	Pu-239	1.80E+00	
				Cement	0.00	Pu-240	4.97E-01	
				Solidified Inorganic Material	0.00	Pu-241	5.61E+00	
				Solidified Organic Material	0.03	Pu-242	3.08E-04	
				Soil	0.00	Sr-90	8.75E-05	
				Vitrified	0.00	Th-229	6.75E-14	
				Packaging Material, Cellulosics	0.00	Th-230	1.49E-08	
				Packaging Material, Plastic	0.47	Th-232	5.67E-08	
				Packaging Material, Rubber	0.16	U-233	1.98E-10	
				Packaging Material, Steel	207.08	U-234	2.08E-04	
				Packaging Material, Lead	0.00	U-235	2.65E-06	
						U-236	1.18E-07	
						U-238	1.76E-05	
Final Form Volumes								
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	1.2	0.0	1.2					
55-gal Drum Dir Ld w/o Liner	0.2	0.0	0.2					
SLB2 Dir Ld	84.9	0.0	84.9					
SWB Dir Ld w/o Liner	11.3	0.0	11.3					
Final Form Total	97.7	0.0	97.7					

Waste Stream Description
200 Areas (F and H Separations Facilities). This waste is primarily solids consisting of mainly booties, lab coats, floor sweepings, rags, labware, and other job control wastes. Small HEPAs, liquids, sludges and resins may also be found in this stream. The waste is generated primarily through separation activities in the course of plutonium production, includes small amounts of TRU waste from on site laboratories.

Waste Stream ID: SR-W026-221F-HOM

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	CH Mixed TRU Solids (S3000)			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)			
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		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	1.69	Am-241	5.20E-01
Aluminum-based Metal/Alloys	0.00	Am-243	1.16E-07
Other Metal/Alloys	0.00	Cs-137	1.54E-02
Other Inorganic Materials	0.00	Np-237	1.77E-05
Cellulose	1.64	Pu-238	3.11E-01
Rubber	0.63	Pu-239	1.85E+00
Plastic	26.90	Pu-240	4.14E-01
Cement	0.00	Pu-241	1.69E+00
Solidified Inorganic Material	257.73	Pu-242	5.87E-05
Solidified Organic Material	4.42	Sr-90	7.82E-06
Soil	0.00	Th-229	1.42E-12
Vitrified	0.00	Th-230	8.18E-09
Packaging Material, Cellulosics	0.00	Th-232	1.47E-16
Packaging Material, Plastic	37.07	U-233	1.52E-09
Packaging Material, Rubber	0.57	U-234	5.07E-05
Packaging Material, Steel	130.77	U-235	6.13E-08
Packaging Material, Lead	0.00	U-236	2.70E-07
		U-238	3.11E-07

Haz. Waste No(s).
D005, D006, D007, D008, D009, D011, D019, D022, D028, D029, D043, F002, F004, F005, U151
TRUCON Code(s)
127/227

Waste Stream Description
Absorbed oil, neutralized acids / bases and water

Waste Stream ID: SR-W026-772F-HET

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	CH Mixed TRU/Thirds Heterogeneous debris from 772F			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D028, D029, F002, F003, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	4.6	54.6	59.2	Iron-based Metal/Alloys	12.22	Am-241	2.68E-01	
SLB2 Dir Ld	19.9	0.0	19.9	Aluminum-based Metal/Alloys	0.72	Am-243	2.33E-06	
SWB Dir Ld w/o Liner	5.4	25.2	30.6	Other Metal/Alloys	0.96	Cm-244	2.64E-03	
Current Form Total	29.9	79.8	109.7	Other Inorganic Materials	20.35	Cs-137	8.68E-04	
				Cellulose	7.14	Np-237	2.65E-04	
				Rubber	4.59	Pu-238	9.21E+00	
				Plastic	48.97	Pu-239	4.32E-01	
				Cement	0.00	Pu-240	1.07E-01	
Final Form Volumes				Solidified Inorganic Material	0.09	Pu-241	1.56E+00	TRUCON Code(s) 125/225, 154
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.01	Pu-242	4.94E-05	
55-gal Drum Dir Ld w/ Liner	4.6	54.1	58.7	Soil	0.00	Sr-90	8.52E-04	
SLB2 Dir Ld	17.0	0.0	17.0	Vitrified	0.00	Th-229	6.46E-08	
SWB Dir Ld w/o Liner	5.7	26.5	32.1	Packaging Material, Cellulosics	0.00	Th-230	1.28E-07	
Final Form Total	27.2	80.5	107.8	Packaging Material, Plastic	20.18	Th-232	5.64E-07	
				Packaging Material, Rubber	0.39	U-233	8.38E-05	
				Packaging Material, Steel	150.89	U-234	1.85E-03	
				Packaging Material, Lead	0.00	U-235	1.71E-06	
						U-236	2.55E-08	
						U-238	1.43E-06	

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-MFFF-1

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	UNKNOWN			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	2999.0	2999.0
Current Form Total	0.0	2999.0	2999.0
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	2970.4	2970.4
Final Form Total	0.0	2970.4	2970.4

Waste Material Parameters	
Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	19.32
Aluminum-based Metal/Alloys	32.22
Other Metal/Alloys	18.31
Other Inorganic Materials	29.76
Cellulose	26.60
Rubber	31.91
Plastic	100.66
Cement	0.00
Solidified Inorganic Material	4.44
Solidified Organic Material	3.64
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m ³)
Pu-238	4.16E-01
Pu-239	2.81E+00
Pu-240	6.47E-01
Pu-241	5.00E+01
Pu-242	1.91E-04
U-234	1.05E-08
U-235	9.44E-07
U-236	1.51E-08
U-238	8.57E-09

Haz. Waste No(s).
D008
TRUCON Code(s)
125/225

Waste Stream Description

This waste stream will be defense related, contact handled TRU and be composed of heterogeneous debris which could include HEPA filters, plastic, protective clothing, metal, gloves, lead lined gloves and sludges.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-W026-WSB-2

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	N/A			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	594.7	594.7
Current Form Total	0.0	594.7	594.7
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	552.2	552.2
Final Form Total	0.0	552.2	552.2

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)
Iron-based Metal/Alloys	3.64	Am-241	7.12E+01
Aluminum-based Metal/Alloys	0.77	Pu-238	1.77E-03
Other Metal/Alloys	13.74	Pu-239	1.23E-02
Other Inorganic Materials	8.55	Pu-240	4.24E-03
Cellulose	33.50	Pu-241	2.11E-01
Rubber	62.29	Pu-242	8.04E-06
Plastic	148.67	U-234	1.12E-07
Cement	0.00	U-235	1.03E-05
Solidified Inorganic Material	8.42	U-236	1.66E-07
Solidified Organic Material	6.88	U-238	9.69E-08
Soil	0.00		
Vitrified	0.00		
Packaging Material, Cellulosics	0.00		
Packaging Material, Plastic	0.00		
Packaging Material, Rubber	0.57		
Packaging Material, Steel	130.77		
Packaging Material, Lead	0.00		

Haz. Waste No(s).
D008
TRUCON Code(s)
125/225

Waste Stream Description

This waste stream will be defense related, contact handled TRU and be composed of heterogeneous debris with could include HEPA filters, plastic, protective clothing, metal, gloves, lead lined gloves, and sludges.

Waste Stream ID: SR-W027-221F-HET-A

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 221F				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D006, D008, D009, F001, F002, F005
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	2.3	0.0	2.3	Iron-based Metal/Alloys	45.63	Am-241	1.82E-01	TRUCON Code(s) 125/225, 154
85-gal Drum Dir Ld w/o Liner	0.3	0.0	0.3	Aluminum-based Metal/Alloys	0.13	Cs-137	4.81E-07	
SLB2 Dir Ld	6.6	0.0	6.6	Other Metal/Alloys	0.02	Np-237	1.59E-06	
SWB Dir Ld w/o Liner	5.4	0.0	5.4	Other Inorganic Materials	1.85	Pu-238	5.26E-02	
Current Form Total	14.7	0.0	14.7	Cellulose	39.43	Pu-239	6.23E-01	
				Rubber	0.57	Pu-240	1.57E-01	
				Plastic	18.19	Pu-241	1.91E+00	
				Cement	0.00	Pu-242	1.49E-05	
				Solidified Inorganic Material	0.00	Sr-90	4.80E-07	
				Solidified Organic Material	0.00	Th-229	7.92E-10	
				Soil	0.00	Th-230	2.30E-10	
				Vitrified	0.00	Th-232	1.15E-19	
				Packaging Material, Cellulosics	0.00	U-233	9.00E-06	
				Packaging Material, Plastic	5.47	U-234	2.51E-05	
				Packaging Material, Rubber	0.23	U-235	1.01E-07	
				Packaging Material, Steel	172.76	U-236	4.65E-09	
				Packaging Material, Lead	0.00	U-238	3.13E-07	
Final Form Volumes								
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	2.3	0.0	2.3					
SLB2 Dir Ld	5.7	0.0	5.7					
SWB Dir Ld w/o Liner	7.6	0.0	7.6					
Final Form Total	15.5	0.0	15.5					

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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-W027-221H-HEPA

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Composite Filter Waste	Inventory Date	12/31/2012		
Stream Name	CH TRU HEPA filters			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
55-gal Drum Dir Ld w/o Liner	0.0	4.2	4.2
SLB2 Dir Ld	53.0	0.0	53.0
SWB Dir Ld w/o Liner	81.0	10.8	91.8
Current Form Total	134.5	15.0	149.5

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4
55-gal Drum Dir Ld w/o Liner	0.0	4.2	4.2
SLB2 Dir Ld	45.3	0.0	45.3
SWB Dir Ld w/o Liner	85.1	11.3	96.4
Final Form Total	130.7	15.5	146.2

Waste Material Parameters	
Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	26.51
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	4.51
Cellulose	13.54
Rubber	0.05
Plastic	16.11
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.11
Packaging Material, Rubber	0.19
Packaging Material, Steel	171.96
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m ³)
Am-241	1.56E-02
Am-243	1.28E-07
Cs-137	1.43E-03
Np-237	4.28E-05
Pu-238	9.73E+00
Pu-239	3.84E-02
Pu-240	1.08E-02
Pu-241	1.85E-01
Pu-242	1.94E-05
Sr-90	1.42E-03
Th-229	2.90E-13
Th-230	1.03E-07
Th-232	2.83E-19
U-233	1.10E-09
U-234	1.95E-03
U-235	1.18E-07
U-236	1.91E-09
U-238	1.80E-14

Haz. Waste No(s).
D006, D007, D008,
D009, D011, 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

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-W027-221H-HET

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 221H				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D006, D008, D009, D019, D022, D029, D039, D040, D043, F001, F002, F003, F005, U133 TRUCON Code(s) 125/225, 154
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2	Iron-based Metal/Alloys	25.24	Am-241	1.79E-01	
55-gal Drum Dir Ld w/o Liner	5.3	0.0	5.3	Aluminum-based Metal/Alloys	1.18	Am-243	1.81E-06	
SWB Dir Ld w/o Liner	5.4	0.0	5.4	Other Metal/Alloys	0.39	Cm-244	2.21E-03	
Current Form Total	10.9	0.0	10.9	Other Inorganic Materials	9.32	Cs-137	1.27E-05	
Final Form Volumes				Cellulose	5.99	Np-237	1.51E-03	
Container Type	Stored	Proj.	Total	Rubber	16.45	Pu-238	7.51E+01	
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2	Plastic	52.01	Pu-239	2.54E-01	
55-gal Drum Dir Ld w/o Liner	5.2	0.0	5.2	Cement	0.00	Pu-240	7.16E-02	
SWB Dir Ld w/o Liner	5.7	0.0	5.7	Solidified Inorganic Material	0.14	Pu-241	4.33E+00	
Final Form Total	11.1	0.0	11.1	Solidified Organic Material	0.01	Pu-242	1.62E-04	
				Soil	0.00	Sr-90	1.25E-05	
				Vitrified	0.00	Th-229	2.53E-07	
				Packaging Material, Cellulosics	0.00	Th-230	1.10E-06	
				Packaging Material, Plastic	0.70	Th-232	2.29E-06	
				Packaging Material, Rubber	0.38	U-233	3.60E-04	
				Packaging Material, Steel	142.37	U-234	1.58E-02	
				Packaging Material, Lead	0.00	U-235	2.33E-06	
						U-236	1.70E-08	
						U-238	2.42E-06	

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. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Profile Report

Waste Volume Detail (m³)

Waste Material Parameters

Final Form Radionuclides

Haz. Waste No(s).

TRUCON Code(s)125/225, 154

Waste Stream ID: SR-W027-221H-HOM

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	CH Mixed TRU Absorbed / Stabilized Liquids			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D006, D007, D008, D009, D011, D019, D022, D029, D043, F002, F005, U133
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4	Iron-based Metal/Alloys	6.05	Am-241	3.40E-01	
55-gal Drum Dir Ld w/o Liner	2.5	0.0	2.5	Aluminum-based Metal/Alloys	0.00	Am-243	1.16E-07	
Current Form Total	2.9	0.0	2.9	Other Metal/Alloys	0.00	Cs-137	5.09E-03	
				Other Inorganic Materials	106.84	Np-237	1.40E-04	
				Cellulose	4.03	Pu-238	7.54E-01	
				Rubber	4.03	Pu-239	8.05E-01	
				Plastic	46.37	Pu-240	2.19E-01	
				Cement	0.00	Pu-241	2.17E+00	
Final Form Volumes				Solidified Inorganic Material	32.25	Pu-242	7.83E-05	TRUCON Code(s) 127/227
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.00	Sr-90	5.05E-03	
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4	Soil	0.00	Th-229	2.47E-09	
55-gal Drum Dir Ld w/o Liner	2.5	0.0	2.5	Vitrified	0.00	Th-230	6.99E-08	
Final Form Total	2.9	0.0	2.9	Packaging Material, Cellulosics	0.00	Th-232	1.57E-15	
				Packaging Material, Plastic	5.30	U-233	5.62E-06	
				Packaging Material, Rubber	0.57	U-234	1.52E-03	
				Packaging Material, Steel	130.77	U-235	2.91E-05	
				Packaging Material, Lead	0.00	U-236	6.39E-06	
						U-238	1.53E-06	

Waste Stream Description
CH Mixed TRU Absorbed / Stabilized Liquids

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-W027-235F-HEPA

Appendix A
Waste Profile Report

Site	Savannah River Site			Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH		
Source Cat.	Materials Production/Recovery Effluents			Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012			
Stream Name	CH Mixed TRU consisting of HEPA Filters from the 235-F.					Activity Concentrations Decayed to CY		2012			
Waste Volume Detail (m ³)				Waste Material Parameters			Final Form Radionuclides		Haz. Waste No(s).		
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope		Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035		
Container Type	Stored	Proj.	Total								
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4								
SWB Dir Ld w/o Liner	10.8	0.0	10.8								
Current Form Total	11.2	0.0	11.2								
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/o Liner	11.3	0.0	11.3								
Final Form Total	11.8	0.0	11.8								
						Iron-based Metal/Alloys	2.75			Am-241	1.14E-02
						Aluminum-based Metal/Alloys	0.00			Am-243	1.17E-13
						Other Metal/Alloys	0.00			Cs-137	3.69E-08
						Other Inorganic Materials	0.67			Np-237	1.70E-04
						Cellulose	27.01			Pu-238	7.82E-01
				Rubber	0.00	Pu-239	6.46E-03				
				Plastic	16.86	Pu-240	2.79E-03				
				Cement	0.00	Pu-241	1.20E-02				
				Solidified Inorganic Material	0.00	Pu-242	4.95E-06				
				Solidified Organic Material	0.00	Sr-90	3.53E-08				
				Soil	0.00	Th-229	2.72E-11				
				Vitrified	0.00	Th-230	8.60E-08				
				Packaging Material, Cellulosics	0.00	Th-232	1.72E-18				
				Packaging Material, Plastic	1.31	U-233	2.13E-08				
				Packaging Material, Rubber	0.21	U-234	3.57E-04				
				Packaging Material, Steel	152.64	U-235	2.49E-06				
				Packaging Material, Lead	0.00	U-236	2.40E-09				
						U-238	2.23E-14				
								TRUCON Code(s) 119/219, 154			

Waste Stream Description

This waste stream is defense related, contact handled TRU waste and is composed of spent HEPA Filters

Waste Stream ID: SR-W027-235F-HET

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 235F				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, F002, F003
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	4.0	0.0	4.0	Iron-based Metal/Alloys	61.86	Am-241	2.93E-01	
SLB2 Dir Ld	13.3	0.0	13.3	Aluminum-based Metal/Alloys	1.74	Am-243	1.65E-06	
SWB Dir Ld w/o Liner	3.6	0.0	3.6	Other Metal/Alloys	3.09	Cm-244	3.01E-04	
Current Form Total	20.9	0.0	20.9	Other Inorganic Materials	8.67	Cs-137	2.45E-06	
				Cellulose	10.68	Np-237	4.79E-03	
				Rubber	29.15	Pu-238	1.31E+02	
				Plastic	52.62	Pu-239	1.81E-01	
				Cement	0.00	Pu-240	7.81E-02	
Final Form Volumes				Solidified Inorganic Material	0.20	Pu-241	4.75E+00	TRUCON Code(s) 125/225, 154
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.10	Pu-242	1.49E-04	
55-gal Drum Dir Ld w/o Liner	4.0	0.0	4.0	Soil	0.00	Sr-90	2.42E-06	
SLB2 Dir Ld	11.3	0.0	11.3	Vitrified	0.00	Th-229	1.52E-07	
SWB Dir Ld w/o Liner	3.8	0.0	3.8	Packaging Material, Cellulosics	0.00	Th-230	2.30E-06	
Final Form Total	19.1	0.0	19.1	Packaging Material, Plastic	0.00	Th-232	1.69E-06	
				Packaging Material, Rubber	0.24	U-233	2.48E-04	
				Packaging Material, Steel	185.64	U-234	3.70E-02	
				Packaging Material, Lead	0.00	U-235	3.56E-06	
						U-236	1.62E-08	
						U-238	1.62E-06	

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..

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-W027-321-322M-HET

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	CH Mixed TRU Debris (S5000)			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.4	0.0	4.4
Current Form Total	4.4	0.0	4.4
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.4	0.0	4.4
Final Form Total	4.4	0.0	4.4

Waste Material Parameters	
Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	141.74
Aluminum-based Metal/Alloys	3.63
Other Metal/Alloys	8.34
Other Inorganic Materials	18.49
Cellulose	23.56
Rubber	68.51
Plastic	97.15
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	1.09
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m ³)
Am-241	4.45E+00
Np-237	5.32E-04
Pu-238	1.96E-02
Pu-239	4.21E-02
Pu-240	9.93E-03
Pu-241	3.24E+01
Pu-242	1.73E-06
Th-229	9.91E-11
Th-230	3.08E-10
Th-232	7.44E-18
U-233	7.12E-08
U-234	2.01E-06
U-235	1.33E-09
U-236	9.42E-09
U-238	8.60E-15

Haz. Waste No(s).
D008, D009, F001, F002
TRUCON Code(s)
125/225, 129/229

Waste Stream Description

CH Mixed TRU waste resulting from target assembly fabrication leading to production of defense related nuclear materials.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-W027-321M-HOM

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Organics	Inventory Date	12/31/2012		
Stream Name	CH Mixed TRU Homogeneous Solids (S3000)			Activity Concentrations Decayed to CY	2012		

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D008, F002
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2	Iron-based Metal/Alloys	20.14	Am-241	2.50E+01	
Current Form Total	0.2	0.0	0.2	Aluminum-based Metal/Alloys	0.00	Np-237	2.66E-04	TRUCON Code(s)
Final Form Volumes				Other Metal/Alloys	0.00	Pu-238	1.01E+01	127/227
Container Type	Stored	Proj.	Total	Other Inorganic Materials	0.00	Th-229	1.76E-11	
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2	Cellulose	0.00	Th-230	1.59E-07	
Final Form Total	0.2	0.0	0.2	Rubber	0.00	U-233	1.86E-08	
				Plastic	32.98	U-234	1.04E-03	
				Cement	0.00			
				Solidified Inorganic Material	0.00			
				Solidified Organic Material	557.69			
				Soil	0.00			
				Vitrified	0.00			
				Packaging Material, Cellulosics	0.00			
				Packaging Material, Plastic	37.07			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			

Waste Stream Description

CH Mixed TRU waste resulting from target assembly fabrication leading to production of defense related nuclear materials.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-W027-773A-HET

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 773A				Activity Concentrations Decayed to CY	2012	
Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides	
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Container Type	Stored	Proj.	Total				
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2	Iron-based Metal/Alloys	42.26	Am-241	2.06E-01
55-gal Drum Dir Ld w/o Liner	13.2	63.2	76.4	Aluminum-based Metal/Alloys	0.80	Am-243	1.26E-03
Box - Concrete	2.6	0.0	2.6	Other Metal/Alloys	1.46	Cm-244	9.14E-02
SLB2 Dir Ld	139.2	0.0	139.2	Other Inorganic Materials	16.56	Cs-137	8.32E-04
SWB Dir Ld w/o Liner	50.4	32.4	82.8	Cellulose	13.35	Np-237	2.83E-04
Current Form Total	205.6	95.6	301.2	Rubber	8.11	Pu-238	1.15E+01
Final Form Volumes				Plastic	36.88	Pu-239	5.05E-01
Container Type	Stored	Proj.	Total	Cement	0.00	Pu-240	1.16E-01
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2	Solidified Inorganic Material	0.18	Pu-241	1.59E+00
55-gal Drum Dir Ld w/o Liner	13.1	62.6	75.7	Solidified Organic Material	0.00	Pu-242	2.51E-05
SLB2 Dir Ld	118.9	0.0	118.9	Soil	0.00	Pu-244	3.41E-15
SWB Dir Ld w/o Liner	54.8	34.0	88.8	Vitrified	0.00	Sr-90	8.23E-04
Final Form Total	187.0	96.6	283.6	Packaging Material, Cellulosics	0.00	Th-229	3.34E-08
				Packaging Material, Plastic	0.03	Th-230	1.46E-07
				Packaging Material, Rubber	0.27	Th-232	6.28E-07
				Packaging Material, Steel	173.40	U-233	5.43E-05
				Packaging Material, Lead	0.00	U-234	2.39E-03
						U-235	1.31E-06
						U-236	2.41E-08
						U-238	1.24E-05
						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, 154, 425	

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. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: **SR-W027-773A-HOM****Appendix A****Waste Profile Report**

Site	Savannah River Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2012	
Stream Name	CH Mixed TRU Homogeneous Solids (S3000)				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Current Form Total	0.6	0.0	0.6

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6
Final Form Total	0.6	0.0	0.6

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	2.44
Aluminum-based Metal/Alloys	0.05
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	11.60
Rubber	3.67
Plastic	36.70
Cement	0.00
Solidified Inorganic Material	150.16
Solidified Organic Material	405.45
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	5.90E-02
Np-237	1.74E-07
Pu-238	1.12E+02
Pu-239	1.54E-01
Pu-240	6.36E-02
Pu-241	1.55E+00
Pu-242	5.98E-05
Th-229	1.56E-15
Th-230	4.04E-07
Th-232	1.19E-17
U-233	4.26E-12
U-234	5.38E-03
U-235	2.43E-09
U-236	3.02E-08
U-238	1.48E-13

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D022, D027, D028,
D029, D043, F002,
F004, F005

TRUCON Code(s)

127/227

Waste Stream Description

CH Mixed TRU Homogeneous Solids resulting from liquid absorption at the SRNL.

Waste Stream ID: SR-W027-FB-Pre86-C

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	CH Mixed TRU - Heterogeneous debris from 221H	Activity Concentrations Decayed to CY	2012				

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D005, D006, D007, D008, D009, D011, D018, D019, D022, D029, D039, D040, D043, F001, F002, F003, F005, U002, U151
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	31.7	0.0	31.7	Iron-based Metal/Alloys	27.68	Am-241	1.09E+00	TRUCON Code(s) 125/225, 133/233, 154, 425
SLB2 Dir Ld	46.4	0.0	46.4	Aluminum-based Metal/Alloys	0.28	Am-243	1.40E-06	
SWB Dir Ld w/o Liner	21.6	0.0	21.6	Other Metal/Alloys	0.35	Cm-244	1.35E-03	
Current Form Total	99.7	0.0	99.7	Other Inorganic Materials	9.34	Cs-137	2.96E-06	
				Cellulose	9.94	Np-237	5.98E-05	
				Rubber	9.02	Pu-238	3.33E-01	
				Plastic	63.17	Pu-239	2.73E+00	
				Cement	0.00	Pu-240	7.81E-01	
				Solidified Inorganic Material	0.20	Pu-241	3.34E+00	
				Solidified Organic Material	0.05	Pu-242	1.44E-04	
				Soil	0.00	Sr-90	2.85E-06	
				Vitrified	0.00	Th-229	2.96E-08	
				Packaging Material, Cellulosics	0.00	Th-230	1.85E-08	
				Packaging Material, Plastic	12.42	Th-232	7.65E-08	
				Packaging Material, Rubber	0.30	U-233	1.29E-05	
				Packaging Material, Steel	172.10	U-234	9.04E-05	
				Packaging Material, Lead	0.00	U-235	2.57E-07	
						U-236	6.02E-07	
						U-238	8.29E-07	
Final Form Volumes								
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	31.4	0.0	31.4					
SLB2 Dir Ld	39.6	0.0	39.6					
SWB Dir Ld w/o Liner	22.7	0.0	22.7					
Final Form Total	93.7	0.0	93.7					

Waste Stream Description

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste. Small HEPA filters, sludges, resins, absorbed liquids, and metal equipment is also in present in the waste stream.

Waste Stream ID: SR-W027-HBL-Box

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	CH mixed TRU from 221H			Activity Concentrations Decayed to CY		2012	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D006, D007, D008, D009, D011, D019, D022, D029, D043, F002, F005, U133
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	8.4	0.0	8.4	Iron-based Metal/Alloys	47.42	Am-241	7.91E-03	
85-gal Drum Dir Ld w/o Liner	0.3	0.0	0.3	Aluminum-based Metal/Alloys	0.01	Am-243	5.68E-10	
SLB2 Dir Ld	344.8	0.0	344.8	Other Metal/Alloys	0.04	Cm-244	3.24E-05	
SWB Dir Ld w/o Liner	61.2	0.0	61.2	Other Inorganic Materials	3.92	Cs-137	1.57E-05	
Current Form Total	414.7	0.0	414.7	Cellulose	55.23	Np-237	4.87E-05	
				Rubber	1.95	Pu-238	2.59E+00	
				Plastic	32.42	Pu-239	1.58E-02	
				Cement	0.00	Pu-240	4.69E-03	
Final Form Volumes				Solidified Inorganic Material	0.00	Pu-241	3.11E-02	TRUCON Code(s) 125/225, 154
Container Type	Stored	Proj.	Total	Solidified Organic Material	0.00	Pu-242	9.15E-06	
55-gal Drum Dir Ld w/o Liner	8.3	0.0	8.3	Soil	0.00	Sr-90	1.52E-05	
SLB2 Dir Ld	294.3	0.0	294.3	Vitrified	0.00	Th-229	4.48E-12	
SWB Dir Ld w/o Liner	66.2	0.0	66.2	Packaging Material, Cellulosics	0.00	Th-230	1.23E-07	
Final Form Total	368.8	0.0	368.8	Packaging Material, Plastic	0.00	Th-232	1.66E-18	
				Packaging Material, Rubber	0.16	U-233	4.64E-09	
				Packaging Material, Steel	202.49	U-234	6.93E-04	
				Packaging Material, Lead	0.00	U-235	5.40E-09	
						U-236	3.06E-09	
						U-238	3.12E-14	

Waste Stream Description

This waste stream is defense related debris consisting of large equipment and job control waste packaged in large steel boxes

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: SR-W027-UNK

Appendix A
Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Source Unknown	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	SRS "Generating Source Unknown" TRU Waste				Activity Concentrations Decayed to CY	2012	

Waste Volume Detail (m³)

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

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

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	24.04
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	360.58
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Pu-238	2.86E+02

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225, 154

Waste Stream Description

This waste stream consists of legacy plutonium contaminated debris from SRS facilities. The unique identification for these waste containers has been lost. Thus, knowledge of the generation source that would allow the waste to be placed in the proper waste stream is not known at this time. Some waste may be remote handled.

APPENDIX B POTENTIAL TRU WASTE PROFILE REPORTS

The following waste profile reports contain information on potential TRU waste streams as of the inventory date, December 31, 2012. These waste streams have been placed in the potential category for various reasons as stated in section 4.0 of this report, if available.

The TRU waste generator sites that have reported potential TRU waste streams are:

AW	Material and Fuels Complex
BL	Babcock and Wilcox Nuclear Energy Services
IN	Idaho National Laboratory
LA	Los Alamos National Laboratory
RL	Hanford (Richland) Site
RP	Hanford (River Protection) Site
SA	Sandia National Laboratories
SR	Savannah River Site
WV	West Valley Demonstration Project

Waste Profile Report

Waste Volume Detail (m³)

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld	15.1	10.7	25.8
Final Form Total	15.1	10.7	25.8

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	429.85
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.00
Packaging Material, Steel	560.67
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.90E-02
Cs-137	6.12E+00
Pu-238	2.96E-02
Pu-239	5.91E-03
Pu-240	1.54E-02
Pu-241	1.97E+00
Pu-242	3.24E-04
Sr-90	1.80E+00
U-233	2.15E-05
U-234	5.51E-06
U-238	1.88E-06

**No Hazardous
Waste Numbers
Provided**

TRUCON Code(s)	317
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Waste Stream Description

This waste stream consists of beryllium (Be) reflector blocks and outer shim control cylinders (OSCCs) removed from the Advanced Test Reactor (ATR) at INL. Reactor core internal changeouts (CIC) which generate this waste is scheduled approximately every 12 years. The next is anticipated in 2016. The transuranic content is produced through nuclear reactions and transmutations of the naturally occurring uranium impurities in the Be metal.

Waste Profile Report

Waste Volume Detail (m³)

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	4.0	0.0	4.0
SWB Dir Ld w/o Liner	5.7	0.0	5.7
Final Form Total	9.6	0.0	9.6

Waste Material Parameters

Final Form Radionuclides

**No Hazardous
Waste Numbers
Provided**

**No TRUCON
Codes Provided**

Waste Stream Description

Waste from Parks Township ROD 63FR3629, 65FR82985, 69FR39446 amended 27 February 2008 Point of Contact William Spurgeon.

Waste Stream ID: **BL-Parks-A****Appendix B****Waste Profile Report**

Site	Babcock and Wilcox Nuclear Energy Services	Summary Category	S5000	Defense Determination	Pending Determination	Handling	RH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	Parks Township TRU Waste			Activity Concentrations as of CY 2000			

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Box - Misc	0.2	0.0	0.2
Current Form Total	0.4	0.0	0.4

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

Waste Material Parameters

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

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	3.35E-01
Pu-239	6.29E+00

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

Waste from Parks Township ROD 63FR3629, 65FR82985, 69FR39446 amended 27 February 2008 Point of Contact William Spurgeon

Waste Stream ID: IN-JH826CH

Appendix B
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	J.C. Haynes Waste				Activity Concentrations as of CY	1985	

Waste Volume Detail (m³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Misc	3.2	0.0	3.2
Current Form Total	3.2	0.0	3.2
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/m³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m³)
Am-241	1.27E+01

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description
Am-241 contaminated debris waste

Waste Stream ID: IN-SBW-01A

Appendix B
Waste Profile Report

Site	Idaho National Laboratory			Summary Category	S3000	Defense Determination	Defense-Related	Handling	RH		
Source Cat.	Materials Production/Recovery Effluents			Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012			
Stream Name	SBW Treatment - Steam Reforming - Carbonate Waste Form					Activity Concentrations as of CY 2006					
Waste Volume Detail (m³)				Waste Material Parameters			Final Form Radionuclides		Haz. Waste No(s).		
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	D004, D005, D006, D007, D008, D009, D010, D011, F001, F002, F005, U134			
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				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)			No TRUCON Codes Provided	
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								
				Iron-based Metal/Alloys	0.00	Am-241	5.27E-01				
				Aluminum-based Metal/Alloys	0.00	Am-243	2.85E-04				
				Other Metal/Alloys	0.00	Cm-244	2.02E-03				
				Other Inorganic Materials	0.00	Cs-137	2.90E+02				
				Cellulose	0.00	Np-237	4.03E-03				
				Rubber	0.00	Pu-238	6.22E+00				
				Plastic	0.00	Pu-239	6.75E-01				
				Cement	0.00	Pu-240	2.50E-01				
				Solidified Inorganic Material	1334.00	Pu-241	2.54E+00				
				Solidified Organic Material	0.00	Pu-242	1.29E-04				
				Soil	0.00	Sr-90	1.90E+02				
				Vitrified	0.00	U-233	5.64E-05				
				Packaging Material, Cellulosics	0.00	U-234	8.98E-03				
				Packaging Material, Plastic	0.00	U-235	2.20E-04				
				Packaging Material, Rubber	0.00	U-238	2.16E-04				
				Packaging Material, Steel	560.67						
				Packaging Material, Lead	0.00						

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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-SBW-01B

Appendix B
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	SBW Treatment - Steam Reforming Process - Debris			Activity Concentrations as of CY		2014	

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/m³)
Iron-based Metal/Alloys	700.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	2.00
Cellulose	0.00
Rubber	0.00
Plastic	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.00
Packaging Material, Steel	560.67
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m³)
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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-W139

Appendix B
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Mexican Americium Waste			Activity Concentrations as of CY	1986		

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.8	0.0	0.8
Current Form Total	0.8	0.0	0.8
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.8	0.0	0.8
Final Form Total	0.8	0.0	0.8

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

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m ³)
Am-241	2.50E+00

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description
This waste stream consists of Americium contaminated debris waste.

Waste Stream ID: IN-W269

Appendix B
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Laboratory Waste			Activity Concentrations as of CY	1989		

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D006, D007, D008, D011
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/ Liner	23.9	0.0	23.9	Iron-based Metal/Alloys	0.00	Am-241	6.85E+00	No TRUCON Codes Provided
Current Form Total	23.9	0.0	23.9	Aluminum-based Metal/Alloys	0.00	Pu-238	8.00E+00	
				Other Metal/Alloys	0.00	Pu-239	7.03E+01	
				Other Inorganic Materials	0.00	Pu-240	7.28E+00	
				Cellulose	0.00	Pu-241	2.68E-01	
				Rubber	0.00	Pu-242	2.48E-05	
				Plastic	0.00	U-235	1.22E-02	
				Cement	0.00	U-238	7.50E-05	
				Solidified Inorganic Material	0.00			
				Solidified Organic Material	0.00			
Final Form Volumes				Soil	0.00			
Container Type	Stored	Proj.	Total	Vitrified	0.00			
55-gal Drum Dir Ld w/ Liner	23.9	0.0	23.9	Packaging Material, Cellulosics	0.00			
Final Form Total	23.9	0.0	23.9	Packaging Material, Plastic	37.07			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			

Waste Stream Description
This waste stream, generated at the ANL-W, may include fluxwire, fission counters, glassware, vials, miscellaneous waste from gloveboxes, aluminum foil and capsules, ion exchange resins, plutonium sources, and uranium pellets. Waste may also contain <50% by volume analytical samples and pellets dissolved and absorbed in Oil-Dri.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-W338

Appendix B
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	ANL-W ACL Cold-Line Absorbed Liquid and Debris				Activity Concentrations as of CY	1989	

Waste Volume Detail (m³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.2	0.0	1.2
Current Form Total	1.2	0.0	1.2
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.2	0.0	1.2
Final Form Total	1.2	0.0	1.2

Waste Material Parameters	
Material Parameter	Average Density (kg/m³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m³)
Pu-239	4.67E-01
U-235	1.17E-04

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description
This waste stream was generated at ANL-W, includes solidified liquids, miscellaneous hardware, and polyethylene.

Waste Stream ID: IN-W339

Appendix B
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	ANL-W FMF EFL: Zr-U-Pu Fuel Casting			Activity Concentrations as of CY	1989		

Waste Volume Detail (m³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	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/m³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m³)
Pu-239	9.20E+00
Pu-240	3.76E-02
U-235	6.94E-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.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: IN-W350

Appendix B
Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Special Source Material			Activity Concentrations as of CY	1989		

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

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

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m ³)
Pu-239	5.74E+01
Pu-240	1.76E+02

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

There is no descriptive or constituent information available for this waste, generated at ANL-E.

Waste Stream ID: LA-TA-00-04

Appendix B
Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2012	
Stream Name	Absorbed Liquid Waste			Activity Concentrations as of CY		2007	

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Current Form Total	0.2	0.0	0.2
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters	
Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	1.22
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	1.20
Cement	0.00
Solidified Inorganic Material	20.99
Solidified Organic Material	2.76
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	37.07
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m ³)
Am-241	4.07E-03
Pu-238	1.28E-03
Pu-239	4.35E-02
Pu-240	1.02E-02
Pu-241	1.53E-01
Pu-242	5.86E-07

Haz. Waste No(s).
D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005, U003, U044, U080, U196, U213
TRUCON Code(s)
112/212

Waste Stream Description

Inorganic particulate waste generated during TA-55 R&D/fabrication and associated recovery, facility and equipment maintenance, D&D, waste repackaging, and below-grade retrieval operations.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RL300-11

Appendix B
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	300 Area TRU RH Non-Mixed Debris			Activity Concentrations as of CY		2001	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	TRUCON Code(s) 325
Container Type	Stored	Proj.	Total					
Box - Misc	5.7	0.0	5.7	Iron-based Metal/Alloys	87.00	Am-241	7.35E-01	
Current Form Total	5.7	0.0	5.7	Aluminum-based Metal/Alloys	0.00	Am-243	3.33E-01	
				Other Metal/Alloys	0.00	Cs-137	5.32E+05	
Final Form Volumes				Other Inorganic Materials	666.12	Np-237	2.32E-06	
				Cellulose	21.75	Pu-238	8.20E-01	
Container Type	Stored	Proj.	Total	Rubber	0.00	Pu-239	3.22E-01	
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	7.5	0.0	7.5	Plastic	5.44	Pu-240	1.23E-01	
Final Form Total	7.5	0.0	7.5	Cement	0.00	Pu-241	5.42E+00	
				Solidified Inorganic Material	0.00	Pu-242	2.17E-04	
				Solidified Organic Material	0.00	Sr-90	3.85E+05	
				Soil	0.00	Th-232	1.25E-05	
				Vitrified	0.00	U-234	4.64E-05	
				Packaging Material, Cellulosics	0.00	U-235	7.08E-07	
				Packaging Material, Plastic	45.67	U-236	1.72E-06	
				Packaging Material, Rubber	0.57	U-238	1.25E-05	
				Packaging Material, Steel	931.09			
				Packaging Material, Lead	0.00			

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: RLCH2-08

Appendix B
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	Tank Farms TRU RH Mixed Debris			Activity Concentrations as of CY	2001		

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D030, D032, F001, F002, F003, F004, F005
Container Type	Stored	Proj.	Total					
SWB Dir Ld w/ Liner	1.9	0.0	1.9	Iron-based Metal/Alloys	3.09	Am-241	4.97E-02	
				Aluminum-based Metal/Alloys	0.00	Cs-137	4.45E+00	
Current Form Total	1.9	0.0	1.9	Other Metal/Alloys	374.77	Pu-238	7.73E-04	
Final Form Volumes								TRUCON Code(s) 325
Container Type	Stored	Proj.	Total	Other Inorganic Materials	7.39	Pu-239	4.45E-02	
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	2.5	0.0	2.5	Cellulose	0.00	Pu-240	8.61E-03	
				Rubber	46.03	Sr-90	2.04E+02	
Final Form Total	2.5	0.0	2.5	Plastic	12.79	U-235	1.74E-05	
				Cement	0.00	U-238	4.05E-04	
				Solidified Inorganic Material	0.00			
				Solidified Organic Material	0.00			
				Soil	0.00			
				Vitrified	0.00			
				Packaging Material, Cellulosics	0.00			
				Packaging Material, Plastic	45.67			
				Packaging Material, Rubber	0.57			
				Packaging Material, Steel	931.09			
				Packaging Material, Lead	0.00			

Waste Stream Description
RH waste- Equipment removed from waste tanks (instrument trees, pumps, circulators, agitators, heaters, sluicers, steam coils, air lances, cameras). The waste stream ranges from contaminated clothing to process equipment contaminated with RCRA constituents.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RLPFP-02

Appendix B
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Contaminated Soil/Debris Waste		Inventory Date	12/31/2012	
Stream Name	PFP CH-TRU Contaminated Soil			Activity Concentrations as of CY		2010	

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
Uncontained	0.0	29.3	29.3
Current Form Total	0.0	29.3	29.3
Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	0.0	37.8	37.8
Final Form Total	0.0	37.8	37.8

Waste Material Parameters	
Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.20
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

No Final Form Radionuclides Provided	No Hazardous Waste Numbers Provided
	TRUCON Code(s) 125/225

Waste Stream Description
Soil remediation wastes in PFP Zone.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RLPRC-01

Appendix B
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determination	Unknown	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	CUPRC TRU Non-Mixed Debris			Activity Concentrations as of CY		1987	

Waste Volume Detail (m³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m³)	Isotope	Typical Concentration (Ci/m³)	TRUCON Code(s) 125/225
Container Type	Stored	Proj.	Total					
SWB Dir Ld w/ Liner	1.9	0.0	1.9	Iron-based Metal/Alloys	0.00	Am-241	4.89E-02	
Current Form Total	1.9	0.0	1.9	Aluminum-based Metal/Alloys	0.00	Pu-238	1.99E-02	
				Other Metal/Alloys	46.45	Pu-239	1.82E-01	
Final Form Volumes				Other Inorganic Materials	661.59	Pu-240	4.65E-02	
Container Type	Stored	Proj.	Total	Cellulose	0.00	Pu-241	1.28E+00	
SWB Dir Ld w/ Liner	1.9	0.0	1.9	Rubber	0.00	Pu-242	3.11E-06	
Final Form Total	1.9	0.0	1.9	Plastic	0.00	Th-232	5.50E-05	
				Cement	0.00	U-234	6.24E-07	
				Solidified Inorganic Material	0.00	U-235	2.82E-08	
				Solidified Organic Material	0.00	U-238	6.06E-07	
				Soil	0.00			
				Vitrified	0.00			
				Packaging Material, Cellulosics	0.00			
				Packaging Material, Plastic	1.20			
				Packaging Material, Rubber	0.19			
				Packaging Material, Steel	153.44			
				Packaging Material, Lead	0.00			

Waste Stream Description
The waste is generated from R&D/R&D Laboratory Waste activities at the CEER University Laboratory.

Waste Stream ID: RLPURX-02

Appendix B
Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S4000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Contaminated Soil/Debris Waste			Inventory Date	12/31/2012
Stream Name	Contaminated Soil from vicinity of PUREX			Activity Concentrations as of CY		2011	

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
Uncontained	0.0	370.0	370.0
Current Form Total	0.0	370.0	370.0
Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/ Liner	0.0	463.1	463.1
Final Form Total	0.0	463.1	463.1

Waste Material Parameters	
Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	1.20
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

No Final Form Radionuclides Provided	No Hazardous Waste Numbers Provided
	TRUCON Code(s) 125/225

Waste Stream Description
Soil from Groundwater projects. And contaminated soil from PUREX

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RP-TFC001

Appendix B
Waste Profile Report

Site	Hanford (River Protection) Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	Bismuth Phosphate Process TRU Solids			Activity Concentrations as of CY		2004	

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	D002, 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
Container Type	Stored	Proj.	Total					
Tank(s)	1200.0	0.0	1200.0	Iron-based Metal/Alloys	0.00	Am-241	7.37E-02	
Current Form Total				Aluminum-based Metal/Alloys	0.00	Cs-137	6.11E-01	
	1200.0	0.0	1200.0	Other Metal/Alloys	0.00	Np-237	1.22E-05	
Final Form Volumes				Other Inorganic Materials	0.00	Pu-238	6.60E-03	
Container Type	Stored	Proj.	Total	Cellulose	0.00	Pu-239	5.16E-01	
55-gal Drum Dir Ld w/o Liner	438.7	0.0	438.7	Rubber	0.00	Pu-240	6.23E-02	
Final Form Total				Plastic	0.00	Pu-241	1.89E-01	
	438.7	0.0	438.7	Cement	0.00	Pu-242	3.08E-06	
				Solidified Inorganic Material	1.60	Sr-90	7.98E+00	
				Solidified Organic Material	0.00	U-233	1.10E-09	
				Soil	0.00	U-234	1.68E-03	
				Vitrified	0.00	U-235	5.42E-05	
				Packaging Material, Cellulosics	0.00	U-236	1.62E-05	
				Packaging Material, Plastic	0.00	U-238	1.24E-03	
				Packaging Material, Rubber	0.57			No TRUCON Codes Provided
				Packaging Material, Steel	130.77			
				Packaging Material, Lead	0.00			

Waste Stream Description
Solidified aqueous waste slurry

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: RP-W754

Appendix B
Waste Profile Report

Site	Hanford (River Protection) Site			Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents			Waste Matrix Code Group	Solidified Inorganics			Inventory Date	12/31/2012
Stream Name	224 Waste						Activity Concentrations as of CY 2004		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Tank(s)	1060.0	0.0	1060.0
Current Form Total	1060.0	0.0	1060.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	323.2	0.0	323.2
Final Form Total	323.2	0.0	323.2

Waste Material Parameters

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

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.20E-01
Cs-137	1.66E-01
Np-237	1.62E-06
Pu-238	1.11E-02
Pu-239	1.55E+00
Pu-240	1.29E-01
Pu-241	2.16E-01
Pu-242	4.91E-06
Sr-90	3.36E+00
U-233	1.24E-10
U-234	1.79E-04
U-235	7.25E-06
U-236	1.75E-06
U-238	1.64E-04

Haz. Waste No(s).

D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D028, D029, D030, D033, D034, D035, D036, D038, D039, D040, D041, D043, F001, F002, F003, F004, F005

No TRUCON Codes Provided

Waste Stream Description

Solidified aqueous waste slurry.

Waste Stream ID: RP-W755

Appendix B
Waste Profile Report

Site	Hanford (River Protection) Site			Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents			Waste Matrix Code Group	Solidified Inorganics			Inventory Date	12/31/2012
Stream Name	Bismuth Phosphate Process TRU Solids						Activity Concentrations as of CY 2004		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
Tank(s)	3090.0	0.0	3090.0
Current Form Total	3090.0	0.0	3090.0

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	793.5	0.0	793.5
Final Form Total	793.5	0.0	793.5

Waste Material Parameters

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

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.41E-01
Cs-137	3.32E-01
Np-237	8.04E-05
Pu-238	2.97E-03
Pu-239	5.40E-01
Pu-240	4.38E-02
Pu-241	6.82E-02
Pu-242	5.51E-07
Sr-90	1.20E+01
U-233	3.11E-09
U-234	3.61E-03
U-235	1.60E-04
U-236	2.90E-05
U-238	3.67E-03

Haz. Waste No(s).

D002, 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: **SA-W135-A****Appendix B****Waste Profile Report**

Site	Sandia National Laboratories	Summary Category	S5000	Defense Determination	Defense-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	TRU Waste from SNL/NM - Remote Handled			Activity Concentrations as of CY		2011	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
30-gal Drum	0.3	0.0	0.3
Box - Misc	3.5	0.0	3.5
Cask - FD	4.2	0.0	4.2
Cask - Misc	0.1	0.0	0.1
Cask - Paco	0.1	0.0	0.1
Experimental Vessels	0.7	0.0	0.7
Current Form Total	8.9	0.0	8.9

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	7.5	0.0	7.5
Final Form Total	7.5	0.0	7.5

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	66.77
Aluminum-based Metal/Alloys	66.77
Other Metal/Alloys	18.16
Other Inorganic Materials	26.71
Cellulose	0.07
Rubber	0.27
Plastic	0.40
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	4.58E+00
Am-243	3.61E-03
Cs-137	3.54E+01
Np-237	2.84E-04
Pu-238	1.86E+00
Pu-239	1.75E+00
Pu-240	1.47E+00
Pu-241	1.38E+01
Pu-242	1.38E-03
Sr-90	2.60E+01
U-233	1.87E-08
U-234	3.79E-03
U-235	1.47E-04
U-236	2.08E-05
U-238	1.48E-04

No Hazardous
Waste Numbers
Provided

TRUCON Code(s)

325

Waste Stream Description

Heterogenous RH fuel pieces from accident scenarios R&D and experimental vessels

Waste Stream ID: SR-T001-WSB-1

Appendix B
Waste Profile Report

Site	Savannah River Site	Summary Category	S3000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	N/A			Activity Concentrations as of CY		2015	

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	4556.2	4556.2
Current Form Total	0.0	4556.2	4556.2
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	4512.8	4512.8
Final Form Total	0.0	4512.8	4512.8

Waste Material Parameters	
Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	0.00
Cellulose	0.00
Rubber	0.00
Plastic	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

Final Form Radionuclides	
Isotope	Typical Concentration (Ci/m ³)
Am-241	2.99E+02
Pu-238	6.77E-03
Pu-239	4.44E-02
Pu-240	1.69E-02
Pu-241	8.17E+00
U-234	1.32E-03
U-235	4.25E-05
U-236	6.83E-07
U-238	3.84E-07

No Hazardous Waste Numbers Provided

TRUCON Code(s)
125/225

Waste Stream Description
This waste stream will be a defense related, contact handled TRU waste that consists of a neutralized aqueous stream solidified in an inorganic matrix.

Waste Stream ID: **SR-W027-773A-HET-CLAS****Appendix B****Waste Profile Report**

Site	Savannah River Site	Summary Category	S5000	Defense Determination	Defense-Related	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	CH TRU - Sensitive waste from 773A				Activity Concentrations as of CY	1990	

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
SLB2 Dir Ld	13.3	0.0	13.3
Current Form Total	13.3	0.0	13.3

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	11.3	0.0	11.3
Final Form Total	11.3	0.0	11.3

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	44.99
Aluminum-based Metal/Alloys	0.85
Other Metal/Alloys	1.56
Other Inorganic Materials	17.63
Cellulose	14.21
Rubber	8.63
Plastic	39.27
Cement	0.00
Solidified Inorganic Material	0.19
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.19
Packaging Material, Steel	153.44
Packaging Material, Lead	0.00

No Final Form
Radionuclides ProvidedNo Hazardous
Waste Numbers
ProvidedTRUCON Code(s)
125/225, 154**Waste Stream Description**

This waste stream is defense related, contact handled TRU waste and is composed of metal equipment and debris

Waste Stream ID: WV-M010a

Appendix B
Waste Profile Report

Site	West Valley Demonstration Project	Summary Category	S3000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Solidified Organics		Inventory Date	12/31/2012	
Stream Name	TRU Spent Absorbents CH			Activity Concentrations as of CY		2008	

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Misc	17.5	0.0	17.5
Current Form Total	17.5	0.0	17.5
Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	9.5	0.0	9.5
Final Form Total	9.5	0.0	9.5

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	0.00	Am-241	1.16E-01
Aluminum-based Metal/Alloys	0.00	Am-243	6.54E-03
Other Metal/Alloys	0.00	Cs-137	1.05E-02
Other Inorganic Materials	249.74	Np-237	1.01E-06
Cellulose	0.00	Pu-238	4.89E-02
Rubber	0.00	Pu-239	5.72E-02
Plastic	0.00	Pu-240	4.37E-02
Cement	0.00	Pu-241	6.12E-01
Solidified Inorganic Material	0.00	Pu-242	2.57E-03
Solidified Organic Material	0.00	Sr-90	4.75E-01
Soil	0.00	Th-230	9.59E-06
Vitrified	0.00	Th-232	6.70E-04
Packaging Material, Cellulosics	0.00	U-233	4.30E-04
Packaging Material, Plastic	0.00	U-234	2.05E-04
Packaging Material, Rubber	0.19	U-235	7.73E-05
Packaging Material, Steel	153.44	U-236	2.32E-04
Packaging Material, Lead	0.00	U-238	3.72E-04

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream consists of spent absorbents (not cement) generated from site operations. The media absorbed is an organic liquid for this waste stream. This does not contain hazardous waste.

Waste Stream ID: WV-T004

Appendix B
Waste Profile Report

Site	West Valley Demonstration Project	Summary Category	S3000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Solidified Inorganics		Inventory Date	12/31/2012	
Stream Name	TRU Liquids			Activity Concentrations as of CY		2004	

Waste Volume Detail (m ³)			
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/o Liner	0.4	0.0	0.4
Final Form Total	0.4	0.0	0.4

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	0.00	Am-241	2.96E-03
Aluminum-based Metal/Alloys	0.00	Am-243	2.24E-04
Other Metal/Alloys	0.00	Cm-244	3.13E-04
Other Inorganic Materials	0.00	Cs-137	7.40E-02
Cellulose	0.00	Pu-238	1.02E-03
Rubber	0.00	Pu-239	7.04E-04
Plastic	0.00	Pu-240	5.34E-04
Cement	1000.00	Pu-241	2.25E-02
Solidified Inorganic Material	250.00	Pu-242	2.40E-05
Solidified Organic Material	0.00	Sr-90	2.74E-02
Soil	0.00	Th-230	7.28E-08
Vitrified	0.00	Th-232	1.13E-09
Packaging Material, Cellulosics	0.00	U-233	4.86E-05
Packaging Material, Plastic	0.00	U-234	2.26E-05
Packaging Material, Rubber	0.57	U-235	2.03E-06
Packaging Material, Steel	130.77	U-236	6.08E-06
Packaging Material, Lead	0.00	U-238	1.52E-05

No Hazardous
Waste Numbers
Provided

No TRUCON
Codes Provided

Waste Stream Description

This waste stream consists of liquid waste with associated fissile material generated from previous decontamination and decommissioning activities.

Waste Stream ID: WV-T006a

Appendix B
Waste Profile Report

Site	West Valley Demonstration Project	Summary Category	S5000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	CH TRU General Waste			Activity Concentrations as of CY	2006		

Waste Volume Detail (m ³)				Waste Material Parameters		Final Form Radionuclides		No Hazardous Waste Numbers Provided
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	85.7	0.0	85.7	Iron-based Metal/Alloys	0.00	Am-241	4.37E-01	
Box - Misc	30.4	0.0	30.4	Aluminum-based Metal/Alloys	0.00	Am-243	3.31E-02	
SWB Dir Ld w/o Liner	94.5	0.0	94.5	Other Metal/Alloys	124.93	Cm-244	4.63E-02	
Current Form Total	210.6	0.0	210.6	Other Inorganic Materials	249.87	Cs-137	6.62E-03	
				Cellulose	0.00	Pu-238	3.29E-01	
				Rubber	50.02	Pu-239	1.48E-01	
				Plastic	74.76	Pu-240	1.12E-01	
				Cement	0.00	Pu-241	4.75E+00	
				Solidified Inorganic Material	0.00	Pu-242	3.99E-03	
				Solidified Organic Material	0.00	Sr-90	2.53E-02	
				Soil	0.00	Th-230	5.28E-05	
				Vitrified	0.00	Th-232	7.66E-07	
				Packaging Material, Cellulosics	0.00	U-233	2.47E-04	
				Packaging Material, Plastic	0.00	U-234	1.23E-04	
				Packaging Material, Rubber	0.35	U-235	1.20E-05	
				Packaging Material, Steel	143.67	U-236	3.60E-05	
				Packaging Material, Lead	0.00	U-238	8.93E-05	
								No TRUCON Codes Provided
Final Form Volumes								
Container Type	Stored	Proj.	Total					
55-gal Drum Dir Ld w/o Liner	85.9	0.0	85.9					
SWB Dir Ld w/o Liner	113.4	0.0	113.4					
Final Form Total	199.3	0.0	199.3					

Waste Stream Description

This waste stream consists of radiologically contaminated solid waste generated from various site activities. The specific contents include but are not limited to Anti-C clothing, hoses, glovebags, tools, pre-filters, HEPA filters, Roughing filters, other filters, sweeping compound, glove boxes, tools, evaporators, dissolver tanks, condensers, piping DAW, plastic bags, bottles, and cell floor debris etc.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: WV-T006b

Appendix B
Waste Profile Report

Site	West Valley Demonstration Project	Summary Category	S5000	Defense Determination	Pending Determination	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	RH TRU General Waste			Activity Concentrations as of CY		2004	

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	113.8	0.0	113.8
Box - Misc	227.2	0.0	227.2
Uncontained	0.0	61.0	61.0
Current Form Total	341.0	61.0	402.0
Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	247.1	60.5	307.6
Final Form Total	247.1	60.5	307.6

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	0.00	Am-241	6.11E+00
Aluminum-based Metal/Alloys	0.00	Cm-244	2.12E-01
Other Metal/Alloys	155.80	Cs-137	1.72E+01
Other Inorganic Materials	311.20	Np-237	1.59E-02
Cellulose	0.00	Pu-238	2.71E+00
Rubber	62.32	Pu-239	2.42E+00
Plastic	93.48	Pu-240	1.85E+00
Cement	0.00	Pu-242	1.15E-03
Solidified Inorganic Material	0.00	Sr-90	1.61E+01
Solidified Organic Material	0.00	Th-232	7.02E-05
Soil	0.00	U-233	2.67E-03
Vitrified	0.00	U-234	1.49E-03
Packaging Material, Cellulosics	0.00	U-235	1.25E-04
Packaging Material, Plastic	8.70	U-236	3.75E-04
Packaging Material, Rubber	0.57	U-238	4.25E-04
Packaging Material, Steel	931.09		
Packaging Material, Lead	0.00		

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream consists of radiologically contaminated solid waste generated from various site activities. The specific contents include but are not limited to Anti-C clothing, hoses, glovebags, tools, pre-filters, HEPA filters, Roughing filters, other filters, sweeping compound, glove boxes, tools, evaporators, dissolver tanks, condensers, piping DAW, plastic bags, bottles, and cell floor debris etc.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: **WV-T017b**

Appendix B
Waste Profile Report

Site	West Valley Demonstration Project	Summary Category	S5000	Defense Determination	Pending Determination	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	RH TRU Spent Filter Media			Activity Concentrations as of CY		2008	

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
Box - Misc	27.2	0.0	27.2
Current Form Total	27.2	0.0	27.2
Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	7.5	0.0	7.5
Final Form Total	7.5	0.0	7.5

Waste Material Parameters		Final Form Radionuclides	
Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)
Iron-based Metal/Alloys	0.00	Am-241	3.79E-02
Aluminum-based Metal/Alloys	0.00	Cs-137	1.80E+01
Other Metal/Alloys	0.00	Np-237	5.21E-05
Other Inorganic Materials	251.07	Pu-238	1.70E-02
Cellulose	0.00	Pu-239	4.11E-02
Rubber	0.00	Pu-240	3.14E-02
Plastic	0.00	Pu-241	3.84E-01
Cement	0.00	Sr-90	5.93E-01
Solidified Inorganic Material	0.00	Th-230	2.01E-05
Solidified Organic Material	0.00	Th-232	2.52E-05
Soil	0.00	U-235	9.26E-05
Vitrified	0.00	U-236	2.78E-04
Packaging Material, Cellulosics	0.00	U-238	1.46E-04
Packaging Material, Plastic	8.70		
Packaging Material, Rubber	0.57		
Packaging Material, Steel	931.09		
Packaging Material, Lead	0.00		

No Hazardous
Waste Numbers
Provided

No TRUCON
Codes Provided

Waste Stream Description

This waste stream consists of spent filter media generated from filtration of the Fuel Receiving & Storage pool where radiologically contaminated equipment was stored.

Comprehensive Inventory Database ver. **2.01** Data ver. **D.12.01**
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: WV-W024a

Appendix B
Waste Profile Report

Site	West Valley Demonstration Project			Summary Category	S5000	Defense Determination	Pending Determination	Handling	CH				
Source Cat.	Remediation/D&D Waste			Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012					
Stream Name	CH TRU Mixed Waste					Activity Concentrations as of CY 2006							
Waste Volume Detail (m ³)				Waste Material Parameters			Final Form Radionuclides		Haz. Waste No(s).				
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	No TRUCON Codes Provided					
Container Type	Stored	Proj.	Total										
55-gal Drum Dir Ld w/o Liner	2.7	0.0	2.7										
SWB Dir Ld w/o Liner	5.7	0.0	5.7										
Current Form Total	8.4	0.0	8.4										
Final Form Volumes													
Container Type	Stored	Proj.	Total										
55-gal Drum Dir Ld w/o Liner	2.7	0.0	2.7										
SWB Dir Ld w/o Liner	5.7	0.0	5.7										
Final Form Total	8.4	0.0	8.4										
										Solidified Inorganic Material	0.00	Pu-242	2.42E-03
										Solidified Organic Material	0.00	Sr-90	9.54E-02
										Soil	0.00	Th-230	1.98E-06
				Vitrified	0.00	Th-232	3.04E-08						
				Packaging Material, Cellulosics	0.00	U-233	1.30E-03						
				Packaging Material, Plastic	0.00	U-234	6.15E-04						
				Packaging Material, Rubber	0.31	U-235	3.93E-05						
				Packaging Material, Steel	146.12	U-236	1.18E-04						
				Packaging Material, Lead	0.00	U-238	2.94E-04						

Waste Stream Description

Contains hazardous constituents from D&D activities and Laboratory Waste generated onsite in solid forms such as filters, vacuum cans, glove box debris, piping, hoses, pumps, anti C clothing, bags, wipes, and floor debris. If any liquids are found, then the liquid would be solidified and not expected to be TRU.

Waste Stream ID: **WV-W024b****Appendix B****Waste Profile Report**

Site	West Valley Demonstration Project	Summary Category	S5000	Defense Determination	Pending Determination	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debris Waste	Inventory Date	12/31/2012		
Stream Name	RH TRU Mixed Waste			Activity Concentrations as of CY	2004		

Waste Volume Detail (m³)

Current Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	32.4	0.0	32.4
Box - Misc	33.8	0.0	33.8
Current Form Total	66.2	0.0	66.2

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	51.2	0.0	51.2
Final Form Total	51.2	0.0	51.2

Waste Material Parameters

Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	199.34
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	250.16
Cellulose	0.00
Rubber	50.03
Plastic	75.05
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	8.70
Packaging Material, Rubber	0.57
Packaging Material, Steel	931.09
Packaging Material, Lead	0.00

Final Form Radionuclides

Isotope	Typical Concentration (Ci/m ³)
Am-241	1.06E+01
Am-243	6.45E-01
Cm-244	1.31E-01
Cs-137	2.85E+02
Np-237	9.68E-03
Pu-238	2.05E+00
Pu-239	5.26E+00
Pu-240	4.01E+00
Pu-241	2.67E+01
Pu-242	1.85E-02
Sr-90	2.44E+02
Th-229	4.68E-04
Th-230	1.73E-04
Th-232	1.25E-04
U-233	2.07E-02
U-234	9.81E-03
U-235	1.80E-03
U-236	5.57E-03
U-238	5.57E-03

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

Contains hazardous constituents from D&D activities and Laboratory Waste generated onsite in solid forms such as filters, vacuum cans, glove box debris, piping, hoses, pumps, anti C clothing, bags, wipes, and floor debris. If any liquids are found, then the liquid would be solidified and not expected to be TRU.

Waste Stream ID: WV-W050a

Appendix B
Waste Profile Report

Site	West Valley Demonstration Project			Summary Category	S3000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Remediation/D&D Waste			Waste Matrix Code Group	Solidified Inorganics		Inventory Date		12/31/2012
Stream Name	TRU Mixed Liquids						Activity Concentrations as of CY 2004		
Waste Volume Detail (m ³)				Waste Material Parameters			Final Form Radionuclides		Haz. Waste No(s).
Current Form Volumes				Material Parameter	Average Density (kg/m ³)	Isotope	Typical Concentration (Ci/m ³)	No TRUCON Codes Provided	
Container Type	Stored	Proj.	Total						
55-gal Drum Dir Ld w/o Liner	5.8	0.0	5.8	Iron-based Metal/Alloys	0.00	Am-241	2.95E-03		
Current Form Total	5.8	0.0	5.8	Aluminum-based Metal/Alloys	0.00	Cs-137	7.40E-02		
				Other Metal/Alloys	0.00	Pu-238	1.02E-03		
Final Form Volumes				Other Inorganic Materials	0.00	Pu-239	7.04E-04		
Container Type	Stored	Proj.	Total	Cellulose	0.00	Pu-240	5.32E-04		
55-gal Drum Dir Ld w/o Liner	5.8	0.0	5.8	Rubber	0.00	Pu-242	2.42E-05		
Final Form Total	5.8	0.0	5.8	Plastic	0.00	Sr-90	2.75E-02		
				Cement	995.88	U-233	4.84E-05		
				Solidified Inorganic Material	248.97	U-234	2.25E-05		
				Solidified Organic Material	0.00	U-238	1.52E-05		
				Soil	0.00				
				Vitrified	0.00				
				Packaging Material, Cellulosics	0.00				
				Packaging Material, Plastic	0.00				
				Packaging Material, Rubber	0.57				
				Packaging Material, Steel	130.77				
				Packaging Material, Lead	0.00				

Waste Stream Description

This waste stream consists of RCRA hazardous liquid waste with associated fissile material generated from decontamination and decommissioning activities.

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

Waste Stream ID: WV-2001

Appendix B
Waste Profile Report

Site	West Valley Demonstration Project	Summary Category	S5000	Defense Determination	Pending Determination	Handling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Date	12/31/2012	
Stream Name	West Valley Buried TRU Waste			Activity Concentrations as of CY		N/A	

Waste Volume Detail (m ³)			
Current Form Volumes			
Container Type	Stored	Proj.	Total
Uncontained	0.0	4300.0	4300.0
Current Form Total	0.0	4300.0	4300.0
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	4300.0	4300.0
Final Form Total	0.0	4300.0	4300.0

Waste Material Parameters	
Material Parameter	Average Density (kg/m ³)
Iron-based Metal/Alloys	0.00
Aluminum-based Metal/Alloys	0.00
Other Metal/Alloys	0.00
Other Inorganic Materials	78.66
Cellulose	0.00
Rubber	0.00
Plastic	0.00
Cement	0.00
Solidified Inorganic Material	0.00
Solidified Organic Material	0.00
Soil	0.00
Vitrified	0.00
Packaging Material, Cellulosics	0.00
Packaging Material, Plastic	0.00
Packaging Material, Rubber	0.57
Packaging Material, Steel	130.77
Packaging Material, Lead	0.00

No Final Form
Radionuclides Provided

No Hazardous
Waste Numbers
Provided

No TRUCON
Codes Provided

Waste Stream Description
Debris waste buried on-site during original plant processing operations

Comprehensive Inventory Database ver. 2.01 Data ver. D.12.01
NOTE: Actual numerical values have been rounded for presentation purposes

APPENDIX C HISTORIC CROSSWALK OF WASTE STREAMS

From one release of the ATWIR report to the next, waste streams may undergo reorganization by the TRU waste generator sites. Waste streams may be renamed, divided, consolidated, created, or removed from the inventory altogether (i.e., shipped to WIPP or reclassified as LLW). This appendix contains a crosswalk that maps current ATWIR-2013 TRU waste site waste streams to the ATWIR-2012 TRU waste site waste streams. This appendix does not include any emplaced waste at the WIPP.

Table C-1 displays the association of each ATWIR-2013 waste stream to its respective ATWIR-2012 waste stream(s). Waste streams that are newly reported in the ATWIR-2013 and that do not map to a previous waste stream from ATWIR-2012 are indicated as “*New Waste Stream*.”

Table C-2 shows the inverse of Table C-1. Table C-2 displays the association of each ATWIR-2012 waste stream to its respective ATWIR-2013 waste stream(s). Waste streams that were previously reported in the ATWIR-2012 and that do not map to a current ATWIR-2013 waste stream are indicated as “*Deleted Waste Stream*” along with a reason for the deletion, if available.

Site Code and Site Name:

AE	Argonne National Laboratory
AW	Material and Fuels Complex
BL	Babcock and Wilcox Nuclear Energy Services
BT	Bettis Atomic Power Laboratory
IN	Idaho National Laboratory
KA	Knolls Atomic Power Laboratory - Schenectady
KN	Knolls Atomic Power Laboratory - Nuclear Fuel Services
LA	Los Alamos National Laboratory
LB	Lawrence Berkeley National Laboratory
LL	Lawrence Livermore National Laboratory
MC	U.S. Army Materiel Command
ND	Nuclear Radiation Development Site
NT	Nevada National Security Site
OR	Oak Ridge National Laboratory
PA	Paducah Gaseous Diffusion Plant
RL	Hanford (Richland) Site
RP	Hanford (River Protection) Site
SA	Sandia National Laboratories
SR	Savannah River Site
WV	West Valley Demonstration Project

Table C-1. Crosswalk of ATWIR-2013 to ATWIR-2012 Waste Streams

Site Code	ATWIR-2013 Waste Streams	ATWIR-2012 Waste Streams
AE	AE-T001	AE-T001
AE	AE-T003	AE-T003
AE	AE-T009	AE-T009
AW	AW-5410N	AW-5410N
AW	AW-5649N	AW-5649N
AW	AW-5882N	AW-5882N
AW	AW-IN-TRA-BE-01	AW-IN-TRA-BE-01
AW	AW-N027.531	AW-N027.531
AW	AW-T031.1322	AW-T031.1322
AW	AW-T033.1325	AW-T033.1325
AW	AW-W020.13	AW-W020.13
BL	BL-Parks	BL-Parks
BL	BL-Parks-A	BL-Parks-A
BT	BT-T001	BT-T001
IN	IN-AE-AGHC-02	IN-AE-AGHC-02
IN	IN-AE-AGHC-02T	IN-AE-AGHC-02T
IN	IN-BN004	IN-BN004
IN	IN-BN050	IN-BN050
IN	IN-BN090	IN-BN090
IN	IN-BN203	IN-BN203
IN	IN-BN204	IN-BN204
IN	IN-BN222	IN-BN222
IN	IN-BN290	IN-BN290
IN	IN-BN311	IN-BN311
IN	IN-BN375	IN-BN375
IN	IN-BN409	IN-BN409
IN	IN-BN421	IN-BN421
IN	IN-BN425	IN-BN425
IN	IN-BN432	IN-BN432
IN	IN-BN510	IN-BN510
IN	IN-BN510.1	IN-BN430, IN-BN431, IN-BN510.1, IN-W283
IN	IN-BN600	IN-BN600
IN	IN-BN806	IN-BN806
IN	IN-BN811	IN-BN811
IN	IN-BN817	IN-BN817
IN	IN-BN823	IN-BN823
IN	IN-BN835	IN-BN835
IN	IN-BN836	IN-BN836
IN	IN-BN842	IN-BN842
IN	IN-BN976	IN-BN976

Table C-1. Crosswalk of ATWIR-2013 to ATWIR-2012 Waste Streams
Continued

Site Code	ATWIR-2013 Waste Streams	ATWIR-2012 Waste Streams
IN	IN-BN978	IN-BN978
IN	IN-BNINW216	IN-BNINW216
IN	IN-BNINW218	IN-BNINW218
IN	IN-ID-BTO-030	IN-ID-BTO-030
IN	IN-ID-EBR-S5000	IN-ID-EBR-S5000
IN	IN-ID-HFEF-S5000-RP	AW-W018, AW-W019
IN	IN-ID-INL-152M	IN-ID-INL-152M, IN-W269
IN	IN-ID-MFC-S5400	IN-ID-MFC-S5400
IN	IN-ID-MFC-SOLID	IN-ID-MFC-SOLID
IN	IN-ID-Miscellaneous	IN-W269, IN-W342R, IN-W345, IN-W358, IN-W359R, IN-W360
IN	IN-ID-RF-S3114	IN-ID-RF-S3114
IN	IN-ID-RF-S3150-A	IN-ID-RF-S3150-A
IN	IN-ID-RF-S5000-RH	IN-BN510.1
IN	IN-ID-RF-S5126	IN-ID-RF-S5126
IN	IN-ID-RF-S5300-A	IN-ID-RF-S5300-A
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-JH826CH	IN-JH826CH
IN	IN-MFC-S5490	AW-N027.531, AW-T033.1325, IN-MFC-S5490
IN	IN-NRF-SPC	IN-NRF-SPC
IN	IN-NRF-SPC-103	IN-NRF-SPC-103
IN	IN-SBW-01A	IN-SBW-01A
IN	IN-SBW-01B	IN-SBW-01B
IN	IN-W139	IN-W139
IN	IN-W170	IN-W170
IN	IN-W171	IN-W171
IN	IN-W259	IN-W259
IN	IN-W269	IN-W269
IN	IN-W287	IN-W287
IN	IN-W322	IN-W322
IN	IN-W323	IN-W323
IN	IN-W337	IN-W337
IN	IN-W338	IN-W338
IN	IN-W339	IN-W339
IN	IN-W342R	IN-W342R
IN	IN-W345	IN-W345
IN	IN-W347	IN-W347
IN	IN-W350	IN-W350
IN	IN-W351	IN-W351

Table C-1. Crosswalk of ATWIR-2013 to ATWIR-2012 Waste Streams
Continued

Site Code	ATWIR-2013 Waste Streams	ATWIR-2012 Waste Streams
IN	IN-W358	IN-W358
KA	KA-T001	KA-T001
KA	KA-W016	KA-W016
KN	KN-B234TRU	KN-B234TRU
LA	LA-CIN01.001	LA-CIN01.001, LA-TA-55-14
LA	LA-CIN02.001	LA-CIN02.001, LA-MHD01.001
LA	LA-CIN03.001	LA-CIN03.001
LA	LA-LAMHD02238	LA-LAMHD02238
LA	LA-LAMIN04S	LA-LAMIN04S
LA	LA-LANHD02238	LA-LANHD02238
LA	LA-LANIN03NC	LA-LANIN03NC
LA	LA-MHD01.001	LA-CIN01.001, LA-LAMIN04S, LA-LANHD01, LA-MHD01.001, LA-MIN02-V.001, LA-MIN04-S.001, LA-TA-55-30
LA	LA-MHD03.001	LA-CIN03.001, LA-MHD03.001, LA-TA-03-09, LA-TA-03-12, LA-TA-03-34, LA-TA-55-32
LA	LA-MHD04.001	LA-LAMHD04001, LA-MHD01.001, LA-MHD04.001, LA-TA-03-21, LA-TA-21-01
LA	LA-MHD05-ITRI.001	LA-MHD05-ITRI.001
LA	LA-MHD08.001	LA-MHD08.001
LA	LA-MHD09.001	LA-MHD01.001, LA-MHD09.001
LA	LA-MHD10.001	LA-TA-00-01
LA	LA-MIN02-V.001	LA-CIN01.001, LA-MHD01.001, LA-MIN02-V.001
LA	LA-MIN03-NC.001	LA-MIN03-NC.001, LA-TA-50-19
LA	LA-MIN04-S.001	LA-MHD01.001, LA-MIN04-S.001
LA	LA-MSG04.001	LA-LAMSG04001, LA-MSG04.001, LA-TA-21-01
LA	LA-NCD01	<i>New Waste Stream</i>
LA	LA-OS-00-01.001	LA-OS-00-01.001
LA	LA-OS-00-04	LA-OS-00-04
LA	LA-TA-00-01	LA-TA-00-01
LA	LA-TA-00-03	LA-TA-00-03
LA	LA-TA-00-04	LA-TA-00-04
LA	LA-TA-03-01	LA-TA-03-01
LA	LA-TA-03-10	LA-TA-03-10
LA	LA-TA-03-14	LA-TA-03-14
LA	LA-TA-03-27	LA-TA-03-27
LA	LA-TA-03-28	LA-TA-03-28
LA	LA-TA-03-30	LA-TA-03-30
LA	LA-TA-03-42	LA-TA-03-42
LA	LA-TA-21-05	LA-TA-21-05
LA	LA-TA-21-06	LA-TA-21-06

Table C-1. Crosswalk of ATWIR-2013 to ATWIR-2012 Waste Streams
Continued

Site Code	ATWIR-2013 Waste Streams	ATWIR-2012 Waste Streams
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-21-12	LA-TA-21-12
LA	LA-TA-21-13	LA-TA-21-13
LA	LA-TA-21-15	LA-TA-21-15
LA	LA-TA-21-16	LA-TA-21-16
LA	LA-TA-21-17	LA-TA-21-17
LA	LA-TA-50-18	LA-TA-50-18
LA	LA-TA-50-19	LA-TA-50-19
LA	LA-TA-55-19	LA-TA-55-19
LA	LA-TA-55-21	LA-TA-55-21
LA	LA-TA-55-30	LA-TA-55-30
LA	LA-TA-55-38	LA-TA-55-38
LA	LA-TA-55-43	<i>New Waste Stream</i>
LA	LA-TRU-Empty-55	LA-TRU-Empty
LA	LA-TRU-Empty-85	LA-TRU-Empty
LB	LB-T001	LB-T001
LB	LB-T002	LB-T002
LL	LL-M001	LL-M001
LL	LL-T004	LL-T004
LL	LL-W018-S5100	LL-W018-S5100
LL	LL-W018-SS	LL-W018-SS
LL	LL-W019	LL-W019
ND	ND-T001	ND-T001
ND	ND-T002	ND-T002
NT	NT-JAS-01	NT-JAS-01
NT	NT-W021	NT-W021
OR	OR-CHEM-CH-HET	OR-CHEM-CH-HET
OR	OR-GENR-CH-HET	OR-GENR-CH-HET
OR	OR-GENR-RH-HET	OR-GENR-RH-HET
OR	OR-ISTP-CH-HET	OR-ISTP-CH-HET
OR	OR-ISTP-RH-HET	OR-ISTP-RH-HET
OR	OR-NBL-CH-HET	OR-NBL-CH-HET
OR	OR-NFS-CH-HET	OR-NFS-CH-HET
OR	OR-NFS-CH-HOM	OR-NFS-CH-HOM
OR	OR-NFS-CH-SOIL	OR-NFS-CH-SOIL
OR	OR-PGDP-CH-HET	OR-PGDP-CH-HET
OR	OR-RADP-CH-HET	OR-RADP-CH-HET
OR	OR-RADP-CH-SOILS	OR-RADP-CH-SOILS
OR	OR-RADP-RH-HET	OR-RADP-RH-HET

Table C-1. Crosswalk of ATWIR-2013 to ATWIR-2012 Waste Streams
Continued

Site Code	ATWIR-2013 Waste Streams	ATWIR-2012 Waste Streams
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-RF-RH-HET	OR-RF-RH-HET
OR	OR-SWSA-CH-HET	OR-SWSA-CH-HET
OR	OR-SWSA-CH-SOIL	OR-SWSA-CH-SOIL
OR	OR-TBD-CH-HET	OR-TBD-CH-HET
OR	OR-TBD-RH-HET	OR-TBD-RH-HET
OR	OR-W203	OR-W203
OR	OR-W213-RH-SOILS	OR-W213-RH-SOILS
OR	OR-WSTR-CH-HET	OR-WSTR-CH-HET
OR	OR-Y12-CH-HET	OR-Y12-CH-HET
RL	RL100D-08	<i>New Waste Stream</i>
RL	RL105-01	RL105-01
RL	RL105-03	RL105-03
RL	RL105-08	RL105-08
RL	RL105-09	RL105-09
RL	RL200-01	RL200-01
RL	RL200-02	RL200-02
RL	RL201-03	RL201-03
RL	RL202S-01	RL202S-01
RL	RL209E-01	RL209E-01
RL	RL209E-08	RL209E-08
RL	RL216Z-02	RL216Z-02
RL	RL221T-01	RL221T-01
RL	RL221U-03	RL221U-03
RL	RL221U-09	RL221U-09
RL	RL222S-01	RL222S-01
RL	RL222S-08	RL222S-08
RL	RL231Z-01	RL231Z-01
RL	RL231Z-03	RL231Z-03
RL	RL233S-01	RL233S-01
RL	RL233S-03	RL233S-03
RL	RL300-01	RL300-01
RL	RL300-03	RL300-03
RL	RL300-08	RL300-08
RL	RL300-11	RL300-11
RL	RL308-01	RL308-01
RL	RL308-03	RL308-03
RL	RL308-08	RL308-08

Table C-1. Crosswalk of ATWIR-2013 to ATWIR-2012 Waste Streams
Continued

Site Code	ATWIR-2013 Waste Streams	ATWIR-2012 Waste Streams
RL	RL325-01	RL325-01
RL	RL325-03	RL325-03
RL	RL325-08	RL325-08
RL	RL618-01	RL618-01
RL	RL618-08	RL618-08
RL	RLALE-02	RLALE-02
RL	RLARG-01	RLARG-01
RL	RLBART-08	RLBART-08
RL	RLBAT-01	RLBAT-01
RL	RLBAT-08	RLBAT-08
RL	RLBET-08	RLBET-08
RL	RLBW-01	RLBW-01
RL	RLBW-03	RLBW-03
RL	RLBW-08	RLBW-08
RL	RLCFF-01	RLCFF-01
RL	RLCFF-03	RLCFF-03
RL	RLCH2-01	RLCH2-01
RL	RLCH2-08	RLCH2-08
RL	RLESG-01	RLESG-01
RL	RLESG-03	RLESG-03
RL	RLESG-08	RLESG-08
RL	RLEXX-01	RLEXX-01
RL	RLFFTF-01	RLFFTF-01
RL	RLFFTF-08	RLFFTF-08
RL	RLGEV-01	RLGEV-01
RL	RLGEV-03	RLGEV-03
RL	RLGEV-08	RLGEV-08
RL	RLHAN-01	RLHAN-01
RL	RLHAN-03	RLHAN-01
RL	RLHAN-08	RLHAN-08
RL	RLIAEA-03	RLIAEA-03
RL	RLMLB-08	RLMLB-08
RL	RLMLL-01	RLMLL-01
RL	RLP11-01	RLP11-01
RL	RLPFP-01	RLPFP-01
RL	RLPFP-02	RLPFP-10
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

Table C-1. Crosswalk of ATWIR-2013 to ATWIR-2012 Waste Streams
Continued

Site Code	ATWIR-2013 Waste Streams	ATWIR-2012 Waste Streams
RL	RLPURX-02	RL200-02
RL	RLPURX-08	RLPURX-08
RL	RLRFET-01	RLRFET-01
RL	RLSAN-01	RLSAN-01
RL	RLSWO-01	RLSWO-01
RL	RLWAR-01	RLWAR-01
RL	RLWAR-03	RLWAR-03
RL	RLWTP-08	RLWTP-08
RP	RP-TFC001	RP-TFC001
RP	RP-W754	RP-W754
RP	RP-W755	RP-W755
SA	SA-W135-A	SA-W135
SA	SA-W136	SA-W136
SA	SA-W137	SA-W137
SA	SA-W138M	SA-W138M
SR	SR-221H-PuOx	SR-221H-PuOx
SR	SR-AGNS-HOM	SR-AGNS-HOM
SR	SR-BCLDP-HET	SR-BCLDP-HET
SR	SR-BCLDP.003.001	SR-BCLDP.003.001
SR	SR-BCLDP.004.004	SR-BCLDP.004.004
SR	SR-DWPF-HET	SR-W026-DWPF-HET
SR	SR-HBL-235F-HET	SR-W027-235F/221H-HET
SR	SR-KAC-HET	SR-KAC-HET
SR	SR-LA-PAD1	SR-LA-PAD1
SR	SR-MD-HET	SR-MD-HET
SR	SR-MD-PAD1	SR-MD-PAD1
SR	SR-MD-SOIL	SR-MD-SOIL
SR	SR-NIST-HET	SR-NIST-HET
SR	SR-RH-221H.01	SR-RH-221H.01
SR	SR-RH-221H.02	SR-RH-221H.01, SR-RH-221H.02
SR	SR-RH-235F.01	SR-RH-235F.01
SR	SR-RH-772F.01	SR-RH-772F.01
SR	SR-RH-773A.01	SR-RH-773A.01, SR-W027-UNK
SR	SR-RH-FBL.01	SR-RH-FBL.01
SR	SR-RH-FBL.02	SR-RH-FBL.01
SR	SR-RH-MNDPAD1.01	SR-RH-MNDPAD1.01
SR	SR-SDD-HET-A	SR-SDD-HET-A
SR	SR-SDD-HOM-A	SR-SDD-HOM-A
SR	SR-SDD-HOM-B	SR-SDD-HOM-B
SR	SR-SWMF-HET-A	SR-SWMF-HET-A
SR	SR-SWMF-HET-B	SR-SWMF-HET-B

Table C-1. Crosswalk of ATWIR-2013 to ATWIR-2012 Waste Streams
Continued

Site Code	ATWIR-2013 Waste Streams	ATWIR-2012 Waste Streams
SR	SR-T001-WSB-1	SR-T001-WSB-1
SR	SR-W026-221F-HEPA	SR-W026-221F-HEPA
SR	SR-W026-221F-HET	SR-W026-221F-HET
SR	SR-W026-221F-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-WSB-2	SR-W026-WSB-2
SR	SR-W027-221F-HET-A	SR-W027-221F-HET-A
SR	SR-W027-221H-HEPA	SR-W027-221H-HEPA
SR	SR-W027-221H-HET	SR-W027-221H-HET, SR-W027-UNK
SR	SR-W027-221H-HET-C	SR-W027-221H-HET-C
SR	SR-W027-221H-HOM	SR-W027-221H-HOM
SR	SR-W027-235F-HEPA	SR-W027-235F-HEPA
SR	SR-W027-235F-HET	SR-W027-235F-HET
SR	SR-W027-321-322M-HET	SR-W027-321-322M-HET
SR	SR-W027-321M-HOM	SR-W027-321M-HOM
SR	SR-W027-773A-HET	SR-W027-773A-HET, SR-W027-773A-HET-CLAS, SR-W027-UNK
SR	SR-W027-773A-HET-CLAS	SR-W027-773A-HET-CLAS
SR	SR-W027-773A-HOM	SR-W027-773A-HOM
SR	SR-W027-FB-Pre86-C	SR-W027-FB-Pre86-C
SR	SR-W027-HBL-Box	SR-W027-HBL-Box
SR	SR-W027-UNK	SR-W027-UNK
WV	WV-M010a	WV-M010a
WV	WV-T004	WV-T004
WV	WV-T006a	WV-T006a
WV	WV-T006b	WV-T006b
WV	WV-T017b	WV-T017b
WV	WV-W024a	WV-W024a
WV	WV-W024b	WV-W024b
WV	WV-W050a	<i>New Waste Stream</i>
WV	WV-Z001	WV-Z001

Data Source: CID Data Version D.12.01 (LANL-CO 2013a). Note: This table contains data for WIPP-bound and potential waste streams only; it does not include data for emplaced waste streams.

Table C-2. Crosswalk of ATWIR-2012 to ATWIR-2013 Waste Streams

Site Code	ATWIR-2012 Waste Streams	ATWIR-2013 Waste Streams
AE	AE-T001	AE-T001
AE	AE-T003	AE-T003
AE	AE-T009	AE-T009
AW	AW-5410N	AW-5410N
AW	AW-5649N	AW-5649N
AW	AW-5882N	AW-5882N
AW	AW-IN-TRA-BE-01	AW-IN-TRA-BE-01
AW	AW-N027.531	AW-N027.531, IN-MFC-S5490
AW	AW-T031.1322	AW-T031.1322
AW	AW-T033.1325	AW-T033.1325, IN-MFC-S5490
AW	AW-W018	IN-ID-HFEF-S5000-RP
AW	AW-W019	IN-ID-HFEF-S5000-RP
AW	AW-W020.13	AW-W020.13
BL	BL-Parks	BL-Parks
BL	BL-Parks-A	BL-Parks-A
BT	BT-T001	BT-T001
IN	IN-AE-AGHC-02	IN-AE-AGHC-02
IN	IN-AE-AGHC-02T	IN-AE-AGHC-02T
IN	IN-AECHDM-PK	<i>Deleted Waste Stream - Shipped to WIPP</i>
IN	IN-BN004	IN-BN004
IN	IN-BN050	IN-BN050
IN	IN-BN090	IN-BN090
IN	IN-BN095	<i>Deleted Waste Stream - Determined to be LLW</i>
IN	IN-BN203	IN-BN203
IN	IN-BN204	IN-BN204
IN	IN-BN222	IN-BN222
IN	IN-BN290	IN-BN290
IN	IN-BN311	IN-BN311
IN	IN-BN375	IN-BN375
IN	IN-BN409	IN-BN409
IN	IN-BN421	IN-BN421
IN	IN-BN425	IN-BN425
IN	IN-BN430	IN-BN510.1
IN	IN-BN431	IN-BN510.1
IN	IN-BN432	IN-BN432
IN	IN-BN510	IN-BN510
IN	IN-BN510.1	IN-BN510.1, IN-ID-RF-S5000-RH
IN	IN-BN600	IN-BN600
IN	IN-BN806	IN-BN806
IN	IN-BN811	IN-BN811

Table C-2. Crosswalk of ATWIR-2012 to ATWIR-2013 Waste Streams
Continued

Site Code	ATWIR-2012 Waste Streams	ATWIR-2013 Waste Streams
IN	IN-BN817	IN-BN817
IN	IN-BN823	IN-BN823
IN	IN-BN835	IN-BN835
IN	IN-BN836	IN-BN836
IN	IN-BN842	IN-BN842
IN	IN-BN976	IN-BN976
IN	IN-BN978	IN-BN978
IN	IN-BNINW216	IN-BNINW216
IN	IN-BNINW218	IN-BNINW218
IN	IN-ID-BTO-030	IN-ID-BTO-030
IN	IN-ID-EBR-S5000	IN-ID-EBR-S5000
IN	IN-ID-INL-152	<i>Deleted Waste Stream - Shipped to WIPP</i>
IN	IN-ID-INL-152M	IN-ID-INL-152M
IN	IN-ID-MFC-S5400	IN-ID-MFC-S5400
IN	IN-ID-MFC-SOLID	IN-ID-MFC-SOLID
IN	IN-ID-RF-S3114	IN-ID-RF-S3114
IN	IN-ID-RF-S3150-A	IN-ID-RF-S3150-A
IN	IN-ID-RF-S5126	IN-ID-RF-S5126
IN	IN-ID-RF-S5300-A	IN-ID-RF-S5300-A
IN	IN-ID-SA-T001	<i>Deleted Waste Stream - Shipped to WIPP</i>
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-ID-SNL-HCF-S5400	<i>Deleted Waste Stream - Shipped to WIPP</i>
IN	IN-JH826CH	IN-JH826CH
IN	IN-MFC-S5490	IN-MFC-S5490
IN	IN-NRF-SPC	IN-NRF-SPC
IN	IN-NRF-SPC-103	IN-NRF-SPC-103
IN	IN-SBW-01A	IN-SBW-01A
IN	IN-SBW-01B	IN-SBW-01B
IN	IN-W139	IN-W139
IN	IN-W170	IN-W170
IN	IN-W171	IN-W171
IN	IN-W259	IN-W259
IN	IN-W269	IN-ID-INL-152M, IN-ID-Miscellaneous, IN-W269
IN	IN-W283	IN-BN510.1
IN	IN-W287	IN-W287
IN	IN-W322	IN-W322
IN	IN-W323	IN-W323
IN	IN-W337	IN-W337
IN	IN-W338	IN-W338

Table C-2. Crosswalk of ATWIR-2012 to ATWIR-2013 Waste Streams
Continued

Site Code	ATWIR-2012 Waste Streams	ATWIR-2013 Waste Streams
IN	IN-W339	IN-W339
IN	IN-W342R	IN-ID-Miscellaneous, IN-W342R
IN	IN-W345	IN-ID-Miscellaneous, IN-W345
IN	IN-W347	IN-W347
IN	IN-W350	IN-W350
IN	IN-W351	IN-W351
IN	IN-W358	IN-ID-Miscellaneous, IN-W358
IN	IN-W359R	IN-ID-Miscellaneous
IN	IN-W360	IN-ID-Miscellaneous
KA	KA-T001	KA-T001
KA	KA-W016	KA-W016
KN	KN-B234TRU	KN-B234TRU
LA	LA-CIN01.001	LA-CIN01.001, LA-MHD01.001, LA-MIN02-V.001
LA	LA-CIN02.001	LA-CIN02.001
LA	LA-CIN03.001	LA-CIN03.001, LA-MHD03.001
LA	LA-LAMHD02238	LA-LAMHD02238
LA	LA-LAMHD04001	LA-MHD04.001
LA	LA-LAMIN04S	LA-LAMIN04S, LA-MHD01.001
LA	LA-LAMSG04001	LA-MSG04.001
LA	LA-LANHD01	LA-MHD01.001
LA	LA-LANHD02238	LA-LANHD02238
LA	LA-LANIN03NC	LA-LANIN03NC
LA	LA-MHD01.001	LA-CIN02.001, LA-MHD01.001, LA-MHD04.001, LA-MHD09.001, LA-MIN02-V.001, LA-MIN04-S.001
LA	LA-MHD03.001	LA-MHD03.001
LA	LA-MHD04.001	LA-MHD04.001
LA	LA-MHD05-ITRI.001	LA-MHD05-ITRI.001
LA	LA-MHD08.001	LA-MHD08.001
LA	LA-MHD09.001	LA-MHD09.001
LA	LA-MIN02-V.001	LA-MHD01.001, LA-MIN02-V.001
LA	LA-MIN03-NC.001	LA-MIN03-NC.001
LA	LA-MIN04-S.001	LA-MHD01.001, LA-MIN04-S.001
LA	LA-MSG04.001	LA-MSG04.001
LA	LA-OS-00-01.001	LA-OS-00-01.001
LA	LA-OS-00-04	LA-OS-00-04
LA	LA-TA-00-01	LA-MHD10.001, LA-TA-00-01
LA	LA-TA-00-03	LA-TA-00-03
LA	LA-TA-00-04	LA-TA-00-04
LA	LA-TA-03-01	LA-TA-03-01
LA	LA-TA-03-09	LA-MHD03.001
LA	LA-TA-03-10	LA-TA-03-10

Table C-2. Crosswalk of ATWIR-2012 to ATWIR-2013 Waste Streams
Continued

Site Code	ATWIR-2012 Waste Streams	ATWIR-2013 Waste Streams
LA	LA-TA-03-12	LA-MHD03.001
LA	LA-TA-03-14	LA-TA-03-14
LA	LA-TA-03-17	<i>Deleted Waste Stream - Determined to be LLW</i>
LA	LA-TA-03-21	LA-MHD04.001
LA	LA-TA-03-23	<i>Deleted Waste Stream - Determined to be LLW</i>
LA	LA-TA-03-27	LA-TA-03-27
LA	LA-TA-03-28	LA-TA-03-28
LA	LA-TA-03-30	LA-TA-03-30
LA	LA-TA-03-33	<i>Deleted Waste Stream - Determined to be LLW</i>
LA	LA-TA-03-34	LA-MHD03.001
LA	LA-TA-03-42	LA-TA-03-42
LA	LA-TA-21-01	LA-MHD04.001, LA-MSG04.001
LA	LA-TA-21-05	LA-TA-21-05
LA	LA-TA-21-06	LA-TA-21-06
LA	LA-TA-21-07	LA-TA-21-07
LA	LA-TA-21-08	LA-TA-21-08
LA	LA-TA-21-09	LA-TA-21-09
LA	LA-TA-21-11	<i>Deleted Waste Stream - Determined to be LLW</i>
LA	LA-TA-21-12	LA-TA-21-12
LA	LA-TA-21-13	LA-TA-21-13
LA	LA-TA-21-15	LA-TA-21-15
LA	LA-TA-21-16	LA-TA-21-16
LA	LA-TA-21-17	LA-TA-21-17
LA	LA-TA-50-12	<i>Deleted Waste Stream - Determined to be LLW</i>
LA	LA-TA-50-15	<i>Deleted Waste Stream - Determined to be LLW</i>
LA	LA-TA-50-18	LA-TA-50-18
LA	LA-TA-50-19	LA-MIN03-NC.001, LA-TA-50-19
LA	LA-TA-50-20	<i>Deleted Waste Stream - Determined to be LLW</i>
LA	LA-TA-55-14	LA-CIN01.001
LA	LA-TA-55-19	LA-TA-55-19
LA	LA-TA-55-21	LA-TA-55-21
LA	LA-TA-55-30	LA-MHD01.001, LA-TA-55-30
LA	LA-TA-55-32	LA-MHD03.001
LA	LA-TA-55-38	LA-TA-55-38
LA	LA-TRU-Empty	LA-TRU-Empty-55, LA-TRU-Empty-85
LB	LB-T001	LB-T001
LB	LB-T002	LB-T002
LL	LL-M001	LL-M001
LL	LL-T004	LL-T004
LL	LL-W018-S5100	LL-W018-S5100
LL	LL-W018-SS	LL-W018-SS

Table C-2. Crosswalk of ATWIR-2012 to ATWIR-2013 Waste Streams
Continued

Site Code	ATWIR-2012 Waste Streams	ATWIR-2013 Waste Streams
LL	LL-W019	LL-W019
ND	ND-T001	ND-T001
ND	ND-T002	ND-T002
NT	NT-JAS-01	NT-JAS-01
NT	NT-W021	NT-W021
OR	OR-CHEM-CH-HET	OR-CHEM-CH-HET
OR	OR-GENR-CH-HET	OR-GENR-CH-HET
OR	OR-GENR-RH-HET	OR-GENR-RH-HET
OR	OR-ISTP-CH-HET	OR-ISTP-CH-HET
OR	OR-ISTP-RH-HET	OR-ISTP-RH-HET
OR	OR-NBL-CH-HET	OR-NBL-CH-HET
OR	OR-NFS-CH-HET	OR-NFS-CH-HET
OR	OR-NFS-CH-HOM	OR-NFS-CH-HOM
OR	OR-NFS-CH-SOIL	OR-NFS-CH-SOIL
OR	OR-PGDP-CH-HET	OR-PGDP-CH-HET
OR	OR-RADP-CH-HET	OR-RADP-CH-HET
OR	OR-RADP-CH-SOILS	OR-RADP-CH-SOILS
OR	OR-RADP-RH-HET	OR-RADP-RH-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-RF-RH-HET	OR-RF-RH-HET
OR	OR-SWSA-CH-HET	OR-SWSA-CH-HET
OR	OR-SWSA-CH-SOIL	OR-SWSA-CH-SOIL
OR	OR-TBD-CH-HET	OR-TBD-CH-HET
OR	OR-TBD-RH-HET	OR-TBD-RH-HET
OR	OR-W203	OR-W203
OR	OR-W213-RH-SOILS	OR-W213-RH-SOILS
OR	OR-WSTR-CH-HET	OR-WSTR-CH-HET
OR	OR-Y12-CH-HET	OR-Y12-CH-HET
RL	RL105-01	RL105-01
RL	RL105-03	RL105-03
RL	RL105-08	RL105-08
RL	RL105-09	RL105-09
RL	RL200-01	RL200-01
RL	RL200-02	RL200-02, RLPURX-02
RL	RL201-03	RL201-03
RL	RL202S-01	RL202S-01
RL	RL209E-01	RL209E-01
RL	RL209E-08	RL209E-08

Table C-2. Crosswalk of ATWIR-2012 to ATWIR-2013 Waste Streams
Continued

Site Code	ATWIR-2012 Waste Streams	ATWIR-2013 Waste Streams
RL	RL216Z-02	RL216Z-02
RL	RL221T-01	RL221T-01
RL	RL221U-03	RL221U-03
RL	RL221U-09	RL221U-09
RL	RL222S-01	RL222S-01
RL	RL222S-08	RL222S-08
RL	RL231Z-01	RL231Z-01
RL	RL231Z-03	RL231Z-03
RL	RL233S-01	RL233S-01
RL	RL233S-03	RL233S-03
RL	RL300-01	RL300-01
RL	RL300-03	RL300-03
RL	RL300-08	RL300-08
RL	RL300-11	RL300-11
RL	RL308-01	RL308-01
RL	RL308-03	RL308-03
RL	RL308-08	RL308-08
RL	RL325-01	RL325-01
RL	RL325-03	RL325-03
RL	RL325-08	RL325-08
RL	RL618-01	RL618-01
RL	RL618-08	RL618-08
RL	RLALE-02	RLALE-02
RL	RLARG-01	RLARG-01
RL	RLBART-08	RLBART-08
RL	RLBAT-01	RLBAT-01
RL	RLBAT-08	RLBAT-08
RL	RLBET-08	RLBET-08
RL	RLBW-01	RLBW-01
RL	RLBW-03	RLBW-03
RL	RLBW-08	RLBW-08
RL	RLCFF-01	RLCFF-01
RL	RLCFF-03	RLCFF-03
RL	RLCH2-01	RLCH2-01
RL	RLCH2-08	RLCH2-08
RL	RLESG-01	RLESG-01
RL	RLESG-03	RLESG-03
RL	RLESG-08	RLESG-08
RL	RLEXX-01	RLEXX-01
RL	RLFFTF-01	RLFFTF-01
RL	RLFFTF-08	RLFFTF-08

Table C-2. Crosswalk of ATWIR-2012 to ATWIR-2013 Waste Streams
Continued

Site Code	ATWIR-2012 Waste Streams	ATWIR-2013 Waste Streams
RL	RLGEV-01	RLGEV-01
RL	RLGEV-03	RLGEV-03
RL	RLGEV-08	RLGEV-08
RL	RLHAN-01	RLHAN-01, RLHAN-03
RL	RLHAN-08	RLHAN-08
RL	RLIAEA-03	RLIAEA-03
RL	RLMLB-08	RLMLB-08
RL	RLMLL-01	RLMLL-01
RL	RLP11-01	RLP11-01
RL	RLPFP-01	RLPFP-01
RL	RLPFP-03	RLPFP-03
RL	RLPFP-04	RLPFP-04
RL	RLPFP-08	RLPFP-08
RL	RLPFP-10	RLPFP-02
RL	RLPRC-01	RLPRC-01
RL	RLPURX-01	RLPURX-01
RL	RLPURX-08	RLPURX-08
RL	RLRFET-01	RLRFET-01
RL	RLSAN-01	RLSAN-01
RL	RLSWO-01	RLSWO-01
RL	RLWAR-01	RLWAR-01
RL	RLWAR-03	RLWAR-03
RL	RLWTP-08	RLWTP-08
RP	RP-TFC001	RP-TFC001
RP	RP-W754	RP-W754
RP	RP-W755	RP-W755
SA	SA-W135	SA-W135-A
SA	SA-W136	SA-W136
SA	SA-W137	SA-W137
SA	SA-W138M	SA-W138M
SR	SR-221H-PuOx	SR-221H-PuOx
SR	SR-AGNS-HET	<i>Deleted Waste Stream - Shipped to WIPP</i>
SR	SR-AGNS-HOM	SR-AGNS-HOM
SR	SR-BCLDP-HET	SR-BCLDP-HET
SR	SR-BCLDP.003.001	SR-BCLDP.003.001
SR	SR-BCLDP.004.004	SR-BCLDP.004.004
SR	SR-KAC-HET	SR-KAC-HET
SR	SR-LA-PAD1	SR-LA-PAD1
SR	SR-MD-HET	SR-MD-HET
SR	SR-MD-HOM-C	<i>Deleted Waste Stream - Shipped to WIPP</i>
SR	SR-MD-PAD1	SR-MD-PAD1

Table C-2. Crosswalk of ATWIR-2012 to ATWIR-2013 Waste Streams
Continued

Site Code	ATWIR-2012 Waste Streams	ATWIR-2013 Waste Streams
SR	SR-MD-SOIL	SR-MD-SOIL
SR	SR-NIST-HET	SR-NIST-HET
SR	SR-RH-221H.01	SR-RH-221H.01, SR-RH-221H.02
SR	SR-RH-221H.02	SR-RH-221H.02
SR	SR-RH-235F.01	SR-RH-235F.01
SR	SR-RH-772F.01	SR-RH-772F.01
SR	SR-RH-773A.01	SR-RH-773A.01
SR	SR-RH-FBL.01	SR-RH-FBL.01, SR-RH-FBL.02
SR	SR-RH-MNDPAD1.01	SR-RH-MNDPAD1.01
SR	SR-RH-SDD.01	<i>Deleted Waste Stream - Shipped to WIPP</i>
SR	SR-RH-SWD.01	<i>Deleted Waste Stream - Determined to be LLW</i>
SR	SR-SDD-HET-A	SR-SDD-HET-A
SR	SR-SDD-HET-B	<i>Deleted Waste Stream - Shipped to WIPP</i>
SR	SR-SDD-HOM-A	SR-SDD-HOM-A
SR	SR-SDD-HOM-B	SR-SDD-HOM-B
SR	SR-SWMF-HET-A	SR-SWMF-HET-A
SR	SR-SWMF-HET-B	SR-SWMF-HET-B
SR	SR-SWMF-SOIL	<i>Deleted Waste Stream - Determined to be LLW</i>
SR	SR-T001-WSB-1	SR-T001-WSB-1
SR	SR-W026-221F-HEPA	SR-W026-221F-HEPA
SR	SR-W026-221F-HET	SR-W026-221F-HET
SR	SR-W026-221F-HET-A	<i>Deleted Waste Stream - Shipped to WIPP</i>
SR	SR-W026-221F-HOM	SR-W026-221F-HOM
SR	SR-W026-772F-HET	SR-W026-772F-HET
SR	SR-W026-DWPF-HET	SR-DWPF-HET
SR	SR-W026-MFFF-1	SR-W026-MFFF-1
SR	SR-W026-WSB-2	SR-W026-WSB-2
SR	SR-W027-221F-HET-A	SR-W027-221F-HET-A
SR	SR-W027-221H-HEPA	SR-W027-221H-HEPA
SR	SR-W027-221H-HET	SR-W027-221H-HET
SR	SR-W027-221H-HET-C	SR-W027-221H-HET-C
SR	SR-W027-221H-HOM	SR-W027-221H-HOM
SR	SR-W027-235F-HEPA	SR-W027-235F-HEPA
SR	SR-W027-235F-HET	SR-W027-235F-HET
SR	SR-W027-235F-HOM	<i>Deleted Waste Stream - Shipped to WIPP</i>
SR	SR-W027-235F/221H-HET	SR-HBL-235F-HET
SR	SR-W027-321-322M-HET	SR-W027-321-322M-HET
SR	SR-W027-321M-HOM	SR-W027-321M-HOM
SR	SR-W027-773A-HET	SR-W027-773A-HET

Table C-2. Crosswalk of ATWIR-2012 to ATWIR-2013 Waste Streams
Continued

Site Code	ATWIR-2012 Waste Streams	ATWIR-2013 Waste Streams
SR	SR-W027-773A-HET-CLAS	SR-W027-773A-HET, SR-W027-773A-HET-CLAS
SR	SR-W027-773A-HOM	SR-W027-773A-HOM
SR	SR-W027-776A-HET	<i>Deleted Waste Stream - Shipped to WIPP</i>
SR	SR-W027-FB-Pre86-C	SR-W027-FB-Pre86-C
SR	SR-W027-HBL-Box	SR-W027-HBL-Box
SR	SR-W027-UNK	SR-RH-773A.01, SR-W027-221H-HET, SR-W027-773A-HET, SR-W027-UNK
WV	WV-M010a	WV-M010a
WV	WV-T004	WV-T004
WV	WV-T006a	WV-T006a
WV	WV-T006b	WV-T006b
WV	WV-T017b	WV-T017b
WV	WV-W024a	WV-W024a
WV	WV-W024b	WV-W024b
WV	WV-Z001	WV-Z001

Data Source: CID Data Version D.12.01 (LANL-CO 2013a). Note: This table contains data for WIPP-bound and potential waste streams only; it does not include data for emplaced waste streams.

APPENDIX D DOE POTENTIAL WASTE SCREENING MEMORANDUM


Department of Energy

Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221

March 29, 2010

Mr. Ned Elkins, Manager
Los Alamos National Laboratory - Carlsbad Operations
115 N. Main
Carlsbad, NM 88220

Subject: TRU Waste Inventory Screening Criteria Guidance

Dear Mr. Elkins:

The Department of Energy Carlsbad Field Office (CBFO), in the enclosed memorandum, is providing guidance on the criteria to be used to screen transuranic (TRU) waste streams for exclusion from the Waste Isolation Pilot Plant (WIPP)-bound inventory in upcoming Annual TRU Waste Inventory Reports. This guidance will stay in effect until Los Alamos National Laboratory – Carlsbad Operations is formally notified otherwise by CBFO.

If you have any questions regarding this guidance please notify me at (575) 234-7457.

Sincerely,

Russ Patterson
Compliance Certification Manager

Enclosure

cc: w/enclosure
C. Fesmire, CBFO *ED
S. McCauslin, CBFO ED
G. Basabilvazo, CBFO ED
R. Nelson, CBFO ED
D. Kessel, SNL ED
S. Kouba, WRES ED
B. Crawford, LANL-CO ED
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*ED denotes electronic distribution

INV - 1004-01-01-01

CBFO:ORC:RLP:MDA:10-0945:UFC 5822.00

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Screening Memorandum
March 17, 2010

This screening memo describes criteria that will be used to screen transuranic (TRU) waste streams for exclusion from the Waste Isolation Pilot Plant (WIPP)-bound inventory. This WIPP-bound waste is used in future performance assessments (PAs) for the Compliance Recertification Application (CRA). This memo does not address high level, low level or commercial waste since they are prohibited for disposal in WIPP. The table below contains screening criteria that will be used to designate Potential waste streams. The table in no way indicates that waste identified as Potential will be excluded from emplacement in WIPP in the future.

All waste streams collected for each Annual TRU Waste Inventory Report (ATWIR) are categorized within the TRU waste inventory database as WIPP-Bound unless one or more of the screening criteria listed in the table below are encountered. All shipments to WIPP will be subject to the conditions delineated in the WIPP Hazardous Waste Facility Permit Waste Analysis Plan (WAP), WIPP Waste Acceptance Criteria (WAC) and the Transuranic Authorized Methods for Payload Control (TRAMPAC). The table below is intended to be treated as a guide for delineating Potential waste streams that will be reported in the ATWIR in Appendix C and excluded from being reported in Performance Assessment Inventory Report (PAIR) that will be used for future PAs.

Criteria for Categorizing Waste Streams as Potential

Screening Criteria	Comment
TRU Determination Undetermined	Will remain potential until the waste stream has been officially determined to be transuranic. If the waste stream is determined to be non-transuranic then it will be removed from the inventory.
Defense Determination Unknown	Will remain potential until the waste stream has been officially determined to be defense waste. If the waste stream is determined to be non-defense then it will be removed from the inventory.
Regulatory Restrictions <ul style="list-style-type: none"> • Surface Dose > 1000 R/hr • Activity >23 Ci/L (or 23,000 Ci/m³) averaged over the volume of the canister • Prohibited hazardous constituents • Summary category groups other than S3000, S4000, S5000 • And other regulatory restrictions 	Will remain potential until the waste stream meets all acceptance criteria for WIPP. This may involve: <ul style="list-style-type: none"> • Repackaging waste stream • Treating waste stream • Removal of restricted items from waste stream • Any other process that would remediate the regulatory restriction
Incomplete Data <ul style="list-style-type: none"> • Incomplete or missing radionuclide concentrations • Incomplete or missing WMP 	Will remain potential until the waste stream reports all required data.

Screening Criteria	Comment
densities <ul style="list-style-type: none"> • Incomplete or missing final form container information • Unknown waste stream information • Any other incomplete or missing waste stream information that is required for PA 	
Directed by DOE to move to Potential	Will remain potential until DOE directs to remove waste stream from potential.

DOE/CBFO Compliance Certification Manager



Russ Patterson



Date