# ANNUAL TRANSURANIC WASTE INVENTORY REPORT – 2019
(Data Cutoff Date 12/31/2018)

DOE/TRU-19-3425

Revision 0

December 2019

U.S. Department of Energy
Carlsbad Field Office

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(Data Cutoff Date 12/31/2018)

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December 2019

U.S. Department of Energy
Carlsbad Field Office

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## HISTORY OF REVISION/CHANGE

| Revision Number | Pages Affected | Description of Revision/Change |
|---|---|---|
| 0 | All | Initial issue to document the inventory estimate of transuranic waste reported by the TRU waste generator sites as of December 31, 2018. |

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# ACRONYMS AND ABBREVIATIONS

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

| | |
|---|---|
| ANL | Argonne National Laboratory |
| ATWIR | Annual Transuranic Waste Inventory Report |
| BAPL | Bettis Atomic Power Laboratory |
| BL | Babcock and Wilcox Nuclear Energy Services |
| CBFO | Carlsbad Field Office |
| CH | contact-handled |
| Ci | curie(s) |
| CID | Comprehensive Inventory Database |
| CIT | CID Import Template |
| CY | calendar year |
| D&D | decontamination and decommissioning |
| DOE | U.S. Department of Energy |
| DSA | Documented Safety Analysis |
| DT | data template |
| EDTA | ethylenediaminetetraacetic acid |
| HWFP | Hazardous Waste Facility Permit |
| INL | Idaho National Laboratory |
| KAPL-NFS | Knolls Atomic Power Laboratory – Nuclear Fuel Services |
| KAPL-S | Knolls Atomic Power Laboratory – Schenectady |
| kg | kilogram(s) |
| LANL | Los Alamos National Laboratory |
| LANL-CO | Los Alamos National Laboratory – Carlsbad Operations |
| LBNL | Lawrence Berkeley National Laboratory |
| LLNL | Lawrence Livermore National Laboratory |
| LLW | low-level waste |
| LQS | large quantity site |
| LWA | Land Withdrawal Act |
| $m^3$ | cubic meter(s) |
| MFC | Material and Fuels Complex |

## ACRONYMS AND ABBREVIATIONS, cont.

| | |
|---|---|
| NEPA | National Environmental Policy Act |
| NNSA | National Nuclear Security Administration |
| NNSS | Nevada National Security Site |
| NRD | Nuclear Radiation Development |
| ORIGEN-S | Oak Ridge Isotope Generation and Depletion Code |
| ORNL | Oak Ridge National Laboratory |
| PA | performance assessment |
| QA | quality assurance |
| QAPD | Quality Assurance Program Document |
| RH | remote-handled |
| RL | Hanford (Richland) Site |
| RP | Hanford Site – Office of River Protection |
| SCALE | Standardized Computer Analysis for Licensing Evaluation |
| SNL | Sandia National Laboratories |
| SPRU | Separations Process Research Unit |
| SRS | Savannah River Site |
| TRU | transuranic |
| WAC | Waste Acceptance Criteria |
| WCS | Waste Control Specialists, LLC |
| WDS | Waste Data System |
| WIPP | Waste Isolation Pilot Plant |
| WPR | Waste Profile Report |
| WV | West Valley Demonstration Project |

# EXECUTIVE SUMMARY

The purpose of this *Annual Transuranic Waste Inventory Report* (ATWIR) – *2019* is to document the inventory estimate of transuranic (TRU) waste reported by the TRU waste generator sites as of December 31, 2018. This report also notes major changes to the inventory used for the ATWIR-2018 that had a data cutoff date of December 31, 2017. This updated inventory information is available to the U.S. Department of Energy (DOE) TRU waste complex, Waste Isolation Pilot Plant (WIPP) stakeholders, and regulators. The TRU waste inventory information is used for strategic planning, and supports the DOE Carlsbad Field Office (CBFO) input into documents (e.g., WIPP Documented Safety Analysis and National Environmental Policy Act analyses), planned changes, and other design changes as needed for the WIPP project.

The TRU waste generator sites were asked to report the most comprehensive TRU waste inventory estimate available, including decontamination and decommissioning waste and all other defense-related TRU waste information projected through calendar year (CY) 2050, and additional estimates beyond CY 2050, if available. At the direction of the DOE/CBFO, this ATWIR-2019 focuses on all TRU waste stored or projected to be generated through CY 2033 at the TRU waste generator sites.

In January 2019, the DOE/CBFO clarified the methodology of calculating TRU waste volume for reporting purposes as the gross internal volume of the disposal container for direct-loaded containers and the innermost disposal container for overpacked containers. The inventory estimates of all defense-related TRU waste are presented in Table ES-1 and throughout this report using this clarified methodology. As such, the inventory from the ATWIR-2018 was adjusted to provide comparable totals and is referred to as "Adjusted ATWIR-2018."

Waste streams are designated as either WIPP-bound (appear to meet the requirements for emplacement in the WIPP repository) or potential (have uncertainties regarding eligibility for emplacement in the WIPP repository, as of the data cutoff date for this report). Regardless of its designation or status within this report, all TRU waste must meet the WIPP requirements (e.g., WIPP Waste Acceptance Criteria and the WIPP Hazardous Waste Facility Permit) before it can be disposed of in the WIPP repository.

This ATWIR-2019 was developed from an annual inventory data update provided by the TRU waste generator sites, and reflects the changes in the data that have occurred in the defense-related TRU waste inventory since the data cutoff date of the ATWIR-2018. This inventory report includes estimates for TRU waste volume, waste and packaging material mass, chemical component mass, and radionuclide activity (decayed to common years 2018 and 2033). Table ES-1 presents an overview of the changes in the data from the ATWIR-2018. Specific details of these changes are discussed in section 3.0 of this report.

**Table ES-1. Summary of Parameter Changes**

| Parameter | Adjusted ATWIR-2018 Total | ATWIR-2019 Total | Net Change | Percent Change |
|---|---|---|---|---|
| Volume ($m^3$) [1] | 1.21E+05 | 1.13E+05 | -8.12E+03 | -6.73% |
| Waste and Packaging Material Mass (kg) [1] | 9.96E+07 | 9.59E+07 | -3.68E+06 | -3.69% |
| Radionuclide Activity (Ci) [1, 2] | 4.78E+06 | 4.31E+06 | -4.68E+05 | -9.79% |
| Complexing Agents Mass (kg) [3] | 1.89E+04 | 1.66E+04 | -2.27E+03 | -12.03% |
| Oxyanions Mass (kg) [3] | 7.21E+05 | 6.74E+05 | -4.72E+04 | -6.54% |

Data Source: CID Data Versions D.17.02.33.LWA (LANL-CO 2019a) and D.18.00.33 (LANL-CO 2019b) are used for the Adjusted ATWIR-2018 and for the ATWIR-2019, respectively.
Note: Actual numerical values in this table are rounded to three significant figures for presentation purposes.
[1] Data include stored and projected values from WIPP-bound waste streams at the TRU waste generator sites, waste emplaced at WIPP, and waste in temporary storage at Waste Control Specialists.
[2] Data decay-corrected through CY 2033.
[3] Since these components are not tracked in the WIPP Waste Data System, data only include stored and projected values from WIPP-bound waste streams at the TRU waste generator sites.

# 1.0 INTRODUCTION

Each year, transuranic (TRU) waste inventory information is updated, reported in a TRU waste inventory report, and made available to the U.S. Department of Energy (DOE) complex, Waste Isolation Pilot Plant (WIPP) stakeholders, and regulators. This *Annual Transuranic Waste Inventory Report* (ATWIR) – *2019*, with a data cutoff date of December 31, 2018, provides the Carlsbad Field Office (CBFO) with the TRU waste generator sites' best estimate of their inventory to facilitate achieving national TRU waste disposal objectives and commitments. The inventory data used to develop this report support numerous tasks, such as planned changes, National Environmental Policy Act (NEPA) activities, design changes, identifying waste containing oxyanions and complexing agents, and various analyses such as the WIPP Documented Safety Analysis (DSA).

This seven-section report documents the updated total inventory of TRU waste as reported by the TRU waste generator sites. Section 1.0 introduces the annual TRU waste inventory updates, the generator sites, waste in temporary storage, and the sources and uses of the inventory information. Section 2.0 describes the methodology used to develop and compile the inventory information. Section 3.0 discusses the updated WIPP-bound TRU waste inventory estimates and the changes in the data since the ATWIR-2018 (U.S. DOE 2018) with a data cutoff date of December 31, 2017. At the time of the data collection cutoff date, WIPP-bound waste streams appear to meet the requirements for emplacement in the WIPP repository. Potential waste streams have meaningful uncertainties regarding their eligibility, due to technical or legal considerations, for emplacement in the WIPP repository, as of the data cutoff date for this report. Section 4.0 discusses potential TRU waste streams as well as waste projected to be generated beyond calendar year (CY) 2033. Section 5.0 presents a summary of this report, section 6.0 provides a glossary, and section 7.0 lists the references cited in this report. This report contains three appendices. Appendix A presents the WIPP-bound TRU Waste Profile Reports (WPRs), Appendix B presents the WPRs for potential waste streams, and Appendix C presents a crosswalk of waste streams between ATWIR-2018 and ATWIR-2019.

This ATWIR-2019 was prepared by the Los Alamos National Laboratory – Carlsbad Operations (LANL-CO) TRU Waste Inventory Team for the DOE/CBFO. The work for this report was performed in accordance with the requirements of DOE/CBFO-94-1012, *Quality Assurance Program Document* (QAPD) (U.S. DOE 2017). The processes used by the LANL-CO TRU Waste Inventory Team to collect, maintain, and report inventory information are graded and implemented to QAPD requirements under the LANL-CO Quality Assurance (QA) Program, which includes the software QA procedures used to qualify the Comprehensive Inventory Database (CID) and other software used in the development of this report. The LANL-CO Software QA Program is documented in LCO-QPD-02, *LANL-CO Software Quality Assurance Plan* (LANL-CO 2017a), and LCO-QP19-1, *Software Quality Assurance* (LANL-CO 2017b).

In January 2019, the DOE/CBFO issued a memorandum (Shrader 2019) establishing a policy for the methodology of calculating TRU waste volume for reporting purposes. In this policy, the DOE established the TRU waste volume to be the gross internal volume of the disposal container for direct-loaded containers and the innermost disposal container for overpacked containers. The inventory estimates of all defense-related TRU waste are presented within this report using this methodology for reporting TRU waste volume.

## 1.1 Annual TRU Waste Inventory Updates

The TRU waste inventory at the generator sites changes frequently due to retrieval, treatment, characterization, and shipping activities; therefore, the inventory is updated on an annual basis. This report is an update based on the sites' estimated inventory as of December 31, 2018.

Since the ATWIR-2018, a number of changes and improvements have occurred that affected the volume and the non-radiological and radiological characteristics of TRU waste streams. These changes were largely based on:

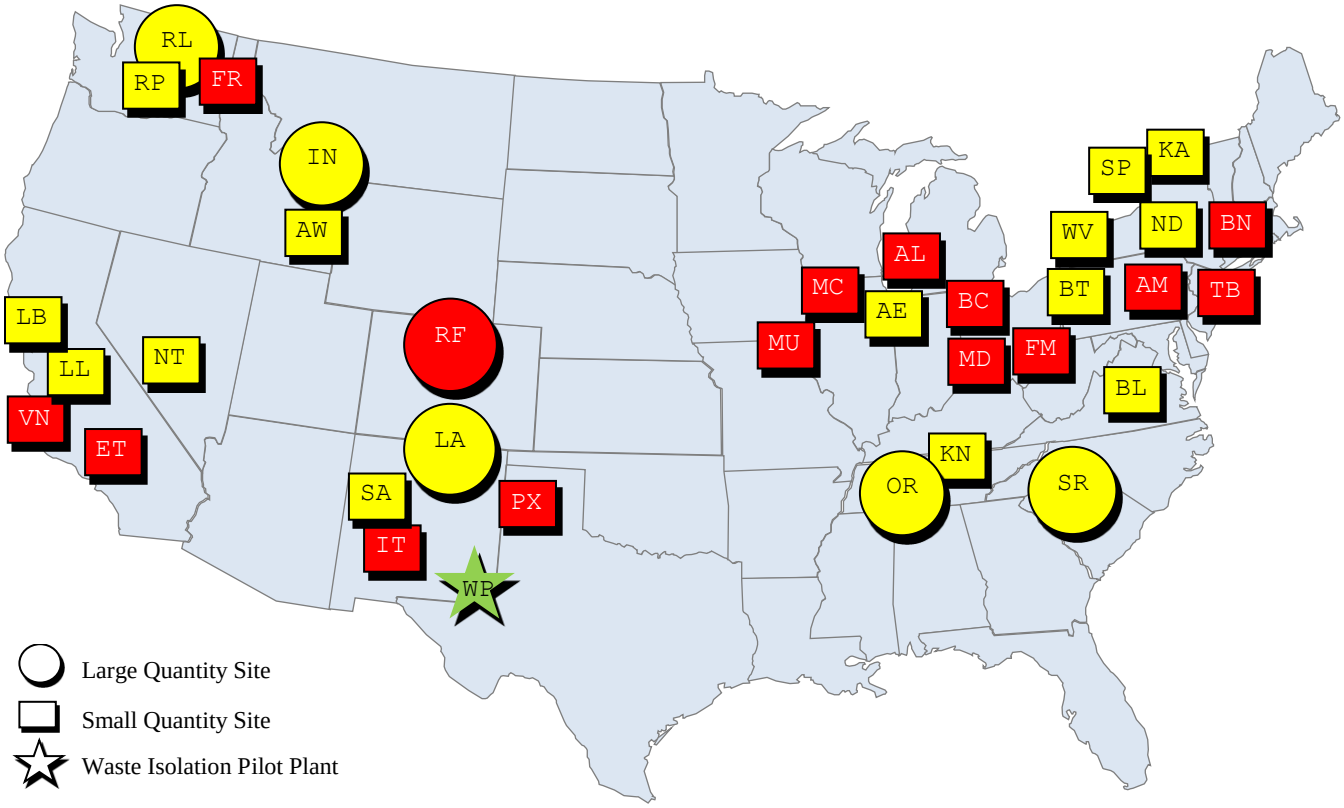
- Savannah River Site (SRS) removed three waste streams that were projected to be generated from the canceled Mixed Oxide Fuel Fabrication Facility Project;
- Hanford (Richland) Site (RL) revised estimates of activity and volume of waste projected to be generated based on updated and more comprehensive information;
- Los Alamos National Laboratory (LANL) reported TRU waste projected to be generated as a result of the National Nuclear Security Administration (NNSA) Plutonium Pit Production Mission;
- Multiple sites acquired new characterization data, processing information, and repackaging experience resulting in more accurate data and better estimates;
- DOE/CBFO clarified the methodology used for calculating waste volume for reporting purposes.

## 1.2 TRU Waste Generator Sites

TRU waste is currently stored at both small quantity sites and large quantity sites (LQSs) across the country, as seen in Figure 1-1. This figure presents the DOE TRU waste generator sites as of December 31, 2018, which are divided into two categories: active TRU waste generator sites (yellow) and sites de-inventoried of all TRU waste (red).

There are three TRU waste generator sites shown in Figure 1-1 that currently report only potential TRU waste: West Valley Demonstration Project (WV), Hanford Site - Office of River Protection (RP), and Babcock and Wilcox Nuclear Energy Services (BL). Potential TRU waste is discussed in section 4.1 of this report.

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




**Yellow – Active TRU Waste Generator Sites**

| | |
|---|---|
| AE | Argonne National Laboratory |
| AW | Materials and Fuels Complex |
| BL | Babcock and Wilcox Nuclear Energy Services (Potential) |
| 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 |
| RP | Hanford Site - Office of River Protection (Potential) |
| SA | Sandia National Laboratories |
| SP | Separations Process Research Unit |
| SR | Savannah River Site |
| WV | West Valley Demonstration Project (Potential) |

**Red – De-inventoried of all TRU Waste**

| | |
|---|---|
| AL | Ames Laboratory |
| AM | ARCO Medical Products |
| BC | Battelle Columbus Laboratories |
| BN | Brookhaven National Laboratory |
| ET | Energy Technology Engineering Center |
| FM | Fernald Environmental Management Project |
| FR | Framatome |
| IT | Lovelace Respiratory Research Institute |
| MC | U.S. Army Materiel Command |
| MD | Mound Plant |
| MU | University of Missouri Research Reactor |
| PX | Pantex Plant |
| RF | Rocky Flats Environmental Technology Site |
| TB | Teledyne Brown Engineering |
| VN | General Electric Vallecitos Nuclear Center |

## 1.3 Temporary Storage of TRU Waste

Approximately 13.3 cubic meters ($m^3$) of TRU waste from Idaho National Laboratory (INL), and ~37.4 $m^3$ of TRU waste from LANL that was in temporary storage at Waste Control Specialists, LLC (WCS) near Andrews, Texas, was shipped to the WIPP in CY 2018. As of December 31, 2018, ~59 $m^3$ of TRU waste from LANL remained at WCS in temporary storage. The changes in the WCS inventory are accounted for in Table 3-3, Table 3-5, and Table 3-11. The WCS values in these tables are based on a query of the WIPP Waste Data System (WDS).

## 1.4 Sources of Transuranic Waste Inventory Information

The sources of TRU waste inventory information are: 1) the inventory used for the previous ATWIR, 2) updated information provided by the TRU waste generator sites, and 3) WDS, the official database of record for waste emplaced in the WIPP repository. For ATWIR-2019, the TRU waste generator sites began with the inventory data used for the ATWIR-2018, and updated the information using data obtained from their site-specific databases and acceptable knowledge reports which provide comprehensive information pertaining to waste streams being characterized.

## 1.5 Uses of Transuranic Waste Inventory Information

The DOE uses TRU waste inventory information to support strategic decisions related to waste retrieval, treatment, repackaging, characterization, shipment, and disposal initiatives. As requested, sites develop and update site-specific project plans and schedules, which detail approaches for moving TRU waste to the WIPP based on current TRU waste inventory information. TRU waste volumes projected to be generated beyond CY 2033 are provided separately in section 4.2 for the DOE to use as a planning basis for future TRU waste storage and disposal needs.

The inventory data used to develop this report support numerous tasks, such as planned changes, NEPA activities, design changes, and various analyses, such as the WIPP DSA. The DOE/CBFO tracks radiological and non-radiological (waste and packaging materials, and chemical components) information about the TRU waste destined for the WIPP. When these inventory data are needed for performance assessment (PA) modeling, the DOE/CBFO will request a Performance Assessment Inventory Report that provides a scaled inventory to model the WIPP repository at its legislated capacity, based on the latest inventory data.

# 2.0 METHODOLOGY

This report was generated using documented processes and methods that are qualified under the LANL-CO QA Program (see section 1.0). The following steps were completed to generate this report:

1. Collected current TRU waste stream information from the TRU waste generator sites, with projected estimates extending beyond CY 2033.

2. Performed a thorough review of all data to check for accuracy, consistency, and completeness.

3. Entered the updated information in the CID.

4. Obtained validation of the updated CID information from the DOE TRU waste generator site representatives.

5. Performed analyses to adjust inventory data to CY 2033 and to transform WDS data for input into the CID using the clarified methodology of calculating TRU waste volume for reporting purposes (see section 2.3).

6. Configured the CID to report TRU waste generator site data consistent with the clarified methodology of calculating reported TRU waste volume.

7. Generated the required data tables by decaying the radionuclides and performing necessary calculations in the CID.

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

The process used to collect TRU waste inventory from the generator sites and to enter the data into the CID is documented in LANL-CO procedure INV-SP-01, *Data Collection and Entry for the Comprehensive Inventory* (LANL-CO 2019c). In November 2018, in accordance with the procedure, a letter was sent from DOE/CBFO (Shrader 2018) to the active TRU waste generator sites requesting the annual TRU waste inventory update. The Inventory Team then sent each site an electronic notification of the update with an attached Microsoft® Excel data template (DT) workbook file containing the previous year's validated data along with guidance explaining the steps required to update the DT information.

The TRU waste generator sites were asked to update the information on their waste streams. The sites designate each waste stream as either WIPP-bound or potential. The data for WIPP-bound waste streams are discussed in section 3.0 and potential waste streams are discussed in section 4.0. The data for WIPP-bound waste streams are used for PA compliance calculations, whereas the data for potential waste streams are not. Regardless of its designation in this report, TRU waste must meet all WIPP requirements (e.g., WIPP Waste Acceptance Criteria [WAC], WIPP Hazardous Waste Facility Permit [HWFP]) before it can be disposed of at the WIPP.

The Inventory Team worked with personnel from the active TRU waste generator sites to assist in the updating process. After the DTs were updated, the team performed reviews for accuracy and consistency. During these reviews, the Inventory Team verified that the inventory updates included all of the available data required for the DT. The sites were contacted if any completeness, accuracy, consistency, or other issues were identified. The reviews included, but were not limited to:

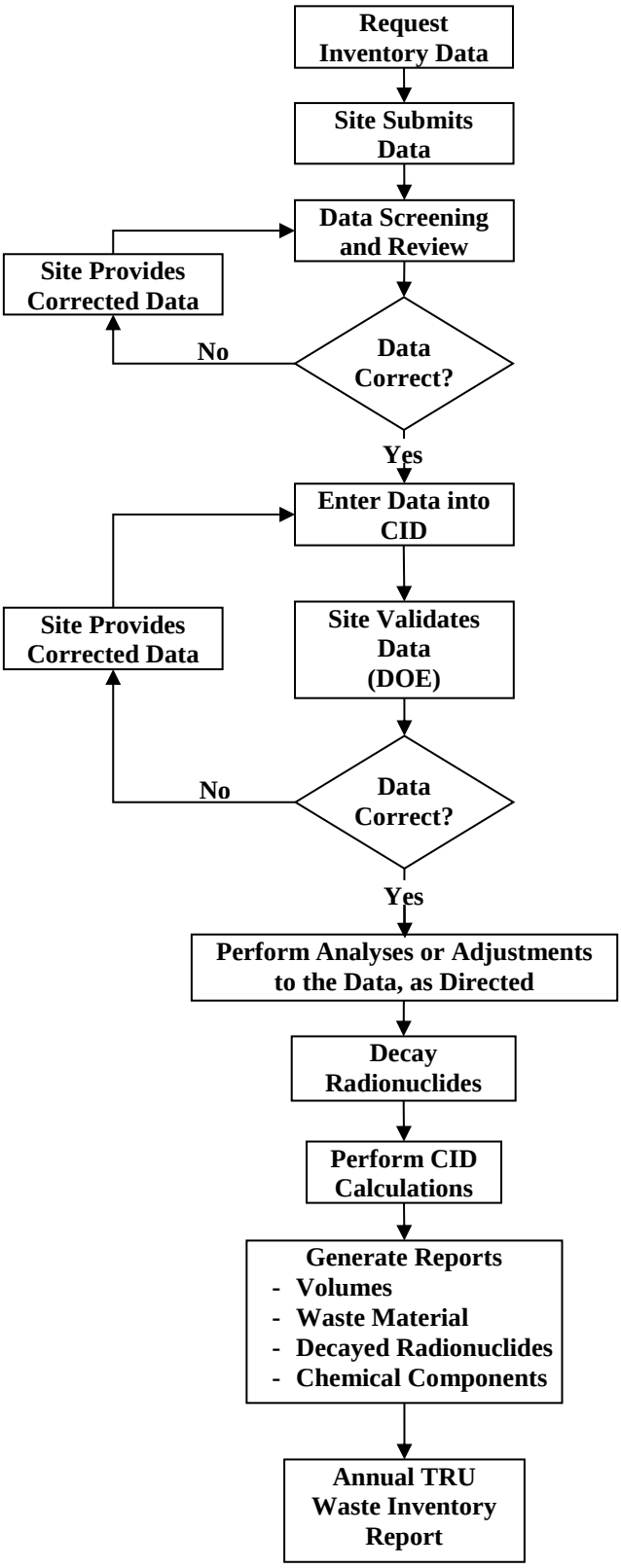
- Verification that all required information for WIPP-bound waste streams is entered, and potential waste streams meet the screening memo criteria as discussed in section 4.1;

- Verification of radionuclide isotopic inputs (e.g., confirm TRU alpha concentration is greater than 100 nanocuries per gram);

- Verification of radionuclide threshold limits to determine if the waste stream is categorized correctly as contact-handled (CH) or remote-handled (RH);
- Verification that activity concentration for RH-TRU waste streams does not exceed the WIPP Land Withdrawal Act (LWA) limits (i.e., confirm waste does not exceed 23 curies [Ci] per liter averaged over the volume of the RH-TRU canister) (U.S. Congress 1992 and 1996);
- Verification that waste does not exceed mass limits for reported final form container types;
- Verification that complexing agents and oxyanions are reported;
- Verification that the waste matrix code group is consistent with the waste materials reported;
- Comparison of the current waste stream data to that of the previous year to identify and understand any significant differences.

Once all issues were resolved, the TRU waste inventory information was uploaded from the DT or entered manually into the CID. Once the data were entered and verified, waste stream data reports were prepared and sent to the DOE TRU waste generator site representative (manager or designee). 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 waste stream data reports and signed validation letters were then submitted to the LANL-CO Record Center. After an analysis was performed to adjust the inventory to CY 2033, the CID data were then labeled as data version D.18.00.33 (LANL-CO 2019b). Figure 2-1 presents a flowchart of the TRU waste inventory process.

**Figure 2-1. TRU Waste Inventory Process Flowchart**



## 2.2 Data Generated from CID Reports

Data tables included in this report were generated from 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 requirements of the DOE/CBFO QAPD. The LANL-CO software QA Program is documented in LCO-QPD-02, *LANL-CO Software Quality Assurance Plan* (LANL-CO 2017a), and LCO-QP19-1, *Software Quality Assurance* (LANL-CO 2017b). The CID is used to manage, maintain, and perform specific qualified calculations using inventory data. The data are then used to generate qualified data reports and tables.

The TRU waste generator sites were asked to update the information for each waste stream's stored and projected volume and to provide data that reflected the total composition of each waste stream's waste materials, radionuclides, and chemical components. For the waste materials and radionuclides update, the sites were asked to report only the data for the stored waste (already generated but not shipped), even if the waste stream included waste that is projected (will be generated in the future). The CID then derived projected mass and activity based on the projected-to-stored volume ratio for each waste stream; however, if a waste stream consisted only of projected waste, then the sites were asked to report their estimates of the projected data for that waste stream. The anticipated data were calculated by summing the stored and projected data. The stored, projected, and anticipated values for volumes, waste materials, radionuclides, and chemical components presented throughout this report are aggregate sums of the individual waste stream values for the specified categories (site, CH/RH designation, etc.).

Information for emplaced waste (disposed in the repository or in above-ground storage at the WIPP) and waste in temporary storage at a designated storage location (WCS) was obtained from the DOE/CBFO WDS administrator (see section 2.3.1). After this information was transformed for use in the CID (Van Soest 2019a; Van Soest 2019b), the WIPP and WCS data were then imported into the CID.

### 2.2.1 Volume Reporting

The waste stream container information collected from the TRU waste generator sites include stored and projected estimates in both current form and final form configurations. Current form represents the waste in its current packaging configuration. Final form represents estimates of the WIPP-compliant container type(s) that will ultimately be used to ship the waste to the WIPP. For stored waste not already packaged in WIPP-compliant containers, final form container types and counts reported are determined by taking into account factors such as volume, repackaging, treatment, and regulatory limits. The final form stored and projected waste stream volumes were derived by applying standardized WIPP-approved container type volumes, which are maintained within the CID, to the respective stored and projected container type counts reported by the TRU waste generator sites. The volume for waste emplaced at the WIPP and in temporary storage at WCS is directly reported as provided from the WDS.

In January 2019, the DOE/CBFO issued a memorandum (Shrader 2019) establishing a policy for the implementation of the WIPP WDS method of tracking and reporting the volume of TRU waste disposed at the WIPP facility. In June 2019, the DOE/CBFO issued an amendment (Lachman 2019) to Attachment 1 of the memorandum, which specifies the WIPP-approved

container types and their associated volumes. In the policy, the DOE/CBFO established the LWA TRU Waste Volume to be the gross internal volume of the disposal container for direct-loaded containers and the innermost disposal container for overpacked containers. As directed by the DOE/CBFO, this ATWIR-2019 reports CH- and RH-TRU waste volume consistent with the LWA TRU Waste Volume methodology described in the policy.

### 2.2.2 Waste and Packaging Materials Reporting

Waste materials are non-radiological materials present in TRU waste. The TRU waste generator sites reported the total estimated mass of each waste stream's waste materials under the following categories, where applicable:

- Aluminum-based Metal/Alloys – Aluminum or aluminum-based alloys in the waste materials.
- Cellulose – Material generally derived from high-polymer plant carbohydrates (e.g., paper, cardboard, wood, and cloth).
- Cement – An agent used to solidify liquid, particulate, and sludge. Cement may be reacted (hydrated by setting up under aqueous conditions), or unreacted (added under dry, non-aqueous conditions as an absorbent or neutralizer).
- Iron-based Metal/Alloys – Includes iron and steel alloys in the waste, but does not include the waste container materials.
- Other Inorganic Materials – Nonmetallic inorganic waste materials (e.g., concrete, glass, firebrick, ceramics, sand, and inorganic sorbents) not categorized under Solidified Inorganic Material.
- Other Metal/Alloys – All other metal/alloys (e.g., copper, zirconium, tantalum), not categorized under Aluminum- or Iron-based Metal/Alloys, including the lead portion of leaded rubber gloves/aprons.
- Plastic – Generally man-made materials, often derived from petroleum feedstock (e.g., polyethylene and polyvinyl chloride).
- Rubber – Natural or man-made elastic latex materials (e.g., surgical gloves and leaded rubber gloves [rubber portion only]).
- 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.
- Solidified Inorganic Material (Inorganic Matrix) – Any homogeneous materials consisting of sludge or aqueous-based liquids that are solidified (e.g., wastewater treatment sludge and inorganic particulates).

- Solidified Organic Material (Organic Matrix) – Organic resin, solidified organic liquids, and sludges.

- Vitrified – Waste that was melted or fused at high temperatures with glass-forming additives (e.g., soil or silica) in appropriate proportions to result in a homogeneous glass-like matrix. (Unoxidized metallic phases, if present, are included in the Iron-based Metal/Alloys category.)

The packaging materials are non-radiological materials (steel, plastic, cellulose, rubber, and lead) used as components of the WIPP-approved containers that hold TRU waste, and are defined in INV-SAR-19, *Analysis of Container Material Masses* (French 2009), and in memos to the Quality Assurance File QAM-12-17 and QAM-19-06 (Van Soest 2012; Toothman 2019). The packaging material masses for all WIPP-approved containers are standardized for each WIPP-approved container type in the CID, which uses these values to generate each waste stream's overall packaging material makeup based upon the respective final form containers reported by the TRU waste generator sites.

Appendix A and Appendix B present a list of average waste and packaging material densities expressed in kilograms per cubic meter (kg/m$^3$) for each waste stream. These densities were calculated by dividing the total mass of each material by the total final form volume for each waste stream.

### 2.2.3 Radionuclide Reporting

The TRU waste generator sites reported the estimated activity of each radionuclide for their waste streams. In addition, they provided the most recent assay year or projected generation year for each waste stream. These assay years were used to determine the time basis for decay and buildup calculations ("decay-correction").

Since dates of assay vary among waste streams, radionuclide activity data were decay-corrected to common dates for reporting purposes (see section 3.3). Radionuclides are decayed through CY 2018 to bring all sites' radionuclides to the common collection year. Radionuclides from both the current and previous year inventories have also been decayed through CY 2033, which allows the activities from the inventories to be compared using a common year. The CID automates the radionuclide decay process by using the Oak Ridge Isotope Generation and Depletion Code (ORIGEN-S), a modular code system for performing Standardized Computer Analysis for Licensing Evaluation (SCALE) Version 6 (ORNL 2009), which is a depletion and decay library that is qualified for use under the LANL-CO QA Program, in accordance with LCO-QPD-02 and LCO-QP19-1. The CID first exports the radionuclide activities reported by the TRU waste generator sites in the form of ORIGEN-S input files for each waste stream. Next, the CID 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 the decay-corrected radionuclide tables generated for this report.

Appendix A and Appendix 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 by the total final form volume for each waste stream. The radionuclides in Appendix A are decay-corrected through CY 2018. The radionuclides in Appendix B are not decay-corrected.

### 2.2.4 Complexing Agent and Oxyanion Reporting

The TRU waste generator sites reported stored and projected mass separately for each waste stream's complexing agents (acetic acid, citric acid, oxalic acid, acetate, citrate, oxalate, and ethylenediaminetetraacetic acid [EDTA]) and oxyanions (nitrates, phosphates, and sulfates).

## 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, the analyses described in the sections below were performed and documented in accordance with LANL-CO QA procedure LCO-QP9-1, *Analyses* (LANL-CO 2017c), as applicable, to support the preparation of this report.

### 2.3.1 WDS Data Transformation 2018

To update the TRU waste inventory data within the CID for waste emplaced and in temporary storage, a request was submitted to the DOE/CBFO WDS administrator to supply data as of December 31, 2018, reporting volume consistent with the methodology described in section 2.2.1. The WDS data were migrated into a standardized CID Import Template (CIT) file. This data 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-52, *WDS Data Transformation for Insertion in the 2018 Inventory CID Import Template* (Van Soest 2019a). Transformations were included in this analysis for waste streams with waste containers residing in more than one location (WIPP underground, WIPP above-ground, or WCS). By using unique waste stream identification prefixes, these waste streams were separately transformed and tracked in the CIT file for each location reported. The CIT file was subsequently imported into the CID to update the information for TRU waste that is emplaced and in temporary storage.

### 2.3.2 Conversion of ATWIR-2018 Inventory to the Clarified Methodology of Calculating Waste Volume for Reporting Purposes

The ATWIR-2018 reported TRU waste volume based on the methodology of counting the overpack container volume for CH-TRU waste and the internal container volume for RH-TRU waste. Since the ATWIR-2019 provides comparison tables to the corresponding ATWIR-2018 inventory, it became necessary to have the ATWIR-2018 inventory totals reflect the same methodology of counting TRU waste volume used for this report. To accommodate this, using the ATWIR-2018 inventory (data version D.17.02.33), the appropriate container volume was reconfigured within the CID in order to provide comparable totals for site reported waste.

For the emplaced and temporary storage portions of the inventory reported in the ATWIR-2018, it was necessary for the WDS data to go through a new migration into a standardized CIT file using the same methodology of calculating TRU waste volume used for this report. This activity is documented in INV-SAR-53, *WDS Data Transformation 2017 for Internal Volume* (Van Soest

2019b). The updated data were imported into the CID, and the resulting data version was then labeled D.17.02.33.LWA (LANL-CO 2019a). This data version provides comparable totals from the ATWIR-2018 inventory throughout this report (hereafter referred to as "Adjusted ATWIR-2018").

The conversion of the ATWIR-2018 inventory using the clarified methodology of calculating TRU waste volume for reporting purposes has also had the effect of slightly altering the anticipated waste material mass and radionuclide activity from those reported in the ATWIR-2018. The change in volume caused a shift in the projected-to-stored volume ratios, which are subsequently used by the CID to derive the projected waste material mass and the radionuclide activity as described in section 2.2. As such, there are slight differences in the projected (and thus the anticipated) waste material mass and radionuclide activity of the Adjusted ATWIR-2018 inventory when compared to the corresponding totals found in the ATWIR-2018.

### 2.3.3 Adjustment of 2018 Projected Inventory to CY 2033

Since the inventory data collection campaign that was used for this report directed the TRU waste generator sites to report all projected generation estimates through CY 2050, an analysis was performed to adjust the ATWIR-2019 inventory to CY 2033. As such, INV-SAR-54, *Adjustment of 2018 Projected Inventory to 2033 Closure Year* (Van Soest 2019c), documents the adjustment of the inventory to CY 2033 and supplies comparable totals between the ATWIR-2018 and ATWIR-2019 inventories. After the modifications described within INV-SAR-54 were performed against the CID data version containing the ATWIR-2019 inventory, the radionuclide activities underwent decay calculations. The data version was then labeled D.18.00.33 (LANL-CO 2019b) and is used for the ATWIR-2019 inventory throughout this report.

## 3.0 TRANSURANIC WASTE INVENTORY ESTIMATES AND CHANGES

This section presents the TRU waste inventory data that were collected and reported using the methodology discussed in section 2.0. Actual numerical values in this section are rounded to three significant figures for presentation purposes.

Inventory data reported from the sites are included in the tables presented throughout this section. The emplaced and temporary storage inventory totals reported from the WDS are not included in the data reported by the sites, but are presented as summations under WIPP (Emplaced) and WCS (Temporary Storage) within Table 3-3, Table 3-5, and Table 3-11. These tables compare the volumes, waste and packaging materials, and radionuclides in this report to the respective Adjusted ATWIR-2018 values. Chemical components are not reported in the emplaced or temporary storage inventory because the WDS does not track these components. More specific information on the waste emplaced can be obtained from the DOE/CBFO WDS administrator at the WIPP Information Center at 1-800-336-WIPP (9477) or at infocntr@wipp.ws. The WDS is the official database of record including container-level data on the emplaced TRU waste.

## 3.1 TRU Waste Volume Estimates

This section presents the TRU waste inventory final form volume estimates for CH- and RH-TRU waste and a discussion of changes since the ATWIR-2018.

### 3.1.1 TRU Waste Inventory Total Volume by Site

The tables in this section present only final form data. Section 2.2.1 describes how volume is reported.

Table 3-1 shows the total CH-TRU stored, projected, and anticipated waste volume. An estimated anticipated final form total of ~42,600 $m^3$ of CH-TRU waste is currently being reported at the sites and could be shipped to the WIPP in the future, provided all WIPP requirements are met. Approximately 96 percent of the anticipated CH-TRU waste is stored or will be generated at the LQSs (RL, INL, LANL, Oak Ridge National Laboratory [ORNL], and SRS).

Table 3-2 shows the total RH-TRU stored, projected, and anticipated waste volume. An estimated anticipated final form total of ~2,580 $m^3$ of RH-TRU waste is currently being reported by the sites and could be shipped to the WIPP in the future, provided all WIPP requirements are met. Approximately 95 percent of the anticipated RH-TRU waste is stored or will be generated at the LQSs.

**Table 3-1. CH Waste Inventory Total Volume**

| TRU Waste Generator Site | Stored Volume ($m^3$) | Projected Volume ($m^3$) | Anticipated Volume ($m^3$) |
|---|---|---|---|
| Argonne National Laboratory | 4.20E+01 | 9.07E+01 | 1.33E+02 |
| Hanford (Richland) Site | 1.17E+04 | 4.75E+03 | 1.65E+04 |
| Idaho National Laboratory | 1.25E+04 | -- | 1.25E+04 |
| Knolls Atomic Power Laboratory - Nuclear Fuel Services | 8.72E+01 | 7.94E+01 | 1.67E+02 |
| Lawrence Berkeley National Laboratory | 4.20E-01 | 4.20E-01 | 8.40E-01 |
| Lawrence Livermore National Laboratory | 3.33E+02 | 6.12E+02 | 9.45E+02 |
| Los Alamos National Laboratory | 3.91E+03 | 5.43E+03 | 9.34E+03 |
| Material and Fuels Complex | 4.41E+00 | 2.21E+01 | 2.65E+01 |
| Nevada National Security Site | 6.94E+01 | 1.24E+02 | 1.93E+02 |
| Nuclear Radiation Development Site | 2.10E+00 | -- | 2.10E+00 |

**Table 3-1. CH Waste Inventory Total Volume**
**Continued**

| TRU Waste Generator Site | Stored Volume ($m^3$) | Projected Volume ($m^3$) | Anticipated Volume ($m^3$) |
|---|---|---|---|
| Oak Ridge National Laboratory | 8.98E+02 | 2.50E+02 | 1.15E+03 |
| Sandia National Laboratories | 1.76E+01 | 2.82E+01 | 4.58E+01 |
| Savannah River Site | 7.13E+02 | 9.16E+02 | 1.63E+03 |
| Separations Process Research Unit | 6.27E+00 | -- | 6.27E+00 |
| **Grand Total** | **3.03E+04** | **1.23E+04** | **4.26E+04** |

Data Source: CID Data Version D.18.00.33 (LANL-CO 2019b). Note: This table only contains data for WIPP-bound waste streams at the TRU waste generator sites.

**Table 3-2. RH Waste Inventory Total Volume**

| TRU Waste Generator Site | Stored Volume ($m^3$) | Projected Volume ($m^3$) | Anticipated Volume ($m^3$) |
|---|---|---|---|
| Argonne National Laboratory | 3.62E+01 | 3.08E+01 | 6.70E+01 |
| Bettis Atomic Power Laboratory | 7.56E+00 | -- | 7.56E+00 |
| Hanford (Richland) Site | 1.73E+03 | 1.38E+02 | 1.87E+03 |
| Idaho National Laboratory | 2.51E+02 | -- | 2.51E+02 |
| Knolls Atomic Power Laboratory - Schenectady | -- | 1.39E+01 | 1.39E+01 |
| Los Alamos National Laboratory | 8.01E+01 | -- | 8.01E+01 |
| Material and Fuels Complex | 8.19E+00 | 2.46E+01 | 3.28E+01 |
| Oak Ridge National Laboratory | 1.05E+02 | 1.00E+02 | 2.06E+02 |
| Sandia National Laboratories | 4.36E+00 | 6.60E-01 | 5.02E+00 |
| Savannah River Site | 3.16E+01 | 1.40E+01 | 4.56E+01 |
| Separations Process Research Unit | 2.52E+00 | -- | 2.52E+00 |
| **Grand Total** | **2.26E+03** | **3.22E+02** | **2.58E+03** |

Data Source: CID Data Version D.18.00.33 (LANL-CO 2019b). Note: This table only contains data for WIPP-bound waste streams at the TRU waste generator sites.

### 3.1.2 Changes to TRU Waste Volume

Table 3-3 shows the net changes for final form total volume of the combined CH- and RH-TRU waste between the Adjusted ATWIR-2018 and this report. The net change column includes both increases and decreases in volume of waste as reported by the sites, as well as waste emplaced and in temporary storage as reported in the WDS. The net anticipated volume reported by the sites show a decrease of ~9,560 $m^3$. This decrease, when combined with the net increase of ~1,490 $m^3$ of waste that was emplaced at the WIPP during CY 2018, results in an overall decrease of ~8,120 $m^3$.

The site reporting the largest waste volume decrease (~7,020 $m^3$) is SRS. This volume decrease is primarily due to the removal of three CH-TRU waste streams (SR-T001-WSB-1, SR-W026-MFFF-1, and SR-W026-WSB-2) that were projected to be generated from the canceled Mixed Oxide Fuel Fabrication Facility Project. The RL waste stream, RLPFP-01, was also a significant factor in the overall volume decrease, due to the removal of ~2,310 $m^3$ of projected TRU waste volume, now assumed to be low-level waste (LLW). The net increase in waste volume from LANL is mainly due to the addition of TRU waste projected to be generated from the NNSA Plutonium Pit Production Mission as reported in the LA-MHD01.001 waste stream. The increase in waste volume that was emplaced in the WIPP during CY 2018 was primarily attributed to ~1,110 $m^3$ from INL and ~323 $m^3$ from ORNL.

**Table 3-3. CH/RH Waste Volume Changes**

| TRU Waste Generator Site | Adjusted ATWIR-2018 Total ($m^3$) | ATWIR-2019 Total ($m^3$) | Net Change ($m^3$) |
|---|---|---|---|
| Hanford (Richland) Site | 2.05E+04 | 1.84E+04 | -2.09E+03 |
| Idaho National Laboratory | 1.38E+04 | 1.27E+04 | -1.12E+03 |
| Los Alamos National Laboratory | 8.42E+03 | 9.42E+03 | +9.98E+02 |
| Oak Ridge National Laboratory | 1.67E+03 | 1.35E+03 | -3.13E+02 |
| Savannah River Site | 8.69E+03 | 1.68E+03 | -7.02E+03 |
| Small Quantity Sites | 1.67E+03 | 1.65E+03 | -1.73E+01 |
| **Anticipated Total** | **5.47E+04** | **4.52E+04** | **-9.56E+03** |
| WIPP (Emplaced) | 6.58E+04 | 6.73E+04 | +1.49E+03 |
| WCS (Temporary Storage) | 1.10E+02 | 5.90E+01 | -5.07E+01 |
| **Emplaced/Temporary Storage Total** | **6.59E+04** | **6.74E+04** | **+1.44E+03** |
| **Grand Total** | **1.21E+05** | **1.13E+05** | **-8.12E+03** |

Data Source: CID Data Versions D.17.02.33.LWA (LANL-CO 2019a) and D.18.00.33 (LANL-CO 2019b).

## 3.2 Non-Radiological Material Estimates

This section presents the non-radiological properties (waste and packaging materials, and chemical components) of the TRU waste inventory as reported by the TRU waste generator sites, and a discussion of changes to the data since the ATWIR-2018.

### 3.2.1 Waste and Packaging Materials

Waste and packaging materials for CH- and RH-TRU waste are reported as final form anticipated mass, and are presented in Table 3-4. Section 2.2.2 provides information on how waste and packaging materials are derived.

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

| Waste Material | CH Mass (kg) | RH Mass (kg) | Total Mass (kg) |
|---|---|---|---|
| Aluminum-based Metal/Alloys | 1.18E+05 | 1.06E+04 | 1.28E+05 |
| Cellulose | 9.49E+05 | 5.31E+04 | 1.00E+06 |
| Cement | 1.62E+06 | 2.08E+03 | 1.62E+06 |
| Iron-based Metal/Alloys | 4.93E+06 | 2.26E+05 | 5.16E+06 |
| Other Inorganic Materials | 2.69E+06 | 8.01E+05 | 3.49E+06 |
| Other Metal/Alloys | 2.21E+05 | 2.86E+04 | 2.50E+05 |
| Plastic | 1.07E+06 | 1.16E+05 | 1.19E+06 |
| Rubber | 2.76E+05 | 1.50E+04 | 2.91E+05 |
| Soil | 2.49E+06 | 1.26E+04 | 2.50E+06 |
| Solidified Inorganic Material | 3.52E+06 | 2.12E+04 | 3.54E+06 |
| Solidified Organic Material | 1.55E+06 | 2.16E+03 | 1.55E+06 |
| Vitrified | -- | -- | -- |
| Packaging Material, Cellulose | 4.91E+05 | -- | 4.91E+05 |
| Packaging Material, Lead | -- | 6.57E+06 | 6.57E+06 |
| Packaging Material, Plastic | 1.08E+06 | 1.84E+05 | 1.26E+06 |
| Packaging Material, Rubber | 2.24E+04 | 2.26E+03 | 2.46E+04 |
| Packaging Material, Steel | 8.98E+06 | 7.06E+06 | 1.60E+07 |
| **Grand Total** | **3.00E+07** | **1.51E+07** | **4.51E+07** |

Data Source: CID Data Version D.18.00.33 (LANL-CO 2019b). Note: This table only contains data for WIPP-bound waste streams at the TRU waste generator sites.

### 3.2.2 Waste and Packaging Material Inventory Changes

The changes in waste and packaging material data between the Adjusted ATWIR-2018 and this report are presented in Table 3-5. Data for the waste and packaging materials improve as additional waste is characterized and the sites apply the information to estimate the waste materials remaining in that waste stream at the site. The net change column includes both increases and decreases in waste stream mass as reported by the TRU waste generator sites.

As shown in Table 3-5, the total anticipated waste material mass decreased by ~3.34 million kg and anticipated packaging material mass decreased by ~1.65 million kg. For the waste emplaced at the WIPP, the mass of waste materials increased by ~756,000 kg and packaging materials increased by ~594,000 kg. The overall net decrease of waste and packaging material masses is ~3.68 million kg.

The decrease in anticipated waste and packaging material masses can be attributed primarily to the removal of the three SRS waste streams as discussed in section 3.1.2. These SRS waste streams collectively account for an anticipated waste material mass decrease of ~1.93 million kg and a packaging material mass decrease of ~945,000 kg.

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

| Waste Material | Adjusted ATWIR-2018 Total (kg) | ATWIR-2019 Total (kg) | Net Change (kg) |
|---|---|---|---|
| Aluminum-based Metal/Alloys | 3.30E+05 | 1.28E+05 | -2.01E+05 |
| Cellulose | 1.22E+06 | 1.00E+06 | -2.16E+05 |
| Cement | 1.63E+06 | 1.62E+06 | -6.49E+03 |
| Iron-based Metal/Alloys | 5.11E+06 | 5.16E+06 | +5.44E+04 |
| Other Inorganic Materials | 3.79E+06 | 3.49E+06 | -2.97E+05 |
| Other Metal/Alloys | 3.82E+05 | 2.50E+05 | -1.32E+05 |
| Plastic | 2.01E+06 | 1.19E+06 | -8.19E+05 |
| Rubber | 5.50E+05 | 2.91E+05 | -2.59E+05 |
| Soil | 2.99E+06 | 2.50E+06 | -4.92E+05 |
| Solidified Inorganic Material | 3.83E+06 | 3.54E+06 | -2.94E+05 |
| Solidified Organic Material | 2.23E+06 | 1.55E+06 | -6.79E+05 |
| Vitrified | -- | -- | -- |
| **Anticipated Waste Total** | **2.41E+07** | **2.07E+07** | **-3.34E+06** |
| WIPP (Emplaced) Waste Total | 2.87E+07 | 2.95E+07 | +7.56E+05 |
| WCS (Temporary Storage) Waste Total | 5.31E+04 | 3.04E+04 | -2.27E+04 |
| **Emplaced/Temporary Storage Waste Total** | **2.88E+07** | **2.95E+07** | **+7.33E+05** |
| **Packaging Material** | | | |
| Packaging Material, Cellulose | 4.67E+05 | 4.91E+05 | +2.40E+04 |
| Packaging Material, Lead | 6.59E+06 | 6.57E+06 | -1.64E+04 |
| Packaging Material, Plastic | 1.29E+06 | 1.26E+06 | -2.67E+04 |
| Packaging Material, Rubber | 2.97E+04 | 2.46E+04 | -5.12E+03 |
| Packaging Material, Steel | 1.77E+07 | 1.60E+07 | -1.63E+06 |
| **Anticipated Packaging Total** | **2.60E+07** | **2.44E+07** | **-1.65E+06** |
| WIPP (Emplaced) Packaging Total | 2.07E+07 | 2.13E+07 | +5.94E+05 |
| WCS (Temporary Storage) Packaging Total | 4.80E+04 | 3.24E+04 | -1.56E+04 |
| **Emplaced/Temporary Storage Packaging Total** | **2.08E+07** | **2.14E+07** | **+5.78E+05** |
| **Grand Total** | **9.96E+07** | **9.59E+07** | **-3.68E+06** |

Data Source: CID Data Versions D.17.02.33.LWA (LANL-CO 2019a) and D.18.00.33 (LANL-CO 2019b).

### 3.2.3 Chemical Components

This report is the mechanism the DOE uses to track chemical components (e.g., complexing agents and oxyanions) for anticipated TRU waste at the sites. The chemical component mass totals for this report are presented in Table 3-6. The changes to complexing agents and oxyanions are listed in Table 3-7.

### 3.2.3.1 Complexing Agents and Oxyanions

The DOE tracks the mass of complexing agents and oxyanions destined for emplacement in the WIPP repository because of their potential impact on PA modeling. Table 3-6 presents the anticipated mass of complexing agents and oxyanions estimated for the CH- and RH-TRU waste by site, as well as the grand total of each chemical component.

The anticipated mass of each chemical component is estimated based on the available information for each waste stream as of the data cutoff date. When limited information is available, a site may use a qualitative method to estimate the mass of its chemical components, which can result in an identical mass for multiple components. As more information becomes available, the estimated mass of each complexing agent and oxyanion will improve.

**Table 3-6. CH/RH Complexing Agent and Oxyanion Mass (kg) by Site**

| Chemical Component | ANL | Hanford (RL) | INL | LANL | LBNL | LLNL | ORNL | SNL | Grand Total |
|---|---|---|---|---|---|---|---|---|---|
| **Complexing Agents** | | | | | | | | | |
| Acetate | -- | 5.97E+03 | 8.00E-02 | -- | -- | -- | 1.24E+01 | -- | **5.99E+03** |
| Acetic Acid | 5.06E-01 | 2.75E+03 | 2.25E+03 | 9.39E-01 | -- | 5.04E+00 | 1.24E+01 | 2.00E-09 | **5.02E+03** |
| Citrate | -- | 2.61E+02 | 2.66E-02 | -- | -- | -- | 1.24E+01 | -- | **2.73E+02** |
| Citric Acid | 5.06E-01 | 1.04E+03 | 4.54E+00 | 1.03E+02 | -- | 5.04E+00 | 1.24E+01 | 2.00E-09 | **1.17E+03** |
| EDTA | 5.06E-01 | 3.34E+01 | 2.27E+00 | -- | -- | 1.62E+00 | 1.24E+01 | -- | **5.02E+01** |
| Oxalate | 5.06E-01 | 3.95E+02 | 2.16E-03 | -- | -- | -- | 1.24E+01 | -- | **4.08E+02** |
| Oxalic Acid | 5.06E-01 | 3.46E+03 | 4.46E+01 | 1.73E+02 | -- | 5.04E+00 | 1.24E+01 | -- | **3.70E+03** |
| **Oxyanions** | | | | | | | | | |
| Nitrate | 8.56E+02 | 1.17E+05 | 6.92E+04 | 2.13E+05 | 1.20E-01 | 5.04E+00 | 1.24E+01 | 1.00E-06 | **3.99E+05** |
| Phosphate | 5.63E+02 | 1.08E+05 | 2.19E+04 | -- | -- | 5.04E+00 | 1.24E+01 | -- | **1.31E+05** |
| Sulfate | 5.63E+02 | 1.93E+04 | 8.88E+04 | 3.51E+04 | -- | 5.04E+00 | 1.24E+01 | -- | **1.44E+05** |

Data Source: CID Data Version D.18.00.33 (LANL-CO 2019b). Note: This table only contains data for WIPP-bound waste streams at the TRU waste generator sites.

### 3.2.3.2 Changes to Complexing Agents and Oxyanions

Table 3-7 shows the changes in the total estimated CH- and RH-TRU waste complexing agent and oxyanion mass between the Adjusted ATWIR-2018 and this report. These data represent only the complexing agents and oxyanions that are currently being reported by the TRU waste generator sites, and do not include complexing agents or oxyanions emplaced in the WIPP or in temporary storage since they are not tracked in the WDS.

As shown in Table 3-7, the total change in anticipated complexing agent mass was a decrease of ~2,270 kg and the total change in anticipated oxyanion mass was a decrease of ~47,200 kg.

The changes in mass can be mainly attributed to RL with a site total decrease of ~1,970 kg of complexing agents and ~48,700 kg of oxyanions. The complexing agents and oxyanions totals were driven primarily by RL's significant reduction of anticipated waste estimates for the RLPFP-01 waste stream, which was countered by an increase in anticipated waste estimates for the RLPFP-05 waste stream.

**Table 3-7. CH/RH Complexing Agent and Oxyanion Changes**

| Chemical Component | Adjusted ATWIR-2018 Total (kg) | ATWIR-2019 Total (kg) | Net Change (kg) |
|---|---|---|---|
| **Complexing Agents** | | | |
| Acetate | 7.39E+03 | 5.99E+03 | -1.40E+03 |
| Acetic Acid | 5.81E+03 | 5.02E+03 | -7.91E+02 |
| Citrate | 3.08E+02 | 2.73E+02 | -3.51E+01 |
| Citric Acid | 1.18E+03 | 1.17E+03 | -1.13E+01 |
| EDTA | 5.65E+01 | 5.02E+01 | -6.26E+00 |
| Oxalate | 4.18E+02 | 4.08E+02 | -9.99E+00 |
| Oxalic Acid | 3.71E+03 | 3.70E+03 | -1.60E+01 |
| **Grand Total** | **1.89E+04** | **1.66E+04** | **-2.27E+03** |
| **Oxyanions** | | | |
| Nitrate | 4.38E+05 | 3.99E+05 | -3.89E+04 |
| Phosphate | 1.56E+05 | 1.31E+05 | -2.49E+04 |
| Sulfate | 1.27E+05 | 1.44E+05 | +1.67E+04 |
| **Grand Total** | **7.21E+05** | **6.74E+05** | **-4.72E+04** |

Data Source: CID Data Versions D.17.02.33.LWA (LANL-CO 2019a) and D.18.00.33 (LANL-CO 2019b). Note: This table only contains data for WIPP-bound waste streams at the TRU waste generator sites.

## 3.3 TRU Waste Radionuclide Estimates

This section presents the updated TRU waste radionuclide activity inventory collected from the TRU waste generator sites. The sites' waste stream radionuclide activities are decay-corrected as described in section 2.2.3. The values in Table 3-8, Table 3-9, and Table 3-10, are decayed through the end of CY 2018, and the values in Table 3-11, which shows a comparison between the Adjusted ATWIR-2018 and ATWIR-2019 activity totals, are decayed through the end of CY 2033.

### 3.3.1 Radionuclide Inventory by Site

Table 3-8 and Table 3-9 provide the comprehensive WIPP-bound anticipated activity inventory estimates for CH- and RH-TRU waste, respectively. Table 3-10 sums the CH- and RH-TRU waste activity totals to produce a total anticipated activity by site.

# Table 3-8. Total CH Radionuclide Activity (Ci) on a Site Basis Decayed through 2018

| Radionuclide | ANL | Hanford (RL) | INL | KAPL-NFS | LANL | LBNL | LLNL | MFC | NNSS | NRD | ORNL | SNL | SPRU | SRS | Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ac-225 | 7.59E-05 | 2.14E-03 | 4.84E-05 | 1.47E-04 | 1.42E-01 | 1.00E-18 | 4.02E-04 | 1.28E-11 | 6.87E-12 | 2.63E-13 | 2.79E+00 | 1.28E-12 | 1.56E-17 | 3.23E-02 | **2.97E+00** |
| Ac-227 | 1.17E-05 | 6.65E-05 | 1.86E-02 | 9.63E-07 | 2.88E+00 | 8.02E-23 | 7.98E+00 | 1.89E-11 | 1.02E-09 | -- | 7.78E+00 | 2.14E-11 | 3.85E-10 | 9.18E-03 | **1.87E+01** |
| Ac-228 | 1.33E-04 | 8.36E-03 | 2.25E-05 | 6.05E-03 | 5.99E-06 | 1.34E-08 | 3.43E-06 | 7.13E-18 | 3.00E-15 | -- | 1.39E-03 | 2.42E-05 | -- | 1.10E-03 | **1.71E-02** |
| Ag-108 | 4.23E-05 | 1.53E-07 | -- | -- | 4.66E-07 | -- | -- | -- | -- | -- | 2.79E-04 | -- | -- | -- | **3.21E-04** |
| Ag-108m | 4.86E-04 | 1.76E-06 | -- | -- | 5.36E-06 | -- | -- | -- | -- | -- | 3.20E-03 | -- | -- | -- | **3.70E-03** |
| Ag-109m | 7.93E-07 | 1.27E-05 | -- | -- | -- | -- | 8.74E-05 | -- | -- | -- | 2.65E-05 | 5.53E-07 | -- | -- | **1.28E-04** |
| Ag-110 | -- | 6.02E-21 | -- | -- | -- | -- | -- | -- | -- | -- | 9.30E-03 | -- | -- | -- | **9.30E-03** |
| Ag-110m | -- | 4.42E-19 | -- | -- | -- | -- | -- | -- | -- | -- | 6.84E-01 | -- | -- | -- | **6.84E-01** |
| Am-241 | 8.09E+00 | 4.33E+04 | 3.35E+04 | 1.33E+01 | 6.03E+04 | 1.08E-02 | 1.88E+03 | 7.84E+01 | 2.10E+01 | 3.31E+01 | 2.85E+03 | 3.52E+02 | 2.80E-02 | 2.23E+05 | **3.65E+05** |
| Am-242 | 1.81E-03 | 1.78E-03 | -- | -- | -- | -- | 3.48E+00 | -- | -- | -- | 2.41E-04 | -- | -- | 1.05E-02 | **3.49E+00** |
| Am-242m | 1.82E-03 | 1.78E-03 | -- | -- | -- | -- | 3.50E+00 | -- | -- | -- | 2.42E-04 | -- | -- | 1.06E-02 | **3.51E+00** |
| Am-243 | 1.00E+00 | 4.41E-01 | 2.91E-01 | -- | 1.64E+00 | 1.80E-03 | 1.22E-01 | 9.33E-03 | -- | -- | 9.78E+00 | -- | -- | 8.48E-01 | **1.41E+01** |
| Am-245 | 5.71E-09 | -- | -- | -- | 1.34E-04 | -- | -- | -- | -- | -- | 1.19E-04 | -- | -- | -- | **2.53E-04** |
| Am-246 | 1.75E-09 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.15E-07 | -- | -- | -- | **1.17E-07** |
| At-217 | 7.59E-05 | 2.14E-03 | 4.84E-05 | 1.47E-04 | 1.42E-01 | 1.00E-18 | 4.02E-04 | 1.28E-11 | 6.87E-12 | 2.63E-13 | 2.79E+00 | 1.28E-12 | 1.56E-17 | 3.23E-02 | **2.97E+00** |
| Ba-133 | 1.90E-05 | 2.63E-05 | -- | -- | 1.04E-05 | -- | -- | -- | -- | -- | 4.74E-04 | -- | -- | 1.11E-05 | **5.40E-04** |
| Ba-137m | 1.15E+01 | 2.83E+02 | 1.61E+00 | -- | 8.84E+00 | 1.53E-07 | 3.40E-01 | 1.26E+00 | -- | -- | 4.80E+02 | 3.21E-01 | 2.87E+00 | 1.43E+00 | **7.91E+02** |
| Ba-140 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3.13E-08 | -- | -- | -- | **3.13E-08** |
| Bi-210 | 1.60E-02 | 5.27E-03 | 6.56E-05 | 1.57E-05 | 2.91E-04 | 5.45E-11 | 8.48E-11 | 2.44E-14 | 7.80E-11 | -- | 4.49E-01 | 2.92E-06 | 1.13E-12 | 1.93E-05 | **4.71E-01** |
| Bi-211 | 1.17E-05 | 6.66E-05 | 9.57E-03 | 9.63E-07 | 1.48E+00 | 7.30E-24 | 4.09E+00 | 1.89E-11 | 1.02E-09 | -- | 4.36E+00 | 2.14E-11 | 3.85E-10 | 9.20E-03 | **9.94E+00** |
| Bi-212 | 1.16E-04 | 2.76E-01 | 2.52E-03 | 7.19E-03 | 8.22E+00 | 1.80E-10 | 7.15E-04 | 7.95E-19 | 1.89E-15 | -- | 4.02E+00 | 2.42E-05 | -- | 9.85E-02 | **1.26E+01** |
| Bi-213 | 7.59E-05 | 2.14E-03 | 4.84E-05 | 1.47E-04 | 1.42E-01 | 1.00E-18 | 4.02E-04 | 1.28E-11 | 6.87E-12 | 2.63E-13 | 2.79E+00 | 1.28E-12 | 1.56E-17 | 3.23E-02 | **2.97E+00** |
| Bi-214 | 3.27E-02 | 1.33E-01 | 4.68E-03 | 1.12E-04 | 1.40E-01 | 2.68E-08 | 9.03E-08 | 2.42E-12 | 9.72E-10 | -- | 8.24E-01 | 3.72E-12 | 3.74E-11 | 1.71E-04 | **1.13E+00** |
| Bk-249 | 3.94E-04 | -- | -- | -- | 9.21E+00 | -- | -- | -- | -- | -- | 8.22E+00 | -- | -- | -- | **1.74E+01** |
| Bk-250 | 9.81E-10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.11E-08 | -- | -- | -- | **7.21E-08** |
| C-14 | 3.10E-03 | 6.51E-04 | -- | -- | -- | -- | -- | -- | -- | -- | 2.66E-03 | -- | 1.39E-06 | 1.81E-03 | **8.22E-03** |
| Ca-45 | 2.91E-11 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.91E-11** |
| Cd-109 | 7.93E-07 | 1.27E-05 | -- | -- | -- | -- | 8.74E-05 | -- | -- | -- | 2.65E-05 | 5.53E-07 | -- | -- | **1.28E-04** |
| Cd-113 | 3.76E-23 | 2.23E-25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.79E-23** |
| Cd-113m | 1.72E-04 | 2.56E-07 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.72E-04** |
| Ce-139 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3.51E-05 | 1.74E-13 | -- | -- | **3.51E-05** |
| Ce-141 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.75E+00 | -- | -- | -- | **1.75E+00** |
| Ce-144 | 6.21E-04 | 4.47E-03 | -- | -- | 4.38E-07 | -- | -- | 3.78E-02 | -- | -- | 1.13E+00 | -- | -- | -- | **1.17E+00** |
| Cf-249 | 8.55E-02 | 6.28E-02 | 9.92E-02 | -- | 5.30E-01 | 4.28E-03 | 6.47E+00 | -- | -- | -- | 2.73E+00 | -- | -- | 1.78E-03 | **9.98E+00** |
| Cf-250 | 4.29E-03 | 5.51E-02 | -- | -- | -- | 9.81E-08 | -- | -- | -- | -- | 2.72E+01 | -- | -- | 6.70E-11 | **2.73E+01** |
| Cf-251 | 6.63E-04 | 2.20E-03 | 2.30E-04 | -- | -- | -- | 1.15E-04 | -- | -- | -- | 3.95E-01 | -- | -- | 7.13E-04 | **3.99E-01** |
| Cf-252 | 2.17E-05 | 3.52E-04 | -- | -- | -- | -- | 2.41E-03 | -- | -- | -- | 2.69E+01 | -- | -- | 1.68E+00 | **2.86E+01** |
| Cf-253 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2.98E-04 | -- | -- | -- | **2.98E-04** |
| Cf-254 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2.37E-04 | -- | -- | -- | **2.37E-04** |
| Cl-36 | 1.70E-07 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.70E-07** |
| Cm-242 | 1.46E-03 | 1.60E-03 | -- | -- | 2.05E-06 | -- | 4.03E-01 | -- | -- | -- | 3.27E+00 | -- | -- | 8.69E-03 | **3.68E+00** |
| Cm-243 | 2.59E-02 | 1.42E-01 | 2.34E-01 | -- | 4.29E-01 | 7.52E-05 | 1.05E-01 | 2.95E-02 | -- | -- | 1.67E+00 | -- | -- | 6.49E-02 | **2.70E+00** |
| Cm-244 | 1.24E+02 | 1.02E+02 | 8.68E+00 | -- | 1.08E+03 | 1.50E-03 | 3.79E+02 | 1.16E+00 | -- | -- | 5.37E+03 | -- | -- | 7.03E+01 | **7.13E+03** |
| Cm-245 | 1.02E-04 | 1.08E+00 | 1.94E-04 | -- | 4.26E-04 | 3.49E-08 | 2.29E-02 | -- | -- | -- | 1.97E+00 | -- | -- | 1.17E-02 | **3.09E+00** |
| Cm-246 | 6.60E-03 | 1.22E-03 | -- | -- | 2.71E-02 | 1.44E-12 | -- | -- | -- | -- | 3.99E+01 | -- | -- | 6.78E-03 | **3.99E+01** |
| Cm-247 | 1.22E-09 | 4.05E-09 | 2.45E-11 | -- | -- | -- | 1.49E-05 | -- | -- | -- | 3.72E-01 | -- | -- | 7.53E-03 | **3.80E-01** |
| Cm-248 | 2.25E-04 | 1.39E-04 | -- | -- | -- | 1.69E-07 | 1.23E-01 | -- | -- | -- | 3.41E-01 | -- | -- | 2.36E-05 | **4.64E-01** |

# Table 3-8. Total CH Radionuclide Activity (Ci) on a Site Basis Decayed through 2018

**Continued**

| Radionuclide | ANL | Hanford (RL) | INL | KAPL-NFS | LANL | LBNL | LLNL | MFC | NNSS | NRD | ORNL | SNL | SPRU | SRS | Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cm-249 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.25E-07 | -- | -- | -- | **9.25E-07** |
| Cm-250 | 7.01E-09 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5.08E-07 | -- | -- | -- | **5.15E-07** |
| Co-58 | -- | 1.99E-06 | -- | -- | -- | -- | -- | -- | -- | -- | 5.42E-03 | -- | -- | -- | **5.42E-03** |
| Co-60 | 1.08E-02 | 1.82E+00 | 8.31E-04 | -- | 5.70E-04 | -- | 8.09E-04 | 3.43E-03 | -- | -- | 4.06E-01 | 6.05E-05 | -- | 2.32E-03 | **2.24E+00** |
| Cs-134 | 2.10E-02 | 2.21E-03 | -- | -- | -- | -- | -- | 3.15E-02 | -- | -- | 7.14E-01 | -- | -- | 8.56E-06 | **7.68E-01** |
| Cs-135 | 3.20E-07 | 5.98E-10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.21E-07** |
| Cs-137 | 1.22E+01 | 3.00E+02 | 1.70E+00 | -- | 9.36E+00 | 1.62E-07 | 3.60E-01 | 1.33E+00 | -- | -- | 5.08E+02 | 3.39E-01 | 3.04E+00 | 1.52E+00 | **8.38E+02** |
| Es-253 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4.03E-04 | -- | -- | -- | **4.03E-04** |
| Eu-152 | 3.36E-04 | 1.28E-01 | 1.74E-04 | -- | 7.36E-04 | -- | 2.09E-04 | -- | -- | -- | 1.65E+00 | 7.02E-06 | -- | 1.96E-04 | **1.78E+00** |
| Eu-154 | 2.69E-02 | 2.99E+00 | -- | -- | 5.34E-04 | -- | 2.44E-03 | 8.81E-03 | -- | -- | 9.05E+00 | 1.56E-04 | -- | 6.96E-03 | **1.21E+01** |
| Eu-155 | 3.43E-03 | 3.67E+00 | -- | -- | 2.19E-05 | -- | -- | 8.90E-03 | -- | -- | 5.59E+00 | -- | -- | 1.57E-02 | **9.28E+00** |
| Fe-55 | 6.62E-03 | 1.72E-02 | -- | -- | -- | -- | -- | -- | -- | -- | 2.10E-03 | -- | -- | -- | **2.59E-02** |
| Fe-59 | 4.90E-23 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **4.90E-23** |
| Fr-221 | 7.59E-05 | 2.14E-03 | 4.84E-05 | 1.47E-04 | 1.42E-01 | 1.00E-18 | 4.02E-04 | 1.28E-11 | 6.87E-12 | 2.63E-13 | 2.79E+00 | 1.28E-12 | 1.56E-17 | 3.23E-02 | **2.97E+00** |
| Fr-223 | 1.61E-07 | 9.18E-07 | 2.57E-04 | 1.33E-08 | 3.98E-02 | 1.11E-24 | 1.10E-01 | 2.61E-13 | 1.40E-11 | -- | 1.07E-01 | 2.95E-13 | 5.31E-12 | 1.27E-04 | **2.58E-01** |
| Gd-152 | 1.45E-18 | 1.92E-15 | 3.12E-20 | -- | 1.36E-19 | -- | 3.76E-20 | -- | -- | -- | 2.40E-15 | 1.06E-19 | -- | 1.69E-18 | **4.33E-15** |
| Gd-153 | -- | 3.34E-21 | -- | -- | -- | -- | -- | -- | -- | -- | 3.80E-02 | -- | -- | -- | **3.80E-02** |
| H-3 | 8.62E-03 | 7.71E+01 | -- | -- | 4.04E+04 | -- | -- | -- | -- | -- | 3.02E-02 | -- | -- | 2.64E-04 | **4.05E+04** |
| Hg-203 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4.74E-24 | -- | -- | **4.74E-24** |
| Ho-166m | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.37E-04 | -- | -- | 3.29E-07 | **6.38E-04** |
| I-129 | 2.95E-07 | 1.14E-05 | -- | -- | -- | -- | -- | -- | -- | -- | 5.08E-04 | -- | -- | 3.93E-03 | **4.45E-03** |
| I-131 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3.86E-04 | -- | -- | -- | **3.86E-04** |
| In-113m | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4.58E-14 | -- | -- | **4.58E-14** |
| Ir-192 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.51E-06 | -- | -- | -- | **1.51E-06** |
| K-40 | 2.20E-04 | 1.42E-02 | -- | -- | -- | -- | 2.96E-08 | -- | -- | -- | 1.27E-02 | 2.16E-04 | -- | 6.63E-07 | **2.74E-02** |
| Kr-85 | 5.67E-01 | 8.93E-04 | -- | -- | 4.87E-02 | -- | -- | -- | -- | -- | -- | -- | -- | 4.92E-06 | **6.17E-01** |
| La-140 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3.61E-08 | -- | -- | -- | **3.61E-08** |
| Mn-54 | 7.96E-05 | 2.75E-03 | -- | -- | 9.38E-08 | -- | -- | 5.03E-04 | -- | -- | 5.20E-03 | -- | -- | -- | **8.53E-03** |
| Na-22 | 2.26E-03 | 5.68E-04 | -- | -- | 1.79E-03 | -- | 1.32E-04 | -- | -- | -- | 1.02E-06 | -- | -- | 1.02E-03 | **5.77E-03** |
| Na-24 | -- | -- | -- | -- | 5.42E-24 | -- | -- | -- | -- | -- | -- | -- | -- | -- | **5.42E-24** |
| Nb-93m | 2.86E-06 | 2.17E-09 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.86E-06** |
| Nb-94 | -- | 1.13E-03 | -- | -- | 3.25E-05 | -- | 1.13E-08 | -- | -- | -- | 6.79E-04 | -- | -- | 2.86E-07 | **1.84E-03** |
| Nb-95 | 7.08E-18 | 2.04E-08 | -- | -- | -- | -- | -- | -- | -- | -- | 4.19E-01 | -- | -- | -- | **4.19E-01** |
| Nb-95m | 3.78E-20 | 1.05E-10 | -- | -- | -- | -- | -- | -- | -- | -- | 7.33E-03 | -- | -- | -- | **7.33E-03** |
| Nd-144 | 1.14E-18 | 4.25E-18 | -- | -- | 1.99E-19 | -- | -- | 2.02E-17 | -- | -- | 3.90E-17 | -- | -- | -- | **6.48E-17** |
| Ni-59 | -- | 3.15E-10 | -- | -- | -- | -- | -- | -- | -- | -- | 2.53E-02 | -- | -- | 6.34E-10 | **2.53E-02** |
| Ni-63 | 1.08E-05 | 9.77E-03 | -- | -- | -- | -- | -- | -- | -- | -- | 3.95E+00 | -- | -- | -- | **3.96E+00** |
| Np-237 | 4.11E-02 | 3.81E-01 | 5.35E-01 | 4.21E-05 | 4.01E-01 | 1.72E-05 | 9.13E-02 | 6.69E-02 | 1.80E-04 | 7.79E-05 | 1.54E+00 | 4.58E-04 | 2.72E-08 | 4.55E+00 | **7.61E+00** |
| Np-238 | 8.20E-06 | 8.03E-06 | -- | -- | 2.41E-10 | -- | 1.57E-02 | -- | -- | -- | 1.09E-06 | -- | -- | 4.75E-05 | **1.58E-02** |
| Np-239 | 1.00E+00 | 4.41E-01 | 2.91E-01 | -- | 1.64E+00 | 1.80E-03 | 1.22E-01 | 9.33E-03 | -- | -- | 9.78E+00 | -- | -- | 8.48E-01 | **1.41E+01** |
| Np-240 | 3.08E-08 | 4.93E-14 | -- | -- | 9.85E-09 | 1.61E-19 | 1.17E-13 | -- | -- | -- | 5.16E-06 | -- | -- | 5.31E-16 | **5.20E-06** |
| Np-240m | 2.57E-05 | 4.11E-11 | -- | -- | 8.21E-06 | 1.34E-16 | 9.75E-11 | -- | -- | -- | 4.30E-03 | -- | -- | 4.42E-13 | **4.34E-03** |
| Pa-231 | 1.68E-08 | 1.21E-04 | 6.57E-06 | 6.71E-06 | 8.03E-03 | 7.56E-20 | 1.14E+01 | 1.20E-09 | 8.60E-09 | -- | 1.05E-01 | 3.84E-10 | 8.31E-09 | 4.71E-03 | **1.15E+01** |
| Pa-233 | 4.11E-02 | 3.81E-01 | 4.92E-01 | 4.21E-05 | 2.65E-01 | 1.05E-05 | 5.58E-02 | 6.69E-02 | 1.80E-04 | 7.79E-05 | 1.01E+00 | 4.58E-04 | 2.72E-08 | 2.98E+00 | **5.29E+00** |
| Pa-234 | 1.29E-05 | 7.08E-03 | 1.12E-02 | 5.32E-06 | 2.78E-04 | 6.59E-13 | 1.10E-05 | 2.42E-06 | 3.22E-06 | -- | 9.22E-05 | 1.42E-08 | 2.93E-06 | 5.68E-04 | **1.93E-02** |
| Pa-234m | 9.93E-03 | 5.44E+00 | 8.63E+00 | 4.09E-03 | 2.14E-01 | 5.07E-10 | 8.43E-03 | 1.86E-03 | 2.48E-03 | -- | 7.09E-02 | 1.10E-05 | 2.26E-03 | 4.37E-01 | **1.48E+01** |
| Pb-209 | 7.59E-05 | 2.14E-03 | 4.84E-05 | 1.47E-04 | 1.42E-01 | 1.00E-18 | 4.02E-04 | 1.28E-11 | 6.87E-12 | 2.63E-13 | 2.79E+00 | 1.28E-12 | 1.56E-17 | 3.23E-02 | **2.97E+00** |

# Table 3-8. Total CH Radionuclide Activity (Ci) on a Site Basis Decayed through 2018

**Continued**

| Radionuclide | ANL | Hanford (RL) | INL | KAPL-NFS | LANL | LBNL | LLNL | MFC | NNSS | NRD | ORNL | SNL | SPRU | SRS | Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pb-210 | 1.60E-02 | 5.27E-03 | 6.80E-05 | 1.57E-05 | 3.75E-04 | 7.06E-11 | 1.28E-10 | 2.44E-14 | 7.80E-11 | -- | 4.49E-01 | 2.92E-06 | 1.13E-12 | 1.93E-05 | **4.71E-01** |
| Pb-211 | 1.17E-05 | 6.66E-05 | 9.57E-03 | 9.63E-07 | 1.48E+00 | 7.30E-24 | 4.09E+00 | 1.89E-11 | 1.02E-09 | -- | 4.36E+00 | 2.14E-11 | 3.85E-10 | 9.20E-03 | **9.94E+00** |
| Pb-212 | 1.16E-04 | 2.76E-01 | 2.52E-03 | 7.19E-03 | 8.22E+00 | 1.80E-10 | 7.15E-04 | 7.95E-19 | 1.89E-15 | -- | 4.02E+00 | 2.42E-05 | -- | 9.85E-02 | **1.26E+01** |
| Pb-214 | 3.27E-02 | 1.33E-01 | 4.68E-03 | 1.12E-04 | 1.40E-01 | 2.68E-08 | 9.03E-08 | 2.42E-12 | 9.72E-10 | -- | 8.24E-01 | 3.72E-12 | 3.74E-11 | 1.71E-04 | **1.13E+00** |
| Pd-107 | 1.59E-06 | 1.21E-07 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.71E-06** |
| Pm-147 | 7.69E-01 | 1.07E+01 | -- | -- | -- | -- | -- | -- | -- | -- | 1.11E-06 | -- | -- | -- | **1.15E+01** |
| Po-210 | 1.60E-02 | 3.52E-03 | 5.70E-05 | 1.57E-05 | 2.38E-05 | 3.51E-12 | 8.62E-12 | 7.92E-15 | 7.80E-11 | -- | 4.49E-01 | 2.92E-06 | 6.94E-13 | 1.93E-05 | **4.68E-01** |
| Po-211 | 3.21E-08 | 1.83E-07 | 2.63E-05 | 2.65E-09 | 4.07E-03 | 2.01E-26 | 1.12E-02 | 5.21E-14 | 2.80E-12 | -- | 1.20E-02 | 5.88E-14 | 1.06E-12 | 2.53E-05 | **2.73E-02** |
| Po-212 | 7.45E-05 | 1.77E-01 | 1.61E-03 | 4.61E-03 | 5.26E+00 | 1.15E-10 | 4.58E-04 | 5.09E-19 | 1.21E-15 | -- | 2.57E+00 | 1.55E-05 | -- | 6.31E-02 | **8.08E+00** |
| Po-213 | 7.43E-05 | 2.10E-03 | 4.74E-05 | 1.44E-04 | 1.39E-01 | 9.82E-19 | 3.93E-04 | 1.25E-11 | 6.73E-12 | 2.57E-13 | 2.74E+00 | 1.25E-12 | 1.53E-17 | 3.16E-02 | **2.91E+00** |
| Po-214 | 3.27E-02 | 1.33E-01 | 4.68E-03 | 1.12E-04 | 1.40E-01 | 2.68E-08 | 9.03E-08 | 2.42E-12 | 9.72E-10 | -- | 8.24E-01 | 3.71E-12 | 3.74E-11 | 1.71E-04 | **1.13E+00** |
| Po-215 | 1.17E-05 | 6.66E-05 | 9.57E-03 | 9.63E-07 | 1.48E+00 | 7.30E-24 | 4.09E+00 | 1.89E-11 | 1.02E-09 | -- | 4.36E+00 | 2.14E-11 | 3.85E-10 | 9.20E-03 | **9.94E+00** |
| Po-216 | 1.16E-04 | 2.76E-01 | 2.52E-03 | 7.19E-03 | 8.22E+00 | 1.80E-10 | 7.15E-04 | 7.95E-19 | 1.89E-15 | -- | 4.02E+00 | 2.42E-05 | -- | 9.85E-02 | **1.26E+01** |
| Po-218 | 3.27E-02 | 1.33E-01 | 4.68E-03 | 1.12E-04 | 1.40E-01 | 2.68E-08 | 9.03E-08 | 2.42E-12 | 9.73E-10 | -- | 8.24E-01 | 3.72E-12 | 3.74E-11 | 1.71E-04 | **1.13E+00** |
| Pr-144 | 6.21E-04 | 4.47E-03 | -- | -- | 4.38E-07 | -- | -- | 3.78E-02 | -- | -- | 1.13E+00 | -- | -- | -- | **1.17E+00** |
| Pr-144m | 8.69E-06 | 6.26E-05 | -- | -- | 6.13E-09 | -- | -- | 5.29E-04 | -- | -- | 1.58E-02 | -- | -- | -- | **1.64E-02** |
| Pu-236 | 3.20E-10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.20E-10** |
| Pu-238 | 5.47E+00 | 1.21E+04 | 1.57E+04 | 1.44E+00 | 3.15E+05 | 6.59E-03 | 2.34E+03 | 4.41E+00 | 1.30E+01 | -- | 5.28E+03 | 2.90E-01 | 2.78E-03 | 9.88E+04 | **4.50E+05** |
| Pu-239 | 1.52E+01 | 4.25E+04 | 1.85E+04 | 4.66E+01 | 4.50E+04 | 7.26E-04 | 3.31E+03 | 8.72E+00 | 2.39E+02 | -- | 6.52E+02 | 4.17E+00 | 2.58E-01 | 2.23E+05 | **3.33E+05** |
| Pu-240 | 7.93E+00 | 1.82E+04 | 4.29E+03 | 4.66E+01 | 1.17E+04 | 2.00E-05 | 9.17E+02 | 6.54E-01 | 5.46E+01 | -- | 7.93E+02 | 1.19E+00 | -- | 1.08E+05 | **1.44E+05** |
| Pu-241 | 4.01E+01 | 2.92E+05 | 2.42E+04 | 4.28E+01 | 1.84E+05 | 3.27E-04 | 6.15E+03 | -- | 2.31E+02 | -- | 1.26E+04 | 7.01E+00 | 3.03E-02 | 1.12E+06 | **1.64E+06** |
| Pu-242 | 1.02E-01 | 8.60E+00 | 6.64E-01 | -- | 1.12E+01 | 1.34E-19 | 3.51E-01 | 1.58E-04 | 3.43E-03 | -- | 9.41E+00 | 3.21E-04 | 6.86E-04 | 5.07E+01 | **8.10E+01** |
| Pu-243 | 1.22E-09 | 4.05E-09 | 2.45E-11 | -- | -- | -- | 1.49E-05 | -- | -- | -- | 3.72E-01 | -- | -- | 7.53E-03 | **3.80E-01** |
| Pu-244 | 2.57E-05 | 4.12E-11 | -- | -- | 8.22E-06 | 1.34E-16 | 9.76E-11 | -- | -- | -- | 4.31E-03 | -- | -- | 4.43E-13 | **4.34E-03** |
| Pu-246 | 1.75E-09 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.15E-07 | -- | -- | -- | **1.17E-07** |
| Ra-223 | 1.17E-05 | 6.66E-05 | 9.57E-03 | 9.63E-07 | 1.48E+00 | 7.30E-24 | 4.09E+00 | 1.89E-11 | 1.02E-09 | -- | 4.36E+00 | 2.14E-11 | 3.85E-10 | 9.20E-03 | **9.94E+00** |
| Ra-224 | 1.16E-04 | 2.76E-01 | 2.52E-03 | 7.19E-03 | 8.22E+00 | 1.80E-10 | 7.15E-04 | 7.95E-19 | 1.89E-15 | -- | 4.02E+00 | 2.42E-05 | -- | 9.85E-02 | **1.26E+01** |
| Ra-225 | 7.59E-05 | 2.14E-03 | 5.30E-05 | 1.47E-04 | 1.42E-01 | 2.69E-18 | 5.45E-04 | 1.28E-11 | 6.87E-12 | 2.63E-13 | 3.76E+00 | 1.28E-12 | 1.56E-17 | 3.23E-02 | **3.93E+00** |
| Ra-226 | 3.27E-02 | 1.33E-01 | 4.69E-03 | 1.12E-04 | 1.40E-01 | 2.68E-08 | 1.06E-07 | 2.42E-12 | 9.73E-10 | -- | 8.24E-01 | 3.72E-12 | 3.74E-11 | 1.71E-04 | **1.14E+00** |
| Ra-228 | 1.33E-04 | 8.36E-03 | 2.25E-05 | 6.05E-03 | 5.99E-06 | 1.34E-08 | 3.43E-06 | 7.13E-18 | 3.00E-15 | -- | 1.39E-03 | 2.42E-05 | -- | 1.10E-03 | **1.71E-02** |
| Rb-87 | 1.84E-10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.84E-10** |
| Rh-103m | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 8.87E-01 | -- | -- | -- | **8.87E-01** |
| Rh-106 | 1.81E-03 | 1.23E-04 | -- | -- | 9.98E-06 | -- | -- | 3.25E-02 | -- | -- | 7.32E+00 | -- | -- | 2.89E-07 | **7.35E+00** |
| Rn-219 | 1.17E-05 | 6.66E-05 | 9.57E-03 | 9.63E-07 | 1.48E+00 | 7.30E-24 | 4.09E+00 | 1.89E-11 | 1.02E-09 | -- | 4.36E+00 | 2.14E-11 | 3.85E-10 | 9.20E-03 | **9.94E+00** |
| Rn-220 | 1.16E-04 | 2.76E-01 | 2.52E-03 | 7.19E-03 | 8.22E+00 | 1.80E-10 | 7.15E-04 | 7.95E-19 | 1.89E-15 | -- | 4.02E+00 | 2.42E-05 | -- | 9.85E-02 | **1.26E+01** |
| Rn-222 | 3.27E-02 | 1.33E-01 | 4.68E-03 | 1.12E-04 | 1.40E-01 | 2.68E-08 | 9.03E-08 | 2.42E-12 | 9.73E-10 | -- | 8.24E-01 | 3.72E-12 | 3.74E-11 | 1.71E-04 | **1.13E+00** |
| Ru-103 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 8.88E-01 | -- | -- | -- | **8.88E-01** |
| Ru-106 | 1.81E-03 | 1.23E-04 | -- | -- | 9.98E-06 | -- | -- | 3.25E-02 | -- | -- | 7.32E+00 | -- | -- | 2.89E-07 | **7.35E+00** |
| S-35 | 1.08E-11 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.08E-11** |
| Sb-125 | 6.14E-05 | 7.95E-03 | -- | -- | 8.43E-06 | -- | 5.20E-06 | 1.49E-02 | -- | -- | 4.32E-01 | -- | -- | 9.39E-04 | **4.56E-01** |
| Sb-126 | 1.51E-07 | 9.13E-10 | -- | -- | 1.03E-06 | -- | -- | -- | -- | -- | 1.77E-07 | -- | -- | -- | **1.36E-06** |
| Sb-126m | 9.44E-06 | 6.52E-09 | -- | -- | 7.39E-06 | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.68E-05** |
| Se-79 | 3.58E-06 | 4.15E-05 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **4.51E-05** |
| Sm-147 | 1.37E-11 | 8.10E-11 | -- | -- | -- | -- | -- | -- | -- | -- | 1.68E-13 | -- | -- | -- | **9.48E-11** |
| Sm-148 | 1.88E-34 | 6.25E-31 | 1.37E-37 | -- | 1.07E-36 | -- | 1.65E-37 | -- | -- | -- | 3.87E-30 | 3.45E-35 | -- | 3.33E-34 | **4.50E-30** |
| Sm-151 | -- | 3.23E-03 | -- | -- | 2.84E-06 | -- | -- | -- | -- | -- | 1.43E+01 | -- | -- | -- | **1.43E+01** |
| Sn-113 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4.58E-14 | -- | -- | **4.58E-14** |

# Table 3-8. Total CH Radionuclide Activity (Ci) on a Site Basis Decayed through 2018

**Continued**

| Radionuclide | ANL | Hanford (RL) | INL | KAPL-NFS | LANL | LBNL | LLNL | MFC | NNSS | NRD | ORNL | SNL | SPRU | SRS | Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sn-119m | -- | 1.44E-18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.44E-18** |
| Sn-121 | -- | 4.41E-10 | -- | -- | 9.06E-05 | -- | -- | -- | -- | -- | -- | -- | -- | -- | **9.06E-05** |
| Sn-121m | -- | 5.69E-10 | -- | -- | 1.17E-04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.17E-04** |
| Sn-126 | 9.44E-06 | 6.52E-09 | -- | -- | 7.39E-06 | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.68E-05** |
| Sr-85 | 6.46E-17 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2.30E-19 | -- | -- | **6.49E-17** |
| Sr-89 | -- | 4.50E-24 | -- | -- | -- | -- | -- | -- | -- | -- | 3.80E-01 | -- | -- | -- | **3.80E-01** |
| Sr-90 | 9.14E+00 | 6.15E+02 | 1.87E+00 | -- | 4.04E+00 | -- | 4.07E-01 | 1.29E+00 | -- | -- | 2.11E+02 | 1.49E-02 | 1.20E-01 | 9.62E-01 | **8.44E+02** |
| Ta-182 | -- | 7.70E-11 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **7.70E-11** |
| Tc-99 | 8.97E-03 | 1.90E-03 | -- | 2.87E-01 | -- | -- | -- | -- | -- | -- | 3.28E+01 | -- | 1.46E-04 | 1.76E-05 | **3.31E+01** |
| Te-123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.98E-22 | -- | -- | **6.98E-22** |
| Te-123m | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.77E-15 | -- | -- | **9.77E-15** |
| Te-125m | 1.50E-05 | 1.93E-03 | -- | -- | 2.06E-06 | -- | 4.28E-07 | 3.57E-03 | -- | -- | 3.56E-02 | -- | -- | 2.29E-04 | **4.13E-02** |
| Th-227 | 1.15E-05 | 6.57E-05 | 1.36E-02 | 9.50E-07 | 2.11E+00 | 2.09E-23 | 5.83E+00 | 1.87E-11 | 1.00E-09 | -- | 5.94E+00 | 2.11E-11 | 3.79E-10 | 9.07E-03 | **1.39E+01** |
| Th-228 | 1.16E-04 | 2.76E-01 | 2.66E-03 | 7.18E-03 | 9.58E+00 | 2.38E-10 | 7.25E-04 | 7.95E-19 | 1.89E-15 | -- | 4.05E+00 | 2.42E-05 | -- | 9.84E-02 | **1.40E+01** |
| Th-229 | 7.59E-05 | 2.14E-03 | 6.22E-05 | 1.47E-04 | 1.42E-01 | 8.27E-18 | 6.74E-04 | 1.28E-11 | 6.87E-12 | 2.63E-13 | 4.58E+00 | 1.28E-12 | 1.56E-17 | 3.23E-02 | **4.76E+00** |
| Th-230 | 8.46E-04 | 1.19E-03 | 5.60E-05 | 2.58E-02 | 2.59E-03 | 8.56E-16 | 2.45E-03 | 1.12E-08 | 5.52E-07 | -- | 1.22E-02 | 4.87E-09 | 5.76E-08 | 6.72E-03 | **5.19E-02** |
| Th-231 | 2.74E-04 | 2.04E-01 | 1.67E-01 | 3.17E-02 | 5.63E-02 | 7.15E-14 | 8.90E-03 | 5.69E-05 | 5.12E-05 | -- | 7.86E-03 | 5.49E-06 | 1.31E-04 | 2.28E+00 | **2.75E+00** |
| Th-232 | 4.72E-04 | 1.46E-02 | 1.87E-03 | 8.64E-03 | 4.99E-04 | 1.12E-06 | 2.86E-04 | 1.23E-16 | 7.60E-15 | -- | 6.45E-02 | 2.42E-05 | -- | 2.62E-03 | **9.35E-02** |
| Th-234 | 9.93E-03 | 5.44E+00 | 8.63E+00 | 4.09E-03 | 2.14E-01 | 5.07E-10 | 8.43E-03 | 1.86E-03 | 2.48E-03 | -- | 7.09E-02 | 1.10E-05 | 2.26E-03 | 4.37E-01 | **1.48E+01** |
| Tl-206 | 2.11E-08 | 6.96E-09 | 8.65E-11 | 2.07E-11 | 3.84E-10 | 7.20E-17 | 1.12E-16 | 3.23E-20 | 1.03E-16 | -- | 5.93E-07 | 3.86E-12 | 1.49E-18 | 2.55E-11 | **6.21E-07** |
| Tl-207 | 1.17E-05 | 6.64E-05 | 9.54E-03 | 9.61E-07 | 1.47E+00 | 7.28E-24 | 4.08E+00 | 1.89E-11 | 1.01E-09 | -- | 4.35E+00 | 2.13E-11 | 3.84E-10 | 9.17E-03 | **9.92E+00** |
| Tl-208 | 4.18E-05 | 9.91E-02 | 9.04E-04 | 2.59E-03 | 2.95E+00 | 6.46E-11 | 2.57E-04 | 2.86E-19 | 6.79E-16 | -- | 1.44E+00 | 8.71E-06 | -- | 3.54E-02 | **4.53E+00** |
| Tl-209 | 1.59E-06 | 4.50E-05 | 1.02E-06 | 3.09E-06 | 2.98E-03 | 2.11E-20 | 8.44E-06 | 2.69E-13 | 1.44E-13 | 5.52E-15 | 5.87E-02 | 2.69E-14 | 3.28E-19 | 6.78E-04 | **6.24E-02** |
| U-232 | 3.00E-05 | 8.07E-01 | 3.38E-02 | -- | 2.69E+02 | -- | 2.57E-03 | -- | -- | -- | 1.05E+01 | -- | -- | 8.63E-02 | **2.80E+02** |
| U-233 | 1.99E-02 | 3.32E+00 | 2.43E+00 | 1.67E-01 | 4.18E+01 | 2.63E-12 | 2.89E+00 | 2.91E-07 | 1.10E-08 | 1.22E-09 | 4.48E+01 | 7.01E-09 | 1.77E-13 | 7.95E+00 | **1.03E+02** |
| U-234 | 3.34E-01 | 5.02E+00 | 2.04E+00 | 1.67E-01 | 4.05E+01 | 1.86E-09 | 6.48E-02 | 1.22E-03 | 7.55E-03 | -- | 8.55E-01 | 1.64E-04 | 2.09E-03 | 1.72E+02 | **2.21E+02** |
| U-235 | 2.74E-04 | 2.04E-01 | 1.67E-01 | 3.17E-02 | 5.63E-02 | 7.15E-14 | 8.90E-03 | 5.69E-05 | 5.12E-05 | -- | 7.86E-03 | 5.49E-06 | 1.31E-04 | 2.28E+00 | **2.75E+00** |
| U-236 | 7.81E-06 | 4.00E-03 | 1.42E-04 | 3.17E-02 | 6.01E-03 | 5.92E-14 | 5.14E-06 | 2.51E-06 | 2.18E-05 | -- | 7.27E-03 | 1.59E-07 | -- | 2.97E-03 | **5.22E-02** |
| U-237 | 9.59E-04 | 6.99E+00 | 5.72E-01 | 1.02E-03 | 4.30E+00 | 7.64E-09 | 1.44E-01 | -- | 5.54E-03 | -- | 3.01E-01 | 1.68E-04 | 7.26E-07 | 2.61E+01 | **3.84E+01** |
| U-238 | 9.93E-03 | 5.44E+00 | 9.59E+00 | 4.09E-03 | 3.22E-01 | 7.80E-10 | 1.30E-02 | 1.86E-03 | 2.48E-03 | -- | 1.07E-01 | 1.10E-05 | 2.26E-03 | 6.34E-01 | **1.61E+01** |
| U-240 | 2.57E-05 | 4.11E-11 | -- | -- | 8.21E-06 | 1.34E-16 | 9.75E-11 | -- | -- | -- | 4.30E-03 | -- | -- | 4.42E-13 | **4.34E-03** |
| Xe-131m | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.55E-05 | -- | -- | -- | **1.55E-05** |
| Y-89m | -- | 4.18E-28 | -- | -- | -- | -- | -- | -- | -- | -- | 3.53E-05 | -- | -- | -- | **3.53E-05** |
| Y-90 | 9.14E+00 | 6.15E+02 | 1.87E+00 | -- | 4.04E+00 | -- | 4.07E-01 | 1.29E+00 | -- | -- | 2.11E+02 | 1.49E-02 | 1.20E-01 | 9.62E-01 | **8.44E+02** |
| Zn-65 | -- | 3.60E-08 | -- | -- | -- | -- | -- | -- | -- | -- | 3.75E-03 | -- | -- | -- | **3.75E-03** |
| Zr-93 | 5.28E-06 | 2.92E-09 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **5.29E-06** |
| Zr-95 | 3.21E-18 | 8.91E-09 | -- | -- | -- | -- | -- | -- | -- | -- | 6.23E-01 | -- | -- | -- | **6.23E-01** |
| **Grand Total** | **2.47E+02** | **4.10E+05** | **9.61E+04** | **1.52E+02** | **6.58E+05** | **2.80E-02** | **1.50E+04** | **9.89E+01** | **5.59E+02** | **3.31E+01** | **2.94E+04** | **3.65E+02** | **6.48E+00** | **1.77E+06** | **2.98E+06** |

Data Source: CID Data Version D.18.00.33 (LANL-CO 2019b). Note: This table only contains data for WIPP-bound waste streams at the TRU waste generator sites.

## Table 3-9. Total RH Radionuclide Activity (Ci) on a Site Basis Decayed through 2018

| Radionuclide | ANL | BAPL | Hanford (RL) | INL | KAPL-S | LANL | MFC | ORNL | SNL | SPRU | SRS | Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ac-225 | 5.12E-03 | 4.14E-05 | 7.80E-04 | 8.30E-05 | 1.28E-06 | 5.95E-15 | 2.96E-08 | 4.39E-03 | 3.87E-10 | 1.98E-16 | 1.51E-05 | **1.04E-02** |
| Ac-227 | 2.58E-01 | 1.38E-14 | 7.72E-02 | 8.72E-07 | 1.09E-08 | 4.27E-08 | 1.68E-03 | 1.51E-03 | 6.97E-09 | 3.43E-09 | 7.33E-05 | **3.39E-01** |
| Ac-228 | 3.18E-02 | 1.35E-18 | 6.97E-04 | 5.45E-05 | 1.48E-04 | 2.39E-16 | 7.29E-17 | 2.51E-04 | 9.05E-18 | 1.12E-16 | 3.82E-15 | **3.29E-02** |
| Ag-108 | 1.09E-03 | -- | -- | -- | -- | -- | 4.63E-07 | 4.33E-08 | -- | -- | -- | **1.09E-03** |
| Ag-108m | 1.25E-02 | -- | -- | -- | -- | -- | 5.32E-06 | 4.97E-07 | -- | -- | -- | **1.25E-02** |
| Ag-109m | 1.29E+00 | -- | -- | -- | -- | -- | -- | 1.94E-06 | -- | -- | -- | **1.29E+00** |
| Ag-110 | 8.00E-03 | -- | 1.97E-10 | -- | 3.14E-09 | -- | 9.11E-06 | 1.07E-03 | -- | -- | -- | **9.07E-03** |
| Ag-110m | 5.88E-01 | -- | 1.45E-08 | -- | 2.31E-07 | -- | 6.70E-04 | 7.84E-02 | -- | -- | -- | **6.67E-01** |
| Am-241 | 1.32E+02 | 2.94E-02 | 2.75E+03 | 8.19E+02 | 5.58E-02 | 3.11E+00 | 1.02E+02 | 3.73E+02 | 2.79E+01 | 3.54E-01 | 1.46E+02 | **4.36E+03** |
| Am-242 | 2.54E-01 | -- | 1.02E+00 | -- | -- | -- | 2.48E-03 | 7.98E-02 | -- | -- | 3.24E-02 | **1.39E+00** |
| Am-242m | 2.55E-01 | -- | 1.03E+00 | -- | -- | -- | 2.49E-03 | 8.01E-02 | -- | -- | 3.26E-02 | **1.40E+00** |
| Am-243 | 6.47E+00 | 1.13E-04 | 4.97E+00 | 5.78E-18 | 2.50E-06 | -- | 1.11E-02 | 3.87E+01 | -- | -- | 1.44E+00 | **5.16E+01** |
| Am-245 | 1.32E-11 | -- | -- | -- | -- | -- | -- | 2.30E-03 | -- | -- | 1.32E-10 | **2.30E-03** |
| Am-246 | -- | -- | -- | -- | -- | -- | -- | 1.00E-08 | -- | -- | -- | **1.00E-08** |
| Ar-37 | 1.08E-03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.08E-03** |
| Ar-39 | 8.63E-03 | -- | -- | -- | -- | -- | 3.97E-04 | -- | -- | -- | -- | **9.03E-03** |
| Ar-42 | 2.38E-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.38E-02** |
| At-217 | 5.12E-03 | 4.14E-05 | 7.80E-04 | 8.30E-05 | 1.28E-06 | 5.95E-15 | 2.96E-08 | 4.39E-03 | 3.87E-10 | 1.98E-16 | 1.51E-05 | **1.04E-02** |
| Ba-133 | 2.15E+00 | -- | -- | -- | -- | -- | -- | 6.50E-04 | -- | -- | -- | **2.15E+00** |
| Ba-137m | 1.68E+03 | 5.04E+01 | 1.50E+05 | 1.38E+04 | 4.51E+01 | 1.35E+03 | 3.01E+03 | 4.69E+03 | 2.96E+02 | 1.96E+01 | 2.32E+01 | **1.75E+05** |
| Ba-140 | -- | -- | -- | -- | -- | -- | 2.51E-04 | -- | -- | -- | -- | **2.51E-04** |
| Be-10 | -- | -- | -- | -- | -- | -- | 3.16E-09 | 2.39E-06 | -- | -- | -- | **2.39E-06** |
| Bi-210 | 8.85E-01 | 2.25E-18 | 1.05E+00 | 1.33E-09 | 1.88E-07 | 2.20E-12 | 6.13E-15 | 1.00E+00 | 3.71E-11 | 6.94E-12 | 4.97E-09 | **2.94E+00** |
| Bi-211 | 2.60E-01 | 1.96E-15 | 7.74E-02 | 8.72E-07 | 1.06E-08 | 4.27E-08 | 3.85E-04 | 8.82E-04 | 6.97E-09 | 3.43E-09 | 7.33E-05 | **3.38E-01** |
| Bi-212 | 5.01E+00 | 8.41E-03 | 1.27E-03 | 2.73E-05 | 1.13E-04 | 8.56E-17 | 4.29E-05 | 2.25E-01 | 1.99E-18 | 3.23E-17 | 2.44E-15 | **5.25E+00** |
| Bi-213 | 5.12E-03 | 4.14E-05 | 7.80E-04 | 8.29E-05 | 1.28E-06 | 5.95E-15 | 2.95E-08 | 4.39E-03 | 3.87E-10 | 1.98E-16 | 1.51E-05 | **1.04E-02** |
| Bi-214 | 6.44E-10 | 4.30E-15 | 3.03E+00 | 3.40E-08 | 1.64E-06 | 5.49E-11 | 8.06E-12 | 2.98E+00 | 1.32E-09 | 2.30E-10 | 4.26E-08 | **6.01E+00** |
| Bk-249 | 9.07E-07 | -- | -- | -- | -- | -- | -- | 1.59E+02 | -- | -- | 9.09E-06 | **1.59E+02** |
| Bk-250 | -- | -- | -- | -- | -- | -- | -- | 1.15E-04 | -- | -- | -- | **1.15E-04** |
| C-14 | -- | 1.57E-03 | 3.23E-04 | -- | 1.48E-01 | -- | 1.88E-02 | 3.04E-02 | -- | 2.95E-05 | 8.02E-04 | **2.00E-01** |
| Ca-45 | 9.68E-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **9.68E-02** |
| Cd-109 | 1.29E+00 | -- | -- | -- | -- | -- | -- | 1.94E-06 | -- | -- | -- | **1.29E+00** |
| Cd-113 | 9.51E-21 | -- | 2.01E-18 | -- | -- | -- | 4.28E-22 | 8.96E-21 | -- | -- | -- | **2.03E-18** |
| Cd-113m | 9.09E-01 | -- | 6.74E-01 | -- | -- | -- | 4.10E-02 | 3.12E-03 | -- | -- | -- | **1.63E+00** |
| Cd-115m | 5.30E-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **5.30E-02** |
| Ce-139 | 1.01E+00 | -- | -- | -- | -- | -- | -- | 8.81E-09 | -- | -- | -- | **1.01E+00** |
| Ce-141 | 1.76E-01 | -- | -- | -- | -- | -- | 1.89E-01 | 6.12E-01 | -- | -- | -- | **9.78E-01** |
| Ce-144 | 4.92E+01 | -- | 2.54E-02 | 2.45E-01 | -- | 1.17E-01 | 3.11E+02 | 1.27E+01 | -- | -- | 9.20E-07 | **3.74E+02** |
| Cf-249 | 6.47E-01 | -- | -- | 1.10E-03 | 1.87E-13 | -- | 1.22E-09 | 6.76E+00 | -- | -- | 1.27E-03 | **7.41E+00** |
| Cf-250 | 3.49E-02 | -- | -- | 1.07E-02 | -- | -- | -- | 4.67E+01 | -- | -- | 1.88E-05 | **4.68E+01** |
| Cf-251 | 7.84E-09 | -- | -- | 2.84E-04 | 2.37E-15 | -- | -- | 2.09E+00 | -- | -- | 8.26E-07 | **2.09E+00** |
| Cf-252 | 9.01E-04 | -- | -- | 3.05E-04 | 4.92E-17 | -- | -- | 6.80E+00 | -- | -- | 6.80E-03 | **6.81E+00** |
| Cf-254 | -- | -- | -- | -- | -- | -- | -- | 1.95E-05 | -- | -- | -- | **1.95E-05** |
| Cm-242 | 1.29E-01 | -- | 8.47E-01 | -- | 7.29E-07 | -- | 5.04E-03 | 1.38E+00 | -- | -- | 2.68E-02 | **2.39E+00** |
| Cm-243 | 1.92E-01 | -- | 1.92E+01 | -- | 2.34E-03 | -- | 6.32E-05 | 3.12E-01 | -- | -- | 2.41E-03 | **1.97E+01** |
| Cm-244 | 6.37E+01 | -- | 4.96E+02 | 2.10E+02 | 7.39E-03 | -- | 2.85E+00 | 6.07E+03 | -- | -- | 1.02E+02 | **6.94E+03** |

# Table 3-9. Total RH Radionuclide Activity (Ci) on a Site Basis Decayed through 2018

**Continued**

| Radionuclide | ANL | BAPL | Hanford (RL) | INL | KAPL-S | LANL | MFC | ORNL | SNL | SPRU | SRS | Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cm-245 | 1.29E-03 | -- | 7.94E-02 | 1.48E-01 | 2.30E-08 | -- | 2.02E-07 | 8.46E-01 | -- | -- | 1.78E-02 | **1.09E+00** |
| Cm-246 | 5.13E-07 | -- | 3.54E-02 | 1.58E-07 | 3.00E-09 | -- | 3.06E-09 | 4.58E+01 | -- | -- | 2.38E-02 | **4.59E+01** |
| Cm-247 | 6.06E-10 | -- | 1.12E-10 | 1.23E-12 | 7.07E-15 | -- | -- | 2.21E-02 | -- | -- | 4.49E-08 | **2.21E-02** |
| Cm-248 | 1.80E-10 | -- | 1.69E-06 | 6.10E-11 | 1.40E-14 | -- | 5.96E-12 | 2.19E-01 | -- | -- | 8.62E-06 | **2.19E-01** |
| Cm-250 | -- | -- | -- | -- | -- | -- | -- | 4.43E-08 | -- | -- | -- | **4.43E-08** |
| Co-58 | 3.93E-01 | -- | 3.74E-09 | -- | -- | -- | 2.35E-05 | -- | -- | -- | -- | **3.93E-01** |
| Co-60 | 3.25E+01 | 3.71E-01 | 2.55E+01 | 2.46E+02 | 1.20E+00 | 2.03E-01 | 8.85E+01 | 2.39E+00 | -- | 1.71E-05 | 3.51E-11 | **3.97E+02** |
| Cr-51 | 3.16E-02 | -- | -- | -- | -- | -- | 1.92E-04 | -- | -- | -- | -- | **3.18E-02** |
| Cs-134 | 3.15E+01 | 8.72E-04 | 4.02E+00 | -- | -- | -- | 6.00E+01 | 5.00E+01 | -- | -- | 2.09E-02 | **1.46E+02** |
| Cs-135 | -- | -- | 5.47E-04 | -- | 1.90E-05 | -- | 1.21E-03 | 5.29E-03 | -- | -- | -- | **7.07E-03** |
| Cs-137 | 1.78E+03 | 5.34E+01 | 1.59E+05 | 1.46E+04 | 4.78E+01 | 1.43E+03 | 3.19E+03 | 4.97E+03 | 3.13E+02 | 2.08E+01 | 2.45E+01 | **1.85E+05** |
| Dy-159 | 1.14E-01 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.14E-01** |
| Es-254 | -- | -- | -- | -- | -- | -- | -- | 1.15E-04 | -- | -- | -- | **1.15E-04** |
| Es-254m | -- | -- | -- | -- | -- | -- | -- | 2.63E-07 | -- | -- | -- | **2.63E-07** |
| Eu-149 | 7.20E-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **7.20E-02** |
| Eu-152 | 9.20E-01 | 4.56E+00 | 1.79E+00 | 1.38E-01 | -- | -- | 8.00E-03 | 2.92E+01 | -- | -- | -- | **3.66E+01** |
| Eu-154 | 1.24E+03 | 1.72E+00 | 3.15E+02 | 1.72E+01 | 3.55E-02 | 5.77E-02 | 5.75E+00 | 7.92E+01 | -- | -- | 4.01E-01 | **1.66E+03** |
| Eu-155 | 4.72E+00 | 3.30E-02 | 2.42E+02 | 1.10E+01 | -- | 3.03E-01 | 3.82E+01 | 8.68E+00 | -- | -- | 5.50E-03 | **3.05E+02** |
| Fe-55 | 5.98E+01 | 1.41E-02 | 7.30E-01 | -- | 3.02E+00 | -- | 2.90E+01 | 2.29E-03 | -- | -- | -- | **9.26E+01** |
| Fe-59 | 1.74E-02 | -- | -- | -- | -- | -- | 6.26E-04 | -- | -- | -- | -- | **1.80E-02** |
| Fr-221 | 5.12E-03 | 4.14E-05 | 7.80E-04 | 8.30E-05 | 1.28E-06 | 5.95E-15 | 2.96E-08 | 4.39E-03 | 3.87E-10 | 1.98E-16 | 1.51E-05 | **1.04E-02** |
| Fr-223 | 3.56E-03 | 1.90E-16 | 1.07E-03 | 1.20E-08 | 1.51E-10 | 5.89E-10 | 2.32E-05 | 2.08E-05 | 9.61E-11 | 4.73E-11 | 1.01E-06 | **4.67E-03** |
| Gd-152 | 1.65E-16 | 8.19E-16 | 3.76E-14 | 1.10E-15 | -- | -- | 1.44E-18 | 1.67E-14 | -- | -- | -- | **5.64E-14** |
| Gd-153 | 2.61E-01 | -- | 3.44E-05 | -- | -- | -- | 5.27E-06 | 9.06E-07 | -- | -- | -- | **2.61E-01** |
| H-3 | 1.66E+01 | 1.18E-01 | 1.95E+03 | -- | 6.16E-02 | -- | 1.64E-01 | 1.41E+00 | -- | -- | 5.17E-02 | **1.96E+03** |
| Hf-175 | 3.59E-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.59E-02** |
| Hf-181 | 1.18E-03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.18E-03** |
| Ho-166m | -- | -- | -- | -- | -- | -- | 8.74E-08 | 1.28E-07 | -- | -- | -- | **2.15E-07** |
| I-125 | 1.70E-01 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.70E-01** |
| I-129 | 2.04E-10 | 1.98E-05 | 2.18E-03 | -- | 1.51E-05 | -- | 6.03E-02 | 4.47E-04 | -- | -- | -- | **6.30E-02** |
| In-113m | 1.51E-01 | -- | -- | -- | -- | -- | -- | 2.15E+00 | -- | -- | -- | **2.30E+00** |
| In-114 | 1.21E-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.21E-02** |
| In-114m | 1.26E-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.26E-02** |
| In-115 | 1.12E-17 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.12E-17** |
| In-115m | 5.86E-06 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **5.86E-06** |
| Ir-194 | 1.24E-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.24E-02** |
| K-42 | 2.38E-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.38E-02** |
| Kr-85 | 4.45E+01 | 2.01E+00 | 2.26E+02 | -- | 7.25E-01 | 4.82E+02 | 2.83E+00 | 2.67E+01 | -- | -- | 6.61E-01 | **7.86E+02** |
| La-137 | -- | -- | -- | -- | -- | -- | -- | 7.49E-08 | -- | -- | -- | **7.49E-08** |
| La-140 | -- | -- | -- | -- | -- | -- | 2.89E-04 | -- | -- | -- | -- | **2.89E-04** |
| Lu-177 | 3.71E-04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.71E-04** |
| Lu-177m | 1.74E-03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.74E-03** |
| Mn-54 | 8.97E+00 | -- | 4.15E-02 | -- | -- | -- | 1.04E+00 | -- | -- | -- | -- | **1.01E+01** |
| Mo-93 | -- | -- | 2.74E-05 | -- | -- | -- | 3.16E-02 | -- | -- | -- | -- | **3.16E-02** |
| Na-22 | 3.44E-02 | -- | 6.24E-05 | -- | -- | -- | 1.04E-05 | -- | -- | -- | -- | **3.45E-02** |
| Nb-91 | 1.41E-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.41E-02** |
| Nb-92 | -- | -- | -- | -- | -- | -- | 5.56E-09 | -- | -- | -- | -- | **5.56E-09** |

# Table 3-9. Total RH Radionuclide Activity (Ci) on a Site Basis Decayed through 2018

**Continued**

| Radionuclide | ANL | BAPL | Hanford (RL) | INL | KAPL-S | LANL | MFC | ORNL | SNL | SPRU | SRS | Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nb-93m | 4.82E-01 | 2.45E-03 | 3.19E-04 | -- | 2.14E-05 | -- | 7.73E-03 | 6.25E-01 | -- | -- | -- | **1.12E+00** |
| Nb-94 | -- | -- | 7.62E-02 | -- | 4.62E-02 | -- | 2.22E-01 | 9.09E-02 | -- | -- | -- | **4.35E-01** |
| Nb-95 | 1.16E+01 | -- | 5.88E-15 | 2.03E-05 | -- | -- | 1.75E-01 | 5.50E-01 | -- | -- | -- | **1.23E+01** |
| Nb-95m | 6.41E-02 | -- | 3.14E-17 | 1.08E-07 | -- | -- | 2.00E-03 | 5.03E-03 | -- | -- | -- | **7.11E-02** |
| Nd-144 | 1.71E-15 | -- | 3.17E-14 | 3.10E-15 | -- | 1.48E-15 | 1.08E-14 | 2.76E-13 | -- | -- | 3.66E-16 | **3.26E-13** |
| Nd-147 | -- | -- | -- | -- | -- | -- | 1.90E-04 | -- | -- | -- | -- | **1.90E-04** |
| Ni-59 | 1.14E-02 | 1.03E-01 | 2.06E-04 | -- | 8.91E-02 | -- | 2.22E-01 | 1.92E-04 | -- | -- | 2.88E-10 | **4.26E-01** |
| Ni-63 | 1.56E+00 | 8.02E+00 | 7.34E-01 | -- | 1.20E+01 | -- | 3.75E+01 | 1.56E-02 | -- | -- | -- | **5.98E+01** |
| Np-235 | 1.29E+00 | -- | -- | -- | -- | -- | -- | 4.26E-08 | -- | -- | -- | **1.29E+00** |
| Np-237 | 1.11E-03 | 1.61E-04 | 2.86E-01 | 3.14E-03 | 8.72E-05 | 4.52E-06 | 6.98E-02 | 3.74E-01 | 1.79E-05 | 3.45E-07 | 2.48E+00 | **3.21E+00** |
| Np-238 | 1.15E-03 | -- | 4.62E-03 | -- | -- | -- | 1.73E-05 | 3.61E-04 | -- | -- | 1.47E-04 | **6.29E-03** |
| Np-239 | 6.47E+00 | 1.13E-04 | 4.97E+00 | 5.78E-18 | 2.50E-06 | -- | 1.12E-02 | 3.87E+01 | -- | -- | 1.44E+00 | **5.16E+01** |
| Np-240 | 8.62E-23 | -- | 2.07E-09 | 2.92E-23 | 9.71E-17 | -- | 5.68E-24 | 1.85E-05 | -- | -- | 1.08E-15 | **1.85E-05** |
| Np-240m | 7.19E-20 | -- | 1.73E-06 | 2.43E-20 | 8.09E-14 | -- | 4.73E-21 | 1.54E-02 | -- | -- | 9.04E-13 | **1.54E-02** |
| Os-185 | 1.62E-03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.62E-03** |
| Os-194 | 1.24E-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.24E-02** |
| Pa-231 | 1.79E-08 | 8.36E-12 | 1.35E-05 | 1.46E-05 | 7.62E-08 | 6.98E-07 | 5.30E-01 | 7.71E-07 | 1.80E-07 | 7.40E-08 | 4.05E-04 | **5.30E-01** |
| Pa-233 | 6.81E-03 | 1.04E-04 | 2.86E-01 | 3.13E-03 | 8.66E-05 | 4.52E-06 | 4.25E-02 | 2.29E-01 | 1.79E-05 | 3.45E-07 | 2.48E+00 | **3.04E+00** |
| Pa-234 | 7.07E-05 | 2.37E-11 | 1.47E-03 | 1.95E-03 | 6.04E-11 | 5.30E-08 | 2.12E-06 | 2.55E-05 | 1.85E-06 | 2.06E-05 | 9.62E-05 | **3.64E-03** |
| Pa-234m | 5.44E-02 | 1.82E-08 | 1.13E+00 | 1.50E+00 | 4.65E-08 | 4.07E-05 | 1.63E-03 | 1.96E-02 | 1.42E-03 | 1.59E-02 | 7.40E-02 | **2.80E+00** |
| Pb-209 | 5.12E-03 | 4.14E-05 | 7.80E-04 | 8.29E-05 | 1.28E-06 | 5.95E-15 | 2.95E-08 | 4.39E-03 | 3.87E-10 | 1.98E-16 | 1.51E-05 | **1.04E-02** |
| Pb-210 | 8.85E-01 | 3.97E-18 | 1.05E+00 | 1.33E-09 | 1.88E-07 | 2.20E-12 | 9.75E-15 | 1.00E+00 | 3.71E-11 | 6.94E-12 | 4.97E-09 | **2.94E+00** |
| Pb-211 | 2.60E-01 | 1.96E-15 | 7.74E-02 | 8.72E-07 | 1.06E-08 | 4.27E-08 | 3.85E-04 | 8.82E-04 | 6.97E-09 | 3.43E-09 | 7.33E-05 | **3.38E-01** |
| Pb-212 | 5.01E+00 | 8.41E-03 | 1.27E-03 | 2.73E-05 | 1.13E-04 | 8.56E-17 | 4.29E-05 | 2.25E-01 | 1.99E-18 | 3.23E-17 | 2.44E-15 | **5.25E+00** |
| Pb-214 | 6.44E-10 | 4.30E-15 | 3.03E+00 | 3.40E-08 | 1.64E-06 | 5.49E-11 | 8.06E-12 | 2.98E+00 | 1.32E-09 | 2.30E-10 | 4.26E-08 | **6.01E+00** |
| Pd-107 | -- | -- | 7.64E-05 | -- | 7.97E-07 | -- | 4.82E-05 | 1.79E-03 | -- | -- | -- | **1.91E-03** |
| Pm-145 | 5.68E-01 | -- | -- | -- | -- | -- | 3.26E-03 | 2.00E-05 | -- | -- | -- | **5.72E-01** |
| Pm-146 | 7.47E-01 | -- | -- | -- | -- | -- | 1.18E-03 | 2.49E-04 | -- | -- | -- | **7.48E-01** |
| Pm-147 | 7.67E+01 | 1.52E-01 | 3.54E+00 | -- | 2.55E-02 | 1.41E-04 | 1.28E+01 | 1.52E+01 | -- | -- | 5.29E-02 | **1.08E+02** |
| Pm-148 | 1.94E-04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.94E-04** |
| Pm-148m | 3.73E-03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.73E-03** |
| Po-210 | 1.57E+00 | 8.01E-20 | 1.05E+00 | 1.31E-09 | 1.88E-07 | 2.20E-12 | 2.65E-16 | 9.98E-01 | 2.24E-11 | 4.26E-12 | 4.97E-09 | **3.62E+00** |
| Po-211 | 7.14E-04 | 5.38E-18 | 2.13E-04 | 2.40E-09 | 2.90E-11 | 1.17E-10 | 1.06E-06 | 2.43E-06 | 1.92E-11 | 9.42E-12 | 2.02E-07 | **9.30E-04** |
| Po-212 | 3.21E+00 | 5.39E-03 | 8.15E-04 | 1.75E-05 | 7.25E-05 | 5.49E-17 | 2.75E-05 | 1.44E-01 | 1.27E-18 | 2.07E-17 | 1.56E-15 | **3.36E+00** |
| Po-213 | 5.01E-03 | 4.06E-05 | 7.63E-04 | 8.12E-05 | 1.25E-06 | 5.82E-15 | 2.89E-08 | 4.30E-03 | 3.79E-10 | 1.94E-16 | 1.48E-05 | **1.02E-02** |
| Po-214 | 6.44E-10 | 4.29E-15 | 3.03E+00 | 3.40E-08 | 1.64E-06 | 5.49E-11 | 8.06E-12 | 2.98E+00 | 1.32E-09 | 2.30E-10 | 4.26E-08 | **6.00E+00** |
| Po-215 | 2.60E-01 | 1.96E-15 | 7.74E-02 | 8.72E-07 | 1.06E-08 | 4.27E-08 | 3.85E-04 | 8.82E-04 | 6.97E-09 | 3.43E-09 | 7.33E-05 | **3.38E-01** |
| Po-216 | 5.01E+00 | 8.41E-03 | 1.27E-03 | 2.73E-05 | 1.13E-04 | 8.56E-17 | 4.29E-05 | 2.25E-01 | 1.99E-18 | 3.23E-17 | 2.44E-15 | **5.25E+00** |
| Po-218 | 6.44E-10 | 4.30E-15 | 3.03E+00 | 3.40E-08 | 1.64E-06 | 5.49E-11 | 8.06E-12 | 2.98E+00 | 1.32E-09 | 2.30E-10 | 4.26E-08 | **6.01E+00** |
| Pr-144 | 4.92E+01 | -- | 2.54E-02 | 2.45E-01 | -- | 1.17E-01 | 3.12E+02 | 1.27E+01 | -- | -- | 9.20E-07 | **3.74E+02** |
| Pr-144m | 6.89E-01 | -- | 3.56E-04 | 3.43E-03 | -- | 1.64E-03 | 4.36E+00 | 1.78E-01 | -- | -- | 1.29E-08 | **5.23E+00** |
| Pu-236 | 5.56E-01 | -- | 1.57E-06 | 9.90E-07 | -- | -- | 3.32E-04 | 1.41E-04 | -- | -- | -- | **5.57E-01** |
| Pu-238 | 1.33E+02 | 1.25E+00 | 2.20E+03 | 6.10E+02 | 1.20E+00 | 1.53E+00 | 3.69E+01 | 1.71E+03 | 1.40E+01 | 1.77E-02 | 4.26E+03 | **8.97E+03** |
| Pu-239 | 1.09E+02 | 1.03E-03 | 1.04E+03 | 6.99E+02 | 1.31E-02 | 9.26E+01 | 3.78E+01 | 4.96E+01 | 3.76E+01 | 1.25E+00 | 1.13E+01 | **2.08E+03** |
| Pu-240 | 6.49E+01 | -- | 5.78E+02 | 3.90E+02 | 1.30E-02 | 2.51E+00 | 9.41E+00 | 1.24E+02 | 2.40E+01 | -- | 7.11E+00 | **1.20E+03** |
| Pu-241 | 9.00E+01 | 1.67E-01 | 1.39E+04 | 3.01E+03 | 2.29E-01 | 7.35E+01 | 3.45E+02 | 3.76E+03 | 2.98E+02 | 1.77E-01 | 4.78E+03 | **2.62E+04** |
| Pu-242 | 5.05E-02 | 1.85E-05 | 5.06E-01 | 2.33E-01 | 3.94E-06 | 1.52E-03 | 7.72E-03 | 1.36E+00 | 1.13E-02 | 7.07E-03 | 5.21E-01 | **2.70E+00** |

# Table 3-9. Total RH Radionuclide Activity (Ci) on a Site Basis Decayed through 2018

**Continued**

| Radionuclide | ANL | BAPL | Hanford (RL) | INL | KAPL-S | LANL | MFC | ORNL | SNL | SPRU | SRS | Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pu-243 | 6.06E-10 | -- | 1.12E-10 | 1.23E-12 | 7.07E-15 | -- | -- | 2.21E-02 | -- | -- | 4.49E-08 | **2.21E-02** |
| Pu-244 | 7.20E-20 | -- | 1.73E-06 | 2.43E-20 | 8.10E-14 | -- | 4.74E-21 | 1.54E-02 | -- | -- | 9.05E-13 | **1.54E-02** |
| Pu-246 | -- | -- | -- | -- | -- | -- | -- | 1.00E-08 | -- | -- | -- | **1.00E-08** |
| Ra-223 | 2.60E-01 | 1.96E-15 | 7.74E-02 | 8.72E-07 | 1.06E-08 | 4.27E-08 | 3.85E-04 | 8.82E-04 | 6.97E-09 | 3.43E-09 | 7.33E-05 | **3.38E-01** |
| Ra-224 | 5.01E+00 | 8.41E-03 | 1.27E-03 | 2.73E-05 | 1.13E-04 | 8.56E-17 | 4.29E-05 | 2.25E-01 | 1.99E-18 | 3.23E-17 | 2.44E-15 | **5.25E+00** |
| Ra-225 | 5.12E-03 | 4.14E-05 | 7.80E-04 | 9.39E-05 | 1.28E-06 | 5.95E-15 | 5.48E-08 | 4.40E-03 | 3.87E-10 | 1.98E-16 | 1.52E-05 | **1.05E-02** |
| Ra-226 | 7.58E-10 | 5.78E-15 | 3.03E+00 | 3.40E-08 | 1.64E-06 | 5.49E-11 | 9.96E-12 | 2.98E+00 | 1.32E-09 | 2.30E-10 | 4.26E-08 | **6.01E+00** |
| Ra-228 | 3.18E-02 | 1.35E-18 | 6.97E-04 | 5.45E-05 | 1.48E-04 | 2.39E-16 | 7.29E-17 | 2.51E-04 | 9.05E-18 | 1.12E-16 | 3.82E-15 | **3.29E-02** |
| Rb-87 | -- | -- | -- | -- | -- | -- | 2.25E-09 | 1.95E-07 | -- | -- | -- | **1.97E-07** |
| Re-188 | 2.02E-03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.02E-03** |
| Rh-102 | 6.94E-01 | -- | -- | -- | -- | -- | -- | 2.40E-07 | -- | -- | -- | **6.94E-01** |
| Rh-103m | 6.37E-01 | -- | -- | -- | -- | -- | 3.81E-05 | 3.29E-01 | -- | -- | -- | **9.66E-01** |
| Rh-106 | 5.58E+01 | -- | 2.75E-02 | -- | 3.59E-04 | 1.16E+00 | 4.32E+01 | 9.82E+00 | -- | -- | 1.18E-05 | **1.10E+02** |
| Rn-219 | 2.60E-01 | 1.96E-15 | 7.74E-02 | 8.72E-07 | 1.06E-08 | 4.27E-08 | 3.85E-04 | 8.82E-04 | 6.97E-09 | 3.43E-09 | 7.33E-05 | **3.38E-01** |
| Rn-220 | 5.01E+00 | 8.41E-03 | 1.27E-03 | 2.73E-05 | 1.13E-04 | 8.56E-17 | 4.29E-05 | 2.25E-01 | 1.99E-18 | 3.23E-17 | 2.44E-15 | **5.25E+00** |
| Rn-222 | 6.44E-10 | 4.30E-15 | 3.03E+00 | 3.40E-08 | 1.64E-06 | 5.49E-11 | 8.06E-12 | 2.98E+00 | 1.32E-09 | 2.30E-10 | 4.26E-08 | **6.01E+00** |
| Ru-103 | 6.38E-01 | -- | -- | -- | -- | -- | 3.82E-05 | 3.29E-01 | -- | -- | -- | **9.68E-01** |
| Ru-106 | 5.58E+01 | -- | 2.75E-02 | -- | 3.59E-04 | 1.16E+00 | 4.32E+01 | 9.82E+00 | -- | -- | 1.18E-05 | **1.10E+02** |
| S-35 | 1.18E-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.18E-02** |
| Sb-124 | 1.75E-01 | -- | -- | -- | -- | -- | 1.73E+00 | -- | -- | -- | -- | **1.90E+00** |
| Sb-125 | 4.76E+01 | 2.85E-03 | 3.73E+01 | -- | 1.09E-04 | 1.78E-01 | 6.48E+00 | 1.79E+00 | -- | -- | -- | **9.34E+01** |
| Sb-126 | 1.95E-06 | -- | 2.50E-06 | -- | 2.13E-06 | 7.90E-03 | 3.60E-05 | 1.25E-04 | -- | -- | -- | **8.06E-03** |
| Sb-126m | 1.60E-05 | -- | 1.78E-05 | -- | 1.59E-05 | 5.64E-02 | 1.55E-03 | 6.90E-03 | -- | -- | -- | **6.49E-02** |
| Sc-46 | 8.63E-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **8.63E-02** |
| Se-75 | 8.05E-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **8.05E-02** |
| Se-79 | -- | -- | 1.24E-01 | -- | 4.88E-06 | -- | 3.33E-04 | 9.97E-04 | -- | -- | 1.07E-02 | **1.36E-01** |
| Sm-145 | 2.92E-01 | -- | -- | -- | -- | -- | -- | 1.82E-09 | -- | -- | -- | **2.92E-01** |
| Sm-146 | 1.71E-10 | -- | -- | -- | -- | -- | 2.02E-11 | 5.71E-14 | -- | -- | -- | **1.92E-10** |
| Sm-147 | 5.08E-11 | 1.01E-13 | 2.33E-09 | -- | 4.37E-12 | 6.54E-15 | 1.54E-09 | 2.01E-09 | -- | -- | 5.15E-11 | **5.99E-09** |
| Sm-148 | 4.46E-20 | 3.58E-33 | 1.78E-29 | 1.99E-31 | -- | -- | 6.30E-36 | 3.15E-16 | -- | -- | -- | **3.15E-16** |
| Sm-151 | 1.79E+00 | 1.57E-01 | 3.76E+01 | -- | 5.31E-02 | 2.24E-02 | 2.62E+00 | 4.82E+00 | -- | -- | 2.83E-01 | **4.74E+01** |
| Sn-113 | 1.51E-01 | -- | -- | -- | -- | -- | -- | 2.15E+00 | -- | -- | -- | **2.30E+00** |
| Sn-119m | 9.82E-01 | -- | 1.81E-09 | -- | -- | -- | 8.13E-04 | 7.37E-05 | -- | -- | -- | **9.83E-01** |
| Sn-121 | 3.87E-01 | -- | 2.51E-04 | -- | 1.05E-04 | 7.27E-01 | 7.77E-04 | 1.04E-01 | -- | -- | -- | **1.22E+00** |
| Sn-121m | 4.99E-01 | -- | 3.24E-04 | -- | 1.35E-04 | 9.37E-01 | 1.00E-03 | 1.34E-01 | -- | -- | -- | **1.57E+00** |
| Sn-123 | 9.18E-01 | -- | -- | -- | -- | -- | 4.38E-04 | 2.18E-07 | -- | -- | -- | **9.18E-01** |
| Sn-126 | 1.60E-05 | -- | 1.78E-05 | -- | 1.59E-05 | 5.64E-02 | 1.55E-03 | 6.90E-03 | -- | -- | -- | **6.49E-02** |
| Sr-85 | 4.85E-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **4.85E-02** |
| Sr-89 | 1.48E+00 | -- | -- | -- | -- | -- | 1.93E-05 | 1.32E-01 | -- | -- | -- | **1.61E+00** |
| Sr-90 | 1.27E+03 | 5.29E+01 | 1.00E+05 | 1.25E+04 | 4.25E+01 | 1.00E+03 | 2.65E+03 | 6.11E+03 | 2.34E+02 | 2.87E+00 | 1.77E+01 | **1.24E+05** |
| Ta-182 | 2.82E+02 | -- | -- | -- | -- | -- | 5.10E-05 | 4.26E-01 | -- | -- | -- | **2.82E+02** |
| Tb-157 | 3.86E-02 | -- | -- | -- | -- | -- | -- | 1.60E-09 | -- | -- | -- | **3.86E-02** |
| Tb-160 | 2.31E-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.31E-02** |
| Tc-97 | 3.08E-09 | -- | -- | -- | -- | -- | 1.38E-07 | -- | -- | -- | -- | **1.42E-07** |
| Tc-97m | 1.00E-01 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.00E-01** |
| Tc-98 | -- | -- | -- | -- | -- | -- | 2.22E-09 | 8.63E-08 | -- | -- | -- | **8.86E-08** |
| Tc-99 | 5.68E-03 | 1.33E-02 | 5.17E+00 | -- | 1.43E-02 | -- | 1.56E+01 | 2.08E-01 | -- | 4.48E-03 | 1.12E-03 | **2.10E+01** |

## Table 3-9. Total RH Radionuclide Activity (Ci) on a Site Basis Decayed through 2018
**Continued**

| Radionuclide | ANL | BAPL | Hanford (RL) | INL | KAPL-S | LANL | MFC | ORNL | SNL | SPRU | SRS | Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Te-121 | 1.75E-01 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.75E-01** |
| Te-121m | 1.76E-01 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.76E-01** |
| Te-123 | 1.27E-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.27E-15** |
| Te-123m | 2.04E-01 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.04E-01** |
| Te-125m | 1.17E+01 | 2.34E-04 | 9.12E+00 | -- | 2.66E-05 | 4.34E-02 | 7.67E-01 | 3.81E-01 | -- | -- | 5.30E-15 | **2.20E+01** |
| Te-127 | 1.98E+00 | -- | -- | -- | -- | -- | 2.36E-04 | 9.34E-08 | -- | -- | -- | **1.98E+00** |
| Te-127m | 2.02E+00 | -- | -- | -- | -- | -- | 2.41E-04 | 9.54E-08 | -- | -- | -- | **2.02E+00** |
| Te-129 | 1.99E-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.99E-02** |
| Te-129m | 3.10E-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.10E-02** |
| Th-227 | 2.55E-01 | 4.63E-15 | 7.64E-02 | 8.60E-07 | 1.06E-08 | 4.21E-08 | 7.51E-04 | 1.10E-03 | 6.87E-09 | 3.38E-09 | 7.23E-05 | **3.34E-01** |
| Th-228 | 4.99E+00 | 8.41E-03 | 1.27E-03 | 2.73E-05 | 1.13E-04 | 8.56E-17 | 4.27E-05 | 2.25E-01 | 1.99E-18 | 3.23E-17 | 2.44E-15 | **5.23E+00** |
| Th-229 | 5.12E-03 | 4.15E-05 | 7.80E-04 | 1.16E-04 | 1.28E-06 | 5.95E-15 | 1.05E-07 | 4.41E-03 | 3.87E-10 | 1.98E-16 | 1.55E-05 | **1.05E-02** |
| Th-230 | 1.75E-05 | 2.67E-10 | 1.71E-04 | 4.39E-05 | 4.75E-04 | 6.35E-08 | 3.16E-07 | 1.23E+00 | 2.43E-06 | 3.54E-07 | 1.72E-05 | **1.23E+00** |
| Th-231 | 8.43E-03 | 3.79E-06 | 5.39E-02 | 2.68E-01 | 4.25E-04 | 8.25E-03 | 3.09E-03 | 2.69E-03 | 4.26E-03 | 1.17E-03 | 1.47E+00 | **1.82E+00** |
| Th-232 | 2.03E-10 | 2.25E-16 | 1.22E-03 | 1.42E-04 | 2.39E-04 | 1.17E-15 | 1.21E-14 | 1.32E-03 | 8.76E-17 | 6.96E-16 | 9.78E-15 | **2.92E-03** |
| Th-234 | 5.44E-02 | 1.82E-08 | 1.13E+00 | 1.50E+00 | 4.65E-08 | 4.07E-05 | 1.63E-03 | 1.96E-02 | 1.42E-03 | 1.59E-02 | 7.40E-02 | **2.80E+00** |
| Tl-206 | 1.17E-06 | 2.97E-24 | 1.39E-06 | 1.75E-15 | 2.48E-13 | 2.90E-18 | 8.09E-21 | 1.32E-06 | 4.90E-17 | 9.17E-18 | 6.56E-15 | **3.88E-06** |
| Tl-207 | 2.59E-01 | 1.95E-15 | 7.72E-02 | 8.69E-07 | 1.05E-08 | 4.26E-08 | 3.84E-04 | 8.80E-04 | 6.95E-09 | 3.42E-09 | 7.31E-05 | **3.37E-01** |
| Tl-208 | 1.80E+00 | 3.02E-03 | 4.57E-04 | 9.82E-06 | 4.07E-05 | 3.08E-17 | 1.54E-05 | 8.10E-02 | 7.15E-19 | 1.16E-17 | 8.75E-16 | **1.89E+00** |
| Tl-209 | 1.08E-04 | 8.70E-07 | 1.64E-05 | 1.74E-06 | 2.68E-08 | 1.25E-16 | 6.21E-10 | 9.23E-05 | 8.13E-12 | 4.16E-18 | 3.18E-07 | **2.19E-04** |
| Tm-170 | 3.07E-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.07E-02** |
| Tm-171 | 4.46E-01 | -- | -- | -- | -- | -- | -- | 5.38E-06 | -- | -- | -- | **4.46E-01** |
| U-232 | 1.50E+00 | 8.40E-03 | 6.28E-04 | 9.94E-10 | 1.56E-06 | -- | 8.76E-06 | 2.20E-01 | -- | -- | -- | **1.73E+00** |
| U-233 | 5.55E-05 | 9.86E-03 | 7.56E-01 | 5.37E+00 | 1.82E-03 | 4.43E-11 | 1.19E-02 | 2.98E+00 | 2.20E-06 | 2.25E-12 | 6.73E-02 | **9.20E+00** |
| U-234 | 2.89E-02 | 2.90E-04 | 1.62E+00 | 4.39E+00 | 2.42E-03 | 1.73E-03 | 1.87E-01 | 1.61E-01 | 1.32E-01 | 1.28E-02 | 2.14E-01 | **6.74E+00** |
| U-235 | 8.43E-03 | 3.79E-06 | 5.39E-02 | 2.68E-01 | 4.25E-04 | 8.25E-03 | 3.09E-03 | 2.69E-03 | 4.26E-03 | 1.17E-03 | 1.47E+00 | **1.82E+00** |
| U-236 | 1.92E-07 | 4.57E-05 | 1.71E-01 | 1.17E-05 | 5.30E-04 | 6.06E-06 | 2.46E-03 | 3.26E-03 | 1.42E-06 | 4.70E-06 | 2.78E-05 | **1.77E-01** |
| U-237 | 2.10E-03 | 3.91E-06 | 3.32E-01 | 7.05E-02 | 5.47E-06 | 1.76E-03 | 9.06E-03 | 8.81E-02 | 7.13E-03 | 4.25E-06 | 1.14E-01 | **6.25E-01** |
| U-238 | 5.55E-02 | 1.82E-08 | 1.13E+00 | 1.51E+00 | 4.65E-08 | 4.07E-05 | 2.41E-03 | 2.87E-02 | 1.42E-03 | 1.59E-02 | 7.41E-02 | **2.82E+00** |
| U-240 | 7.19E-20 | -- | 1.73E-06 | 2.43E-20 | 8.09E-14 | -- | 4.73E-21 | 1.54E-02 | -- | -- | 9.04E-13 | **1.54E-02** |
| V-49 | 3.65E+00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.65E+00** |
| W-181 | 9.24E-03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **9.24E-03** |
| W-185 | 9.91E-03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **9.91E-03** |
| W-188 | 2.00E-03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.00E-03** |
| Xe-127 | 9.96E-03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **9.96E-03** |
| Y-89m | 1.38E-04 | -- | -- | -- | -- | -- | 1.80E-09 | 1.23E-05 | -- | -- | -- | **1.50E-04** |
| Y-90 | 1.27E+03 | 5.29E+01 | 1.00E+05 | 1.25E+04 | 4.25E+01 | 1.00E+03 | 2.65E+03 | 6.11E+03 | 2.34E+02 | 2.87E+00 | 1.77E+01 | **1.24E+05** |
| Y-91 | 3.29E+00 | -- | -- | -- | -- | -- | 5.69E-04 | -- | -- | -- | -- | **3.29E+00** |
| Zn-65 | 7.27E-02 | -- | 2.30E-04 | -- | -- | -- | 2.74E-01 | -- | -- | -- | -- | **3.47E-01** |
| Zr-93 | 2.72E-05 | 3.11E-03 | 4.95E-04 | -- | 1.22E-04 | -- | 1.59E-03 | 2.57E-02 | -- | -- | -- | **3.11E-02** |
| Zr-95 | 5.44E+00 | -- | 2.67E-15 | 9.21E-06 | -- | -- | 1.70E-01 | 4.27E-01 | -- | -- | -- | **6.04E+00** |
| **Grand Total** | **8.78E+03** | **2.28E+02** | **5.33E+05** | **5.93E+04** | **1.97E+02** | **5.46E+03** | **1.30E+04** | **3.46E+04** | **1.48E+03** | **4.80E+01** | **9.40E+03** | **6.65E+05** |

Data Source: CID Data Version D.18.00.33 (LANL-CO 2019b). Note: This table only contains data for WIPP-bound waste streams at the TRU waste generator sites.

**Table 3-10. Total Activity by Site Decayed through 2018**

| TRU Waste Generator Site | CH Activity (Ci) | RH Activity (Ci) | Total Activity (Ci) |
|---|---|---|---|
| Argonne National Laboratory | 2.47E+02 | 8.78E+03 | 9.02E+03 |
| Bettis Atomic Power Laboratory | -- | 2.28E+02 | 2.28E+02 |
| Hanford (Richland) Site | 4.10E+05 | 5.33E+05 | 9.43E+05 |
| Idaho National Laboratory | 9.61E+04 | 5.93E+04 | 1.55E+05 |
| Knolls Atomic Power Laboratory - Nuclear Fuel Services | 1.52E+02 | -- | 1.52E+02 |
| Knolls Atomic Power Laboratory - Schenectady | -- | 1.97E+02 | 1.97E+02 |
| Lawrence Berkeley National Laboratory | 2.80E-02 | -- | 2.80E-02 |
| Lawrence Livermore National Laboratory | 1.50E+04 | -- | 1.50E+04 |
| Los Alamos National Laboratory | 6.58E+05 | 5.46E+03 | 6.64E+05 |
| Material and Fuels Complex | 9.89E+01 | 1.30E+04 | 1.31E+04 |
| Nevada National Security Site | 5.59E+02 | -- | 5.59E+02 |
| Nuclear Radiation Development Site | 3.31E+01 | -- | 3.31E+01 |
| Oak Ridge National Laboratory | 2.94E+04 | 3.46E+04 | 6.40E+04 |
| Sandia National Laboratories | 3.65E+02 | 1.48E+03 | 1.84E+03 |
| Savannah River Site | 1.77E+06 | 9.40E+03 | 1.78E+06 |
| Separations Process Research Unit | 6.48E+00 | 4.80E+01 | 5.45E+01 |
| **Grand Total** | **2.98E+06** | **6.65E+05** | **3.65E+06** |

Data Source: CID Data Version D.18.00.33 (LANL-CO 2019b). Note: This table only contains data for WIPP-bound waste streams at the TRU waste generator sites.

### 3.3.2 Radionuclide Changes

Radionuclide activity estimates improve as additional waste is characterized. Table 3-11 presents the changes in the total activity between the Adjusted ATWIR-2018 and this report. For comparison, the activities reported in this table were decay-corrected through the end of CY 2033. The net change column includes both increases and decreases in activity as reported by the TRU waste generator sites and the WDS.

As shown in Table 3-11, the total anticipated CH- and RH-TRU waste activity reported by the sites decreased by ~475,000 Ci. This decrease, when offset slightly by the increase of ~9,110 Ci that were emplaced at the WIPP during CY 2018, results in an overall decrease of ~468,000 Ci. This is primarily attributed to the removal of three SRS waste streams, as discussed in section 3.1.2, which collectively account for a decrease of ~237,000 Ci. RL also contributed to the decrease in activity mainly due to re-evaluating and updating anticipated activity estimates for the RLPFP-01 and RL300-08 waste streams, resulting in a combined decrease of ~196,000 Ci.

**Table 3-11. CH/RH Activity Changes Decayed through 2033**

| TRU Waste Generator Site | Adjusted ATWIR-2018 Total (Ci) | ATWIR-2019 Total (Ci) | Net Change (Ci) |
|---|---|---|---|
| Hanford (Richland) Site | 8.46E+05 | 6.33E+05 | -2.13E+05 |
| Idaho National Laboratory | 1.74E+05 | 1.23E+05 | -5.14E+04 |
| Los Alamos National Laboratory | 4.39E+05 | 5.12E+05 | +7.29E+04 |
| Oak Ridge National Laboratory | 3.67E+04 | 4.26E+04 | +5.91E+03 |
| Savannah River Site | 1.52E+06 | 1.23E+06 | -2.89E+05 |
| Small Quantity Sites | 2.91E+04 | 2.78E+04 | -1.36E+03 |
| **Anticipated Total** | **3.05E+06** | **2.57E+06** | **-4.75E+05** |
| WIPP (Emplaced) | 1.72E+06 | 1.73E+06 | +9.11E+03 |
| WCS (Temporary Storage) | 5.89E+03 | 4.36E+03 | -1.53E+03 |
| **Emplaced/Temporary Storage Total** | **1.73E+06** | **1.74E+06** | **+7.58E+03** |
| **Grand Total** | **4.78E+06** | **4.31E+06** | **-4.68E+05** |

Data Source: CID Data Versions D.17.02.33.LWA (LANL-CO 2019a) and D.18.00.33 (LANL-CO 2019b).
Note: This table only contains data for WIPP-bound waste streams at the TRU waste generator sites.

## 4.0 POTENTIAL TRU WASTE AND TRU WASTE BEYOND CY 2033

This section presents the TRU waste inventory data that were collected and reported using the methodology discussed in section 2.0. Actual numerical values in this section are rounded to three significant figures for presentation purposes.

Potential waste streams have meaningful uncertainties regarding their eligibility, due to technical or legal considerations, for emplacement in the WIPP repository as of the data cutoff date for this report. As discussed in section 4.1, a site may designate waste streams as potential for many different reasons. In most cases, a waste stream is reported as potential because of technical considerations, such as the lack of characterization data; however, sites may also use this designation at the direction of the DOE. Regardless of whether a waste stream is listed as WIPP-bound or potential in this report, TRU waste must meet all WIPP requirements (e.g., WIPP WAC and HWFP) before it can be disposed of at the WIPP.

For strategic planning initiatives across the DOE complex, the sites were requested by the DOE to report defense-related TRU waste projected beyond CY 2033, where appropriate. These projected inventory estimates include information on decontamination and decommissioning (D&D) activities and all other site activities that have produced or will produce defense-related TRU waste. The DOE may use these inventory estimates as a planning basis for future TRU waste storage and disposal needs (see section 4.2).

### 4.1 Potential TRU Waste

As described in section 1.0, a waste stream is designated either WIPP-bound or potential. The potential TRU waste streams identified in Table 4-1 and Table 4-2 collectively represent

~14,200 $m^3$, or 24 percent, of the final form TRU waste volume reported by the TRU waste generator sites during this year's data collection.

The DOE/CBFO has listed the criteria for categorizing waste streams as potential (Patterson 2018). Below are the categories for which TRU waste generator sites would consider a waste stream to be potential TRU waste.

- TRU Determination – Waste that is categorized as "undetermined" will remain potential until the waste stream is officially determined to be TRU. If the waste stream is determined to be non-TRU, it will be removed from the inventory.

- Defense Determination – The WIPP can only accept TRU waste resulting from defense-related activities, as stated in the WIPP LWA (U.S. Congress 1992 and 1996). Waste that has an "unknown" defense determination will remain potential until the waste stream is 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 the WIPP. Examples include limits on curies and dose rates on RH canisters, limits for total emplacement curies on RH-TRU waste, prohibited Resource Conservation and Recovery Act hazardous waste, etc. Sites must treat, repackage, or remove any restricted items before such waste can be accepted for disposal at the WIPP.

- Incomplete Data – Waste that has missing or incomplete data, such as radionuclide activities, waste material mass, 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 the DOE.

Three sites (BL, RP, and WV) reported only potential waste streams and no WIPP-bound waste streams. Additional detail for all potential waste streams is provided in Appendix B of this report. Table 4-1 identifies those CH- and RH-TRU waste streams that are categorized as potential until the waste stream meets the criteria to be re-categorized as WIPP-bound.

**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 |
|---|---|---|---|
| BL-Parks | CH | 9.63E+00 | Incomplete Data |
| BL-Parks-A | RH | 6.30E-01 | Incomplete Data |
| IN-BN-539 | CH | 5.17E+01 | Incomplete Data |
| IN-DD-001 | CH | 4.00E+03 | Incomplete Data |
| IN-ID-TRU-RHNH | RH | 2.52E+00 | Incomplete Data |

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

| Waste Stream ID[1] | Handling | Final Form Anticipated Volume ($m^3$) | Categories of Potential WIPP CH/RH-TRU Waste |
|---|---|---|---|
| RL170-08 | RH | 3.30E-01 | Regulatory Restrictions |
| RL200-10 | RH | 2.20E-01 | Incomplete Data |
| RL300-11 | RH | 7.56E+00 | Regulatory Restrictions |
| RLALPHA-08 | RH | 1.08E+03 | Incomplete Data |
| RLCH2-08 | RH | 3.52E+00 | TRU Waste Determination |
| RLDD-01 | CH | 7.03E+02 | Incomplete Data |
| RLDD-08 | RH | 7.18E+01 | Incomplete Data |
| RLN622FD-01 | CH | 2.10E-01 | Incomplete Data |
| RLPFP-02 | CH | 8.40E-01 | Incomplete Data |
| RLPRC-01 | CH | 1.88E+00 | Defense Determination |
| RLPURX-02 | CH | 3.76E+02 | Incomplete Data |
| **Grand Total** | | **6.31E+03** | |

[1]See Figure 1-1 for site designators. Data Source: CID Data Version D.18.00.33 (LANL-CO 2019b).

Table 4-2 identifies the CH- and RH-TRU waste streams that are categorized as potential at the direction of the DOE. Although these waste streams may have similar unmet requirements as those shown in Table 4-1, in some cases these waste streams are expected to require additional legislative action prior to being re-categorized as WIPP-bound.

**Table 4-2. DOE-Directed Potential WIPP CH/RH-TRU Waste Streams**

| Waste Stream ID[1] | Handling | Final Form Anticipated Volume ($m^3$) |
|---|---|---|
| IN-SBW-01A | RH | 9.79E+02 |
| IN-SBW-01B | RH | 8.90E+01 |
| RP-TFC001 | CH | 4.47E+02 |
| RP-W754 | CH | 3.29E+02 |
| RP-W755 | CH | 8.09E+02 |
| SR-KAC-HET-1 | CH | 1.61E+02 |
| SR-KAC-PuOx-1 | CH | 2.04E+02 |
| WV-M010a | CH | 2.98E+01 |
| WV-T004a | CH | 4.83E+00 |
| WV-T004b | RH | 3.15E+00 |
| WV-T006a | CH | 2.41E+02 |
| WV-T006b | RH | 2.70E+02 |
| WV-T017b | RH | 7.56E+00 |
| WV-W024a | CH | 1.58E+01 |

**Table 4-2. DOE-Directed Potential WIPP CH/RH-TRU Waste Streams**
**Continued**

| Waste Stream ID[1] | Handling | Final Form Anticipated Volume ($m^3$) |
|---|---|---|
| WV-W024b | RH | 3.15E+01 |
| WV-W050a | CH | 3.36E+00 |
| WV-W050b | RH | 5.04E+00 |
| WV-Z001 | CH | 4.30E+03 |
| **Grand Total** | | **7.93E+03** |

[1]See Figure 1-1 for site designators. Data Source: CID Data Version D.18.00.33 (LANL-CO 2019b).

Upon resolution of the applicable constraints, waste streams categorized as potential may be re-categorized as WIPP-bound from one report to the next. As shown in Table 4-3, three potential waste streams from INL were reassigned to preexisting WIPP-bound waste streams during CY 2018.

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

| ATWIR-2018 Potential Waste Stream ID[1] | ATWIR-2019 WIPP-bound Waste Stream ID[1] | Reason |
|---|---|---|
| IN-ID-AMWTP-Hot Silver | IN-BN-510.4 | Added previously missing data |
| IN-ID-AMWTP-U232 | IN-BN-510.4 | Added previously missing data |
| IN-UN-00C | IN-BN-650 | Added previously missing data |

[1]See Figure 1-1 for site designators. Data Source: CID Data Version D.18.00.33 (LANL-CO 2019b).

## 4.2 TRU Waste Projected Beyond 2033

Strategic planning for future TRU waste management needs is dependent upon the sites providing estimates of all their currently stored and projected TRU waste, including D&D waste. To accomplish this, the TRU waste generator sites were given direction during this collection campaign to report all projected generation estimates up to *and beyond* CY 2050. Table 4-4 identifies the portion of CH- and RH-TRU volume that is projected beyond CY 2033.

**Table 4-4. Projected CH/RH-TRU Volume Beyond 2033**

| Waste Stream ID[1] | Handling | Final Form Volume Projected Beyond 2033 ($m^3$) | End Generation Year |
|---|---|---|---|
| AE-T001 | CH | 2.50E+01 | 2050 |
| AE-T003 | CH | 1.26E+00 | 2050 |
| AE-T009 | RH | 2.02E+01 | 2050 |
| AW-N027.531 | CH | 3.57E+00 | 2050 |
| AW-T031.1322 | RH | 2.14E+01 | 2050 |
| AW-T033.1325 | CH | 2.14E+01 | 2050 |
| AW-W020.13 | RH | 7.56E+00 | 2050 |
| LA-CIN01.001 | CH | 6.59E+01 | 2050 |
| LA-MHD01.001 | CH | 4.11E+03 | 2050 |
| LA-MHD03.001 | CH | 6.37E+02 | 2050 |
| LA-OS-00-01.001 | CH | 8.16E+00 | 2050 |
| LL-M001 | CH | 2.90E+02 | 2050 |
| LL-T004 | CH | 5.86E-01 | 2050 |
| LL-W018-S5100 | CH | 9.21E+01 | 2050 |
| OR-REDC-CH-HET | CH | 5.45E+02 | 2062 |
| OR-REDC-RH-HET | RH | 1.56E+02 | 2062 |
| OR-RF-RH-HET | RH | 1.76E+01 | 2062 |
| OR-TBD-RH-HET | RH | 5.61E+01 | 2062 |
| RL200-02 | CH | 2.58E+03 | 2037 |
| RL325-01 | CH | 5.04E+00 | 2045 |
| RL325-05 | CH | 3.01E+01 | 2045 |
| RL325-07 | RH | 4.75E+01 | 2045 |
| RL325-08 | RH | 3.96E+01 | 2045 |
| RLDD-01 | CH | 5.29E+03 | 2057 |
| RLDD-02 | CH | 3.03E+03 | 2040 |
| RLDD-08 | RH | 5.78E+02 | 2057 |
| RLDD-10 | RH | 3.33E+02 | 2045 |
| RLWTP-08 | RH | 5.97E+01 | 2050 |
| SR-KAC-HET | CH | 3.72E+01 | 2036 |
| SR-KAC-HET-1 | CH | 8.13E+01 | 2039 |
| SR-KAC-PuOx | CH | 4.74E+01 | 2036 |
| SR-KAC-PuOx-1 | CH | 1.03E+02 | 2039 |
| SR-RH-773A.01 | RH | 1.89E+00 | 2036 |
| SR-W027-221H-HEPA | CH | 6.48E+00 | 2036 |
| SR-W027-221H-HET-C | CH | 1.89E+00 | 2036 |
| SR-W027-773A-HET | CH | 8.99E+01 | 2050 |
| **Grand Total** | | **1.84E+04** | |

[1]See Figure 1-1 for site designators. Data Source: CID Data Version D.18.00.33 (LANL-CO 2019b).

## 5.0 SUMMARY

This report is an update to the inventory used in the ATWIR-2018 and focuses on data changes resulting from waste characterization, improved estimations, and continued waste generation at the TRU waste generator sites. This report provides the most current TRU waste inventory information available to the DOE/CBFO, the DOE complex, WIPP stakeholders, and regulators, as of December 31, 2018.

The TRU waste generator sites continue to report better inventory estimates using known characterization data for their stored and projected waste. The most significant changes that occurred in volume, radionuclides, waste and packaging materials, and chemical constituents in this update were primarily caused by: removal of three projected waste streams at SRS; revision of projected TRU waste estimates at RL and LANL; the acquisition of new characterization data, processing information, and repackaging experience resulting in more accurate TRU waste inventory estimates; and the implementation of the DOE/CBFO clarification of TRU waste volume calculation methodology.

## 6.0 GLOSSARY

**Acceptable Knowledge** – 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.

**Anticipated Inventory** – The sum of the total stored and total projected inventory reported by the TRU waste generator sites.

**Assay Year** – The most recent year in which the containers in a waste stream were assayed. For waste streams containing only projected waste, the initial projected generation year is used. This "base" year for the waste stream is used for decay and buildup calculations to normalize the radionuclide inventory across the complex to a common year for reporting purposes.

**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 a surface dose rate not greater than 200 millirem per hour.

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

**Depleted Waste Stream** – An existing waste stream from which all containers have been dispositioned. Waste containers from other waste streams that fit the waste stream description may be added back into a depleted waste stream, thus converting it to active status.

**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 is in above-ground storage or disposed in the WIPP repository. Emplaced inventory is tracked by the WDS, the official database of record for waste emplaced in the WIPP repository.

**Final Form Waste** – Form of waste in packaging approved for shipment to and emplacement in the WIPP repository.

**Hazardous Waste Facility Permit** – Authorizes the management, storage, and disposal of CH- and RH-TRU mixed waste at the WIPP, and establishes the general and specific standards for these activities.

**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 the DOE, and enabling the start of the WIPP Test Phase. This act was amended in 1996 by Public Law 104-201.

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

**Packaging Material** – A non-radiological material (such as steel, plastic, cellulose, rubber, and lead) used as components of the WIPP-approved containers which hold TRU waste.

**Performance Assessment** – 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.

**Potential Inventory** – In accordance with the criteria described in section 4.1, a designation within this report for a waste stream with meaningful uncertainties regarding its eligibility, due to technical or legal considerations, for emplacement in the WIPP repository, as of the data cutoff date for this report. This designation is not intended to identify whether the waste stream will ultimately be disposed of in the WIPP repository. Regardless of its designation in this report, TRU waste must meet all WIPP requirements before it can be disposed of in the WIPP repository. Potential inventory will not be included in PA.

**Projected Inventory** – The 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 (only TRU waste projected to be generated through CY 2033 is presented in this report). TRU waste in projected waste streams includes waste from programs that have not come on-line as of the data cutoff date for this report, as well as waste from ongoing projects and D&D waste that has not yet been packaged.

**Quality Assurance Program Document** – The QAPD establishes QA program requirements for achieving quality for all work sponsored by the CBFO using a graded approach. The provisions of the QAPD apply to all programs and projects managed by the CBFO which require a QA program, including those implementing activities related to compliance certification, waste characterization and certification, repository performance assessment, waste isolation, waste transportation, nuclear safety, environmental protection, and management and operation of the WIPP.

**Radioactive** – Refers 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.

**Remote-Handled TRU Waste** – Packaged TRU waste with a surface dose rate equal to or exceeding 200 millirem per hour.

**Stored Inventory** – The part of the TRU waste inventory that currently exists (already generated, but not yet shipped to the WIPP) as of the data cutoff date.

**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** – Waste containing more than 100 nanocuries of alpha-emitting TRU isotopes per gram of waste, with half-lives greater than 20 years, except for: (A) high-level radioactive waste; (B) waste that the Secretary of Energy has determined, with the concurrence of the Administrator of the U.S. Environmental Protection Agency, does not need the degree of isolation required by the disposal regulations; or (C) waste that the Nuclear Regulatory Commission has approved for disposal on a case-by-case basis in accordance with Part 61 of Title 10, Code of Federal Regulations.

**TRU Waste Generator Sites** – The DOE facilities throughout the United States that generate or store TRU waste. These facilities may be referred to as "sites."

**Waste Acceptance Criteria** – Constraints (limits) on the physical, chemical, and radiological properties of TRU waste and its packaging as determined by the WIPP's authorization basis requirements. TRU waste will not be approved for shipment to and disposal at the WIPP until it has been certified as meeting these criteria. The WAC ensures that TRU waste is managed and disposed of in a manner that protects human health and safety and the environment.

**Waste Control Specialists, LLC** – WCS, located in Andrews County, Texas, is a licensed commercial radioactive waste disposal facility.

**Waste Data System** – The DOE information system designed to verify compliance with requirements, and to track and archive TRU waste containers disposed of in the WIPP repository.

**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 disposal of radioactive waste generated by atomic energy defense activities.

**Waste Material** – A non-radiological material that is present in TRU waste (e.g., cellulose, plastic, and rubber)

**Waste Profile Report** – A report presented in tabular format that is intended to provide a summary of the important final form information about a particular WIPP-bound or potential TRU waste stream.

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

**WIPP-bound Inventory** – A designation within this report for a waste stream that appears to meet the requirements for emplacement into the WIPP repository as of the data cutoff date. WIPP-bound inventory will be included in PA.

## 7.0 REFERENCES

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# APPENDIX A WIPP-BOUND TRU WASTE PROFILE REPORTS

The following WPRs contain final form information through CY 2033 on waste streams that are placed in the WIPP-bound category as of the inventory date, December 31, 2018.

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 |
| SP | Separations Process Research Unit |
| SR | Savannah River Site |

**Waste Stream ID:** **AE-T001**

## Appendix A
### Waste Profile Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Argonne 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** | 12/31/2018 |
| **Stream Name** | ANL-E Contact-Handled Mixed Heterogeneous Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 32.3 | 86.3 | 118.7 |
| **Final Form Total** | 32.3 | 86.3 | 118.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 43.18 |
| Aluminum-based Metal/Alloys | 0.76 |
| Other Metal/Alloys | 3.46 |
| Other Inorganic Materials | 3.63 |
| Cellulose | 3.13 |
| Rubber | 6.17 |
| Plastic | 22.56 |
| Cement | 0.00 |
| Solidified Inorganic Material | 1.52 |
| Solidified Organic Material | 0.08 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.34E-02 |
| Am-243 | 8.01E-03 |
| Cm-244 | 1.04E+00 |
| Cs-137 | 1.00E-01 |
| Np-237 | 3.22E-04 |
| Pu-238 | 9.01E-03 |
| Pu-239 | 1.10E-01 |
| Pu-240 | 5.06E-02 |
| Pu-241 | 2.16E-01 |
| Pu-242 | 6.56E-04 |
| Pu-244 | 2.13E-07 |
| Sr-90 | 7.56E-02 |
| Th-229 | 6.38E-07 |
| Th-230 | 4.16E-06 |
| Th-232 | 3.22E-06 |
| U-233 | 1.66E-04 |
| U-234 | 2.70E-03 |
| U-235 | 2.24E-06 |
| U-236 | 3.05E-08 |
| U-238 | 8.07E-05 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

116/216, 125/225, 127/227, 133/233

**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.* ***2.03*** *Data ver.* ***D.18.00.33***
NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **AE-T003**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Argonne 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** | 12/31/2018 |
| **Stream Name** | ANL-E Contact-Handled Solidified Organic and Inorganic Homogenous Solids | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 9.7 | 4.4 | 14.1 |
| **Final Form Total** | 9.7 | 4.4 | 14.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.00 |
| Aluminum-based Metal/Alloys | 1.73 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 1.73 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 0.00 |
| Cement | 0.00 |
| Solidified Inorganic Material | 152.12 |
| Solidified Organic Material | 17.09 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.24E-01 |
| Am-243 | 3.64E-03 |
| Cm-244 | 6.56E-04 |
| Cs-137 | 2.37E-02 |
| Np-237 | 2.09E-04 |
| Pu-238 | 3.12E-01 |
| Pu-239 | 1.50E-01 |
| Pu-240 | 1.37E-01 |
| Pu-241 | 1.03E+00 |
| Pu-242 | 1.72E-03 |
| Pu-244 | 3.00E-08 |
| Sr-90 | 1.16E-02 |
| Th-229 | 1.19E-08 |
| Th-230 | 2.50E-05 |
| Th-232 | 6.40E-06 |
| U-233 | 1.92E-05 |
| U-234 | 9.60E-04 |
| U-235 | 6.14E-07 |
| U-236 | 2.97E-07 |
| U-238 | 2.51E-05 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

111/211, 113/213, 129/229, 132/232

**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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **AE-T009**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Argonne 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** | 12/31/2018 |
| **Stream Name** | RH TRU | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner | 17.6 | 23.9 | 41.6 |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/o Liner | 18.6 | 6.8 | 25.4 |
| **Final Form Total** | 36.2 | 30.8 | 67.0 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 69.79 |
| Aluminum-based Metal/Alloys | 33.64 |
| Other Metal/Alloys | 31.14 |
| Other Inorganic Materials | 42.82 |
| Cellulose | 55.05 |
| Rubber | 15.29 |
| Plastic | 27.25 |
| Cement | 0.00 |
| Solidified Inorganic Material | 2.78 |
| Solidified Organic Material | 0.28 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 5.97 |
| Packaging Material, Rubber | 0.76 |
| Packaging Material, Steel | 1982.76 |
| Packaging Material, Lead | 1486.21 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.97E+00 |
| Am-243 | 9.66E-02 |
| Cm-244 | 9.51E-01 |
| Cs-137 | 2.66E+01 |
| Np-237 | 1.66E-05 |
| Pu-238 | 1.98E+00 |
| Pu-239 | 1.63E+00 |
| Pu-240 | 9.69E-01 |
| Pu-241 | 1.34E+00 |
| Pu-242 | 7.54E-04 |
| Pu-244 | 1.07E-21 |
| Sr-90 | 1.90E+01 |
| Th-229 | 7.65E-05 |
| Th-230 | 2.62E-07 |
| Th-232 | 3.04E-12 |
| U-233 | 8.28E-07 |
| U-234 | 4.31E-04 |
| U-235 | 1.26E-04 |
| U-236 | 2.87E-09 |
| U-238 | 8.28E-04 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

125/225, 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.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

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

## Appendix A
### Waste Profile Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Material and Fuels Complex | **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** | 12/31/2018 |
| **Stream Name** | MFC CH-MTRU Due to RCRA Metals | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 0.4 | 3.2 | 3.6 |
| **Final Form Total** | 0.4 | 3.2 | 3.6 |

**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 | 57.45 |
| Other Inorganic Materials | 6.89 |
| Cellulose | 21.25 |
| Rubber | 0.00 |
| Plastic | 17.22 |
| Cement | 0.00 |
| Solidified Inorganic Material | 37.88 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.03E+01 |
| Am-243 | 1.01E-10 |
| Cs-137 | 8.55E-05 |
| Np-237 | 4.42E-04 |
| Pu-239 | 3.26E-01 |
| Sr-90 | 9.13E-05 |
| Th-229 | 8.43E-14 |
| Th-230 | 3.07E-16 |
| U-233 | 1.92E-09 |
| U-234 | 6.69E-11 |
| U-235 | 3.71E-06 |
| U-238 | 2.62E-05 |

**Haz. Waste No(s).**

D006, D007, D008, F001, F002, F005

**TRUCON Code(s)**

125/225

**Waste Stream Description**

This waste stream is debris generated in the Casting Lab, Analytical Laboratory and Fuel Manufacturing Facility gloveboxes, and HFEF WCC HEPA filters. It consists of various combinations of miscellaneous discarded equipment and process material items.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | Defense-Related | **Handling** | RH |
| **Source Cat.** | Facility/Equipment Operation and Maintenance Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | RH TRU Hot Cell Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner | 5.0 | 18.9 | 23.9 |
| **Final Form Total** | 5.0 | 18.9 | 23.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 57.80 |
| Aluminum-based Metal/Alloys | 60.52 |
| Other Metal/Alloys | 49.92 |
| Other Inorganic Materials | 1.97 |
| Cellulose | 16.89 |
| Rubber | 0.00 |
| Plastic | 24.02 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.79E+00 |
| Am-243 | 4.53E-04 |
| Cm-244 | 1.19E-01 |
| Cs-137 | 4.02E+01 |
| Np-237 | 2.78E-03 |
| Pu-238 | 7.67E-01 |
| Pu-239 | 7.85E-01 |
| Pu-240 | 8.40E-02 |
| Pu-241 | 1.19E+00 |
| Pu-242 | 2.86E-04 |
| Sr-90 | 6.29E+01 |
| Th-229 | 5.18E-14 |
| Th-230 | 1.81E-09 |
| Th-232 | 2.07E-16 |
| U-233 | 6.16E-09 |
| U-234 | 1.97E-03 |
| U-235 | 2.97E-05 |
| U-236 | 4.20E-05 |
| U-238 | 1.40E-05 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

325

**Waste Stream Description**

This waste stream is remote-handled (RH) transuranic debris waste generated in the hot-cells of the Fuel Conditioning Facility (FCF), Hot Fuel Examination Facility (HFEF), and Analytical Lab (AL).

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | MFC CH-TRU Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 4.0 | 18.9 | 22.9 |
| **Final Form Total** | 4.0 | 18.9 | 22.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 21.75 |
| Aluminum-based Metal/Alloys | 6.74 |
| Other Metal/Alloys | 6.11 |
| Other Inorganic Materials | 28.20 |
| Cellulose | 52.21 |
| Rubber | 1.37 |
| Plastic | 53.53 |
| Cement | 0.00 |
| Solidified Inorganic Material | 15.77 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.82E+00 |
| Am-243 | 4.08E-04 |
| Cm-244 | 5.09E-02 |
| Cs-137 | 5.81E-02 |
| Np-237 | 2.85E-03 |
| Pu-238 | 1.92E-01 |
| Pu-239 | 3.30E-01 |
| Pu-240 | 2.86E-02 |
| Pu-242 | 6.89E-06 |
| Sr-90 | 5.63E-02 |
| Th-229 | 5.46E-13 |
| Th-230 | 4.88E-10 |
| Th-232 | 5.38E-18 |
| U-233 | 1.24E-08 |
| U-234 | 5.34E-05 |
| U-235 | 1.90E-06 |
| U-236 | 1.10E-07 |
| U-238 | 7.71E-05 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Miscellaneous process material debris waste.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

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

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Material and Fuels Complex | **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** | 12/31/2018 |
| **Stream Name** | RH MTRU Hot Cell Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner | 3.2 | 5.7 | 8.8 |
| **Final Form Total** | 3.2 | 5.7 | 8.8 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 37.22 |
| Aluminum-based Metal/Alloys | 5.03 |
| Other Metal/Alloys | 139.56 |
| Other Inorganic Materials | 28.97 |
| Cellulose | 87.20 |
| Rubber | 0.00 |
| Plastic | 86.45 |
| Cement | 0.00 |
| Solidified Inorganic Material | 4.51 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.02E+00 |
| Am-243 | 2.62E-05 |
| Cm-244 | 4.08E-04 |
| Cs-137 | 2.52E+02 |
| Np-237 | 3.69E-04 |
| Pu-238 | 2.11E+00 |
| Pu-239 | 2.15E+00 |
| Pu-240 | 8.39E-01 |
| Pu-241 | 3.59E+01 |
| Pu-242 | 9.95E-05 |
| Pu-244 | 5.37E-22 |
| Sr-90 | 1.29E+02 |
| Th-229 | 1.19E-08 |
| Th-230 | 3.09E-08 |
| Th-232 | 8.13E-16 |
| U-233 | 1.35E-03 |
| U-234 | 1.59E-02 |
| U-235 | 2.69E-04 |
| U-236 | 1.65E-04 |
| U-238 | 2.35E-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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Irradiated TRU material waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner | 7.6 | 0.0 | 7.6 |
| **Final Form Total** | 7.6 | 0.0 | 7.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.00 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 88.76 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 14.81 |
| Rubber | 0.00 |
| Plastic | 44.44 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.89E-03 |
| Am-243 | 1.49E-05 |
| Cs-137 | 7.06E+00 |
| Np-237 | 2.13E-05 |
| Pu-238 | 1.65E-01 |
| Pu-239 | 1.36E-04 |
| Pu-241 | 2.21E-02 |
| Pu-242 | 2.45E-06 |
| Sr-90 | 6.99E+00 |
| Th-229 | 5.49E-06 |
| Th-230 | 3.53E-11 |
| Th-232 | 2.98E-17 |
| U-233 | 1.30E-03 |
| U-234 | 3.84E-05 |
| U-235 | 5.01E-07 |
| U-236 | 6.04E-06 |
| U-238 | 2.41E-09 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

322

**Waste Stream Description**

Equipment & materials in the shielded cells are from past operations and the cells are in the process of being emptied. Some cells need infrastructure improvements to the manipulators and visibility before the waste can be evaluated, segregated, packaged, and then generated.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-AE-102**

## 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** | 12/31/2018 |
| **Stream Name** | Absorbed Liquids | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 2.15 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.01 |
| Other Inorganic Materials | 5.42 |
| Cellulose | 0.00 |
| Rubber | 0.02 |
| Plastic | 4.30 |
| Cement | 0.00 |
| Solidified Inorganic Material | 291.45 |
| Solidified Organic Material | 43.52 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.35E-01 |
| Am-243 | 3.28E-06 |
| Cs-137 | 5.58E-04 |
| Np-237 | 1.42E-05 |
| Pu-238 | 5.36E-02 |
| Pu-239 | 4.27E-01 |
| Pu-240 | 1.30E-01 |
| Pu-241 | 1.09E+00 |
| Pu-242 | 2.75E-05 |
| Sr-90 | 6.14E-04 |
| Th-229 | 6.84E-18 |
| Th-230 | 6.56E-12 |
| Th-232 | 9.52E-22 |
| U-233 | 2.17E-12 |
| U-234 | 7.15E-06 |
| U-235 | 2.05E-06 |
| U-236 | 3.86E-10 |
| U-238 | 1.19E-05 |

**Haz. Waste No(s).**

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

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste stream, generated at Argonne National Laboratory-East, consists of various absorbed liquids and homogeneous solids from multiple ANL-E buildings.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-AE-105**

**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** | 12/31/2018 |
| **Stream Name** | Empty Bottles and Absorbent | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 2.70 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 95.44 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 17.84 |
| Cement | 0.00 |
| Solidified Inorganic Material | 97.37 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.50E-01 |
| Cs-137 | 4.63E-07 |
| Np-237 | 8.01E-06 |
| Pu-238 | 9.83E-02 |
| Pu-239 | 9.56E-01 |
| Pu-240 | 4.64E-01 |
| Pu-241 | 3.93E+00 |
| Pu-242 | 1.34E-04 |
| Sr-90 | 5.06E-07 |
| Th-229 | 1.30E-14 |
| Th-230 | 6.22E-11 |
| Th-232 | 3.05E-18 |
| U-233 | 9.99E-11 |
| U-234 | 2.68E-06 |
| U-235 | 5.95E-07 |
| U-236 | 4.12E-08 |
| U-238 | 6.25E-14 |

**Haz. Waste No(s).**

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

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste stream, generated at Argonne National Laboratory-East, consists of empty polyethylene and glass bottles used to transport small volumes of liquid. After the liquids were emptied from the transport bottles, the empty transport bottles were filled with vermiculite or Oil-Dri.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | MFC Retrievable ANL-E RH TRU Containers - Stage 2 | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner | 55.4 | 0.0 | 55.4 |
| **Final Form Total** | 55.4 | 0.0 | 55.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 146.43 |
| Aluminum-based Metal/Alloys | 12.13 |
| Other Metal/Alloys | 10.22 |
| Other Inorganic Materials | 5.12 |
| Cellulose | 6.71 |
| Rubber | 3.10 |
| Plastic | 15.61 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.02 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 8.44E+00 |
| Cm-244 | 1.64E-01 |
| Cs-137 | 4.33E+01 |
| Np-237 | 2.73E-07 |
| Pu-238 | 1.91E+00 |
| Pu-239 | 8.87E+00 |
| Pu-240 | 4.72E+00 |
| Pu-241 | 3.98E+01 |
| Pu-242 | 2.23E-03 |
| Sr-90 | 2.97E+01 |
| Th-229 | 2.49E-09 |
| Th-230 | 2.87E-08 |
| Th-232 | 3.45E-20 |
| U-233 | 2.83E-04 |
| U-234 | 3.12E-02 |
| U-235 | 1.11E-03 |
| U-236 | 1.40E-08 |
| U-238 | 4.09E-04 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

321, 322, 325

**Waste Stream Description**

The R&D laboratory waste contains 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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-BC-203**

**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** | 12/31/2018 |
| **Stream Name** | Paper, Metal, Glass | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 100-gal Drum Dir Ld w/o Liner | 1.9 | 0.0 | 1.9 |
| **Final Form Total** | 1.9 | 0.0 | 1.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 614.75 |
| Aluminum-based Metal/Alloys | 0.88 |
| Other Metal/Alloys | 7.18 |
| Other Inorganic Materials | 23.57 |
| Cellulose | 104.52 |
| Rubber | 9.80 |
| Plastic | 73.87 |
| Cement | 0.00 |
| Solidified Inorganic Material | 3.60 |
| Solidified Organic Material | 0.05 |
| Soil | 0.43 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.31 |
| Packaging Material, Steel | 113.42 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.05E+00 |
| Np-237 | 2.58E-05 |
| Pu-238 | 2.26E-01 |
| Pu-239 | 2.63E+00 |
| Pu-240 | 6.15E-01 |
| Pu-241 | 4.09E+00 |
| Pu-242 | 7.50E-05 |
| Th-229 | 7.43E-14 |
| Th-230 | 1.45E-08 |
| Th-232 | 7.19E-18 |
| U-233 | 4.26E-10 |
| U-234 | 3.96E-04 |
| U-235 | 1.14E-04 |
| U-236 | 7.28E-08 |
| U-238 | 8.10E-05 |

**Haz. Waste No(s).**

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

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste stream was generated by D&D activities at the Battelle Columbus Laboratory. It consists of a mixture of combustible and non-combustible items.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Special Setups Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 1.1 | 0.0 | 1.1 |
| SWB w/ 4 - 55-gal Drums w/ Liners | 18.5 | 0.0 | 18.5 |
| TDOP w/ 10 - 55-gal Drums w/ Liners | 6.3 | 0.0 | 6.3 |
| **Final Form Total** | 25.8 | 0.0 | 25.8 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.04 |
| Aluminum-based Metal/Alloys | 0.04 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.32 |
| Rubber | 0.00 |
| Plastic | 4.27 |
| Cement | 27.66 |
| Solidified Inorganic Material | 1109.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.35 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.68 |
| Packaging Material, Rubber | 0.97 |
| Packaging Material, Steel | 465.89 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.05E+00 |
| Cs-137 | 2.38E-08 |
| Np-237 | 6.79E-05 |
| Pu-238 | 1.38E-01 |
| Pu-239 | 3.66E+00 |
| Pu-240 | 8.14E-01 |
| Pu-241 | 4.43E+00 |
| Pu-242 | 8.27E-05 |
| Sr-90 | 2.61E-08 |
| Th-229 | 1.29E-14 |
| Th-230 | 1.54E-10 |
| Th-232 | 5.95E-19 |
| U-233 | 2.94E-10 |
| U-234 | 1.70E-05 |
| U-235 | 4.72E-06 |
| U-236 | 2.41E-08 |
| U-238 | 1.28E-14 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

111/211

**Waste Stream Description**

IN-BN004 waste was generated in support of plutonium operations at Rocky Flats from a waste treatment process that solidified process waste.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Solidified Plutonium Recovery Incinerator Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 0.2 | 0.0 | 0.2 |
| SWB w/ 4 - 55-gal Drums w/ Liners | 30.2 | 0.0 | 30.2 |
| TDOP w/ 10 - 55-gal Drums w/ Liners | 2.1 | 0.0 | 2.1 |
| **Final Form Total** | 32.6 | 0.0 | 32.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 17.89 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 1.34 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.14 |
| Rubber | 0.08 |
| Plastic | 24.87 |
| Cement | 5.72 |
| Solidified Inorganic Material | 367.23 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.67 |
| Packaging Material, Rubber | 0.99 |
| Packaging Material, Steel | 474.08 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.42E+00 |
| Cs-137 | 6.99E-09 |
| Np-237 | 1.87E-05 |
| Pu-238 | 2.63E-01 |
| Pu-239 | 6.88E+00 |
| Pu-240 | 1.54E+00 |
| Pu-241 | 1.25E+01 |
| Pu-242 | 1.19E-04 |
| Sr-90 | 7.66E-09 |
| Th-229 | 8.98E-18 |
| Th-230 | 5.81E-13 |
| Th-232 | 1.13E-20 |
| U-233 | 2.85E-12 |
| U-234 | 6.69E-07 |
| U-235 | 1.19E-07 |
| U-236 | 4.57E-09 |
| U-238 | 1.85E-15 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

111/211, 114/214

**Waste Stream Description**

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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-BN-501**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Idaho National Laboratory | **Summary Category** | S4000 | **Defense Determination** | Defense-Related | **Handling** | CH |
| **Source Cat.** | Other/Multiple Sources | **Waste Matrix Code Group** | Contaminated Soil/Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | AMWTP PCB Soil | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 56.21 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 2.16 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 17.30 |
| Soil | 900.23 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.94E-01 |
| Cs-137 | 2.46E-05 |
| Np-237 | 4.92E-06 |
| Pu-238 | 9.35E-04 |
| Pu-239 | 3.54E-02 |
| Pu-240 | 7.86E-03 |
| Pu-241 | 4.21E-02 |
| Pu-242 | 1.03E-06 |
| Sr-90 | 2.69E-05 |
| Th-229 | 9.34E-16 |
| Th-230 | 6.57E-11 |
| Th-232 | 5.74E-21 |
| U-233 | 2.13E-11 |
| U-234 | 7.15E-06 |
| U-235 | 2.30E-06 |
| U-236 | 2.33E-10 |
| U-238 | 1.60E-16 |

**Haz. Waste No(s).**

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

**No TRUCON Codes Provided**

**Waste Stream Description**

Soil generated during retrieval and/or spills/cleanup activities. During the retrieval process soil may be generated from the removal of overburden and/or interstitial soil between containers of waste or as a result of spill cleanup or packaged soil from a breached soil waste container during segregation of soils identified during sorting in the boxlines. Waste may include repackaged or intact containers of historically stored soils with insufficient AK information to assign a legacy IDC. The waste may also contain or be commingled with homogeneous solids or debris waste.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Supercompacted Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 100-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 | 359.32 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 37.63 |
| Rubber | 3.72 |
| Plastic | 331.70 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.31 |
| Packaging Material, Steel | 113.42 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.74E-01 |
| Np-237 | 2.97E-06 |
| Pu-238 | 2.09E-02 |
| Pu-239 | 6.37E-01 |
| Pu-240 | 1.49E-01 |
| Pu-241 | 5.46E-01 |
| Pu-242 | 1.26E-05 |
| Th-229 | 4.04E-14 |
| Th-230 | 2.30E-11 |
| Th-232 | 8.81E-18 |
| U-233 | 1.05E-10 |
| U-234 | 5.50E-07 |
| U-235 | 5.64E-09 |
| U-236 | 3.97E-08 |
| U-238 | 1.76E-14 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

121/221

**Waste Stream Description**

BN510 is a debris waste stream from supercompaction of 55-gallon containers

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Supercompacted Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 100-gal Drum Dir Ld w/o Liner | 18.2 | 0.0 | 18.2 |
| **Final Form Total** | 18.2 | 0.0 | 18.2 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 561.68 |
| Aluminum-based Metal/Alloys | 9.39 |
| Other Metal/Alloys | 4.45 |
| Other Inorganic Materials | 41.77 |
| Cellulose | 107.54 |
| Rubber | 11.92 |
| Plastic | 84.75 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 2.92 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.31 |
| Packaging Material, Steel | 113.42 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.45E+00 |
| Am-243 | 1.99E-04 |
| Cs-137 | 5.61E-05 |
| Np-237 | 1.80E-04 |
| Pu-238 | 1.72E-01 |
| Pu-239 | 1.32E+00 |
| Pu-240 | 3.21E-01 |
| Pu-241 | 1.57E+00 |
| Pu-242 | 4.48E-05 |
| Sr-90 | 6.12E-05 |
| Th-229 | 8.35E-13 |
| Th-230 | 7.20E-10 |
| Th-232 | 5.87E-18 |
| U-233 | 3.81E-09 |
| U-234 | 1.69E-05 |
| U-235 | 2.58E-06 |
| U-236 | 4.76E-08 |
| U-238 | 9.39E-05 |

**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 from supercompaction of 55-gallon containers.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-BN510.2**

**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** | 12/31/2018 |
| **Stream Name** | Supercompacted Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 100-gal Drum Dir Ld w/o Liner | 12.5 | 0.0 | 12.5 |
| **Final Form Total** | 12.5 | 0.0 | 12.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 436.39 |
| Aluminum-based Metal/Alloys | 0.55 |
| Other Metal/Alloys | 17.64 |
| Other Inorganic Materials | 45.33 |
| Cellulose | 98.80 |
| Rubber | 3.20 |
| Plastic | 144.31 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.62 |
| Soil | 0.71 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.31 |
| Packaging Material, Steel | 113.42 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.17E+00 |
| Am-243 | 4.47E-05 |
| Cs-137 | 1.39E-03 |
| Np-237 | 2.49E-04 |
| Pu-238 | 3.95E-01 |
| Pu-239 | 3.59E+00 |
| Pu-240 | 1.42E+00 |
| Pu-241 | 1.14E+01 |
| Pu-242 | 2.08E-04 |
| Sr-90 | 1.52E-03 |
| Th-229 | 1.15E-12 |
| Th-230 | 5.29E-09 |
| Th-232 | 2.58E-17 |
| U-233 | 5.24E-09 |
| U-234 | 1.18E-04 |
| U-235 | 1.97E-04 |
| U-236 | 2.10E-07 |
| U-238 | 4.30E-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)**

121/221

**Waste Stream Description**

BN510.2 is a debris waste stream from supercompaction of 55-gallon containers.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-BN510.3**

**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** | 12/31/2018 |
| **Stream Name** | Supercompacted Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 100-gal Drum Dir Ld w/o Liner | 383.4 | 0.0 | 383.4 |
| **Final Form Total** | 383.4 | 0.0 | 383.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 514.27 |
| Aluminum-based Metal/Alloys | 4.11 |
| Other Metal/Alloys | 6.30 |
| Other Inorganic Materials | 29.58 |
| Cellulose | 110.89 |
| Rubber | 8.04 |
| Plastic | 95.01 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.12 |
| Solidified Organic Material | 0.01 |
| Soil | 0.13 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.31 |
| Packaging Material, Steel | 113.42 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.37E-01 |
| Am-243 | 1.17E-04 |
| Cm-244 | 5.03E-03 |
| Cs-137 | 3.38E-04 |
| Np-237 | 3.18E-05 |
| Pu-238 | 9.11E+00 |
| Pu-239 | 1.09E+00 |
| Pu-240 | 2.69E-01 |
| Pu-241 | 1.39E+00 |
| Pu-242 | 4.13E-05 |
| Sr-90 | 3.69E-04 |
| Th-229 | 1.50E-08 |
| Th-230 | 2.52E-09 |
| Th-232 | 3.15E-18 |
| U-233 | 4.25E-05 |
| U-234 | 1.20E-04 |
| U-235 | 1.05E-05 |
| U-236 | 3.19E-08 |
| U-238 | 1.26E-05 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

121/221

**Waste Stream Description**

IN -BN510.3 is a debris waste stream generated from supercompacted 55-gallon containers.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-BN510.4**

**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** | 12/31/2018 |
| **Stream Name** | Supercompacted Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 100-gal Drum Dir Ld w/o Liner | 2918.0 | 0.0 | 2918.0 |
| SWB Dir Ld w/ Liner | 26.3 | 0.0 | 26.3 |
| **Final Form Total** | 2944.3 | 0.0 | 2944.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 611.48 |
| Aluminum-based Metal/Alloys | 0.88 |
| Other Metal/Alloys | 7.15 |
| Other Inorganic Materials | 23.44 |
| Cellulose | 103.96 |
| Rubber | 9.75 |
| Plastic | 73.47 |
| Cement | 0.00 |
| Solidified Inorganic Material | 3.58 |
| Solidified Organic Material | 0.05 |
| Soil | 0.09 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.01 |
| Packaging Material, Rubber | 0.31 |
| Packaging Material, Steel | 113.79 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.75E+00 |
| Am-243 | 8.13E-05 |
| Cm-244 | 2.07E-03 |
| Cs-137 | 4.77E-04 |
| Np-237 | 3.62E-05 |
| Pu-238 | 3.49E+00 |
| Pu-239 | 3.22E+00 |
| Pu-240 | 7.51E-01 |
| Pu-241 | 3.76E+00 |
| Pu-242 | 1.13E-04 |
| Sr-90 | 5.25E-04 |
| Th-229 | 6.49E-09 |
| Th-230 | 6.92E-11 |
| Th-232 | 6.34E-07 |
| U-233 | 7.37E-04 |
| U-234 | 7.57E-05 |
| U-235 | 2.13E-05 |
| U-236 | 2.22E-09 |
| U-238 | 9.34E-04 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D032, D033, D034, D037, D043, F001, F002, F004, F005, F006, F007, F009, P030, P098, P099, P106, U003, U103, U108, U134, U151

**TRUCON Code(s)**

121/221

**Waste Stream Description**

BN510.4 waste stream is debris waste from multiple debris waste feedstock sources that has been supercompacted into pucks and packaged into 100-gallon drums.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-BN-522**

## Appendix A
### Waste Profile Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Idaho National Laboratory | **Summary Category** | S4000 | **Defense Determination** | Defense-Related | **Handling** | CH |
| **Source Cat.** | Other/Multiple Sources | **Waste Matrix Code Group** | Contaminated Soil/Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | AMWTP Non-PCB Soil | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 10.9 | 0.0 | 10.9 |
| **Final Form Total** | 10.9 | 0.0 | 10.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 41.36 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.19 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 3.04 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 706.39 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.98E-01 |
| Cs-137 | 1.20E-06 |
| Np-237 | 2.65E-06 |
| Pu-238 | 2.65E-02 |
| Pu-239 | 5.32E-01 |
| Pu-240 | 1.17E-01 |
| Pu-241 | 7.19E-01 |
| Pu-242 | 1.48E-05 |
| Sr-90 | 1.32E-06 |
| Th-229 | 4.98E-16 |
| Th-230 | 5.12E-11 |
| Th-232 | 8.51E-20 |
| U-233 | 1.14E-11 |
| U-234 | 5.60E-06 |
| U-235 | 6.65E-07 |
| U-236 | 3.45E-09 |
| U-238 | 5.65E-05 |

**Haz. Waste No(s).**

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

**No TRUCON Codes Provided**

**Waste Stream Description**

Soil generated during the retrieval and/or spill/cleanup activities that are not PCB contaminated. During the retrieval process soil may be generated from the removal of overburden and/or interstitial soil between containers of waste or as a result of spill cleanup or packaged soil from a breached soil waste container during segregation of soils identified during sorting in the boxlines. Waste may include repackaged or intact containers of historically stored soils with insufficient AK information to assign a legacy IDC. The waste may also contain or be commingled with homogeneous solids or debris waste.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***
NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-BN-529**

**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** | 12/31/2018 |
| **Stream Name** | TRU non-PCB Liquids | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based 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 | 7.57 |
| Cement | 0.00 |
| Solidified Inorganic Material | 24.80 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 8.19E-02 |
| Cs-137 | 3.65E-05 |
| Np-237 | 7.50E-06 |
| Pu-238 | 1.45E-03 |
| Pu-239 | 5.48E-02 |
| Pu-240 | 1.22E-02 |
| Pu-241 | 6.63E-02 |
| Pu-242 | 1.59E-06 |
| Sr-90 | 4.00E-05 |
| Th-229 | 1.43E-15 |
| Th-230 | 1.89E-14 |
| Th-232 | 8.88E-21 |
| U-233 | 3.26E-11 |
| U-234 | 4.09E-09 |
| U-235 | 5.40E-11 |
| U-236 | 3.60E-10 |
| U-238 | 2.47E-16 |

**Haz. Waste No(s).**

D009, F001, F002, F004, F005, F006, F007, F009

**No TRUCON Codes Provided**

**Waste Stream Description**

TRU liquids segregated or collected from stored waste generated during retrieval, characterization, or treatment operations (e.g., removal of small containers of prohibited liquid or collection of liquids during retrieval) that may contain non-PCB waste.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-BN-538**

**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** | 12/31/2018 |
| **Stream Name** | Oversized Debris Items from Supercompactor Facility | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| SLB2 Dir Ld | 332.6 | 0.0 | 332.6 |
| **Final Form Total** | 332.6 | 0.0 | 332.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 199.16 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 18.27 |
| Rubber | 0.00 |
| Plastic | 0.31 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.11 |
| Packaging Material, Steel | 165.09 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.17E-02 |
| Cs-137 | 3.23E-07 |
| Np-237 | 1.46E-07 |
| Pu-238 | 3.29E-03 |
| Pu-239 | 6.11E-02 |
| Pu-240 | 1.36E-02 |
| Pu-241 | 8.33E-02 |
| Pu-242 | 1.78E-06 |
| Sr-90 | 3.55E-07 |
| Th-229 | 7.02E-20 |
| Th-230 | 7.90E-14 |
| Th-232 | 1.25E-09 |
| U-233 | 2.23E-14 |
| U-234 | 8.64E-08 |
| U-235 | 2.76E-08 |
| U-236 | 4.02E-11 |
| U-238 | 2.77E-17 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D032, D033, D034, D037, D043, F001, F002, F004, F005, F006, F007, F009, P030, P098, P099, P106, U003, U108, U134, U151

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste contains oversized waste items that are too large to be treated with the existing equipment in the WMF-676 box lines. Oversized debris waste items may originate from only those IDCs identified in RPT-TRUW-83 that are authorized as feed to the Supercompactor.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-BN600**

**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** | 12/31/2018 |
| **Stream Name** | AMWTP WMF-676 PCB Contaminated Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 115.9 | 0.0 | 115.9 |
| **Final Form Total** | 115.9 | 0.0 | 115.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 180.21 |
| Aluminum-based Metal/Alloys | 0.08 |
| Other Metal/Alloys | 39.65 |
| Other Inorganic Materials | 9.89 |
| Cellulose | 20.06 |
| Rubber | 0.34 |
| Plastic | 23.65 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.78 |
| Solidified Organic Material | 2.38 |
| Soil | 0.47 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.40E-02 |
| Am-243 | 1.40E-06 |
| Cs-137 | 1.11E-04 |
| Np-237 | 1.72E-06 |
| Pu-238 | 1.38E-02 |
| Pu-239 | 2.52E-01 |
| Pu-240 | 5.72E-02 |
| Pu-241 | 2.66E-01 |
| Pu-242 | 5.19E-06 |
| Sr-90 | 1.22E-04 |
| Th-229 | 8.27E-19 |
| Th-230 | 3.96E-13 |
| Th-232 | 4.18E-22 |
| U-233 | 2.63E-13 |
| U-234 | 4.32E-07 |
| U-235 | 4.11E-08 |
| U-236 | 1.69E-10 |
| U-238 | 1.98E-06 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D032, D033, D034, D037, D043, F001, F002, F004, F005, F006, F007, F009, P030, P098, P099, P106, U003, U103, U108, U134, U151

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Newly generated PCB contaminated debris waste from the remediation of prohibited PCB waste within the Advanced Mixed Waste Treatment Facility (WMF-676).

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-BN650**

**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** | 12/31/2018 |
| **Stream Name** | AMWTP Sludge Repackaging Project (SRP) Combined Sludge Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| SWB w/ 4 - 55-gal Drums w/ Liners | 194.9 | 0.0 | 194.9 |
| TDOP w/ 10 - 55-gal Drums w/ Liners | 2606.1 | 0.0 | 2606.1 |
| **Final Form Total** | 2801.0 | 0.0 | 2801.0 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 4.48 |
| Aluminum-based Metal/Alloys | 0.13 |
| Other Metal/Alloys | 4.48 |
| Other Inorganic Materials | 19.70 |
| Cellulose | 0.13 |
| Rubber | 0.13 |
| Plastic | 6.26 |
| Cement | 0.00 |
| Solidified Inorganic Material | 630.99 |
| Solidified Organic Material | 178.97 |
| Soil | 0.13 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.96 |
| Packaging Material, Steel | 493.83 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.17E+00 |
| Am-243 | 6.47E-07 |
| Cm-244 | 2.11E-04 |
| Cs-137 | 1.15E-05 |
| Np-237 | 5.02E-05 |
| Pu-238 | 8.58E-02 |
| Pu-239 | 1.19E+00 |
| Pu-240 | 2.70E-01 |
| Pu-241 | 1.43E+00 |
| Pu-242 | 3.26E-05 |
| Sr-90 | 1.26E-05 |
| Th-229 | 2.44E-09 |
| Th-230 | 9.89E-10 |
| Th-232 | 1.97E-19 |
| U-233 | 2.77E-05 |
| U-234 | 1.08E-04 |
| U-235 | 9.19E-06 |
| U-236 | 7.99E-09 |
| U-238 | 6.05E-04 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D022, D026, D027, D028, D029, D030, D032, D034, D036, D037, F001, F002, F005, F006, F007, F009

**TRUCON Code(s)**

111/211, 112/212, 132/232

**Waste Stream Description**

This waste stream consists of sludge generated from repackaging of Rocky Flats inorganic and organic wastes at the SRP.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-BN835**

## Appendix A
### Waste Profile Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Idaho National Laboratory | **Summary Category** | S3000 | **Defense Determination** | Defense-Related | **Handling** | CH |
| **Source Cat.** | Materials Production/Recovery Effluents | **Waste Matrix Code Group** | Solidified Inorganics | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Solidified Acid/Caustic Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 0.8 | 0.0 | 0.8 |
| TDOP w/ 10 - 55-gal Drums w/ Liners | 10.5 | 0.0 | 10.5 |
| **Final Form Total** | 11.8 | 0.0 | 11.8 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.07 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.07 |
| Other Inorganic Materials | 0.56 |
| Cellulose | 2.76 |
| Rubber | 0.25 |
| Plastic | 2.28 |
| Cement | 0.00 |
| Solidified Inorganic Material | 418.55 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.94 |
| Packaging Material, Steel | 480.73 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.52E-01 |
| Cs-137 | 4.67E-08 |
| Np-237 | 1.50E-05 |
| Pu-238 | 7.12E+00 |
| Pu-239 | 1.24E-02 |
| Pu-240 | 7.74E-03 |
| Pu-241 | 4.08E-02 |
| Pu-242 | 8.57E-06 |
| Sr-90 | 5.10E-08 |
| Th-229 | 4.45E-14 |
| Th-230 | 1.52E-09 |
| Th-232 | 9.04E-20 |
| U-233 | 2.53E-10 |
| U-234 | 8.20E-05 |
| U-235 | 4.88E-11 |
| U-236 | 9.16E-10 |
| U-238 | 5.52E-06 |

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

**TRUCON Code(s)**
111/211

**Waste Stream Description**
This waste stream, generated at Mound consists of drums containing solidified acid and caustic wastes combined with nonhazardous absorbent.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***
NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Cemented Sludge | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 1.9 | 0.0 | 1.9 |
| SWB w/ 4 - 55-gal Drums w/ Liners | 30.2 | 0.0 | 30.2 |
| TDOP w/ 10 - 55-gal Drums w/ Liners | 2.1 | 0.0 | 2.1 |
| **Final Form Total** | 34.2 | 0.0 | 34.2 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.01 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 0.03 |
| Cement | 0.00 |
| Solidified Inorganic Material | 1124.34 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.67 |
| Packaging Material, Rubber | 0.97 |
| Packaging Material, Steel | 457.17 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.25E-05 |
| Cs-137 | 2.38E-08 |
| Np-237 | 1.31E-06 |
| Pu-238 | 1.97E-01 |
| Pu-239 | 3.13E-04 |
| Pu-240 | 2.14E-04 |
| Pu-241 | 2.00E-04 |
| Pu-242 | 2.45E-07 |
| Sr-90 | 2.60E-08 |
| Th-229 | 3.90E-15 |
| Th-230 | 5.29E-11 |
| Th-232 | 2.50E-21 |
| U-233 | 2.22E-11 |
| U-234 | 2.56E-06 |
| U-235 | 4.40E-08 |
| U-236 | 2.53E-11 |
| U-238 | 1.52E-16 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

111/211

**Waste Stream Description**

This waste stream consists of drums containing Mound cemented sludge. The sludge was originally generated from the treatment of alpha-contaminated wastewaters at the Waste Disposal Building. The sludge was solidified with Portland Cement. Florco, a non-hazardous absorbent, may have been also added to the waste stream.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | First/Second Stage Sludge | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 7.1 | 0.0 | 7.1 |
| SWB w/ 4 - 55-gal Drums w/ Liners | 34.4 | 0.0 | 34.4 |
| TDOP w/ 10 - 55-gal Drums w/ Liners | 75.6 | 0.0 | 75.6 |
| **Final Form Total** | 117.2 | 0.0 | 117.2 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 4.25 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 1.74 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.36 |
| Rubber | 0.11 |
| Plastic | 3.57 |
| Cement | 6.80 |
| Solidified Inorganic Material | 873.19 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.70 |
| Packaging Material, Rubber | 0.94 |
| Packaging Material, Steel | 467.01 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.50E+01 |
| Am-243 | 1.45E-07 |
| Cs-137 | 7.31E-09 |
| Np-237 | 2.14E-04 |
| Pu-238 | 1.23E-01 |
| Pu-239 | 1.33E+00 |
| Pu-240 | 3.40E-01 |
| Pu-241 | 4.00E+00 |
| Pu-242 | 1.38E-04 |
| Sr-90 | 8.02E-09 |
| Th-229 | 4.03E-14 |
| Th-230 | 3.03E-10 |
| Th-232 | 2.48E-19 |
| U-233 | 9.20E-10 |
| U-234 | 3.31E-05 |
| U-235 | 6.33E-06 |
| U-236 | 1.01E-08 |
| U-238 | 2.01E-04 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

111/211

**Waste Stream Description**

This waste stream, generated at Rocky Flats, consists of aqueous sludges generated from wastewater treatment processes in Building 774.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Building 374 Sludge | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 0.2 | 0.0 | 0.2 |
| SWB w/ 4 - 55-gal Drums w/ Liners | 13.4 | 0.0 | 13.4 |
| TDOP w/ 10 - 55-gal Drums w/ Liners | 29.4 | 0.0 | 29.4 |
| **Final Form Total** | 43.1 | 0.0 | 43.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 5.96 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.05 |
| Rubber | 0.03 |
| Plastic | 4.14 |
| Cement | 45.99 |
| Solidified Inorganic Material | 815.51 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.70 |
| Packaging Material, Rubber | 0.96 |
| Packaging Material, Steel | 487.14 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.27E-01 |
| Cs-137 | 2.34E-09 |
| Np-237 | 1.30E-06 |
| Pu-238 | 3.96E-03 |
| Pu-239 | 9.02E-02 |
| Pu-240 | 1.94E-02 |
| Pu-241 | 1.66E-01 |
| Pu-242 | 2.95E-06 |
| Sr-90 | 2.57E-09 |
| Th-229 | 2.45E-16 |
| Th-230 | 2.91E-09 |
| Th-232 | 1.42E-20 |
| U-233 | 5.59E-12 |
| U-234 | 3.17E-04 |
| U-235 | 3.20E-05 |
| U-236 | 5.74E-10 |
| U-238 | 3.62E-03 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

111/211

**Waste Stream Description**

Building 374 sludge, generated at Rocky Flats, consists of drums containing Building 374 dry sludge, Solidified Direct Cementation Process (DCP) sludge, or Building 374 solidified bypass sludge.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-BW-515**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Idaho National Laboratory | **Summary Category** | S5000 | **Defense Determination** | Pending Determination | **Handling** | CH |
| **Source Cat.** | Remediation/D&D Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Compressible and/or Combustible | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 100-gal Drum Dir Ld w/ Liner | 1.1 | 0.0 | 1.1 |
| **Final Form Total** | 1.1 | 0.0 | 1.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 614.75 |
| Aluminum-based Metal/Alloys | 0.88 |
| Other Metal/Alloys | 7.18 |
| Other Inorganic Materials | 23.57 |
| Cellulose | 104.52 |
| Rubber | 9.80 |
| Plastic | 73.87 |
| Cement | 0.00 |
| Solidified Inorganic Material | 3.60 |
| Solidified Organic Material | 0.05 |
| Soil | 0.43 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 20.29 |
| Packaging Material, Rubber | 0.31 |
| Packaging Material, Steel | 113.42 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.75E+00 |
| Cs-137 | 3.40E-07 |
| Np-237 | 2.32E-05 |
| Pu-238 | 3.27E-01 |
| Pu-239 | 1.94E+00 |
| Pu-240 | 9.33E-01 |
| Pu-241 | 8.37E+00 |
| Pu-242 | 1.89E-04 |
| Sr-90 | 3.73E-07 |
| Th-229 | 1.72E-14 |
| Th-230 | 1.05E-09 |
| Th-232 | 2.73E-18 |
| U-233 | 1.97E-10 |
| U-234 | 5.79E-05 |
| U-235 | 1.82E-05 |
| U-236 | 5.53E-08 |
| U-238 | 9.30E-06 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste consists of organic materials including various plastics, paper products, cloth, strippable latex paint, adhesive tape and small amounts of wood.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-BW-516**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Idaho National Laboratory | **Summary Category** | S5000 | **Defense Determination** | Pending Determination | **Handling** | CH |
| **Source Cat.** | Remediation/D&D Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Solid Dry Wastes | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 100-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 | 614.75 |
| Aluminum-based Metal/Alloys | 0.88 |
| Other Metal/Alloys | 7.18 |
| Other Inorganic Materials | 23.57 |
| Cellulose | 104.52 |
| Rubber | 9.80 |
| Plastic | 73.87 |
| Cement | 0.00 |
| Solidified Inorganic Material | 3.60 |
| Solidified Organic Material | 0.05 |
| Soil | 0.43 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 20.29 |
| Packaging Material, Rubber | 0.31 |
| Packaging Material, Steel | 113.42 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.08E-01 |
| Cs-137 | 8.38E-08 |
| Np-237 | 2.16E-05 |
| Pu-238 | 1.45E-02 |
| Pu-239 | 3.15E-01 |
| Pu-240 | 7.11E-02 |
| Pu-241 | 4.97E-01 |
| Pu-242 | 8.93E-06 |
| Sr-90 | 9.18E-08 |
| Th-229 | 1.65E-14 |
| Th-230 | 3.03E-10 |
| Th-232 | 2.08E-19 |
| U-233 | 1.88E-10 |
| U-234 | 1.65E-05 |
| U-235 | 5.20E-06 |
| U-236 | 4.21E-09 |
| U-238 | 5.61E-06 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste is composed of various component items of steel, aluminum, and other nonmetallic materials.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-BW-517**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Idaho National Laboratory | **Summary Category** | S5000 | **Defense Determination** | Pending Determination | **Handling** | CH |
| **Source Cat.** | Remediation/D&D Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Heavy Materials | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 100-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 | 614.75 |
| Aluminum-based Metal/Alloys | 0.88 |
| Other Metal/Alloys | 7.18 |
| Other Inorganic Materials | 23.57 |
| Cellulose | 104.52 |
| Rubber | 9.80 |
| Plastic | 73.87 |
| Cement | 0.00 |
| Solidified Inorganic Material | 3.60 |
| Solidified Organic Material | 0.05 |
| Soil | 0.43 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 20.29 |
| Packaging Material, Rubber | 0.31 |
| Packaging Material, Steel | 113.42 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.04E+00 |
| Np-237 | 2.18E-05 |
| Pu-238 | 2.64E-01 |
| Pu-239 | 2.00E+00 |
| Pu-240 | 1.04E+00 |
| Pu-241 | 7.53E+00 |
| Pu-242 | 2.42E-04 |
| Th-229 | 1.04E-17 |
| Th-230 | 5.67E-12 |
| Th-232 | 7.60E-21 |
| U-233 | 3.32E-12 |
| U-234 | 6.21E-06 |
| U-235 | 1.98E-06 |
| U-236 | 3.08E-09 |
| U-238 | 3.76E-15 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste is composed of various component items of steel, aluminum, and other nonmetallic materials. Included are electrical devices, framed motor, transformer and a small lathe.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-ID-ANLE-BIN**

**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** | 12/31/2018 |
| **Stream Name** | RH TRU Debris Waste from ANL-E stored at INL | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 476.19 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 44.17 |
| Other Inorganic Materials | 20.79 |
| Cellulose | 11.27 |
| Rubber | 0.00 |
| Plastic | 20.37 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 9.22E-02 |
| Cs-137 | 9.34E-02 |
| Np-237 | 5.97E-08 |
| Pu-238 | 1.17E-02 |
| Pu-239 | 3.51E-02 |
| Pu-240 | 2.07E-02 |
| Pu-241 | 1.03E-01 |
| Pu-242 | 6.69E-04 |
| Sr-90 | 8.32E-02 |
| Th-229 | 1.44E-07 |
| Th-230 | 2.25E-09 |
| Th-232 | 6.05E-20 |
| U-233 | 8.18E-04 |
| U-234 | 1.22E-04 |
| U-235 | 3.87E-06 |
| U-236 | 1.23E-09 |
| U-238 | 6.99E-07 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

321, 325

**Waste Stream Description**

This waste stream consists of two 55 gallon drums generated from repackaging of six bins of general plant waste generated at ANL-E during D&D operations.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-ID-ANLW-W269-RH**

**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** | 12/31/2018 |
| **Stream Name** | RH Laboratory Waste from INL | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 59.02 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 5.19 |
| Rubber | 0.22 |
| Plastic | 15.83 |
| Cement | 0.00 |
| Solidified Inorganic Material | 11.43 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.28E+00 |
| Cs-137 | 3.33E-01 |
| Np-237 | 6.87E-06 |
| Pu-238 | 5.11E-01 |
| Pu-239 | 2.79E+01 |
| Pu-240 | 5.87E+00 |
| Pu-242 | 6.44E-02 |
| Sr-90 | 8.67E-02 |
| Th-229 | 2.31E-10 |
| Th-230 | 2.54E-09 |
| Th-232 | 6.86E-17 |
| U-233 | 6.57E-07 |
| U-234 | 7.19E-05 |
| U-235 | 1.19E-06 |
| U-236 | 6.95E-07 |
| U-238 | 2.21E-08 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, F002, F004, F005

**TRUCON Code(s)**

327

**Waste Stream Description**

This waste stream consists of three drums that contains one, one gallon plastic bottles full of dissolved fuel solutions absorbed on vermiculite or Oil -Dri.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Solidified Waste Sludge from Bettis Atomic Power Lab. | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner | 1.3 | 0.0 | 1.3 |
| **Final Form Total** | 1.3 | 0.0 | 1.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 165.08 |
| Aluminum-based Metal/Alloys | 25.40 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.79 |
| Cellulose | 3.51 |
| Rubber | 1.48 |
| Plastic | 7.27 |
| Cement | 53.02 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.20E-02 |
| Cs-137 | 9.07E+00 |
| Np-237 | 1.57E-08 |
| Pu-238 | 2.86E-01 |
| Pu-239 | 1.57E-01 |
| Pu-240 | 3.32E-03 |
| Pu-242 | 5.70E-04 |
| Sr-90 | 1.48E+01 |
| Th-229 | 6.49E-07 |
| Th-230 | 5.91E-08 |
| Th-232 | 3.88E-20 |
| U-233 | 1.85E-03 |
| U-234 | 1.61E-03 |
| U-235 | 3.63E-05 |
| U-236 | 3.93E-10 |
| U-238 | 2.51E-05 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D010, D011, 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 canisters (6 ft. tall x 12 in dia.). The HFEF-5 canisters were sent to RWMC for interim storage in 1988. The HFEF canisters were retrieved and repackaged into 4-55 gallon drums for characterization and shipment to WIPP.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | RH-TRU Debris Waste From Experimental Breeder Reactor | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/o 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 | 113.61 |
| Aluminum-based Metal/Alloys | 13.62 |
| Other Metal/Alloys | 809.52 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.45 |
| Rubber | 0.45 |
| Plastic | 10.16 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.02 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.26E-06 |
| Cs-137 | 2.83E+01 |
| Np-237 | 1.62E-12 |
| Pu-238 | 1.72E-04 |
| Pu-239 | 3.32E+00 |
| Pu-240 | 1.21E-03 |
| Pu-241 | 3.46E-06 |
| Pu-242 | 5.89E-14 |
| Sr-90 | 2.61E+00 |
| Th-229 | 6.40E-12 |
| Th-230 | 1.59E-09 |
| Th-232 | 1.42E-20 |
| U-233 | 1.82E-08 |
| U-234 | 4.48E-05 |
| U-235 | 1.32E-02 |
| U-236 | 1.43E-10 |
| U-238 | 2.84E-01 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**
321, 322, 325

**Waste Stream Description**

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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***
NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-ID-HFEF-S3000-RP**

**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 Organics | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Sodium contaminated RH TRU Waste from Materials and Fuels Complex at INL. | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner | 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 | 99.47 |
| Aluminum-based Metal/Alloys | 1.46 |
| Other Metal/Alloys | 27.21 |
| Other Inorganic Materials | 2.63 |
| Cellulose | 1.46 |
| Rubber | 0.88 |
| Plastic | 1.46 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 157.99 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.27E+00 |
| Cm-244 | 2.38E-02 |
| Cs-137 | 1.72E+01 |
| Np-237 | 2.74E-06 |
| Pu-238 | 1.48E+00 |
| Pu-239 | 4.16E+00 |
| Pu-240 | 2.63E+00 |
| Pu-241 | 2.79E+01 |
| Pu-242 | 1.54E-03 |
| Sr-90 | 2.16E+01 |
| Th-229 | 6.67E-11 |
| Th-230 | 1.69E-07 |
| Th-232 | 7.69E-18 |
| U-233 | 3.79E-07 |
| U-234 | 9.20E-03 |
| U-235 | 3.29E-04 |
| U-236 | 1.56E-07 |
| U-238 | 4.21E-04 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

321

**Waste Stream Description**

This waste stream consists of treated sodium contaminated waste from Materials and Fuels complex

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Sodium contaminated RH TRU Waste from Materials and Fuels Complex at INL. | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner | 20.2 | 0.0 | 20.2 |
| **Final Form Total** | 20.2 | 0.0 | 20.2 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 199.16 |
| Aluminum-based Metal/Alloys | 3.16 |
| Other Metal/Alloys | 53.74 |
| Other Inorganic Materials | 6.32 |
| Cellulose | 3.16 |
| Rubber | 3.16 |
| Plastic | 3.16 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 47.42 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.13E+00 |
| Cm-244 | 9.02E-03 |
| Cs-137 | 5.46E+00 |
| Np-237 | 1.36E-06 |
| Pu-238 | 8.74E-01 |
| Pu-239 | 3.53E+00 |
| Pu-240 | 2.00E+00 |
| Pu-241 | 1.58E+01 |
| Pu-242 | 7.01E-04 |
| Sr-90 | 7.69E+00 |
| Th-229 | 1.91E-11 |
| Th-230 | 1.31E-07 |
| Th-232 | 5.83E-18 |
| U-233 | 1.09E-07 |
| U-234 | 7.11E-03 |
| U-235 | 2.72E-04 |
| U-236 | 1.18E-07 |
| U-238 | 2.21E-04 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

321, 322, 325

**Waste Stream Description**

This waste consists of 55-gallon drums of treated waste.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | RH-TRU Debris Waste From Materials and Fuels Complex Hot Fuel Examination Facility at the INL. | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner | 18.3 | 0.0 | 18.3 |
| **Final Form Total** | 18.3 | 0.0 | 18.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 148.14 |
| Aluminum-based Metal/Alloys | 1.08 |
| Other Metal/Alloys | 3.24 |
| Other Inorganic Materials | 12.95 |
| Cellulose | 14.05 |
| Rubber | 10.82 |
| Plastic | 28.19 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.45 |
| Solidified Organic Material | 1.08 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.94E-02 |
| Cs-137 | 4.25E+01 |
| Np-237 | 3.83E-08 |
| Pu-238 | 1.84E-02 |
| Pu-239 | 3.57E+00 |
| Pu-240 | 2.89E+00 |
| Pu-241 | 7.85E-04 |
| Pu-242 | 4.28E-04 |
| Sr-90 | 1.88E+01 |
| Th-229 | 2.49E-06 |
| Th-230 | 2.04E-06 |
| Th-232 | 3.38E-17 |
| U-233 | 7.08E-03 |
| U-234 | 5.54E-02 |
| U-235 | 5.88E-03 |
| U-236 | 3.42E-07 |
| U-238 | 1.21E-02 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

321, 322, 325

**Waste Stream Description**

Some of the containers in this waste stream have hazardous waste codes applied by the generator.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | S5000 | **Defense Determination** | Defense-Related | **Handling** | RH |
| **Source Cat.** | Analytical Laboratory Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | RH-TRU Waste From Materials and Fuels Complex at the INL. | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner | 1.3 | 0.0 | 1.3 |
| **Final Form Total** | 1.3 | 0.0 | 1.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 18.18 |
| Aluminum-based Metal/Alloys | 1.15 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 1.61 |
| Cellulose | 0.46 |
| Rubber | 0.00 |
| Plastic | 1.61 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.72E-02 |
| Cs-137 | 1.25E+01 |
| Np-237 | 5.01E-08 |
| Pu-238 | 2.37E-02 |
| Pu-239 | 1.36E-01 |
| Pu-240 | 3.50E-02 |
| Pu-242 | 6.50E-04 |
| Sr-90 | 1.38E+01 |
| Th-229 | 1.94E-09 |
| Th-230 | 2.59E-07 |
| Th-232 | 1.02E-19 |
| U-233 | 1.10E-05 |
| U-234 | 1.41E-02 |
| U-235 | 7.97E-04 |
| U-236 | 2.07E-09 |
| U-238 | 1.07E-04 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

321, 325

**Waste Stream Description**

This waste stream consists of 5 55-gallon drums of repackaged waste from Four 24-inch diameter by 148-inch long carbon steel liners each containing 2 to 3 1-liter bottle of solidified sample solution and debris from Analytical Laboratory hot cells.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-ID-MISC-RH**

## 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** | 12/31/2018 |
| **Stream Name** | Analytical Laboratory waste from MFC (formerly know as ANL-W) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 158.73 |
| Aluminum-based Metal/Alloys | 48.25 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 6.03 |
| Cellulose | 1.40 |
| Rubber | 3.02 |
| Plastic | 67.94 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 48.25 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.61E-02 |
| Cs-137 | 1.88E-01 |
| Np-237 | 4.29E-08 |
| Pu-238 | 4.22E-03 |
| Pu-239 | 3.81E-02 |
| Pu-240 | 5.44E-03 |
| Pu-242 | 3.51E-03 |
| Sr-90 | 5.68E-01 |
| Th-229 | 3.78E-08 |
| Th-230 | 3.95E-09 |
| Th-232 | 1.59E-20 |
| U-233 | 2.15E-04 |
| U-234 | 2.15E-04 |
| U-235 | 1.19E-05 |
| U-236 | 3.22E-10 |
| U-238 | 8.48E-07 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

321, 325

**Waste Stream Description**

This waste stream consists of one drum that contains sample holder, Nalgene bottles, sample solution absorbed in vermiculite and debris from analytical laboratory.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Organic Setups | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| SWB w/ 4 - 55-gal Drums w/ Liners | 3.4 | 0.0 | 3.4 |
| TDOP w/ 10 - 55-gal Drums w/ Liners | 37.8 | 0.0 | 37.8 |
| **Final Form Total** | 41.2 | 0.0 | 41.2 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 4.21 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 15.55 |
| Cellulose | 0.16 |
| Rubber | 0.04 |
| Plastic | 6.67 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 766.36 |
| Soil | 0.04 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.96 |
| Packaging Material, Steel | 493.59 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.94E-02 |
| Cs-137 | 8.00E-09 |
| Np-237 | 1.03E-06 |
| Pu-238 | 5.59E-03 |
| Pu-239 | 1.72E-01 |
| Pu-240 | 3.74E-02 |
| Pu-241 | 2.34E-01 |
| Pu-242 | 3.36E-06 |
| Sr-90 | 8.79E-09 |
| Th-229 | 1.97E-16 |
| Th-230 | 4.27E-12 |
| Th-232 | 2.73E-20 |
| U-233 | 4.48E-12 |
| U-234 | 4.73E-07 |
| U-235 | 1.18E-07 |
| U-236 | 1.11E-09 |
| U-238 | 6.64E-07 |

**Haz. Waste No(s).**

D008, D022, D026, D027, D028, D029, D030, D032, D034, D036, D037, F001, F002, F005

**TRUCON Code(s)**

112/212

**Waste Stream Description**

This waste, generated at Rocky Flats, consists of various organic liquids transferred to Building 774 for immobilization. This process was shutdown in 1985 and replaced by the Organic and Sludge Immobilization System (OASIS) process.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Organic and Sludge Immobilization System Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 0.05 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 3.21 |
| Cellulose | 0.05 |
| Rubber | 0.00 |
| Plastic | 3.21 |
| Cement | 540.48 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 456.43 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.96E-02 |
| Cs-137 | 1.01E-07 |
| Np-237 | 4.93E-06 |
| Pu-238 | 2.36E-02 |
| Pu-239 | 5.82E-01 |
| Pu-240 | 1.26E-01 |
| Pu-241 | 1.15E+00 |
| Pu-242 | 9.07E-06 |
| Sr-90 | 1.11E-07 |
| Th-229 | 3.75E-15 |
| Th-230 | 3.80E-11 |
| Th-232 | 3.68E-19 |
| U-233 | 4.27E-11 |
| U-234 | 2.13E-06 |
| U-235 | 6.46E-07 |
| U-236 | 7.46E-09 |
| U-238 | 2.81E-15 |

**Haz. Waste No(s).**

D008, D022, D028, D029, D030, D032, D034, D036, D043, F001, F002, F005

**TRUCON Code(s)**

112/212

**Waste Stream Description**

The waste consists of various organic liquids immobilized into a solid monolith by the Organic and Sludge Immobilization System (OASIS) in Building 774.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Rocky Flats Generated Suspect RH TRU waste received from AMWTP | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner | 1.3 | 0.0 | 1.3 |
| **Final Form Total** | 1.3 | 0.0 | 1.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 94.92 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 22.00 |
| Cellulose | 38.59 |
| Rubber | 0.35 |
| Plastic | 7.65 |
| Cement | 116.67 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 8.03E+01 |
| Cs-137 | 6.35E-02 |
| Np-237 | 1.04E-04 |
| Pu-238 | 2.57E-02 |
| Pu-239 | 1.28E+00 |
| Pu-240 | 2.82E-01 |
| Pu-242 | 5.58E-04 |
| Sr-90 | 3.88E-03 |
| Th-229 | 8.57E-08 |
| Th-230 | 5.04E-08 |
| Th-232 | 3.30E-18 |
| U-233 | 2.44E-04 |
| U-234 | 1.37E-03 |
| U-235 | 4.52E-04 |
| U-236 | 3.35E-08 |
| U-238 | 3.36E-04 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

321, 322

**Waste Stream Description**

This waste stream generated at Rocky Flats plant, consists of various types of filter media and insulation processed with Portland cement to absorb liquids and neutralize acids, plastics such as Teflon, polyethylene, polyvinyl chloride, latex and nonleaded rubber.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

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

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Idaho National Laboratory | **Summary Category** | S5000 | **Defense Determination** | Defense-Related | **Handling** | CH |
| **Source Cat.** | Facility/Equipment Operation and Maintenance Waste | **Waste Matrix Code Group** | Inorganic Nonmetal Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Rocky Flats Raschig Rings Stored at the INL | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.00 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 220.95 |
| Cellulose | 25.71 |
| Rubber | 0.00 |
| Plastic | 16.67 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.78E+00 |
| Np-237 | 3.20E-05 |
| Pu-238 | 5.28E-03 |
| Pu-239 | 2.17E-01 |
| Pu-240 | 4.80E-02 |
| Pu-241 | 1.60E-01 |
| Pu-242 | 6.33E-06 |
| Th-229 | 6.37E-13 |
| Th-230 | 8.79E-12 |
| Th-232 | 4.25E-18 |
| U-233 | 1.37E-09 |
| U-234 | 1.71E-07 |
| U-235 | 2.35E-09 |
| U-236 | 1.56E-08 |
| U-238 | 1.08E-14 |

**Haz. Waste No(s).**

D008, D009, D022, F001, F002, F005

**TRUCON Code(s)**

118/218

**Waste Stream Description**

This waste stream consists of Raschig rings (borosilicate glass rings) used to maintain subcritical conditions in fissile solution storage tanks that were not safe by dimension.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Rocky Flats Transuranic Graphite Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| TDOP w/ 10 - 55-gal Drums w/ Liners | 2.1 | 0.0 | 2.1 |
| **Final Form Total** | 2.1 | 0.0 | 2.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 5.89 |
| Aluminum-based Metal/Alloys | 0.01 |
| Other Metal/Alloys | 0.06 |
| Other Inorganic Materials | 178.38 |
| Cellulose | 4.32 |
| Rubber | 0.01 |
| Plastic | 2.62 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.01 |
| Solidified Organic Material | 0.01 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.95 |
| Packaging Material, Steel | 495.24 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.04E-01 |
| Np-237 | 6.42E-06 |
| Pu-238 | 9.33E-02 |
| Pu-239 | 2.28E+00 |
| Pu-240 | 5.23E-01 |
| Pu-241 | 2.55E+00 |
| Pu-242 | 3.97E-05 |
| Th-229 | 3.08E-18 |
| Th-230 | 1.21E-14 |
| Th-232 | 3.82E-21 |
| U-233 | 9.81E-13 |
| U-234 | 2.63E-08 |
| U-235 | 2.25E-10 |
| U-236 | 1.55E-09 |
| U-238 | 6.16E-16 |

**Haz. Waste No(s).**

D008, D029, F001, F002, F005

**TRUCON Code(s)**

115/215

**Waste Stream Description**

This waste stream generated at Rocky Flats, is comprised of graphite. Graphite wastes include broken molds, chunks and pieces.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Rocky Flats Combustibles and Plastic Stored at INL | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| TDOP w/ 10 - 55-gal Drums w/ Liners | 2.1 | 0.0 | 2.1 |
| **Final Form Total** | 2.1 | 0.0 | 2.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 3.42 |
| Aluminum-based Metal/Alloys | 0.14 |
| Other Metal/Alloys | 0.50 |
| Other Inorganic Materials | 7.58 |
| Cellulose | 58.08 |
| Rubber | 3.26 |
| Plastic | 82.32 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.01 |
| Solidified Organic Material | 0.02 |
| Soil | 0.01 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.95 |
| Packaging Material, Steel | 495.24 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.86E-03 |
| Np-237 | 2.98E-09 |
| Pu-238 | 1.56E-04 |
| Pu-239 | 5.91E-03 |
| Pu-240 | 1.31E-03 |
| Pu-241 | 7.07E-03 |
| Pu-242 | 1.71E-07 |
| Th-229 | 4.62E-18 |
| Th-230 | 5.20E-14 |
| Th-232 | 2.40E-20 |
| U-233 | 3.16E-14 |
| U-234 | 2.25E-09 |
| U-235 | 2.91E-11 |
| U-236 | 1.94E-10 |
| U-238 | 1.33E-16 |

**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

**Waste Stream Description**

This waste stream, generated by Rocky Flats, is comprised of combustible and plastic debris.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-ID-Sample Fuel**

**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** | 12/31/2018 |
| **Stream Name** | RH TRU Waste from INL. | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 205.16 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 96.43 |
| Other Inorganic Materials | 10.78 |
| Cellulose | 0.83 |
| Rubber | 0.83 |
| Plastic | 14.17 |
| Cement | 0.00 |
| Solidified Inorganic Material | 38.47 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Cs-137 | 8.45E-02 |
| Np-237 | 1.16E-03 |
| Pu-239 | 3.44E+00 |
| Pu-240 | 2.53E+00 |
| Th-229 | 9.38E-06 |
| Th-230 | 2.15E-13 |
| Th-232 | 5.65E-05 |
| U-233 | 2.67E-02 |
| U-234 | 1.17E-08 |
| U-235 | 2.14E-04 |
| U-236 | 3.00E-07 |
| U-238 | 1.06E-03 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D010, D011, D019

**TRUCON Code(s)**

321, 322, 325

**Waste Stream Description**

This waste consists of 12 containers of debris waste generated at TRA. The waste consists of either solutions of dissolved fuel or remains of the fuel after the destructive examination performed for Research and Development

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | ICP Retrieved Debris Waste (Filters/Graphite) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 663.0 | 0.0 | 663.0 |
| **Final Form Total** | 663.0 | 0.0 | 663.0 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 1.17 |
| Aluminum-based Metal/Alloys | 0.13 |
| Other Metal/Alloys | 0.12 |
| Other Inorganic Materials | 232.36 |
| Cellulose | 90.00 |
| Rubber | 0.64 |
| Plastic | 6.22 |
| Cement | 0.60 |
| Solidified Inorganic Material | 40.61 |
| Solidified Organic Material | 0.54 |
| Soil | 28.38 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.89E-01 |
| Cs-137 | 1.46E-06 |
| Np-237 | 1.30E-05 |
| Pu-238 | 6.38E-02 |
| Pu-239 | 1.82E+00 |
| Pu-240 | 4.06E-01 |
| Pu-241 | 1.79E+00 |
| Pu-242 | 4.21E-05 |
| Sr-90 | 1.60E-06 |
| Th-229 | 3.66E-09 |
| Th-230 | 1.32E-08 |
| Th-232 | 5.80E-13 |
| U-233 | 1.04E-05 |
| U-234 | 3.59E-04 |
| U-235 | 9.22E-06 |
| U-236 | 4.81E-08 |
| U-238 | 5.39E-04 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

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

**Waste Stream Description**

Pre-1970 buried waste retrieved for the Idaho Cleanup Project

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | ICP Retrieved Sludge Waste (Inorganic/Organic Sludge/Roaster Oxide) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 2796.4 | 0.0 | 2796.4 |
| **Final Form Total** | 2796.4 | 0.0 | 2796.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.23 |
| Aluminum-based Metal/Alloys | 0.01 |
| Other Metal/Alloys | 0.04 |
| Other Inorganic Materials | 38.77 |
| Cellulose | 0.83 |
| Rubber | 0.18 |
| Plastic | 0.43 |
| Cement | 0.17 |
| Solidified Inorganic Material | 228.32 |
| Solidified Organic Material | 260.20 |
| Soil | 25.98 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.59E+00 |
| Cm-244 | 2.36E-05 |
| Cs-137 | 1.24E-05 |
| Np-237 | 2.59E-05 |
| Pu-238 | 2.12E-02 |
| Pu-239 | 5.06E-01 |
| Pu-240 | 1.14E-01 |
| Pu-241 | 7.90E-01 |
| Pu-242 | 2.00E-05 |
| Sr-90 | 1.36E-05 |
| Th-229 | 6.59E-09 |
| Th-230 | 1.26E-08 |
| Th-232 | 1.33E-18 |
| U-233 | 1.87E-05 |
| U-234 | 3.43E-04 |
| U-235 | 9.05E-06 |
| U-236 | 1.34E-08 |
| U-238 | 1.32E-03 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

112/212, 122/222, 127/227

**Waste Stream Description**

Pre-1970 buried waste retrieved for the Idaho Cleanup Project

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | ICP Retrieved Soils | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 633.6 | 0.0 | 633.6 |
| **Final Form Total** | 633.6 | 0.0 | 633.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.54 |
| Aluminum-based Metal/Alloys | 0.02 |
| Other Metal/Alloys | 0.12 |
| Other Inorganic Materials | 17.13 |
| Cellulose | 15.86 |
| Rubber | 0.31 |
| Plastic | 4.98 |
| Cement | 0.31 |
| Solidified Inorganic Material | 43.80 |
| Solidified Organic Material | 4.43 |
| Soil | 490.89 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 8.96E-01 |
| Cs-137 | 1.47E-05 |
| Np-237 | 1.44E-05 |
| Pu-238 | 2.48E-02 |
| Pu-239 | 6.57E-01 |
| Pu-240 | 1.46E-01 |
| Pu-241 | 8.15E-01 |
| Pu-242 | 2.12E-05 |
| Sr-90 | 1.61E-05 |
| Th-229 | 1.04E-09 |
| Th-230 | 1.13E-08 |
| Th-232 | 3.86E-10 |
| U-233 | 2.96E-06 |
| U-234 | 3.07E-04 |
| U-235 | 4.40E-05 |
| U-236 | 1.73E-08 |
| U-238 | 9.34E-04 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

112/212, 122/222, 127/227

**Waste Stream Description**

Pre-1970 buried waste retrieved for the Idaho Cleanup Project

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-ID-Source Material**

**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** | 12/31/2018 |
| **Stream Name** | Miscellaneous Source Material | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 71.43 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 1.59 |
| Other Inorganic Materials | 15.87 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 7.94 |
| Cement | 0.00 |
| Solidified Inorganic Material | 30.16 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.80E+01 |
| Cs-137 | 2.52E-04 |
| Np-237 | 1.82E-05 |
| Pu-238 | 5.98E-02 |
| Pu-239 | 1.90E+00 |
| Pu-240 | 4.87E-01 |
| Pu-241 | 1.10E+00 |
| Pu-242 | 4.71E-05 |
| Sr-90 | 2.16E-04 |
| Th-229 | 4.64E-15 |
| Th-230 | 1.53E-10 |
| Th-232 | 1.42E-18 |
| U-233 | 7.92E-11 |
| U-234 | 8.47E-06 |
| U-235 | 7.88E-08 |
| U-236 | 2.88E-08 |
| U-238 | 1.87E-09 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

320

**Waste Stream Description**

This waste stream consists of one 55 gallon drum that was retrieved by AMWTP. This drum was generated at Bendix Plant. It contains 12 miscellaneous sources

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-ID-SRP-S3000**

## 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** | 12/31/2018 |
| **Stream Name** | INL Sludge Repackage Project Combined Sludge Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| SWB w/ 4 - 55-gal Drums w/ Liners | 79.0 | 0.0 | 79.0 |
| TDOP w/ 10 - 55-gal Drums w/ Liners | 1054.2 | 0.0 | 1054.2 |
| **Final Form Total** | 1133.2 | 0.0 | 1133.2 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 1.27 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.06 |
| Other Inorganic Materials | 8.86 |
| Cellulose | 0.18 |
| Rubber | 0.48 |
| Plastic | 4.76 |
| Cement | 0.00 |
| Solidified Inorganic Material | 366.81 |
| Solidified Organic Material | 220.07 |
| Soil | 0.12 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.96 |
| Packaging Material, Steel | 493.83 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 9.30E+00 |
| Am-243 | 2.17E-08 |
| Cs-137 | 3.83E-08 |
| Np-237 | 1.22E-04 |
| Pu-238 | 6.11E-02 |
| Pu-239 | 8.36E-01 |
| Pu-240 | 2.13E-01 |
| Pu-241 | 2.24E+00 |
| Pu-242 | 6.60E-05 |
| Sr-90 | 4.20E-08 |
| Th-229 | 7.95E-09 |
| Th-230 | 3.67E-10 |
| Th-232 | 1.56E-19 |
| U-233 | 9.03E-05 |
| U-234 | 4.00E-05 |
| U-235 | 8.10E-06 |
| U-236 | 6.31E-09 |
| U-238 | 2.40E-04 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D022, D026, D027, D028, D029, D030, D032, D034, D036, D037, F001, F002, F005, F006, F007, F009

**TRUCON Code(s)**

111/211, 112/212, 132/232

**Waste Stream Description**

This waste stream consists of sludge generated from repackaging of Rocky Flats inorganic and organic wastes at the SRP.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-ID-TRA-W345-RH**

**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** | 12/31/2018 |
| **Stream Name** | RH-TRU Debris from TRA at the INL | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 31.75 |
| Aluminum-based Metal/Alloys | 4.76 |
| Other Metal/Alloys | 23.81 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 3.17 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.10E-05 |
| Cm-244 | 3.19E+02 |
| Np-237 | 2.71E-11 |
| Pu-240 | 5.16E+00 |
| Pu-241 | 1.85E-02 |
| Th-229 | 8.26E-21 |
| Th-232 | 5.92E-17 |
| U-233 | 1.16E-16 |
| U-236 | 6.03E-07 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, F002, F004, F005

**TRUCON Code(s)**

322

**Waste Stream Description**

This waste stream consists of one container of debris waste. This drum contains small volume of curium oxide cross section samples packaged in 1973 and sent to RWMC for interim storage. This drum was retrieved by AMWTP in 2009 and was sent to INTEC for characterization as suspect RH TRU Waste

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-IW-608**

**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** | 12/31/2018 |
| **Stream Name** | Heterogeneous Debris from Large Item Repackaging | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| SWB Dir Ld w/ Liner | 41.4 | 0.0 | 41.4 |
| **Final Form Total** | 41.4 | 0.0 | 41.4 |

**Waste Material Parameters**

| **Material Parameter** | **Average Density ($kg/m^3$)** |
|---|---|
| Iron-based Metal/Alloys | 201.12 |
| Aluminum-based Metal/Alloys | 0.49 |
| Other Metal/Alloys | 1.38 |
| Other Inorganic Materials | 1.92 |
| Cellulose | 11.38 |
| Rubber | 0.44 |
| Plastic | 19.88 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 1.21 |
| Packaging Material, Rubber | 0.19 |
| Packaging Material, Steel | 154.26 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| **Isotope** | **Typical Concentration ($Ci/m^3$)** |
|---|---|
| Am-241 | 1.24E-02 |
| Cs-137 | 7.48E-09 |
| Np-237 | 3.95E-07 |
| Pu-238 | 1.04E+00 |
| Pu-239 | 4.88E-02 |
| Pu-240 | 1.16E-02 |
| Pu-241 | 6.26E-02 |
| Pu-242 | 2.68E-06 |
| Sr-90 | 8.22E-09 |
| Th-229 | 1.90E-19 |
| Th-230 | 1.35E-13 |
| Th-232 | 8.49E-23 |
| U-233 | 6.03E-14 |
| U-234 | 2.93E-07 |
| U-235 | 4.81E-12 |
| U-236 | 3.44E-11 |
| U-238 | 4.16E-17 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

Heterogeneous debris resulting from repackaging of large items. Waste may include secondary debris from decontamination and reprocessing activities.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-MD-842**

**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** | 12/31/2018 |
| **Stream Name** | Contaminated Soil | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 0.2 | 0.0 | 0.2 |
| SLB2 Dir Ld | 44.3 | 0.0 | 44.3 |
| **Final Form Total** | 44.6 | 0.0 | 44.6 |

**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 | 286.51 |
| 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, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.17 |
| Packaging Material, Rubber | 0.11 |
| Packaging Material, Steel | 164.92 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.35E-05 |
| Np-237 | 7.61E-12 |
| Pu-238 | 2.97E-02 |
| Pu-239 | 4.50E-05 |
| Pu-240 | 3.08E-05 |
| Pu-241 | 3.73E-05 |
| Pu-242 | 3.56E-08 |
| Th-229 | 4.86E-22 |
| Th-230 | 3.87E-13 |
| Th-232 | 2.25E-23 |
| U-233 | 1.66E-17 |
| U-234 | 8.41E-08 |
| U-235 | 4.44E-14 |
| U-236 | 9.13E-13 |
| U-238 | 5.53E-18 |

**Haz. Waste No(s).**

D006, D007, D008, D009, D010, D011

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste, generated at Mound Laboratories, consists of soil, including small rocks and pebbles, generated from spill cleanup. All soil waste was dry when packaged.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-MO-530**

## Appendix A
### Waste Profile Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Idaho National Laboratory | **Summary Category** | S5000 | **Defense Determination** | Pending Determination | **Handling** | CH |
| **Source Cat.** | Remediation/D&D Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Compacted Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 100-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 | 614.75 |
| Aluminum-based Metal/Alloys | 0.88 |
| Other Metal/Alloys | 7.18 |
| Other Inorganic Materials | 23.57 |
| Cellulose | 104.52 |
| Rubber | 9.80 |
| Plastic | 73.87 |
| Cement | 0.00 |
| Solidified Inorganic Material | 3.60 |
| Solidified Organic Material | 0.05 |
| Soil | 0.43 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 20.29 |
| Packaging Material, Rubber | 0.31 |
| Packaging Material, Steel | 113.42 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.86E+02 |
| Np-237 | 2.74E-03 |
| Pu-238 | 9.66E+02 |
| Pu-239 | 1.57E+00 |
| Pu-240 | 1.08E+00 |
| Pu-241 | 8.48E-01 |
| Pu-242 | 1.24E-03 |
| Th-229 | 4.52E-12 |
| Th-230 | 1.15E-07 |
| Th-232 | 7.08E-18 |
| U-233 | 3.47E-08 |
| U-234 | 8.27E-03 |
| U-235 | 4.64E-09 |
| U-236 | 9.56E-08 |
| U-238 | 5.79E-13 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste stream consists of combustible waste from production/boxline operations. This waste was then sorted and compacted.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-MO-535**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Idaho National Laboratory | **Summary Category** | S5000 | **Defense Determination** | Pending Determination | **Handling** | CH |
| **Source Cat.** | Remediation/D&D Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Compacted Waste with Lead | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 100-gal Drum Dir Ld w/ Liner | 1.1 | 0.0 | 1.1 |
| **Final Form Total** | 1.1 | 0.0 | 1.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 614.75 |
| Aluminum-based Metal/Alloys | 0.88 |
| Other Metal/Alloys | 7.18 |
| Other Inorganic Materials | 23.57 |
| Cellulose | 104.52 |
| Rubber | 9.80 |
| Plastic | 73.87 |
| Cement | 0.00 |
| Solidified Inorganic Material | 3.60 |
| Solidified Organic Material | 0.05 |
| Soil | 0.43 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 20.29 |
| Packaging Material, Rubber | 0.31 |
| Packaging Material, Steel | 113.42 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.32E+02 |
| Cs-137 | 5.61E-04 |
| Np-237 | 3.23E-03 |
| Pu-238 | 7.65E+02 |
| Pu-239 | 1.25E+00 |
| Pu-240 | 8.55E-01 |
| Pu-241 | 6.59E-01 |
| Pu-242 | 9.88E-04 |
| Sr-90 | 6.13E-04 |
| Th-229 | 5.31E-12 |
| Th-230 | 9.08E-08 |
| Th-232 | 5.62E-18 |
| U-233 | 4.08E-08 |
| U-234 | 6.55E-03 |
| U-235 | 3.70E-09 |
| U-236 | 7.59E-08 |
| U-238 | 4.60E-13 |

**Haz. Waste No(s).**

D008

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste stream consists of combustible waste from production/boxline operations. This waste is from the same waste as IN-MO-530 with the inclusion of lead as a product essential co-contaminant with the waste. The lead was in sheet stock shapes and was used for shielding.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-MO-540**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Idaho National Laboratory | **Summary Category** | S5000 | **Defense Determination** | Pending Determination | **Handling** | CH |
| **Source Cat.** | Remediation/D&D Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Non-Compacted Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 100-gal Drum Dir Ld w/ Liner | 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 | 614.75 |
| Aluminum-based Metal/Alloys | 0.88 |
| Other Metal/Alloys | 7.18 |
| Other Inorganic Materials | 23.57 |
| Cellulose | 104.52 |
| Rubber | 9.80 |
| Plastic | 73.87 |
| Cement | 0.00 |
| Solidified Inorganic Material | 3.60 |
| Solidified Organic Material | 0.05 |
| Soil | 0.43 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 20.29 |
| Packaging Material, Rubber | 0.31 |
| Packaging Material, Steel | 113.42 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.19E+00 |
| Am-243 | 1.18E-11 |
| Np-237 | 7.10E-05 |
| Pu-238 | 2.29E+00 |
| Pu-239 | 2.04E-03 |
| Pu-240 | 1.39E-03 |
| Pu-241 | 1.19E-03 |
| Pu-242 | 1.61E-06 |
| Th-229 | 1.15E-13 |
| Th-230 | 3.72E-10 |
| Th-232 | 9.16E-21 |
| U-233 | 8.88E-10 |
| U-234 | 2.32E-05 |
| U-235 | 1.18E-06 |
| U-236 | 1.24E-10 |
| U-238 | 7.49E-16 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste consists of dismantled gloveboxes and associated equipment such as hot cell jigs, fixtures, and components.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-MO-545**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Idaho National Laboratory | **Summary Category** | S5000 | **Defense Determination** | Defense-Related | **Handling** | RH |
| **Source Cat.** | Discarding Excess/Expired Materials | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Monsanto | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can NS15 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 | 38.46 |
| Aluminum-based Metal/Alloys | 1.19 |
| Other Metal/Alloys | 2.56 |
| Other Inorganic Materials | 1.71 |
| 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, Cellulose | 0.00 |
| Packaging Material, Plastic | 2153.85 |
| Packaging Material, Rubber | 0.00 |
| Packaging Material, Steel | 2692.31 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.20E+01 |
| Am-243 | 4.94E-18 |
| Np-237 | 2.01E-06 |
| Pu-238 | 1.05E+02 |
| Pu-239 | 8.41E-02 |
| Pu-240 | 4.65E-03 |
| Pu-241 | 3.82E-02 |
| Pu-242 | 2.60E-05 |
| Pu-244 | 2.08E-20 |
| Th-229 | 2.52E-19 |
| Th-230 | 1.36E-11 |
| Th-232 | 3.40E-23 |
| U-233 | 1.10E-13 |
| U-234 | 2.95E-05 |
| U-235 | 8.28E-12 |
| U-236 | 1.38E-11 |
| U-238 | 4.03E-16 |

**Haz. Waste No(s).**

D006, D007, D008, D011

**TRUCON Code(s)**

320

**Waste Stream Description**

Neutron sources from Monsanto

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-MX-142**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Idaho National Laboratory | **Summary Category** | S5000 | **Defense Determination** | Defense-Related | **Handling** | CH |
| **Source Cat.** | Discarding Excess/Expired Materials | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Scrap Processing Equipment | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 100-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 | 614.75 |
| Aluminum-based Metal/Alloys | 0.88 |
| Other Metal/Alloys | 7.18 |
| Other Inorganic Materials | 23.57 |
| Cellulose | 104.52 |
| Rubber | 9.80 |
| Plastic | 73.87 |
| Cement | 0.00 |
| Solidified Inorganic Material | 3.60 |
| Solidified Organic Material | 0.05 |
| Soil | 0.43 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 20.29 |
| Packaging Material, Rubber | 0.31 |
| Packaging Material, Steel | 113.42 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.45E+01 |
| Am-243 | 1.40E-13 |
| Np-237 | 3.35E-04 |
| Pu-239 | 1.78E-11 |
| Th-229 | 1.61E-16 |
| U-233 | 5.12E-11 |
| U-235 | 8.77E-22 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste stream consists of Americium contaminated debris that includes equipment and materials for the use of manufacturing smoke detectors and the associate maintenance operations, decontamination and cleanup.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | RH-TRU Debris Waste from the Naval Nuclear Propulsion Program (NNPP) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner | 138.6 | 0.0 | 138.6 |
| **Final Form Total** | 138.6 | 0.0 | 138.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 67.17 |
| Aluminum-based Metal/Alloys | 9.81 |
| Other Metal/Alloys | 0.06 |
| Other Inorganic Materials | 2.29 |
| Cellulose | 1.33 |
| Rubber | 0.05 |
| Plastic | 1.70 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.96E-01 |
| Cs-137 | 7.99E+01 |
| Np-237 | 2.25E-08 |
| Pu-238 | 2.58E+00 |
| Pu-239 | 7.94E-02 |
| Pu-240 | 8.01E-02 |
| Pu-241 | 2.74E+00 |
| Pu-242 | 2.61E-04 |
| Sr-90 | 7.34E+01 |
| Th-229 | 3.27E-07 |
| Th-230 | 9.55E-09 |
| Th-232 | 5.85E-22 |
| U-233 | 3.72E-02 |
| U-234 | 1.04E-02 |
| U-235 | 2.30E-04 |
| U-236 | 2.37E-10 |
| U-238 | 5.64E-05 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

322

**Waste Stream Description**

This waste stream was generated at NNPP facilities and consists of 108 containers in storage at the INL. Waste was generated during the same or similar process that generated the SPC waste. 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.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-RF-005**

**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** | 12/31/2018 |
| **Stream Name** | Evaporator Salts | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 18.5 | 0.0 | 18.5 |
| **Final Form Total** | 18.5 | 0.0 | 18.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 35.31 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 1.08 |
| Rubber | 0.00 |
| Plastic | 3.24 |
| Cement | 406.53 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 506.37 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.75E+00 |
| Np-237 | 2.95E-05 |
| Pu-238 | 8.62E-03 |
| Pu-239 | 3.02E-01 |
| Pu-240 | 8.61E-02 |
| Pu-241 | 8.00E-01 |
| Pu-242 | 4.24E-05 |
| Sr-90 | 1.71E-06 |
| Th-229 | 5.57E-15 |
| Th-230 | 3.64E-11 |
| Th-232 | 6.29E-20 |
| U-233 | 1.27E-10 |
| U-234 | 3.97E-06 |
| U-235 | 7.36E-07 |
| U-236 | 2.55E-09 |
| U-238 | 2.66E-05 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste stream generated at Rocky Flats, consists of salt residues generated by the Building 774 evaporator system from concentrating and drying liquid waste from the solar evaporation ponds.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-RF-090**

**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** | 12/31/2018 |
| **Stream Name** | Dirt | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 4.2 | 0.0 | 4.2 |
| **Final Form Total** | 4.2 | 0.0 | 4.2 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 23.06 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.84 |
| Other Inorganic Materials | 6.07 |
| Cellulose | 8.17 |
| Rubber | 0.00 |
| Plastic | 12.25 |
| Cement | 0.00 |
| Solidified Inorganic Material | 82.28 |
| Solidified Organic Material | 0.06 |
| Soil | 640.70 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.33E-02 |
| Np-237 | 5.48E-07 |
| Pu-238 | 2.10E-03 |
| Pu-239 | 1.95E-01 |
| Pu-240 | 3.54E-02 |
| Pu-241 | 1.54E-01 |
| Pu-242 | 2.85E-06 |
| Th-229 | 1.03E-16 |
| Th-230 | 1.64E-09 |
| Th-232 | 2.59E-20 |
| U-233 | 2.36E-12 |
| U-234 | 1.78E-04 |
| U-235 | 8.65E-06 |
| U-236 | 1.05E-09 |
| U-238 | 2.46E-03 |

**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. and includes evaporator pond sludge.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-RF-311**

**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** | 12/31/2018 |
| **Stream Name** | Graphite Heels | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 2.00 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 432.13 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 40.72 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.61 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.56E+00 |
| Cs-137 | 5.88E-07 |
| Np-237 | 6.75E-05 |
| Pu-238 | 2.12E+00 |
| Pu-239 | 2.66E+01 |
| Pu-240 | 6.02E+00 |
| Pu-241 | 1.36E+01 |
| Pu-242 | 4.48E-04 |
| Sr-90 | 6.40E-07 |
| Th-229 | 5.46E-13 |
| Th-230 | 1.40E-09 |
| Th-232 | 2.15E-16 |
| U-233 | 1.84E-09 |
| U-234 | 4.31E-05 |
| U-235 | 1.84E-07 |
| U-236 | 1.25E-06 |
| U-238 | 4.86E-13 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste stream generated at Rocky Flats, consists of the remaining insoluble residue generated from leaching graphite scarfings with hot nitric acid.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-RF-393**

**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** | 12/31/2018 |
| **Stream Name** | Sand, Slag and Crucible Heels | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 2.9 | 0.0 | 2.9 |
| **Final Form Total** | 2.9 | 0.0 | 2.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 4.93 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 201.46 |
| Cellulose | 0.00 |
| Rubber | 6.79 |
| Plastic | 55.82 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 8.75E-01 |
| Np-237 | 8.34E-06 |
| Pu-238 | 4.14E-01 |
| Pu-239 | 6.83E+00 |
| Pu-240 | 1.61E+00 |
| Pu-241 | 1.17E+01 |
| Pu-242 | 1.16E-04 |
| Th-229 | 2.27E-14 |
| Th-230 | 1.25E-10 |
| Th-232 | 1.88E-17 |
| U-233 | 1.32E-10 |
| U-234 | 5.76E-06 |
| U-235 | 2.69E-08 |
| U-236 | 1.91E-07 |
| U-238 | 7.20E-14 |

**Haz. Waste No(s).**

D007, F002

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste stream generated at Rocky Flats, consists of undissolved or precipitated calcium fluoride (slag), undissolved magnesium oxide sand and crucible heels remaining after pulverizing and leaching of sand, slag and crucibles.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-RF-409**

**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** | 12/31/2018 |
| **Stream Name** | Molten Salt - 30% Unpulverized | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 13.4 | 0.0 | 13.4 |
| **Final Form Total** | 13.4 | 0.0 | 13.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 22.32 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 120.92 |
| Other Inorganic Materials | 188.86 |
| Cellulose | 20.75 |
| Rubber | 0.00 |
| Plastic | 1.60 |
| Cement | 0.00 |
| Solidified Inorganic Material | 1.51 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.31E+01 |
| Np-237 | 2.14E-04 |
| Pu-238 | 8.87E-01 |
| Pu-239 | 1.56E+01 |
| Pu-240 | 3.60E+00 |
| Pu-241 | 2.29E+01 |
| Pu-242 | 6.36E-04 |
| Th-229 | 3.97E-14 |
| Th-230 | 1.16E-11 |
| Th-232 | 2.63E-18 |
| U-233 | 9.10E-10 |
| U-234 | 2.51E-06 |
| U-235 | 1.53E-08 |
| U-236 | 1.07E-07 |
| U-238 | 9.87E-14 |

**Haz. Waste No(s).**

D007, D008, D009, D028, F001, F002, F005

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste stream generated at Rocky Flats, consists of spend salt generated by the MSE process used to extract americium contamination from plutonium metal. It consists of unpulverized fused chunks of salt.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-RF-410**

**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** | 12/31/2018 |
| **Stream Name** | Molten Salt - 30%Pulverized | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 8.4 | 0.0 | 8.4 |
| **Final Form Total** | 8.4 | 0.0 | 8.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 47.73 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 12.97 |
| Other Inorganic Materials | 427.88 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 24.43 |
| Cement | 0.00 |
| Solidified Inorganic Material | 3.54 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.07E+01 |
| Cs-137 | 5.26E-07 |
| Np-237 | 1.44E-04 |
| Pu-238 | 1.63E-01 |
| Pu-239 | 2.26E+00 |
| Pu-240 | 5.34E-01 |
| Pu-241 | 5.81E+00 |
| Pu-242 | 1.56E-04 |
| Sr-90 | 5.73E-07 |
| Th-229 | 4.02E-13 |
| Th-230 | 3.63E-11 |
| Th-232 | 6.23E-18 |
| U-233 | 2.33E-09 |
| U-234 | 1.92E-06 |
| U-235 | 8.91E-09 |
| U-236 | 6.32E-08 |
| U-238 | 9.68E-14 |

**Haz. Waste No(s).**

D009

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste stream generated at Rocky Flats, consists of spend salt generated by the MSE process used to extract americium contamination from plutonium metal. It consists of pulverized fused chunks of salt.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-RF-411**

**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** | 12/31/2018 |
| **Stream Name** | Electrorefining Salt | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 8.8 | 0.0 | 8.8 |
| **Final Form Total** | 8.8 | 0.0 | 8.8 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 17.88 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 11.22 |
| Other Inorganic Materials | 116.15 |
| Cellulose | 5.77 |
| Rubber | 0.00 |
| Plastic | 11.25 |
| Cement | 0.00 |
| Solidified Inorganic Material | 5.88 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.97E+00 |
| Np-237 | 6.84E-05 |
| Pu-238 | 6.38E-01 |
| Pu-239 | 1.76E+01 |
| Pu-240 | 4.07E+00 |
| Pu-241 | 1.93E+01 |
| Pu-242 | 4.15E-04 |
| Th-229 | 1.28E-14 |
| Th-230 | 8.31E-12 |
| Th-232 | 2.97E-18 |
| U-233 | 2.93E-10 |
| U-234 | 1.81E-06 |
| U-235 | 1.73E-08 |
| U-236 | 1.20E-07 |
| U-238 | 6.44E-14 |

**Haz. Waste No(s).**

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

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste stream generated at Rocky Flats, consists of spend salt generated by electrorefining operations used to purify plutonium metal that didn't meet foundry specifications. The salt is a mixture of chunks, granules and fine particles.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-RF-412**

**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** | 12/31/2018 |
| **Stream Name** | Gibson Salts | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 64.86 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 289.67 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 16.21 |
| Cement | 0.00 |
| Solidified Inorganic Material | 3.63 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.01E+01 |
| Np-237 | 1.68E-04 |
| Pu-238 | 3.73E-01 |
| Pu-239 | 4.12E+00 |
| Pu-240 | 6.85E-01 |
| Pu-241 | 4.93E+00 |
| Pu-242 | 3.57E-04 |
| Th-229 | 5.12E-12 |
| Th-230 | 1.02E-09 |
| Th-232 | 9.81E-17 |
| U-233 | 8.77E-09 |
| U-234 | 1.56E-05 |
| U-235 | 5.68E-08 |
| U-236 | 2.84E-07 |
| U-238 | 7.76E-13 |

**Haz. Waste No(s).**

D007, F001

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste stream generated at Rocky Flats, consists of spent salt generated by an experimental pyroredox process for extraction of impurities from plutonium metal.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-RF-414**

## 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** | 12/31/2018 |
| **Stream Name** | Direct Oxide Reduction Salt | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 21.19 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 43.24 |
| Other Inorganic Materials | 159.18 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 13.51 |
| Cement | 0.00 |
| Solidified Inorganic Material | 12.11 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.58E+00 |
| Np-237 | 7.83E-05 |
| Pu-238 | 1.02E+00 |
| Pu-239 | 2.36E+01 |
| Pu-240 | 5.42E+00 |
| Pu-241 | 3.03E+01 |
| Pu-242 | 5.64E-04 |
| Th-229 | 1.47E-14 |
| Th-230 | 1.78E-11 |
| Th-232 | 3.95E-18 |
| U-233 | 3.36E-10 |
| U-234 | 3.38E-06 |
| U-235 | 1.81E-07 |
| U-236 | 1.60E-07 |
| U-238 | 8.75E-14 |

**Haz. Waste No(s).**

D007, F001, F002

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste stream generated at Rocky Flats, consists of spent salt used to reduce plutonium oxide to metal.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-RF-420**

**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** | 12/31/2018 |
| **Stream Name** | Ash, Incinerator (Virgin) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 76.56 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 350.92 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 28.00 |
| Cement | 0.00 |
| Solidified Inorganic Material | 77.07 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.52E+00 |
| Np-237 | 3.04E-05 |
| Pu-238 | 3.27E-01 |
| Pu-239 | 1.31E+01 |
| Pu-240 | 2.82E+00 |
| Pu-241 | 2.00E+01 |
| Pu-242 | 2.73E-04 |
| Th-229 | 5.71E-15 |
| Th-230 | 2.51E-10 |
| Th-232 | 2.06E-18 |
| U-233 | 1.30E-10 |
| U-234 | 2.77E-05 |
| U-235 | 8.67E-06 |
| U-236 | 8.36E-08 |
| U-238 | 4.23E-14 |

**Haz. Waste No(s).**

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

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste generated at Rocky Flats, consists of ash from the plutonium recovery incinerator and is a mixture of coarse, granular, fine and very fine particulate.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-RF-422**

**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** | 12/31/2018 |
| **Stream Name** | Soot | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 3.4 | 0.0 | 3.4 |
| **Final Form Total** | 3.4 | 0.0 | 3.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 20.08 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 2.43 |
| Other Inorganic Materials | 60.41 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 34.05 |
| Cement | 0.00 |
| Solidified Inorganic Material | 104.64 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.57E-01 |
| Np-237 | 6.69E-06 |
| Pu-238 | 4.14E-02 |
| Pu-239 | 1.48E+00 |
| Pu-240 | 3.26E-01 |
| Pu-241 | 1.83E+00 |
| Pu-242 | 4.20E-05 |
| Th-229 | 7.36E-14 |
| Th-230 | 3.59E-11 |
| Th-232 | 1.53E-17 |
| U-233 | 2.14E-10 |
| U-234 | 9.65E-07 |
| U-235 | 1.16E-08 |
| U-236 | 7.73E-08 |
| U-238 | 5.21E-14 |

**Haz. Waste No(s).**

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

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste stream generated by Rocky Flats, consists of soot, which is the airborne fly ash material that accumulated in the off-gas system of the plutonium recovery.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-RF-697**

**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** | 12/31/2018 |
| **Stream Name** | Dirt | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 4.6 | 0.0 | 4.6 |
| **Final Form Total** | 4.6 | 0.0 | 4.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 1.56 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.29 |
| Plastic | 16.85 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.45 |
| Solidified Organic Material | 0.00 |
| Soil | 839.78 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.85E-01 |
| Cs-137 | 7.29E-07 |
| Np-237 | 2.22E-06 |
| Pu-238 | 1.63E-02 |
| Pu-239 | 3.73E-01 |
| Pu-240 | 8.29E-02 |
| Pu-241 | 4.99E-01 |
| Pu-242 | 1.09E-05 |
| Sr-90 | 7.98E-07 |
| Th-229 | 1.64E-15 |
| Th-230 | 8.55E-13 |
| Th-232 | 2.42E-19 |
| U-233 | 1.88E-11 |
| U-234 | 9.27E-08 |
| U-235 | 7.36E-10 |
| U-236 | 4.91E-09 |
| U-238 | 3.37E-15 |

**Haz. Waste No(s).**

F001, F002

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste generated at the Rocky Flats Plant has been assigned by the AMWTP to IDC 697 (374A). Individual containers of IDC 374 that are greater than 50% by volume soil/gravel were changed to address the database issues of two different WMCs associated with one IDC.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-RF-745**

**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** | 12/31/2018 |
| **Stream Name** | Pits 11 and 12 Evaporator Salts | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 9.7 | 0.0 | 9.7 |
| **Final Form Total** | 9.7 | 0.0 | 9.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 9.73 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 1.73 |
| Cement | 290.87 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 473.59 |
| Soil | 179.29 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.92E-02 |
| Np-237 | 7.87E-07 |
| Pu-238 | 8.17E-05 |
| Pu-239 | 3.09E-03 |
| Pu-240 | 6.87E-04 |
| Pu-241 | 3.71E-03 |
| Pu-242 | 9.01E-08 |
| Th-229 | 5.87E-16 |
| Th-230 | 5.68E-11 |
| Th-232 | 2.01E-21 |
| U-233 | 6.71E-12 |
| U-234 | 3.09E-06 |
| U-235 | 6.01E-07 |
| U-236 | 4.07E-11 |
| U-238 | 2.00E-05 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste consists of salt residues generated from the same process as IN-RF-005 that were shipped to INL prior to October 1972 and placed into Pits 11 and 12. The waste was subsequently retrieved from the Pits and placed into the TSA-RE prior to 1979. IDC 745 was assigned by AMWTP because the majority of the waste was generated prior to the use of IDCs at RF.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-RF-753**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Idaho National Laboratory | **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** | 12/31/2018 |
| **Stream Name** | Pits 11 and 12 Evaporator Legacy Dirt | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 10.81 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.03 |
| Cellulose | 5.40 |
| Rubber | 0.00 |
| Plastic | 4.59 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.01 |
| Soil | 707.90 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.81E+00 |
| Np-237 | 2.94E-05 |
| Pu-238 | 1.08E-01 |
| Pu-239 | 7.43E-01 |
| Pu-240 | 1.79E-01 |
| Pu-241 | 5.58E-01 |
| Pu-242 | 4.29E-05 |
| Th-229 | 4.87E-14 |
| Th-230 | 3.87E-09 |
| Th-232 | 1.17E-18 |
| U-233 | 3.73E-10 |
| U-234 | 1.41E-04 |
| U-235 | 3.57E-07 |
| U-236 | 1.59E-08 |
| U-238 | 1.99E-14 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

Dry dirt or soil generated during operations at Rocky Flats and retrieved during the Early Waste Retrieval Project and the IDR. Waste may have been generated from the cleanup of spills or leaks at Rocky Flats.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-RF-823**

**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** | 12/31/2018 |
| **Stream Name** | Cemented Miscellaneous Sludge | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.00 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 6.49 |
| Cement | 555.96 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.06E-03 |
| Np-237 | 7.76E-09 |
| Pu-238 | 2.06E-03 |
| Pu-239 | 7.73E-02 |
| Pu-240 | 1.72E-02 |
| Pu-241 | 9.66E-02 |
| Pu-242 | 2.25E-06 |
| Th-229 | 5.27E-17 |
| Th-230 | 5.63E-12 |
| Th-232 | 2.46E-18 |
| U-233 | 1.66E-13 |
| U-234 | 8.59E-08 |
| U-235 | 1.07E-09 |
| U-236 | 7.12E-09 |
| U-238 | 4.90E-15 |

**Haz. Waste No(s).**

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

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste stream generated at Rocky Flats, consists of various sludge wastes immobilized into a solid monolith with Portland cement. The cemented sludge was generated from non-specific sources and designated as inorganic particulate below the economic discard limit (EDL).

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-RF-990**

**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** | 12/31/2018 |
| **Stream Name** | Dirt | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 15.1 | 0.0 | 15.1 |
| **Final Form Total** | 15.1 | 0.0 | 15.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.30 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 5.18 |
| Cellulose | 1.08 |
| Rubber | 0.00 |
| Plastic | 2.09 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 2.00 |
| Soil | 995.15 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.32E-02 |
| Np-237 | 4.95E-07 |
| Pu-238 | 7.37E-04 |
| Pu-239 | 1.55E-02 |
| Pu-240 | 3.53E-03 |
| Pu-241 | 2.41E-02 |
| Pu-242 | 4.93E-07 |
| Th-229 | 9.38E-17 |
| Th-230 | 1.02E-10 |
| Th-232 | 2.58E-21 |
| U-233 | 2.14E-12 |
| U-234 | 1.11E-05 |
| U-235 | 2.55E-06 |
| U-236 | 1.05E-10 |
| U-238 | 4.91E-05 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste generated at the Rocky Flats Plant was generated from processes and locations similar to those in IN-RF-090.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-SD-178**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Idaho National Laboratory | **Summary Category** | S4000 | **Defense Determination** | Defense-Related | **Handling** | CH |
| **Source Cat.** | Other/Multiple Sources | **Waste Matrix Code Group** | Contaminated Soil/Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Pre-1980 INL-Exhumed SDA Soil | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 8.0 | 0.0 | 8.0 |
| **Final Form Total** | 8.0 | 0.0 | 8.0 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 12.54 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 1.95 |
| Rubber | 0.00 |
| Plastic | 2.16 |
| Cement | 0.00 |
| Solidified Inorganic Material | 14.53 |
| Solidified Organic Material | 0.00 |
| Soil | 939.78 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.15E+00 |
| Cs-137 | 2.88E-05 |
| Np-237 | 2.99E-05 |
| Pu-238 | 1.44E-02 |
| Pu-239 | 5.40E-01 |
| Pu-240 | 1.20E-01 |
| Pu-241 | 6.70E-01 |
| Pu-242 | 1.57E-05 |
| Sr-90 | 3.17E-05 |
| Th-229 | 5.63E-15 |
| Th-230 | 1.93E-09 |
| Th-232 | 8.77E-20 |
| U-233 | 1.29E-10 |
| U-234 | 2.09E-04 |
| U-235 | 7.08E-06 |
| U-236 | 3.55E-09 |
| U-238 | 3.05E-03 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste includes containers of soils exhumed, generated and/or repackaged during the EWR Project and the IDR Project. The exhumed waste includes all loose soil waste found in boxes, bins, and cargos.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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.** | Remediation/D&D Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Transuranic Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner | 0.0 | 12.6 | 12.6 |
| **Final Form Total** | 0.0 | 12.6 | 12.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 1.85 |
| Aluminum-based Metal/Alloys | 0.01 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.05 |
| Cellulose | 1.53 |
| Rubber | 0.14 |
| Plastic | 1.23 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.03E-03 |
| Am-243 | 1.32E-07 |
| Cm-244 | 4.15E-04 |
| Cs-137 | 1.99E+00 |
| Np-237 | 6.80E-06 |
| Pu-238 | 3.69E-02 |
| Pu-239 | 6.05E-05 |
| Pu-240 | 4.90E-05 |
| Pu-241 | 1.11E-02 |
| Pu-242 | 3.07E-07 |
| Pu-244 | 4.30E-15 |
| Sr-90 | 1.97E+00 |
| Th-229 | 2.97E-12 |
| Th-230 | 6.29E-09 |
| Th-232 | 1.07E-13 |
| U-233 | 1.17E-09 |
| U-234 | 4.57E-05 |
| U-235 | 9.44E-07 |
| U-236 | 9.13E-06 |
| U-238 | 3.63E-09 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

325

**Waste Stream Description**

This waste stream has not yet been generated. It consists of organic and inorganic particulate and debris.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **KA-T002**

## Appendix A
### Waste Profile Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Knolls Atomic Power Laboratory - Schenectady | **Summary Category** | S3000 | **Defense Determination** | Defense-Related | **Handling** | RH |
| **Source Cat.** | Remediation/D&D Waste | **Waste Matrix Code Group** | Solidified Inorganics | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Transuranic Sludge | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 31.75 |
| Aluminum-based Metal/Alloys | 15.87 |
| Other Metal/Alloys | 1666.67 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 15.87 |
| Rubber | 15.87 |
| Plastic | 15.87 |
| Cement | 0.00 |
| Solidified Inorganic Material | 31.75 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.77E-02 |
| Am-243 | 7.21E-09 |
| Cm-244 | 3.24E-03 |
| Cs-137 | 3.52E+01 |
| Np-237 | 1.74E-07 |
| Pu-238 | 1.16E+00 |
| Pu-239 | 1.96E-02 |
| Pu-240 | 1.96E-02 |
| Pu-241 | 1.35E-01 |
| Sr-90 | 2.72E+01 |
| Th-229 | 2.03E-06 |
| Th-230 | 7.53E-04 |
| Th-232 | 3.80E-04 |
| U-233 | 2.88E-03 |
| U-234 | 2.91E-03 |
| U-235 | 6.56E-04 |
| U-236 | 6.56E-04 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

325

**Waste Stream Description**

This waste stream consists of organic and inorganic particulate and sludge not yet generated.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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.** | Remediation/D&D Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Transuranic Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 18.55 |
| Aluminum-based Metal/Alloys | 0.11 |
| Other Metal/Alloys | 0.02 |
| Other Inorganic Materials | 0.45 |
| Cellulose | 15.28 |
| Rubber | 1.38 |
| Plastic | 12.26 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.01E-04 |
| Am-243 | 1.31E-06 |
| Cm-244 | 1.83E-04 |
| Cs-137 | 7.92E-01 |
| Np-237 | 2.30E-06 |
| Pu-238 | 1.32E-02 |
| Pu-239 | 2.05E-05 |
| Pu-240 | 1.65E-05 |
| Pu-241 | 5.26E-03 |
| Pu-242 | 1.04E-07 |
| Pu-244 | 4.26E-14 |
| Sr-90 | 7.92E-01 |
| Th-229 | 2.30E-11 |
| Th-230 | 3.34E-08 |
| Th-232 | 1.03E-12 |
| U-233 | 9.58E-09 |
| U-234 | 1.52E-05 |
| U-235 | 3.19E-07 |
| U-236 | 3.08E-06 |
| U-238 | 1.23E-09 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D035, D039, D040, F001, F002, F003, F005

**TRUCON Code(s)**

325

**Waste Stream Description**

This transuranic mixed waste has not yet been generated. Details of waste characteristics will be developed upon generation.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Building 234 TRU Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 87.2 | 79.4 | 166.5 |
| **Final Form Total** | 87.2 | 79.4 | 166.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 6.90 |
| Aluminum-based Metal/Alloys | 0.90 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 11.59 |
| Cellulose | 1.76 |
| Rubber | 0.10 |
| Plastic | 10.89 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 53.86 |
| Soil | 497.80 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.99E-02 |
| Np-237 | 2.53E-07 |
| Pu-238 | 8.63E-03 |
| Pu-239 | 2.80E-01 |
| Pu-240 | 2.80E-01 |
| Pu-241 | 2.57E-01 |
| Th-229 | 8.83E-07 |
| Th-230 | 1.55E-04 |
| Th-232 | 5.19E-05 |
| U-233 | 1.00E-03 |
| U-234 | 1.00E-03 |
| U-235 | 1.90E-04 |
| U-236 | 1.91E-04 |
| U-238 | 2.46E-05 |

**Haz. Waste No(s).**
F002

**TRUCON Code(s)**
111/211, 127/227

**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.* ***2.03*** *Data ver.* ***D.18.00.33***
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** | 12/31/2018 |
| **Stream Name** | Cemented TRU Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 228.7 | 266.5 | 495.2 |
| 55-gal POC - 12" w/ Liner | 0.5 | 0.0 | 0.5 |
| SWB Dir Ld w/ Liner | 30.1 | 0.0 | 30.1 |
| SWB w/ 4 - 55-gal Drums w/ Liners | 10.9 | 0.0 | 10.9 |
| **Final Form Total** | 270.2 | 266.5 | 536.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 42.43 |
| Aluminum-based Metal/Alloys | 0.01 |
| Other Metal/Alloys | 12.93 |
| Other Inorganic Materials | 6.41 |
| Cellulose | 0.40 |
| Rubber | 1.21 |
| Plastic | 20.00 |
| Cement | 848.43 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 1.46 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.52 |
| Packaging Material, Plastic | 34.83 |
| Packaging Material, Rubber | 0.55 |
| Packaging Material, Steel | 139.87 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.42E+01 |
| Am-243 | 2.10E-03 |
| Cs-137 | 3.11E-06 |
| Np-237 | 4.37E-04 |
| Pu-238 | 8.19E+00 |
| Pu-239 | 1.32E+01 |
| Pu-240 | 3.59E+00 |
| Pu-241 | 7.01E+01 |
| Pu-242 | 3.96E-03 |
| Pu-244 | 2.01E-09 |
| Sr-90 | 3.11E-06 |
| Th-229 | 3.63E-09 |
| Th-230 | 1.09E-09 |
| Th-232 | 4.06E-07 |
| U-233 | 4.13E-04 |
| U-234 | 1.19E-03 |
| U-235 | 1.31E-05 |
| U-236 | 5.55E-06 |
| U-238 | 5.01E-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)**

114/214, 125/225, 126/226

**Waste Stream Description**

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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Cemented TRU Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 19.5 | 0.0 | 19.5 |
| SWB Dir Ld w/ Liner | 101.5 | 0.0 | 101.5 |
| **Final Form Total** | 121.1 | 0.0 | 121.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 75.47 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.02 |
| Cellulose | 0.91 |
| Rubber | 0.05 |
| Plastic | 5.38 |
| Cement | 512.41 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 6.94 |
| Packaging Material, Rubber | 0.25 |
| Packaging Material, Steel | 150.27 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.42E+00 |
| Am-243 | 9.86E-06 |
| Cs-137 | 3.79E-07 |
| Np-237 | 1.39E-05 |
| Pu-238 | 2.31E-01 |
| Pu-239 | 3.09E+00 |
| Pu-240 | 1.20E-01 |
| Pu-241 | 8.01E-01 |
| Pu-242 | 1.79E-05 |
| Sr-90 | 3.25E-07 |
| Th-229 | 9.33E-08 |
| Th-230 | 9.23E-10 |
| Th-232 | 1.41E-18 |
| U-233 | 3.94E-09 |
| U-234 | 2.64E-05 |
| U-235 | 6.39E-06 |
| U-236 | 1.43E-08 |
| U-238 | 4.00E-07 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

**TRUCON Code(s)**

111/211, 114/214, 125/225

**Waste Stream Description**

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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Cemented TRU Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 2.9 | 0.0 | 2.9 |
| **Final Form Total** | 2.9 | 0.0 | 2.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 1.48 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 7.10 |
| Cement | 633.22 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.32E-02 |
| Am-243 | 7.48E-06 |
| Cs-137 | 3.85E-05 |
| Np-237 | 5.35E-06 |
| Pu-238 | 4.12E-02 |
| Pu-239 | 2.17E-01 |
| Pu-240 | 1.36E-02 |
| Pu-241 | 9.36E-02 |
| Pu-242 | 5.99E-07 |
| Sr-90 | 3.83E-05 |
| Th-229 | 2.03E-07 |
| Th-230 | 6.60E-09 |
| Th-232 | 1.59E-19 |
| U-233 | 9.06E-11 |
| U-234 | 1.80E-04 |
| U-235 | 4.31E-06 |
| U-236 | 1.61E-09 |
| U-238 | 1.72E-04 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

114/214, 126/226

**Waste Stream Description**

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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **LA-LA225D**

## 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** | 12/31/2018 |
| **Stream Name** | Cemented TRU Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 4.6 | 0.0 | 4.6 |
| **Final Form Total** | 4.6 | 0.0 | 4.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 3.47 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 0.62 |
| Cement | 97.09 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 8.76E-02 |
| Am-243 | 7.64E-05 |
| Cs-137 | 6.31E-06 |
| Np-237 | 7.71E-06 |
| Pu-238 | 6.76E-02 |
| Pu-239 | 1.89E-01 |
| Pu-240 | 3.66E-02 |
| Pu-241 | 2.79E-01 |
| Pu-242 | 2.55E-06 |
| Sr-90 | 6.27E-06 |
| Th-229 | 3.90E-07 |
| Th-230 | 5.92E-10 |
| Th-232 | 3.62E-18 |
| U-233 | 1.30E-10 |
| U-234 | 1.65E-05 |
| U-235 | 1.42E-07 |
| U-236 | 2.05E-08 |
| U-238 | 2.14E-07 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F003, F005

**TRUCON Code(s)**

125/225

**Waste Stream Description**

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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **LA-LA238HONR**

**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** | 12/31/2018 |
| **Stream Name** | Heterogeneous Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal POC - 12" w/ Liner | 0.1 | 0.0 | 0.1 |
| SWB Dir Ld w/ Liner | 1.9 | 0.0 | 1.9 |
| **Final Form Total** | 2.0 | 0.0 | 2.0 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 24.59 |
| Aluminum-based Metal/Alloys | 0.10 |
| Other Metal/Alloys | 2.95 |
| Other Inorganic Materials | 15.94 |
| Cellulose | 2.03 |
| Rubber | 3.05 |
| Plastic | 9.41 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.39 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 41.60 |
| Packaging Material, Plastic | 12.53 |
| Packaging Material, Rubber | 0.35 |
| Packaging Material, Steel | 305.96 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.98E-02 |
| Np-237 | 1.93E-09 |
| Pu-238 | 8.29E+01 |
| Pu-239 | 4.95E-02 |
| Pu-240 | 2.49E-02 |
| Pu-241 | 1.90E+00 |
| Pu-242 | 2.05E-05 |
| Th-229 | 2.42E-22 |
| Th-230 | 8.61E-09 |
| Th-232 | 1.82E-22 |
| U-233 | 1.06E-16 |
| U-234 | 9.37E-03 |
| U-235 | 2.50E-09 |
| U-236 | 7.37E-11 |
| U-238 | 3.18E-16 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

**TRUCON Code(s)**

122/222

**Waste Stream Description**

Mixed heterogeneous debris waste generated in TA-55.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **LA-LA238HOR**

**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** | 12/31/2018 |
| **Stream Name** | Heterogeneous Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 0.2 | 0.0 | 0.2 |
| 55-gal POC - 12" w/ Liner | 0.1 | 0.0 | 0.1 |
| **Final Form Total** | 0.4 | 0.0 | 0.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 188.76 |
| Aluminum-based Metal/Alloys | 0.76 |
| Other Metal/Alloys | 22.62 |
| Other Inorganic Materials | 122.41 |
| Cellulose | 15.62 |
| Rubber | 23.43 |
| Plastic | 72.27 |
| Cement | 0.00 |
| Solidified Inorganic Material | 3.01 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 236.53 |
| Packaging Material, Plastic | 86.53 |
| Packaging Material, Rubber | 1.32 |
| Packaging Material, Steel | 1002.24 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.26E+00 |
| Np-237 | 4.07E-08 |
| Pu-238 | 1.75E+03 |
| Pu-239 | 1.04E+00 |
| Pu-240 | 5.25E-01 |
| Pu-241 | 4.01E+01 |
| Pu-242 | 4.31E-04 |
| Th-229 | 5.10E-21 |
| Th-230 | 1.81E-07 |
| Th-232 | 3.83E-21 |
| U-233 | 2.22E-15 |
| U-234 | 1.97E-01 |
| U-235 | 5.27E-08 |
| U-236 | 1.55E-09 |
| U-238 | 6.69E-15 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

**TRUCON Code(s)**

122/222

**Waste Stream Description**

Mixed heterogeneous debris waste generated in TA-55.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | MIXED COMBUSTIBLE/NONCOMBUSTIBLE WASTE | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 0.8 | 0.0 | 0.8 |
| 55-gal POC - 12" w/ Liner | 2.8 | 0.0 | 2.8 |
| **Final Form Total** | 3.7 | 0.0 | 3.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 98.64 |
| Aluminum-based Metal/Alloys | 0.40 |
| Other Metal/Alloys | 11.82 |
| Other Inorganic Materials | 63.97 |
| Cellulose | 8.16 |
| Rubber | 12.25 |
| Plastic | 37.77 |
| Cement | 0.00 |
| Solidified Inorganic Material | 1.57 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 444.04 |
| Packaging Material, Plastic | 130.24 |
| Packaging Material, Rubber | 1.99 |
| Packaging Material, Steel | 1767.87 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.26E-01 |
| Np-237 | 7.31E-09 |
| Pu-238 | 3.16E+02 |
| Pu-239 | 1.88E-01 |
| Pu-240 | 9.43E-02 |
| Pu-241 | 7.19E+00 |
| Pu-242 | 7.75E-05 |
| Th-229 | 9.15E-22 |
| Th-230 | 3.27E-08 |
| Th-232 | 6.89E-22 |
| U-233 | 3.99E-16 |
| U-234 | 3.57E-02 |
| U-235 | 9.48E-09 |
| U-236 | 2.79E-10 |
| U-238 | 1.20E-15 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

**TRUCON Code(s)**

115/215, 116/216, 117/217, 118/218, 119/219, 122/222, 123/223, 125/225, 133/233, 154

**Waste Stream Description**

MIXED HETEROGENEOUS DEBRIS WASTE, PU-238

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | COMBINED COMBUSTIBLE AND NON-COMBUSTIBLE WASTE | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 3.2 | 0.0 | 3.2 |
| 55-gal POC - 12" w/ Liner | 5.1 | 0.0 | 5.1 |
| **Final Form Total** | 8.2 | 0.0 | 8.2 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 19.98 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 1.24 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 10.46 |
| Cement | 0.00 |
| Solidified Inorganic Material | 63.45 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 355.30 |
| Packaging Material, Plastic | 111.55 |
| Packaging Material, Rubber | 1.71 |
| Packaging Material, Steel | 1440.45 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.59E+01 |
| Np-237 | 1.49E-06 |
| Pu-238 | 3.75E+00 |
| Pu-239 | 9.74E+01 |
| Pu-240 | 2.47E+01 |
| Pu-241 | 4.32E+02 |
| Pu-242 | 2.40E-03 |
| Th-229 | 1.86E-19 |
| Th-230 | 3.29E-10 |
| Th-232 | 1.76E-18 |
| U-233 | 8.12E-14 |
| U-234 | 3.58E-04 |
| U-235 | 6.04E-06 |
| U-236 | 3.92E-07 |
| U-238 | 2.24E-08 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

**TRUCON Code(s)**

124/224, 125/225

**Waste Stream Description**

INORGANIC HOMOGENEOUS TRU WASTE FROM TA55-PF4

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **LA-LANHD01**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Los Alamos National Laboratory | **Summary Category** | S5000 | **Defense Determination** | Defense-Related | **Handling** | CH |
| **Source Cat.** | R&D/R&D Laboratory Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | TRU METAL WASTE | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 2.1 | 0.0 | 2.1 |
| 55-gal POC - 12" w/ Liner | 0.1 | 0.0 | 0.1 |
| SLB2 Dir Ld | 14.8 | 0.0 | 14.8 |
| SWB Dir Ld w/ Liner | 15.0 | 0.0 | 15.0 |
| **Final Form Total** | 32.1 | 0.0 | 32.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 368.15 |
| Aluminum-based Metal/Alloys | 1.49 |
| Other Metal/Alloys | 44.13 |
| Other Inorganic Materials | 238.75 |
| Cellulose | 30.47 |
| Rubber | 45.70 |
| Plastic | 140.96 |
| Cement | 0.00 |
| Solidified Inorganic Material | 5.87 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 2.63 |
| Packaging Material, Plastic | 3.69 |
| Packaging Material, Rubber | 0.19 |
| Packaging Material, Steel | 167.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.25E-01 |
| Np-237 | 4.05E-09 |
| Pu-238 | 5.90E-02 |
| Pu-239 | 1.23E+00 |
| Pu-240 | 1.75E-01 |
| Pu-241 | 3.27E+00 |
| Pu-242 | 7.23E-04 |
| Pu-244 | 7.89E-10 |
| Th-229 | 5.07E-22 |
| Th-230 | 9.62E-12 |
| Th-232 | 1.01E-19 |
| U-233 | 2.21E-16 |
| U-234 | 1.05E-05 |
| U-235 | 1.80E-07 |
| U-236 | 2.07E-08 |
| U-238 | 2.80E-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)**

125/225

**Waste Stream Description**

ALL OTHER NON-COMBUSTIBLE WASTE

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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.** | R&D/R&D Laboratory Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | COMBINED COMBUSTIBLE AND NON-COMBUSTIBLE WASTE | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 1.9 | 0.0 | 1.9 |
| 55-gal POC - 12" w/ Liner | 4.7 | 0.0 | 4.7 |
| SWB Dir Ld w/ Liner | 7.5 | 0.0 | 7.5 |
| **Final Form Total** | 14.1 | 0.0 | 14.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 34.71 |
| Aluminum-based Metal/Alloys | 0.14 |
| Other Metal/Alloys | 4.16 |
| Other Inorganic Materials | 22.51 |
| Cellulose | 2.87 |
| Rubber | 4.31 |
| Plastic | 13.29 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.55 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 192.72 |
| Packaging Material, Plastic | 58.43 |
| Packaging Material, Rubber | 0.99 |
| Packaging Material, Steel | 853.73 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.48E-01 |
| Np-237 | 8.01E-09 |
| Pu-238 | 3.52E+02 |
| Pu-239 | 2.08E-01 |
| Pu-240 | 1.04E-01 |
| Pu-241 | 7.89E+00 |
| Pu-242 | 8.51E-05 |
| Th-229 | 1.00E-21 |
| Th-230 | 3.66E-08 |
| Th-232 | 7.59E-22 |
| U-233 | 4.38E-16 |
| U-234 | 3.98E-02 |
| U-235 | 1.05E-08 |
| U-236 | 3.08E-10 |
| U-238 | 1.32E-15 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

**TRUCON Code(s)**

125/225

**Waste Stream Description**

PF4 TRU Packaged Waste

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | Solidified Inorganics | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Homogeneous Inorganic Solids | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 1.5 | 0.0 | 1.5 |
| 55-gal POC - 12" w/ Liner | 1.0 | 0.0 | 1.0 |
| SWB Dir Ld w/ Liner | 3.8 | 0.0 | 3.8 |
| **Final Form Total** | 6.3 | 0.0 | 6.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.01 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 0.40 |
| Cement | 0.00 |
| Solidified Inorganic Material | 75.22 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 94.34 |
| Packaging Material, Plastic | 35.24 |
| Packaging Material, Rubber | 0.64 |
| Packaging Material, Steel | 492.49 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.18E+01 |
| Np-237 | 3.81E-07 |
| Pu-238 | 1.20E+00 |
| Pu-239 | 3.13E+01 |
| Pu-240 | 8.00E+00 |
| Pu-241 | 1.39E+02 |
| Pu-242 | 7.85E-04 |
| Th-229 | 4.78E-20 |
| Th-230 | 1.07E-10 |
| Th-232 | 3.22E-19 |
| U-233 | 2.08E-14 |
| U-234 | 1.16E-04 |
| U-235 | 1.57E-06 |
| U-236 | 7.71E-08 |
| U-238 | 3.75E-09 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

**TRUCON Code(s)**

124/224

**Waste Stream Description**

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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Heterogeneous Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 273.2 | 4305.6 | 4578.8 |
| 55-gal POC - 12" w/ Liner | 26.0 | 0.0 | 26.0 |
| SWB Dir Ld w/ Liner | 137.2 | 0.0 | 137.2 |
| SWB w/ 4 - 55-gal Drums w/ Liners | 14.3 | 0.0 | 14.3 |
| **Final Form Total** | 450.7 | 4305.6 | 4756.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 137.72 |
| Aluminum-based Metal/Alloys | 1.69 |
| Other Metal/Alloys | 9.26 |
| Other Inorganic Materials | 9.29 |
| Cellulose | 22.46 |
| Rubber | 6.85 |
| Plastic | 18.18 |
| Cement | 0.00 |
| Solidified Inorganic Material | 29.16 |
| Solidified Organic Material | 0.03 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 3.15 |
| Packaging Material, Plastic | 36.35 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 142.89 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.79E+00 |
| Am-243 | 6.93E-05 |
| Cs-137 | 3.33E-07 |
| Np-237 | 1.60E-05 |
| Pu-238 | 4.90E+01 |
| Pu-239 | 5.13E+00 |
| Pu-240 | 1.36E+00 |
| Pu-241 | 2.04E+01 |
| Pu-242 | 1.72E-03 |
| Pu-244 | 1.39E-09 |
| Sr-90 | 3.33E-07 |
| Th-229 | 1.68E-10 |
| Th-230 | 5.23E-09 |
| Th-232 | 1.56E-18 |
| U-233 | 1.91E-05 |
| U-234 | 5.70E-03 |
| U-235 | 2.29E-06 |
| U-236 | 3.18E-07 |
| U-238 | 5.80E-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)**

112/212, 115/215, 116/216, 117/217, 118/218, 119/219, 122/222, 123/223, 124/224, 125/225, 133/233, 154

**Waste Stream Description**

Mixed heterogeneous debris waste generated in TA-55.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Heterogeneous Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 130.4 | 199.5 | 329.9 |
| 55-gal POC - 12" w/ Liner | 1.4 | 0.0 | 1.4 |
| SLB2 Dir Ld | 0.0 | 650.3 | 650.3 |
| SWB Dir Ld w/ Liner | 18.8 | 0.0 | 18.8 |
| **Final Form Total** | 150.6 | 849.8 | 1000.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 73.49 |
| Aluminum-based Metal/Alloys | 1.31 |
| Other Metal/Alloys | 3.33 |
| Other Inorganic Materials | 6.70 |
| Cellulose | 26.65 |
| Rubber | 1.29 |
| Plastic | 10.05 |
| Cement | 0.00 |
| Solidified Inorganic Material | 20.68 |
| Solidified Organic Material | 0.01 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.81 |
| Packaging Material, Plastic | 12.35 |
| Packaging Material, Rubber | 0.26 |
| Packaging Material, Steel | 156.11 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 9.59E-01 |
| Am-243 | 3.18E-05 |
| Cm-244 | 1.07E+00 |
| Cs-137 | 4.16E-03 |
| Np-237 | 2.47E-05 |
| Pu-238 | 7.64E-01 |
| Pu-239 | 7.66E+00 |
| Pu-240 | 1.80E+00 |
| Pu-241 | 2.71E+01 |
| Pu-242 | 1.13E-04 |
| Sr-90 | 3.91E-03 |
| Th-229 | 1.19E-17 |
| Th-230 | 1.21E-10 |
| Th-232 | 2.81E-07 |
| U-233 | 3.77E-12 |
| U-234 | 1.32E-04 |
| U-235 | 2.13E-06 |
| U-236 | 1.88E-07 |
| U-238 | 1.27E-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)**

112/212, 115/215, 116/216, 117/217, 118/218, 119/219, 120/220, 123/223, 125/225, 154

**Waste Stream Description**

Mixed heterogeneous combustible and non-combustible debris.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Heterogeneous Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 0.8 | 0.0 | 0.8 |
| SWB Dir Ld w/ Liner | 77.1 | 0.0 | 77.1 |
| TDOP Dir Ld | 22.5 | 0.0 | 22.5 |
| **Final Form Total** | 100.4 | 0.0 | 100.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 81.00 |
| Aluminum-based Metal/Alloys | 2.88 |
| Other Metal/Alloys | 1.29 |
| Other Inorganic Materials | 0.51 |
| Cellulose | 19.85 |
| Rubber | 3.20 |
| Plastic | 8.25 |
| Cement | 0.00 |
| Solidified Inorganic Material | 4.83 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 1.23 |
| Packaging Material, Rubber | 0.19 |
| Packaging Material, Steel | 157.87 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.34E-01 |
| Am-243 | 2.59E-06 |
| Cs-137 | 9.28E-08 |
| Np-237 | 6.76E-06 |
| Pu-238 | 2.19E+00 |
| Pu-239 | 1.13E+00 |
| Pu-240 | 3.66E-01 |
| Pu-241 | 2.15E+00 |
| Pu-242 | 5.55E-05 |
| Sr-90 | 9.26E-08 |
| Th-229 | 2.17E-09 |
| Th-230 | 2.98E-09 |
| Th-232 | 2.68E-19 |
| U-233 | 2.47E-05 |
| U-234 | 3.27E-04 |
| U-235 | 2.05E-07 |
| U-236 | 1.08E-08 |
| U-238 | 8.61E-15 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

**TRUCON Code(s)**

115/215, 116/216, 117/217, 118/218, 119/219, 123/223, 125/225, 154

**Waste Stream Description**

Mixed heterogeneous combustible and non-combustible debris generated at TA-21 DP West Facility during plutonium processing and associated operations.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Heterogeneous Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 2.7 | 0.0 | 2.7 |
| SWB Dir Ld w/ Liner | 1.9 | 0.0 | 1.9 |
| **Final Form Total** | 4.6 | 0.0 | 4.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 73.12 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 17.94 |
| Other Inorganic Materials | 16.96 |
| Cellulose | 4.60 |
| Rubber | 4.42 |
| Plastic | 19.52 |
| Cement | 0.00 |
| Solidified Inorganic Material | 7.01 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 22.23 |
| Packaging Material, Rubber | 0.41 |
| Packaging Material, Steel | 139.61 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.20E+00 |
| Am-243 | 8.86E-06 |
| Cm-244 | 7.04E-01 |
| Cs-137 | 1.13E-07 |
| Np-237 | 3.12E-05 |
| Pu-238 | 7.76E-03 |
| Pu-239 | 1.68E-01 |
| Pu-240 | 3.28E-02 |
| Pu-241 | 2.64E-01 |
| Pu-242 | 1.89E-06 |
| Sr-90 | 1.12E-07 |
| Th-229 | 7.44E-08 |
| Th-230 | 1.64E-12 |
| Th-232 | 3.81E-19 |
| U-233 | 4.82E-10 |
| U-234 | 8.89E-08 |
| U-235 | 6.62E-10 |
| U-236 | 3.87E-09 |
| U-238 | 1.17E-15 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

**TRUCON Code(s)**

125/225, 154

**Waste Stream Description**

Mixed CH-TRU waste and consists of dry heterogeneous organic and inorganic debris stored at LANL resulting from the preparation of aerosols of TRU isotopes for inhalation studies performed at the LRRI.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Heterogeneous Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 0.2 | 0.0 | 0.2 |
| 55-gal POC - 12" w/ Liner | 0.1 | 0.0 | 0.1 |
| SWB Dir Ld w/ Liner | 5.6 | 0.0 | 5.6 |
| **Final Form Total** | 5.9 | 0.0 | 5.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 13.65 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 13.11 |
| Other Inorganic Materials | 0.91 |
| Cellulose | 1.93 |
| Rubber | 2.06 |
| Plastic | 4.53 |
| Cement | 0.00 |
| Solidified Inorganic Material | 2.65 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 9.45 |
| Packaging Material, Plastic | 5.03 |
| Packaging Material, Rubber | 0.24 |
| Packaging Material, Steel | 187.84 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.19E-01 |
| Am-243 | 7.57E-03 |
| Cs-137 | 2.50E-05 |
| Np-237 | 1.71E-05 |
| Pu-238 | 1.01E-02 |
| Pu-239 | 8.22E-03 |
| Pu-240 | 4.46E-03 |
| Pu-241 | 1.05E-01 |
| Pu-242 | 1.29E-04 |
| Sr-90 | 2.48E-05 |
| Th-229 | 5.05E-14 |
| Th-230 | 3.12E-11 |
| Th-232 | 5.22E-20 |
| U-233 | 2.88E-10 |
| U-234 | 9.07E-07 |
| U-235 | 3.24E-11 |
| U-236 | 5.29E-10 |
| U-238 | 8.00E-14 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

**TRUCON Code(s)**

115/215, 116/216, 117/217, 118/218, 119/219, 120/220, 123/223, 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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Heterogeneous Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 3.2 | 0.0 | 3.2 |
| SWB Dir Ld w/ Liner | 18.8 | 0.0 | 18.8 |
| TDOP Dir Ld | 4.5 | 0.0 | 4.5 |
| **Final Form Total** | 26.5 | 0.0 | 26.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 252.64 |
| Aluminum-based Metal/Alloys | 0.67 |
| Other Metal/Alloys | 4.85 |
| Other Inorganic Materials | 1.28 |
| Cellulose | 17.34 |
| Rubber | 2.69 |
| Plastic | 17.48 |
| Cement | 0.00 |
| Solidified Inorganic Material | 12.33 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 5.23 |
| Packaging Material, Rubber | 0.24 |
| Packaging Material, Steel | 154.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.24E-01 |
| Am-243 | 1.35E-06 |
| Cs-137 | 2.09E-07 |
| Np-237 | 3.02E-06 |
| Pu-238 | 1.40E-01 |
| Pu-239 | 7.76E-02 |
| Pu-240 | 2.43E-02 |
| Pu-241 | 3.64E-01 |
| Pu-242 | 1.94E-05 |
| Sr-90 | 2.08E-07 |
| Th-229 | 8.71E-15 |
| Th-230 | 7.68E-10 |
| Th-232 | 2.85E-19 |
| U-233 | 4.99E-11 |
| U-234 | 2.17E-05 |
| U-235 | 1.61E-07 |
| U-236 | 2.88E-09 |
| U-238 | 1.20E-14 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D027, D028, D029, D030, D035, D037, D038, D039, D040, D043, F001, F002, F003, F004, F005, F006, F007, F009

**TRUCON Code(s)**

115/215, 116/216, 117/217, 118/218, 119/219, 120/220, 123/223, 125/225, 154

**Waste Stream Description**

Mixed heterogeneous combustible and non-combustible debris from TA-50.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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 Inorganics | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Absorbed Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 50.8 | 0.0 | 50.8 |
| 55-gal POC - 12" w/ Liner | 0.0 | 0.0 | 0.0 |
| SWB Dir Ld w/ Liner | 7.5 | 0.0 | 7.5 |
| **Final Form Total** | 58.4 | 0.0 | 58.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 19.13 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 39.14 |
| Other Inorganic Materials | 0.24 |
| Cellulose | 8.76 |
| Rubber | 3.34 |
| Plastic | 27.31 |
| Cement | 0.00 |
| Solidified Inorganic Material | 523.23 |
| Solidified Organic Material | 4.53 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.48 |
| Packaging Material, Plastic | 32.24 |
| Packaging Material, Rubber | 0.52 |
| Packaging Material, Steel | 134.48 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.32E+01 |
| Am-243 | 8.19E-04 |
| Cs-137 | 8.87E-07 |
| Np-237 | 1.58E-04 |
| Pu-238 | 9.29E-01 |
| Pu-239 | 2.83E+00 |
| Pu-240 | 5.35E-01 |
| Pu-241 | 5.04E+00 |
| Pu-242 | 5.02E-05 |
| Sr-90 | 8.86E-07 |
| Th-229 | 2.96E-14 |
| Th-230 | 1.53E-09 |
| Th-232 | 3.91E-19 |
| U-233 | 6.77E-10 |
| U-234 | 1.68E-04 |
| U-235 | 1.36E-06 |
| U-236 | 1.58E-08 |
| U-238 | 1.45E-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, 113/213, 125/225, 126/226, 129/229

**Waste Stream Description**

Inorganic particulate waste generated in TA-55.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Homogeneous Inorganic Solids | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 54.4 | 0.0 | 54.4 |
| 55-gal POC - 12" w/ Liner | 0.2 | 0.0 | 0.2 |
| SWB Dir Ld w/ Liner | 5.6 | 0.0 | 5.6 |
| **Final Form Total** | 60.3 | 0.0 | 60.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 8.09 |
| Aluminum-based Metal/Alloys | 0.69 |
| Other Metal/Alloys | 0.20 |
| Other Inorganic Materials | 0.58 |
| Cellulose | 2.36 |
| Rubber | 0.39 |
| Plastic | 15.90 |
| Cement | 0.00 |
| Solidified Inorganic Material | 739.84 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 2.33 |
| Packaging Material, Plastic | 33.88 |
| Packaging Material, Rubber | 0.53 |
| Packaging Material, Steel | 140.44 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.78E-01 |
| Am-243 | 1.55E-06 |
| Cs-137 | 8.64E-06 |
| Np-237 | 1.09E-06 |
| Pu-238 | 2.44E-01 |
| Pu-239 | 7.80E-01 |
| Pu-240 | 1.27E-01 |
| Pu-241 | 3.75E+00 |
| Pu-242 | 2.11E-03 |
| Pu-244 | 2.33E-09 |
| Sr-90 | 8.36E-06 |
| Th-229 | 9.88E-08 |
| Th-230 | 2.70E-11 |
| Th-232 | 8.57E-20 |
| U-233 | 1.64E-13 |
| U-234 | 2.94E-05 |
| U-235 | 1.11E-06 |
| U-236 | 1.75E-08 |
| U-238 | 1.68E-06 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D028, D035, D037, D038, D039, D040, F001, F002, F003, F004, F005, F006, F007, F009

**TRUCON Code(s)**

111/211, 122/222, 124/224, 125/225

**Waste Stream Description**

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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Salt Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 1.1 | 0.0 | 1.1 |
| 55-gal POC - 12" w/ Liner | 0.2 | 0.0 | 0.2 |
| SWB Dir Ld w/ Liner | 1.9 | 0.0 | 1.9 |
| SWB w/ 4 - 55-gal Drums w/ Liners | 0.8 | 0.0 | 0.8 |
| **Final Form Total** | 4.0 | 0.0 | 4.0 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 5.05 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 10.35 |
| Other Inorganic Materials | 4.85 |
| Cellulose | 0.15 |
| Rubber | 0.00 |
| Plastic | 5.75 |
| Cement | 0.00 |
| Solidified Inorganic Material | 101.50 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 28.35 |
| Packaging Material, Plastic | 25.84 |
| Packaging Material, Rubber | 0.57 |
| Packaging Material, Steel | 319.03 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.40E+01 |
| Am-243 | 5.90E-03 |
| Cs-137 | 6.51E-05 |
| Np-237 | 1.24E-04 |
| Pu-238 | 5.58E-01 |
| Pu-239 | 1.63E+01 |
| Pu-240 | 4.03E+00 |
| Pu-241 | 2.82E+01 |
| Pu-242 | 2.68E-03 |
| Sr-90 | 6.54E-05 |
| Th-229 | 5.10E-13 |
| Th-230 | 5.75E-09 |
| Th-232 | 7.36E-17 |
| U-233 | 2.40E-09 |
| U-234 | 1.29E-04 |
| U-235 | 3.03E-06 |
| U-236 | 5.96E-07 |
| U-238 | 1.64E-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)**

124/224, 125/225

**Waste Stream Description**

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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **LA-MIN05-V.001**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Los Alamos 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** | 12/31/2018 |
| **Stream Name** | Absorbed TRU Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 1.3 | 0.0 | 1.3 |
| SWB Dir Ld w/ Liner | 1.9 | 0.0 | 1.9 |
| **Final Form Total** | 3.1 | 0.0 | 3.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 14.69 |
| Aluminum-based Metal/Alloys | 2.47 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.10 |
| Cellulose | 8.32 |
| Rubber | 1.03 |
| Plastic | 12.38 |
| Cement | 0.00 |
| Solidified Inorganic Material | 177.01 |
| Solidified Organic Material | 92.17 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 15.46 |
| Packaging Material, Rubber | 0.34 |
| Packaging Material, Steel | 144.33 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.95E-01 |
| Am-243 | 4.71E-06 |
| Cs-137 | 2.07E-06 |
| Np-237 | 1.96E-03 |
| Pu-238 | 1.25E-01 |
| Pu-239 | 3.01E+00 |
| Pu-240 | 7.03E-01 |
| Pu-241 | 7.04E+00 |
| Pu-242 | 4.41E-05 |
| Sr-90 | 1.32E-06 |
| Th-229 | 5.85E-12 |
| Th-230 | 5.67E-09 |
| Th-232 | 8.22E-18 |
| U-233 | 3.33E-08 |
| U-234 | 1.55E-04 |
| U-235 | 3.80E-06 |
| U-236 | 8.33E-08 |
| U-238 | 2.74E-14 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Mixed homogeneous solids

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **LA-MIN06-NS.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** | 12/31/2018 |
| **Stream Name** | CCP-AK-LANL-015 | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum 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 | 1.82 |
| 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 | 593.66 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 9.87E+00 |
| Am-243 | 1.26E-03 |
| Cs-137 | 3.27E-07 |
| Np-237 | 1.11E-04 |
| Pu-238 | 1.04E-01 |
| Pu-239 | 2.74E+00 |
| Pu-240 | 6.80E-01 |
| Pu-241 | 7.49E+00 |
| Pu-242 | 6.13E-05 |
| Sr-90 | 1.73E-07 |
| Th-229 | 5.34E-17 |
| Th-230 | 1.66E-10 |
| Th-232 | 4.96E-21 |
| U-233 | 1.70E-11 |
| U-234 | 1.81E-04 |
| U-235 | 2.59E-06 |
| U-236 | 2.01E-09 |
| U-238 | 8.23E-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)**

125/225, 126/226

**Waste Stream Description**

Treated Legacy Nitrate Salt Waste

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Contaminated Soil | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 8.0 | 0.0 | 8.0 |
| SWB Dir Ld w/ Liner | 54.5 | 0.0 | 54.5 |
| **Final Form Total** | 62.5 | 0.0 | 62.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 2.57 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.21 |
| Other Inorganic Materials | 0.15 |
| Cellulose | 0.03 |
| Rubber | 0.00 |
| Plastic | 3.74 |
| Cement | 0.00 |
| Solidified Inorganic Material | 1.03 |
| Solidified Organic Material | 0.00 |
| Soil | 568.56 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 5.74 |
| Packaging Material, Rubber | 0.24 |
| Packaging Material, Steel | 151.10 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 8.45E-03 |
| Am-243 | 4.14E-07 |
| Cs-137 | 4.28E-05 |
| Np-237 | 1.23E-07 |
| Pu-238 | 1.94E-03 |
| Pu-239 | 1.01E-01 |
| Pu-240 | 1.48E-02 |
| Pu-241 | 1.54E-01 |
| Pu-242 | 8.60E-07 |
| Sr-90 | 6.31E-06 |
| Th-229 | 3.45E-16 |
| Th-230 | 1.57E-09 |
| Th-232 | 1.72E-19 |
| U-233 | 1.99E-12 |
| U-234 | 4.26E-05 |
| U-235 | 1.16E-06 |
| U-236 | 1.75E-09 |
| U-238 | 1.11E-05 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

111/211

**Waste Stream Description**

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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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.** | Facility/Equipment Operation and Maintenance Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Not Assigned | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 3.2 | 0.0 | 3.2 |
| **Final Form Total** | 3.2 | 0.0 | 3.2 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 44.14 |
| Aluminum-based Metal/Alloys | 0.18 |
| Other Metal/Alloys | 5.29 |
| Other Inorganic Materials | 28.62 |
| Cellulose | 3.65 |
| Rubber | 5.48 |
| Plastic | 16.90 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.70 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.14E-01 |
| Np-237 | 1.34E-08 |
| Pu-238 | 1.03E-01 |
| Pu-239 | 3.49E+00 |
| Pu-240 | 8.17E-01 |
| Pu-241 | 1.23E+01 |
| Pu-242 | 4.73E-05 |
| Th-229 | 1.68E-21 |
| Th-230 | 5.80E-11 |
| Th-232 | 1.14E-18 |
| U-233 | 7.30E-16 |
| U-234 | 6.31E-05 |
| U-235 | 1.87E-06 |
| U-236 | 2.32E-07 |
| U-238 | 1.61E-08 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

**TRUCON Code(s)**

115/215, 116/216, 117/217, 118/218, 119/219, 122/222, 123/223, 125/225, 133/233, 154

**Waste Stream Description**

Noncombustible inorganic/organic waste

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Defense Sealed Sources | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal POC - 12" w/ Liner | 0.9 | 0.0 | 0.9 |
| 55-gal POC - 6" w/ Liner | 0.3 | 6.3 | 6.6 |
| **Final Form Total** | 1.2 | 6.3 | 7.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 199.82 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 35.26 |
| 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, Cellulose | 3336.46 |
| Packaging Material, Plastic | 582.72 |
| Packaging Material, Rubber | 8.92 |
| Packaging Material, Steel | 5150.67 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.14E+02 |
| Cs-137 | 6.67E-01 |
| Np-237 | 1.34E-05 |
| Pu-238 | 6.01E+01 |
| Pu-239 | 1.46E+02 |
| Pu-240 | 3.59E+01 |
| Pu-241 | 1.03E+02 |
| Pu-242 | 2.87E-03 |
| Sr-90 | 3.20E-05 |
| Th-229 | 1.48E-12 |
| Th-230 | 6.35E-09 |
| Th-232 | 2.62E-19 |
| U-233 | 1.68E-07 |
| U-234 | 6.92E-03 |
| U-235 | 1.74E-08 |
| U-236 | 1.06E-07 |
| U-238 | 3.16E-10 |

**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 and contain varying amounts/combinations of Pu, Am, or other TRU nuclides, and may contain Be, Li, or other light elements.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Mixed Waste Sealed Sources | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal POC - 6" w/ Liner | 0.0 | 0.0 | 0.0 |
| **Final Form Total** | 0.0 | 0.0 | 0.0 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 510.00 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 90.00 |
| 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, Cellulose | 3725.00 |
| Packaging Material, Plastic | 642.50 |
| Packaging Material, Rubber | 9.83 |
| Packaging Material, Steel | 5558.33 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.75E+01 |
| Np-237 | 2.85E-05 |
| Pu-239 | 2.42E-03 |
| Pu-240 | 1.53E-03 |
| Pu-241 | 2.95E-03 |
| Th-229 | 8.05E-12 |
| Th-232 | 2.80E-20 |
| U-233 | 1.85E-08 |
| U-235 | 1.01E-10 |
| U-236 | 2.27E-10 |

**Haz. Waste No(s).**

D006, D008

**TRUCON Code(s)**

120/220

**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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | TA-39 Heterogeneous Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 8.6 | 0.0 | 8.6 |
| SWB Dir Ld w/ Liner | 73.3 | 0.0 | 73.3 |
| **Final Form Total** | 81.9 | 0.0 | 81.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 105.08 |
| Aluminum-based Metal/Alloys | 18.79 |
| Other Metal/Alloys | 18.79 |
| Other Inorganic Materials | 58.01 |
| Cellulose | 2.06 |
| Rubber | 1.86 |
| Plastic | 1.86 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 4.94 |
| Packaging Material, Rubber | 0.23 |
| Packaging Material, Steel | 151.66 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 9.16E-03 |
| Np-237 | 2.58E-05 |
| Pu-238 | 1.77E-02 |
| Pu-239 | 1.53E-02 |
| Pu-240 | 5.22E-04 |
| Pu-241 | 4.67E-03 |
| Pu-242 | 3.02E-08 |
| Th-229 | 5.92E-13 |
| Th-230 | 2.95E-11 |
| Th-232 | 4.62E-20 |
| U-233 | 1.22E-09 |
| U-234 | 5.75E-07 |
| U-235 | 1.66E-10 |
| U-236 | 1.70E-10 |
| U-238 | 5.16E-17 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

**TRUCON Code(s)**

115/215, 116/216, 117/217, 118/218, 119/219, 120/220, 123/223, 125/225, 154

**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.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | NON-PN EQUIPMENT | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid - Dir Ld | 2.7 | 0.0 | 2.7 |
| **Final Form Total** | 2.7 | 0.0 | 2.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.24 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 12.97 |
| Cement | 0.00 |
| Solidified Inorganic Material | 2433.57 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.00 |
| Packaging Material, Steel | 560.67 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Pu-239 | 4.64E+00 |
| U-235 | 1.74E-07 |

**Haz. Waste No(s).**

D008

**No TRUCON Codes Provided**

**Waste Stream Description**

LAMPRE REACTOR VESSEL SEALED IN CASK VESSEL

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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.** | Remediation/D&D Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Combined Combustible and NonCombustible | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 9.5 | 0.0 | 9.5 |
| SWB Dir Ld w/ Liner | 1.9 | 0.0 | 1.9 |
| **Final Form Total** | 11.3 | 0.0 | 11.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 18.90 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 6.18 |
| Other Inorganic Materials | 29.99 |
| Cellulose | 24.16 |
| Rubber | 2.45 |
| Plastic | 70.92 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.47 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 30.82 |
| Packaging Material, Rubber | 0.50 |
| Packaging Material, Steel | 133.63 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.76E-01 |
| Am-243 | 4.33E-05 |
| Cs-137 | 2.01E-06 |
| Np-237 | 6.18E-04 |
| Pu-238 | 4.73E+00 |
| Pu-239 | 1.20E+00 |
| Pu-240 | 2.85E-01 |
| Pu-241 | 4.66E+00 |
| Pu-242 | 2.49E-05 |
| Th-229 | 2.88E-07 |
| Th-230 | 7.54E-10 |
| Th-232 | 4.53E-18 |
| U-233 | 5.14E-05 |
| U-234 | 8.21E-04 |
| U-235 | 9.89E-06 |
| U-236 | 9.18E-07 |
| U-238 | 1.87E-06 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D026, D027, D028, D029, D030, D035, D036, D037, D038, D039, D040, D043, F001, F002, F004, F005

**TRUCON Code(s)**

115/215, 116/216, 117/217, 118/218, 119/219, 120/220, 123/223, 125/225, 154

**Waste Stream Description**

CMR TRU Inline or Subaccountable Packaged Waste

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Debris and Metal | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| SWB Dir Ld w/ Liner | 9.4 | 0.0 | 9.4 |
| **Final Form Total** | 9.4 | 0.0 | 9.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 56.64 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 18.53 |
| Other Inorganic Materials | 89.84 |
| Cellulose | 72.37 |
| Rubber | 7.34 |
| Plastic | 212.46 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 1.42 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 1.21 |
| Packaging Material, Rubber | 0.19 |
| Packaging Material, Steel | 154.26 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Pu-238 | 2.81E-01 |
| Pu-239 | 6.60E-04 |
| Th-230 | 8.05E-09 |
| U-234 | 3.95E-05 |
| U-235 | 2.73E-11 |

**Haz. Waste No(s).**

D008

**TRUCON Code(s)**

115/215, 116/216, 117/217, 118/218, 119/219, 120/220, 123/223, 125/225, 154

**Waste Stream Description**

Metals and Miscellaneous Equipment Debris

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Cell fuel cans and hot trash | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Fxd Lid - Dir Ld | 0.9 | 0.0 | 0.9 |
| RH Can w/ Remov Lid - Dir Ld | 76.5 | 0.0 | 76.5 |
| **Final Form Total** | 77.4 | 0.0 | 77.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 233.37 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 76.34 |
| Other Inorganic Materials | 370.19 |
| Cellulose | 298.19 |
| Rubber | 30.23 |
| Plastic | 875.48 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 5.86 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.00 |
| Packaging Material, Steel | 559.21 |
| Packaging Material, Lead | 5.33 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.01E-02 |
| Cs-137 | 1.85E+01 |
| Np-237 | 5.84E-08 |
| Pu-238 | 1.97E-02 |
| Pu-239 | 1.04E+00 |
| Pu-240 | 3.24E-02 |
| Pu-241 | 9.49E-01 |
| Pu-242 | 1.97E-05 |
| Sr-90 | 1.30E+01 |
| Th-229 | 7.68E-17 |
| Th-230 | 8.20E-10 |
| Th-232 | 1.51E-17 |
| U-233 | 5.72E-13 |
| U-234 | 2.24E-05 |
| U-235 | 1.07E-04 |
| U-236 | 7.82E-08 |
| U-238 | 5.26E-07 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

117/217

**Waste Stream Description**

Combined combustible and noncombustible debris waste (RH-TRU) of the CMR facility

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Cement paste from CMR building (mixed) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 1.1 | 0.0 | 1.1 |
| **Final Form Total** | 1.1 | 0.0 | 1.1 |

**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 | 3.03 |
| Cement | 1005.42 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Pu-238 | 2.39E+00 |
| Th-230 | 7.60E-08 |
| U-234 | 3.55E-04 |

**Haz. Waste No(s).**

D007, F001, F002

**TRUCON Code(s)**

114/214, 126/226

**Waste Stream Description**

Cement paste solidified aqueous waste and cemented sludge generated from facility and equipment operations and maintenance. Sludge is a residue from numerous treatment and filtration operations, involving aqueous liquid radioactive waste, that produces thin alkaline sludge (~25% solids) compatible with Portland cement. Final cemented waste monoliths are produced by mixing waste in 55-GAL steel drums containing empirically determined quantities of sludge, Portland cement, vermiculite, and sodium silicate.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | SILICON-BASED OIL - LIQUID | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 39.55 |
| Aluminum-based Metal/Alloys | 7.48 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 15.50 |
| Rubber | 1.60 |
| Plastic | 22.45 |
| Cement | 0.00 |
| Solidified Inorganic Material | 223.92 |
| Solidified Organic Material | 223.92 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Pu-238 | 2.31E-01 |
| Th-230 | 7.32E-09 |
| U-234 | 3.42E-05 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

Absorbed Organics on Vermiculite

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **LA-TA-03-CVD-C&NC**

**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** | 12/31/2018 |
| **Stream Name** | Confinement Vessel Disposition | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 13.2 | 0.0 | 13.2 |
| SWB Dir Ld w/ Liner | 3.8 | 0.0 | 3.8 |
| **Final Form Total** | 17.0 | 0.0 | 17.0 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 26.76 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 8.75 |
| Other Inorganic Materials | 42.44 |
| Cellulose | 34.19 |
| Rubber | 3.47 |
| Plastic | 100.38 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.67 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 28.86 |
| Packaging Material, Rubber | 0.48 |
| Packaging Material, Steel | 135.00 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.03E+00 |
| Np-237 | 5.20E-07 |
| Pu-238 | 2.57E-01 |
| Pu-239 | 8.71E+00 |
| Pu-240 | 2.04E+00 |
| Pu-241 | 3.08E+01 |
| Pu-242 | 1.18E-04 |
| Th-229 | 2.38E-19 |
| Th-230 | 1.72E-11 |
| Th-232 | 1.49E-20 |
| U-233 | 7.62E-14 |
| U-234 | 1.87E-05 |
| U-235 | 3.24E-07 |
| U-236 | 6.04E-09 |
| U-238 | 1.83E-15 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D026, D027, D028, D029, D030, D035, D036, D037, D038, D039, D040, D043, F001, F002, F004, F005

**TRUCON Code(s)**

117/217, 125/225

**Waste Stream Description**

Mixed heterogeneous combustible and non-combustible debris.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **LA-TA-21-01**

## 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** | 12/31/2018 |
| **Stream Name** | Not Assigned | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 48.46 |
| Aluminum-based Metal/Alloys | 18.48 |
| Other Metal/Alloys | 37.15 |
| Other Inorganic Materials | 10.56 |
| Cellulose | 31.49 |
| Rubber | 24.32 |
| Plastic | 18.10 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.31E-01 |
| Np-237 | 4.16E-08 |
| Pu-238 | 3.11E-02 |
| Pu-239 | 1.06E+00 |
| Pu-240 | 2.49E-01 |
| Pu-241 | 3.60E+00 |
| Pu-242 | 1.44E-05 |
| Th-229 | 2.63E-18 |
| Th-230 | 2.13E-11 |
| Th-232 | 1.82E-19 |
| U-233 | 9.00E-14 |
| U-234 | 2.37E-06 |
| U-235 | 4.06E-08 |
| U-236 | 7.37E-09 |
| U-238 | 2.24E-15 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011

**TRUCON Code(s)**

115/215, 116/216, 117/217, 118/218, 119/219, 123/223, 125/225, 154

**Waste Stream Description**

TRU COMBUSTIBLE/NONCOMBUSTIBLE WASTE

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | Graphite Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Graphite | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 48.53 |
| Aluminum-based Metal/Alloys | 18.51 |
| Other Metal/Alloys | 37.20 |
| Other Inorganic Materials | 10.57 |
| Cellulose | 31.54 |
| Rubber | 24.36 |
| Plastic | 18.13 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.48E-01 |
| Np-237 | 6.43E-06 |
| Pu-238 | 5.60E-02 |
| Pu-239 | 2.50E+00 |
| Pu-240 | 5.96E-01 |
| Pu-241 | 1.24E+00 |
| Pu-242 | 4.03E-05 |
| Th-229 | 6.31E-13 |
| Th-230 | 3.88E-09 |
| Th-232 | 7.70E-16 |
| U-233 | 5.41E-10 |
| U-234 | 1.38E-05 |
| U-235 | 4.65E-05 |
| U-236 | 7.42E-07 |
| U-238 | 2.62E-13 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

115/215, 116/216, 117/217, 118/218, 119/219, 123/223, 125/225, 154

**Waste Stream Description**

Graphite and Incinerator solids

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Combustible debris waste (mixed) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 329.3 | 0.0 | 329.3 |
| **Final Form Total** | 329.3 | 0.0 | 329.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 26.12 |
| Aluminum-based Metal/Alloys | 9.96 |
| Other Metal/Alloys | 20.02 |
| Other Inorganic Materials | 5.69 |
| Cellulose | 16.97 |
| Rubber | 13.11 |
| Plastic | 9.76 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.41E-01 |
| Np-237 | 2.67E-06 |
| Pu-238 | 4.02E+01 |
| Pu-239 | 6.18E-01 |
| Pu-240 | 1.87E-01 |
| Pu-241 | 6.27E-01 |
| Pu-242 | 3.49E-05 |
| Th-229 | 2.35E-13 |
| Th-230 | 1.39E-06 |
| Th-232 | 2.20E-16 |
| U-233 | 2.12E-10 |
| U-234 | 6.31E-03 |
| U-235 | 2.82E-06 |
| U-236 | 2.22E-07 |
| U-238 | 2.17E-13 |

**Haz. Waste No(s).**

F001, F002

**TRUCON Code(s)**

115/215, 116/216, 117/217, 118/218, 119/219, 123/223, 125/225, 154

**Waste Stream Description**

Combustible waste that includes debris, plastic-based waste, cellulose-based waste , and may also contain a smaller fraction of non-combustible solids and a small fraction of homogenous solids, salts, leached solids, ash, hydroxide cakes, crucibles, and impure oxides.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Debris and Metal | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 143.4 | 0.0 | 143.4 |
| SWB Dir Ld w/ Liner | 492.6 | 0.0 | 492.6 |
| **Final Form Total** | 636.0 | 0.0 | 636.0 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 38.59 |
| Aluminum-based Metal/Alloys | 14.72 |
| Other Metal/Alloys | 29.58 |
| Other Inorganic Materials | 8.41 |
| Cellulose | 25.08 |
| Rubber | 19.37 |
| Plastic | 14.41 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 9.22 |
| Packaging Material, Rubber | 0.28 |
| Packaging Material, Steel | 148.68 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.79E-02 |
| Np-237 | 6.27E-07 |
| Pu-238 | 1.60E+01 |
| Pu-239 | 2.80E-01 |
| Pu-240 | 5.90E-02 |
| Pu-241 | 1.54E-01 |
| Pu-242 | 5.26E-06 |
| Th-229 | 5.29E-14 |
| Th-230 | 4.06E-07 |
| Th-232 | 6.57E-17 |
| U-233 | 4.89E-11 |
| U-234 | 2.11E-03 |
| U-235 | 1.96E-08 |
| U-236 | 6.82E-08 |
| U-238 | 3.18E-14 |

**Haz. Waste No(s).**

D008

**TRUCON Code(s)**

115/215, 116/216, 117/217, 118/218, 119/219, 123/223, 125/225, 154

**Waste Stream Description**

Equipment, Debris, and Metal Parts

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Glass | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 4.2 | 0.0 | 4.2 |
| **Final Form Total** | 4.2 | 0.0 | 4.2 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 31.80 |
| Aluminum-based Metal/Alloys | 12.13 |
| Other Metal/Alloys | 24.38 |
| Other Inorganic Materials | 6.93 |
| Cellulose | 20.66 |
| Rubber | 15.96 |
| Plastic | 11.88 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.11E-01 |
| Np-237 | 2.46E-06 |
| Pu-238 | 2.02E+01 |
| Pu-239 | 6.35E-01 |
| Pu-240 | 1.79E-01 |
| Pu-241 | 4.91E-01 |
| Pu-242 | 2.67E-05 |
| Th-229 | 2.39E-13 |
| Th-230 | 5.80E-07 |
| Th-232 | 2.31E-16 |
| U-233 | 2.06E-10 |
| U-234 | 2.84E-03 |
| U-235 | 4.97E-08 |
| U-236 | 2.23E-07 |
| U-238 | 1.74E-13 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

115/215, 116/216, 117/217, 118/218, 119/219, 123/223, 125/225, 154

**Waste Stream Description**

Glass and Glass Residues

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Hepa Filters | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 14.3 | 0.0 | 14.3 |
| **Final Form Total** | 14.3 | 0.0 | 14.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 29.60 |
| Aluminum-based Metal/Alloys | 11.29 |
| Other Metal/Alloys | 22.69 |
| Other Inorganic Materials | 6.45 |
| Cellulose | 19.23 |
| Rubber | 14.86 |
| Plastic | 11.06 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.26E-03 |
| Np-237 | 6.49E-08 |
| Pu-238 | 9.62E+01 |
| Pu-239 | 2.51E-02 |
| Pu-240 | 5.86E-03 |
| Pu-241 | 1.07E-02 |
| Pu-242 | 3.41E-07 |
| Th-229 | 7.00E-15 |
| Th-230 | 3.06E-06 |
| Th-232 | 8.31E-18 |
| U-233 | 5.73E-12 |
| U-234 | 1.43E-02 |
| U-235 | 2.02E-09 |
| U-236 | 7.65E-09 |
| U-238 | 2.33E-15 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

115/215, 116/216, 117/217, 118/218, 119/219, 123/223, 125/225, 154

**Waste Stream Description**

Filter cells, filter trash, and graphite glass filters

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Non-combustible and combustible debris waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 338.7 | 0.0 | 338.7 |
| SWB Dir Ld w/ Liner | 7.5 | 0.0 | 7.5 |
| **Final Form Total** | 346.3 | 0.0 | 346.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 25.52 |
| Aluminum-based Metal/Alloys | 9.73 |
| Other Metal/Alloys | 19.56 |
| Other Inorganic Materials | 5.56 |
| Cellulose | 16.58 |
| Rubber | 12.81 |
| Plastic | 9.53 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 35.94 |
| Packaging Material, Rubber | 0.55 |
| Packaging Material, Steel | 130.06 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.29E-01 |
| Np-237 | 4.65E-06 |
| Pu-238 | 1.21E+02 |
| Pu-239 | 7.87E-01 |
| Pu-240 | 2.65E-01 |
| Pu-241 | 1.14E+00 |
| Pu-242 | 7.18E-05 |
| Th-229 | 4.10E-04 |
| Th-230 | 5.20E-06 |
| Th-232 | 2.95E-16 |
| U-233 | 1.20E-01 |
| U-234 | 2.19E-02 |
| U-235 | 5.65E-06 |
| U-236 | 3.07E-07 |
| U-238 | 4.35E-13 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

115/215, 116/216, 117/217, 118/218, 119/219, 123/223, 125/225, 154

**Waste Stream Description**

COMBINED COMBUSTIBLE/NON-COMBUSTIBLE LAB TRASH

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **LA-TA-21-13**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Los Alamos National Laboratory | **Summary Category** | S3000 | **Defense Determination** | Defense-Related | **Handling** | CH |
| **Source Cat.** | Facility/Equipment Operation and Maintenance Waste | **Waste Matrix Code Group** | Solidified Inorganics | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Cemented wastewater treatment sludge (mixed) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 15.3 | 0.0 | 15.3 |
| SWB Dir Ld w/ Liner | 443.7 | 0.0 | 443.7 |
| **Final Form Total** | 459.0 | 0.0 | 459.0 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 76.74 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 13.65 |
| Cement | 2146.79 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 2.39 |
| Packaging Material, Rubber | 0.21 |
| Packaging Material, Steel | 153.43 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.26E+01 |
| Cs-137 | 3.73E-04 |
| Np-237 | 5.88E-05 |
| Pu-238 | 6.51E-02 |
| Pu-239 | 1.36E-01 |
| Pu-240 | 1.04E-06 |
| Pu-241 | 8.23E-05 |
| Pu-242 | 5.98E-11 |
| Sr-90 | 2.59E-04 |
| Th-229 | 2.38E-13 |
| Th-230 | 9.81E-10 |
| Th-232 | 7.13E-17 |
| U-233 | 1.01E-09 |
| U-234 | 1.41E-05 |
| U-235 | 4.65E-05 |
| U-236 | 1.81E-07 |
| U-238 | 2.36E-05 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

**No TRUCON Codes Provided**

**Waste Stream Description**

Cemented Wastewater Treatment Sludge Solidified aqueous waste generated from facility and equipment operations and maintenance. Solidified aqueous waste is a dewatered sludge generated by the vacuum filtration of solids from treated aqueous waste slurry. The filter media (diatomaceous earth) with the entrapped filtrate is then placed in drums with dry concreted absorbent.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Solidified organics | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 3.4 | 0.0 | 3.4 |
| **Final Form Total** | 3.4 | 0.0 | 3.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 27.60 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 27.12 |
| Cement | 0.00 |
| Solidified Inorganic Material | 476.12 |
| Solidified Organic Material | 62.68 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.15E-01 |
| Np-237 | 2.39E-06 |
| Pu-238 | 2.22E-02 |
| Pu-239 | 1.40E+00 |
| Pu-240 | 2.41E-01 |
| Pu-241 | 5.32E-01 |
| Pu-242 | 1.40E-05 |
| Th-229 | 2.13E-13 |
| Th-230 | 1.38E-09 |
| Th-232 | 2.83E-16 |
| U-233 | 1.92E-10 |
| U-234 | 5.16E-06 |
| U-235 | 9.37E-08 |
| U-236 | 2.86E-07 |
| U-238 | 8.70E-14 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

Contaminated oil absorbed in vermiculite

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | SOLIDIFIED INORGANIC PROCESS SOLID | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 55.0 | 0.0 | 55.0 |
| **Final Form Total** | 55.0 | 0.0 | 55.0 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 7.66 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 1.36 |
| Cement | 214.27 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.06E+00 |
| Np-237 | 6.39E-06 |
| Pu-238 | 4.45E-01 |
| Pu-239 | 1.15E+01 |
| Pu-240 | 2.75E+00 |
| Pu-241 | 2.66E+01 |
| Pu-242 | 2.26E-04 |
| Th-229 | 4.48E-14 |
| Th-230 | 4.60E-09 |
| Th-232 | 2.43E-16 |
| U-233 | 1.43E-10 |
| U-234 | 5.26E-05 |
| U-235 | 5.94E-05 |
| U-236 | 8.96E-07 |
| U-238 | 3.86E-13 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

**No TRUCON Codes Provided**

**Waste Stream Description**

LEACHED PROCESS RESIDUES

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Process solids | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 29.29 |
| Aluminum-based Metal/Alloys | 11.17 |
| Other Metal/Alloys | 22.45 |
| Other Inorganic Materials | 6.38 |
| Cellulose | 19.03 |
| Rubber | 14.70 |
| Plastic | 10.94 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 8.69E-03 |
| Np-237 | 1.07E-07 |
| Pu-238 | 8.65E-04 |
| Pu-239 | 4.15E-02 |
| Pu-240 | 9.69E-03 |
| Pu-241 | 1.76E-02 |
| Pu-242 | 5.63E-07 |
| Th-229 | 1.16E-14 |
| Th-230 | 6.34E-11 |
| Th-232 | 1.37E-17 |
| U-233 | 9.47E-12 |
| U-234 | 2.17E-07 |
| U-235 | 3.35E-09 |
| U-236 | 1.26E-08 |
| U-238 | 3.84E-15 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

115/215, 116/216, 117/217, 118/218, 119/219, 123/223, 125/225, 154

**Waste Stream Description**

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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Cemented caustic liquid waste (mixed) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.00 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 1.02 |
| Cement | 1017.20 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.01E-01 |
| Np-237 | 1.04E-05 |
| Pu-239 | 1.36E-02 |
| Th-229 | 1.30E-12 |
| U-233 | 1.00E-09 |
| U-235 | 5.89E-10 |

**Haz. Waste No(s).**

D007, F001, F002

**TRUCON Code(s)**

111/211, 114/214

**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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Homogeneous Inorganic Solids | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 63.4 | 0.0 | 63.4 |
| **Final Form Total** | 63.4 | 0.0 | 63.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.08 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 4.47 |
| Cement | 0.00 |
| Solidified Inorganic Material | 838.19 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.63E-01 |
| Np-237 | 1.18E-08 |
| Pu-238 | 3.16E-02 |
| Pu-239 | 6.52E-02 |
| Pu-240 | 1.01E-02 |
| Pu-241 | 1.53E-01 |
| Pu-242 | 5.87E-07 |
| Th-229 | 1.48E-21 |
| Th-230 | 8.52E-13 |
| Th-232 | 1.70E-20 |
| U-233 | 6.44E-16 |
| U-234 | 9.31E-07 |
| U-235 | 2.76E-08 |
| U-236 | 3.46E-09 |
| U-238 | 2.41E-10 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

**TRUCON Code(s)**

111/211, 125/225

**Waste Stream Description**

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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **LA-TA-55-14**

**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** | 12/31/2018 |
| **Stream Name** | Not Assigned | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 49.06 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 8.73 |
| Cement | 1372.54 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.59E+00 |
| Np-237 | 2.05E-06 |
| Pu-238 | 4.06E-02 |
| Pu-239 | 1.42E+00 |
| Pu-240 | 3.33E-01 |
| Pu-241 | 4.17E+00 |
| Pu-242 | 1.93E-05 |
| Th-229 | 2.03E-15 |
| Th-230 | 1.21E-10 |
| Th-232 | 3.89E-18 |
| U-233 | 1.73E-11 |
| U-234 | 3.51E-06 |
| U-235 | 5.85E-08 |
| U-236 | 3.94E-08 |
| U-238 | 1.20E-14 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

114/214

**Waste Stream Description**

SOLIDIFIED INORGANIC/PROCESS SOLIDS

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Combustible debris waste (mixed) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 73.5 | 0.0 | 73.5 |
| 55-gal POC - 12" w/ Liner | 3.6 | 0.0 | 3.6 |
| SLB2 Dir Ld | 14.8 | 0.0 | 14.8 |
| SWB Dir Ld w/ Liner | 11.3 | 0.0 | 11.3 |
| **Final Form Total** | 103.2 | 0.0 | 103.2 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 63.48 |
| Aluminum-based Metal/Alloys | 0.26 |
| Other Metal/Alloys | 7.61 |
| Other Inorganic Materials | 41.17 |
| Cellulose | 5.25 |
| Rubber | 7.88 |
| Plastic | 24.31 |
| Cement | 0.00 |
| Solidified Inorganic Material | 1.01 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 20.15 |
| Packaging Material, Plastic | 31.82 |
| Packaging Material, Rubber | 0.52 |
| Packaging Material, Steel | 211.69 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.69E+00 |
| Cs-137 | 3.38E-10 |
| Np-237 | 2.11E-05 |
| Pu-238 | 1.93E+01 |
| Pu-239 | 4.97E+00 |
| Pu-240 | 1.87E+00 |
| Pu-241 | 5.73E+01 |
| Pu-242 | 2.04E-03 |
| Pu-244 | 1.39E-09 |
| Th-229 | 1.02E-17 |
| Th-230 | 3.89E-09 |
| Th-232 | 4.33E-17 |
| U-233 | 3.23E-12 |
| U-234 | 4.23E-03 |
| U-235 | 6.52E-05 |
| U-236 | 8.78E-06 |
| U-238 | 1.49E-05 |

**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)**

115/215, 116/216, 117/217, 118/218, 119/219, 122/222, 123/223, 125/225, 133/233, 154

**Waste Stream Description**

Combustible waste that includes debris, plastic-based waste, cellulose-based waste, and may also contain a smaller fraction of non-combustible solids and a small fraction of homogenous solids, salts, leached solids, ash, hydroxide cakes, crucibles, and impure oxides.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **LA-TA-55-20**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Los Alamos 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** | 12/31/2018 |
| **Stream Name** | Not Assigned | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 52.23 |
| Aluminum-based Metal/Alloys | 0.21 |
| Other Metal/Alloys | 6.26 |
| Other Inorganic Materials | 33.87 |
| Cellulose | 4.32 |
| Rubber | 6.48 |
| Plastic | 20.00 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.83 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.35E-01 |
| Np-237 | 5.97E-08 |
| Pu-238 | 1.17E-01 |
| Pu-239 | 2.44E+00 |
| Pu-240 | 6.47E-01 |
| Pu-241 | 1.09E+01 |
| Pu-242 | 5.99E-05 |
| Th-229 | 2.49E-20 |
| Th-230 | 8.62E-12 |
| Th-232 | 4.72E-21 |
| U-233 | 8.07E-15 |
| U-234 | 9.39E-06 |
| U-235 | 8.88E-08 |
| U-236 | 1.91E-09 |
| U-238 | 9.29E-16 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

Combustible waste

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Metal debris waste (mixed) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 119.91 |
| Aluminum-based Metal/Alloys | 0.48 |
| Other Metal/Alloys | 14.37 |
| Other Inorganic Materials | 77.76 |
| Cellulose | 9.92 |
| Rubber | 14.88 |
| Plastic | 45.91 |
| Cement | 0.00 |
| Solidified Inorganic Material | 1.91 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.42E-01 |
| Np-237 | 1.52E-06 |
| Pu-238 | 1.01E+01 |
| Pu-239 | 2.51E-01 |
| Pu-240 | 8.97E-02 |
| Pu-241 | 3.91E-01 |
| Pu-242 | 2.39E-05 |
| Th-229 | 1.27E-13 |
| Th-230 | 7.98E-07 |
| Th-232 | 9.99E-17 |
| U-233 | 1.18E-10 |
| U-234 | 2.84E-03 |
| U-235 | 1.90E-08 |
| U-236 | 1.04E-07 |
| U-238 | 8.74E-07 |

**Haz. Waste No(s).**

D008

**TRUCON Code(s)**

115/215, 116/216, 117/217, 118/218, 119/219, 122/222, 123/223, 125/225, 133/233, 154

**Waste Stream Description**

Metal Noncombustible metal waste that may also contain some glass, ceramic, porcelain, as well as some small fraction of combustible waste.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Non-combustible and combustible debris waste (mixed) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 86.3 | 0.0 | 86.3 |
| 55-gal POC - 12" w/ Liner | 1.4 | 0.0 | 1.4 |
| SLB2 Dir Ld | 155.2 | 0.0 | 155.2 |
| SWB Dir Ld w/ Liner | 5.6 | 0.0 | 5.6 |
| **Final Form Total** | 248.6 | 0.0 | 248.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 57.30 |
| Aluminum-based Metal/Alloys | 0.23 |
| Other Metal/Alloys | 6.87 |
| Other Inorganic Materials | 37.16 |
| Cellulose | 4.74 |
| Rubber | 7.11 |
| Plastic | 21.94 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.91 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 3.28 |
| Packaging Material, Plastic | 13.68 |
| Packaging Material, Rubber | 0.28 |
| Packaging Material, Steel | 164.39 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 8.77E-01 |
| Am-243 | 9.89E-08 |
| Np-237 | 3.90E-08 |
| Pu-238 | 2.45E+00 |
| Pu-239 | 1.64E+00 |
| Pu-240 | 6.49E-01 |
| Pu-241 | 2.30E+01 |
| Pu-242 | 1.09E-03 |
| Pu-244 | 7.29E-10 |
| Th-229 | 8.68E-21 |
| Th-230 | 3.02E-10 |
| Th-232 | 6.45E-19 |
| U-233 | 3.18E-15 |
| U-234 | 3.29E-04 |
| U-235 | 2.61E-06 |
| U-236 | 1.32E-07 |
| U-238 | 3.37E-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)**

115/215, 116/216, 117/217, 118/218, 119/219, 122/222, 123/223, 125/225, 133/233, 154

**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 non-combustible solids and may also contain a smaller fraction of combustible solids and a small fraction of homogeneous solids.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **LA-TA-55-32**

**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** | 12/31/2018 |
| **Stream Name** | Not Assigned | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 2.3 | 0.0 | 2.3 |
| 55-gal POC - 12" w/ Liner | 0.0 | 0.0 | 0.0 |
| **Final Form Total** | 2.4 | 0.0 | 2.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 1.26 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 1.24 |
| Cement | 0.00 |
| Solidified Inorganic Material | 21.81 |
| Solidified Organic Material | 2.87 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 11.91 |
| Packaging Material, Plastic | 39.22 |
| Packaging Material, Rubber | 0.60 |
| Packaging Material, Steel | 173.48 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.59E+00 |
| Np-237 | 1.16E-07 |
| Pu-238 | 8.32E-01 |
| Pu-239 | 2.83E+01 |
| Pu-240 | 6.62E+00 |
| Pu-241 | 1.00E+02 |
| Pu-242 | 3.83E-04 |
| Th-229 | 1.45E-20 |
| Th-230 | 6.60E-11 |
| Th-232 | 2.76E-19 |
| U-233 | 6.34E-15 |
| U-234 | 7.19E-05 |
| U-235 | 1.40E-06 |
| U-236 | 6.57E-08 |
| U-238 | 3.23E-09 |

**Haz. Waste No(s).**

D005, D006, D007, D008, D009, D010, D011

**No TRUCON Codes Provided**

**Waste Stream Description**

HOMOGENEOUS INORGANICS

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | LEACHED PROCESS RESIDUES | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 19.78 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 3.52 |
| Cement | 553.38 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.02E+00 |
| Np-237 | 3.30E-08 |
| Pu-238 | 2.12E+01 |
| Pu-239 | 1.20E+00 |
| Pu-240 | 5.03E-01 |
| Pu-241 | 3.52E+01 |
| Pu-242 | 3.15E-02 |
| Pu-244 | 3.48E-08 |
| Th-229 | 4.13E-21 |
| Th-230 | 2.19E-09 |
| Th-232 | 3.68E-21 |
| U-233 | 1.80E-15 |
| U-234 | 2.39E-03 |
| U-235 | 4.46E-08 |
| U-236 | 1.49E-09 |
| U-238 | 4.89E-13 |

**Haz. Waste No(s).**

D008

**TRUCON Code(s)**

114/214, 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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***
NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **LA-TA-55-54**

## 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** | 12/31/2018 |
| **Stream Name** | Not Assigned | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 6.9 | 0.0 | 6.9 |
| 55-gal POC - 12" w/ Liner | 0.3 | 0.0 | 0.3 |
| **Final Form Total** | 7.3 | 0.0 | 7.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 16.69 |
| Aluminum-based Metal/Alloys | 0.07 |
| Other Metal/Alloys | 2.00 |
| Other Inorganic Materials | 10.83 |
| Cellulose | 1.38 |
| Rubber | 2.07 |
| Plastic | 6.39 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.27 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 27.05 |
| Packaging Material, Plastic | 42.41 |
| Packaging Material, Rubber | 0.65 |
| Packaging Material, Steel | 229.33 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.13E+00 |
| Np-237 | 1.34E-07 |
| Pu-238 | 1.03E+00 |
| Pu-239 | 3.49E+01 |
| Pu-240 | 8.16E+00 |
| Pu-241 | 1.23E+02 |
| Pu-242 | 4.72E-04 |
| Th-229 | 1.67E-20 |
| Th-230 | 1.11E-10 |
| Th-232 | 1.01E-18 |
| U-233 | 7.30E-15 |
| U-234 | 1.21E-04 |
| U-235 | 2.75E-06 |
| U-236 | 2.16E-07 |
| U-238 | 1.35E-08 |

**Haz. Waste No(s).**

D005, D006, D007, D008, D009, D010, D011

**No TRUCON Codes Provided**

**Waste Stream Description**

HOMOGENEOUS INORGANICS

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **LA-TRU-Empty-110**

**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** | 12/31/2018 |
| **Stream Name** | Empty containers | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| SWB Dir Ld w/ Liner | 1.9 | 0.0 | 1.9 |
| **Final Form Total** | 1.9 | 0.0 | 1.9 |

**Waste Material Parameters**

| **Material Parameter** | **Average Density ($kg/m^3$)** |
|---|---|
| Iron-based Metal/Alloys | 40.84 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.11 |
| Plastic | 7.31 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 1.21 |
| Packaging Material, Rubber | 0.19 |
| Packaging Material, Steel | 154.26 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| **Isotope** | **Typical Concentration ($Ci/m^3$)** |
|---|---|
| Am-241 | 6.95E-03 |
| Am-243 | 2.33E-08 |
| Np-237 | 2.16E-08 |
| Pu-239 | 2.41E-05 |
| Pu-240 | 5.63E-06 |
| Pu-241 | 3.05E-04 |
| Th-229 | 4.64E-17 |
| Th-232 | 6.58E-23 |
| U-233 | 2.89E-13 |
| U-235 | 9.49E-14 |
| U-236 | 6.67E-13 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

**No TRUCON Codes Provided**

**Waste Stream Description**

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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Empty containers | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| SWB Dir Ld w/ Liner | 13.2 | 0.0 | 13.2 |
| **Final Form Total** | 13.2 | 0.0 | 13.2 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 66.21 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.29 |
| Plastic | 18.77 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 1.21 |
| Packaging Material, Rubber | 0.19 |
| Packaging Material, Steel | 154.26 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.63E-02 |
| Am-243 | 5.16E-07 |
| Cs-137 | 6.02E-09 |
| Np-237 | 2.16E-07 |
| Pu-238 | 1.53E+00 |
| Pu-239 | 2.63E-02 |
| Pu-240 | 6.07E-03 |
| Pu-241 | 8.47E-02 |
| Pu-242 | 1.13E-09 |
| Sr-90 | 6.01E-09 |
| Th-229 | 4.06E-17 |
| Th-230 | 2.24E-09 |
| Th-232 | 4.44E-21 |
| U-233 | 9.28E-13 |
| U-234 | 2.46E-04 |
| U-235 | 1.60E-08 |
| U-236 | 1.80E-10 |
| U-238 | 1.75E-19 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

**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.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **LA-TRU-Empty-85**

**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** | 12/31/2018 |
| **Stream Name** | Empty containers | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| SWB Dir Ld w/ Liner | 82.7 | 0.0 | 82.7 |
| **Final Form Total** | 82.7 | 0.0 | 82.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 312.15 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 1.16 |
| Plastic | 37.66 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 1.21 |
| Packaging Material, Rubber | 0.19 |
| Packaging Material, Steel | 154.26 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.62E+00 |
| Am-243 | 2.66E-04 |
| Cs-137 | 1.55E-05 |
| Np-237 | 5.10E-05 |
| Pu-238 | 2.66E-01 |
| Pu-239 | 5.65E-01 |
| Pu-240 | 1.23E-01 |
| Pu-241 | 2.42E+00 |
| Pu-242 | 3.15E-06 |
| Pu-244 | 4.49E-15 |
| Sr-90 | 1.55E-05 |
| Th-229 | 3.13E-08 |
| Th-230 | 4.41E-10 |
| Th-232 | 5.92E-19 |
| U-233 | 2.20E-10 |
| U-234 | 4.83E-05 |
| U-235 | 1.79E-07 |
| U-236 | 1.38E-08 |
| U-238 | 5.03E-06 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, F005

**TRUCON Code(s)**

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

**Waste Stream Description**

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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | LBL-Non Mixed Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 0.2 | 0.2 | 0.4 |
| **Final Form Total** | 0.2 | 0.2 | 0.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.00 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 9.62 |
| Other Inorganic Materials | 3.52 |
| Cellulose | 5.19 |
| Rubber | 0.00 |
| Plastic | 3.05 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.29 |
| Solidified Organic Material | 0.02 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.57E-02 |
| Am-243 | 4.29E-03 |
| Cm-244 | 3.58E-03 |
| Cs-137 | 3.85E-07 |
| Np-237 | 4.07E-05 |
| Pu-238 | 1.57E-02 |
| Pu-239 | 1.47E-03 |
| Pu-240 | 4.76E-05 |
| Pu-241 | 5.50E-04 |
| Pu-242 | 3.18E-19 |
| Pu-244 | 3.19E-16 |
| Th-229 | 1.96E-17 |
| Th-230 | 2.04E-15 |
| Th-232 | 2.67E-06 |
| U-233 | 6.22E-12 |
| U-234 | 4.43E-09 |
| U-235 | 1.44E-13 |
| U-236 | 1.41E-13 |
| U-238 | 1.86E-09 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**
125/225

**Waste Stream Description**
Heterogeneous transuranic, non mixed waste

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***
NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | LBL - Mixed Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 0.2 | 0.2 | 0.4 |
| **Final Form Total** | 0.2 | 0.2 | 0.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.00 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.52 |
| Cellulose | 1.76 |
| 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, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.19E-05 |
| Am-243 | 5.71E-08 |
| Np-237 | 2.76E-07 |
| Pu-239 | 2.62E-04 |
| Pu-241 | 2.28E-04 |
| Th-229 | 1.33E-19 |
| U-233 | 4.22E-14 |
| U-235 | 2.58E-14 |

**Haz. Waste No(s).**

D007

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Heterogeneous transuranic mixed waste

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | R&D Glovebox Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 113.8 | 306.6 | 420.4 |
| 55-gal POC - 12" w/ Liner | 5.1 | 10.0 | 15.1 |
| SWB Dir Ld w/o Liner | 13.2 | 58.3 | 71.4 |
| **Final Form Total** | 132.1 | 374.9 | 506.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 34.87 |
| Aluminum-based Metal/Alloys | 10.55 |
| Other Metal/Alloys | 23.20 |
| Other Inorganic Materials | 3.28 |
| Cellulose | 18.19 |
| Rubber | 16.37 |
| Plastic | 55.81 |
| Cement | 6.99 |
| Solidified Inorganic Material | 6.24 |
| Solidified Organic Material | 0.82 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 17.13 |
| Packaging Material, Plastic | 4.70 |
| Packaging Material, Rubber | 0.57 |
| Packaging Material, Steel | 196.21 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.13E+00 |
| Am-243 | 2.41E-04 |
| Cm-244 | 7.48E-01 |
| Cs-137 | 6.67E-04 |
| Np-237 | 1.69E-04 |
| Pu-238 | 3.93E+00 |
| Pu-239 | 5.88E+00 |
| Pu-240 | 1.65E+00 |
| Pu-241 | 1.07E+01 |
| Pu-242 | 6.67E-04 |
| Pu-244 | 1.93E-13 |
| Sr-90 | 6.67E-04 |
| Th-229 | 1.28E-06 |
| Th-230 | 4.84E-06 |
| Th-232 | 5.21E-07 |
| U-233 | 4.99E-04 |
| U-234 | 1.24E-04 |
| U-235 | 1.66E-05 |
| U-236 | 4.88E-09 |
| U-238 | 1.91E-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, 125/225

**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.* ***2.03*** *Data ver.* ***D.18.00.33***
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** | 12/31/2018 |
| **Stream Name** | Pyrochemical salt waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 0.2 | 0.0 | 0.2 |
| 55-gal POC - 12" w/ Liner | 0.2 | 1.9 | 2.1 |
| **Final Form Total** | 0.5 | 1.9 | 2.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 19.33 |
| Aluminum-based Metal/Alloys | 5.86 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 102.21 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 8.48 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 523.44 |
| Packaging Material, Plastic | 143.62 |
| Packaging Material, Rubber | 2.25 |
| Packaging Material, Steel | 2060.82 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.69E+01 |
| Cm-244 | 4.17E-03 |
| Np-237 | 9.11E-06 |
| Pu-238 | 1.88E+01 |
| Pu-239 | 6.52E+01 |
| Pu-240 | 1.52E+01 |
| Pu-241 | 7.53E+01 |
| Pu-242 | 1.56E-03 |
| Th-229 | 6.33E-16 |
| Th-230 | 2.45E-10 |
| Th-232 | 1.11E-17 |
| U-233 | 2.07E-11 |
| U-234 | 5.31E-05 |
| U-235 | 6.42E-08 |
| U-236 | 4.49E-07 |
| U-238 | 2.42E-13 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

124/224

**Waste Stream Description**

The waste consists primarily of used chloride and fluoride salts from pyrochemical processes such as electrorefining, molten salt extraction, and direct oxide reduction. There may also be up to 20% heterogeneous organic glovebox bagout waste packaged with the salt waste. This waste does not contain any RCRA listed hazardous materials.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Combined metal scrap & incidental combust | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| SLB2 Dir Ld | 155.2 | 125.6 | 280.8 |
| SWB Dir Ld w/o Liner | 20.7 | 77.1 | 97.8 |
| **Final Form Total** | 175.9 | 202.7 | 378.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 43.71 |
| Aluminum-based Metal/Alloys | 2.66 |
| Other Metal/Alloys | 10.52 |
| Other Inorganic Materials | 0.44 |
| Cellulose | 11.69 |
| Rubber | 2.21 |
| Plastic | 1.69 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 2.10 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.13 |
| Packaging Material, Steel | 162.29 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.09E-02 |
| Cm-244 | 2.76E-05 |
| Np-237 | 2.13E-07 |
| Pu-238 | 4.48E-03 |
| Pu-239 | 4.07E-02 |
| Pu-240 | 1.22E-02 |
| Pu-241 | 2.12E-01 |
| Pu-242 | 2.63E-06 |
| Th-229 | 1.64E-15 |
| Th-230 | 7.45E-12 |
| Th-232 | 1.08E-18 |
| U-233 | 5.06E-12 |
| U-234 | 1.45E-07 |
| U-235 | 4.41E-10 |
| U-236 | 3.97E-09 |
| U-238 | 4.49E-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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Sealed Sources | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal POC - 12" w/ Liner | 1.0 | 0.8 | 1.8 |
| **Final Form Total** | 1.0 | 0.8 | 1.8 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 30.29 |
| Aluminum-based Metal/Alloys | 6.49 |
| Other Metal/Alloys | 18.38 |
| Other Inorganic Materials | 16.11 |
| Cellulose | 6.57 |
| Rubber | 0.00 |
| Plastic | 0.14 |
| Cement | 0.00 |
| Solidified Inorganic Material | 39.65 |
| Solidified Organic Material | 20.96 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 575.82 |
| Packaging Material, Plastic | 157.99 |
| Packaging Material, Rubber | 2.42 |
| Packaging Material, Steel | 2254.10 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.98E+01 |
| Am-243 | 1.07E-05 |
| Cm-244 | 6.11E-04 |
| Cs-137 | 1.27E-02 |
| Np-237 | 2.94E-04 |
| Pu-238 | 1.23E+01 |
| Pu-239 | 6.15E-01 |
| Pu-240 | 1.97E-03 |
| Pu-241 | 2.62E-01 |
| Pu-244 | 5.90E-22 |
| Sr-90 | 3.91E-02 |
| Th-229 | 2.37E-12 |
| Th-230 | 2.05E-08 |
| Th-232 | 1.74E-19 |
| U-233 | 7.16E-09 |
| U-234 | 4.00E-04 |
| U-235 | 4.45E-07 |
| U-236 | 6.40E-10 |

**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.* ***2.03*** *Data ver.* ***D.18.00.33***
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 Inorganics | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Solidified Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 23.9 | 31.5 | 55.4 |
| **Final Form Total** | 23.9 | 31.5 | 55.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 8.49 |
| Aluminum-based Metal/Alloys | 0.87 |
| Other Metal/Alloys | 2.80 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 6.35 |
| Rubber | 4.24 |
| Plastic | 40.03 |
| Cement | 2.27 |
| Solidified Inorganic Material | 155.51 |
| Solidified Organic Material | 28.33 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.21E+00 |
| Am-243 | 5.61E-07 |
| Cm-244 | 2.77E-04 |
| Cs-137 | 1.68E-06 |
| Np-237 | 8.80E-05 |
| Pu-238 | 5.02E+00 |
| Pu-239 | 2.89E+00 |
| Pu-240 | 7.56E-01 |
| Pu-241 | 8.68E+00 |
| Pu-242 | 1.52E-04 |
| Sr-90 | 1.68E-06 |
| Th-229 | 4.18E-07 |
| Th-230 | 1.73E-11 |
| Th-232 | 3.97E-07 |
| U-233 | 4.75E-02 |
| U-234 | 1.95E-05 |
| U-235 | 8.91E-06 |
| U-236 | 2.24E-09 |
| U-238 | 5.90E-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)**

111/211, 113/213

**Waste Stream Description**

This waste stream consists of drums classified as homogeneous solids; predominately solidified inorganics with a small percentage of solidified organics.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | AmO2 Bagout/ Silver Bagout | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 209.52 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 10.52 |
| Other Inorganic Materials | 5.36 |
| Cellulose | 209.52 |
| Rubber | 31.43 |
| Plastic | 52.38 |
| Cement | 0.00 |
| Solidified Inorganic Material | 526.67 |
| Solidified Organic Material | 10.52 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.99E+01 |
| Np-237 | 1.59E-04 |
| Th-229 | 4.92E-13 |
| U-233 | 2.40E-09 |

**Haz. Waste No(s).**

D008, D011, F002, F005

**TRUCON Code(s)**

125/225

**Waste Stream Description**

AmO2 Bagout- Material generated from the production of ionization sources containing Am-241. Material consists mainly of consumable items used in the production gloveboxes(e.g. tissues paper towels, graphite blocks) but also includes equipment and tools that have exceeded their useful life. Most material is contained in one gallon cans that are placed into fifty five gallon drums. Silver Bagout- Material is mainly a vitrified slag that is created during the recovery of precious metals from scrap Am-241 foil. Also contained are items used in the glovebox during the recovery process (e.g. plastic bags, Carbon/Graphite crucibles, paper towels, induction furnaces).

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***
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** | 12/31/2018 |
| **Stream Name** | Returned Smoke Detector Sources | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 1.7 | 0.0 | 1.7 |
| **Final Form Total** | 1.7 | 0.0 | 1.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 31.49 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 3.15 |
| 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, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.22E+00 |
| Np-237 | 6.51E-06 |
| Th-229 | 3.34E-14 |
| U-233 | 1.26E-10 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

125/225

**Waste Stream Description**

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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Combined metal scrap and incidental combustibles | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| SWB Dir Ld w/o Liner | 63.9 | 124.1 | 188.0 |
| **Final Form Total** | 63.9 | 124.1 | 188.0 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 699.31 |
| Aluminum-based Metal/Alloys | 3.57 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 3.57 |
| Cellulose | 0.00 |
| Rubber | 3.57 |
| Plastic | 3.52 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.19 |
| Packaging Material, Steel | 154.26 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.04E-02 |
| Np-237 | 8.56E-07 |
| Pu-238 | 6.23E-02 |
| Pu-239 | 1.00E+00 |
| Pu-240 | 2.28E-01 |
| Pu-241 | 9.85E-01 |
| Pu-242 | 1.27E-05 |
| Th-229 | 2.83E-14 |
| Th-230 | 1.97E-10 |
| Th-232 | 3.75E-17 |
| U-233 | 4.59E-11 |
| U-234 | 2.80E-06 |
| U-235 | 1.48E-08 |
| U-236 | 1.01E-07 |
| U-238 | 2.96E-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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***
NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | V3XA Spheres | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 5.5 | 0.0 | 5.5 |
| **Final Form Total** | 5.5 | 0.0 | 5.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 459.69 |
| Aluminum-based Metal/Alloys | 0.97 |
| Other Metal/Alloys | 1.54 |
| Other Inorganic Materials | 12.45 |
| Cellulose | 1.49 |
| Rubber | 0.00 |
| Plastic | 0.01 |
| Cement | 2.19 |
| Solidified Inorganic Material | 67.77 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.42E+00 |
| Np-237 | 3.53E-06 |
| Pu-238 | 2.35E-01 |
| Pu-239 | 9.34E+00 |
| Pu-240 | 2.14E+00 |
| Pu-241 | 8.47E+00 |
| Pu-242 | 1.90E-04 |
| Th-229 | 2.84E-13 |
| Th-230 | 9.44E-08 |
| Th-232 | 1.00E-16 |
| U-233 | 4.44E-10 |
| U-234 | 1.29E-03 |
| U-235 | 8.87E-06 |
| U-236 | 5.08E-07 |
| U-238 | 4.54E-04 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

125/225

**Waste Stream Description**

The two steel vessels are 1-inch thick by 3-feet diameter, weighing about 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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | ORNL Analytical Chemistry CH-TRU Debris Waste | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 39.3 | 0.0 | 39.3 |
| 55-gal POC - 6" w/ Liner | 0.0 | 0.0 | 0.0 |
| **Final Form Total** | 39.3 | 0.0 | 39.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 21.27 |
| Aluminum-based Metal/Alloys | 2.55 |
| Other Metal/Alloys | 3.44 |
| Other Inorganic Materials | 4.97 |
| Cellulose | 39.09 |
| Rubber | 24.96 |
| Plastic | 30.82 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.25 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 2.28 |
| Packaging Material, Plastic | 0.39 |
| Packaging Material, Rubber | 0.57 |
| Packaging Material, Steel | 132.84 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.90E+00 |
| Am-243 | 8.07E-04 |
| Cm-244 | 3.55E-01 |
| Cs-137 | 1.12E+01 |
| Np-237 | 5.37E-06 |
| Pu-238 | 5.30E-01 |
| Pu-239 | 1.26E-01 |
| Pu-240 | 5.24E-02 |
| Pu-241 | 8.36E-01 |
| Pu-242 | 5.59E-05 |
| Pu-244 | 1.41E-21 |
| Sr-90 | 1.69E-01 |
| Th-229 | 6.71E-07 |
| Th-230 | 4.38E-10 |
| Th-232 | 1.02E-08 |
| U-233 | 6.05E-02 |
| U-234 | 4.77E-04 |
| U-235 | 8.12E-06 |
| U-236 | 1.55E-10 |
| U-238 | 3.89E-04 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Waste consists of CH-TRU debris from analytical chemistry operations at ORNL

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **OR-CHEM-RH-HET**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Oak Ridge National Laboratory | **Summary Category** | S5000 | **Defense Determination** | Defense-Related | **Handling** | RH |
| **Source Cat.** | Analytical Laboratory Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | ORNL Analytical Chemistry Laboratory Operations RH-TRU Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal 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 | 31.19 |
| Aluminum-based Metal/Alloys | 0.25 |
| Other Metal/Alloys | 2.62 |
| Other Inorganic Materials | 13.59 |
| Cellulose | 4.67 |
| Rubber | 1.56 |
| Plastic | 27.91 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.08 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.24E-02 |
| Am-243 | 1.72E-15 |
| Cm-244 | 1.54E+00 |
| Cs-137 | 3.31E-01 |
| Np-237 | 1.37E-09 |
| Pu-238 | 2.03E-01 |
| Pu-239 | 1.90E-03 |
| Pu-240 | 1.60E-02 |
| Pu-241 | 3.77E-10 |
| Pu-242 | 1.10E-04 |
| Pu-244 | 6.00E-13 |
| Sr-90 | 4.96E-01 |
| Th-229 | 3.60E-09 |
| Th-230 | 7.21E-11 |
| Th-232 | 1.17E-22 |
| U-233 | 4.09E-04 |
| U-234 | 7.85E-05 |
| U-235 | 2.56E-06 |
| U-236 | 4.73E-11 |
| U-238 | 4.69E-05 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

325

**Waste Stream Description**

Waste consists of RH-TRU debris from analytical chemistry operations at ORNL

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **OR-CRF-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** | 12/31/2018 |
| **Stream Name** | Curium Recovery Facility CH-TRU Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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** | 4.0 | 0.0 | 4.0 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 159.94 |
| Aluminum-based Metal/Alloys | 0.30 |
| Other Metal/Alloys | 5.04 |
| Other Inorganic Materials | 6.22 |
| Cellulose | 29.62 |
| Rubber | 5.63 |
| Plastic | 11.55 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 77.90 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.08E-02 |
| Am-243 | 2.14E-03 |
| Cm-244 | 4.87E-01 |
| Cs-137 | 1.27E-02 |
| Np-237 | 2.51E-06 |
| Pu-238 | 1.27E-01 |
| Pu-239 | 1.92E-03 |
| Pu-240 | 8.99E-03 |
| Pu-241 | 2.33E-01 |
| Pu-242 | 6.31E-05 |
| Pu-244 | 1.71E-16 |
| Sr-90 | 9.16E-03 |
| Th-229 | 1.14E-08 |
| Th-230 | 2.53E-12 |
| Th-232 | 1.13E-19 |
| U-233 | 5.56E-04 |
| U-234 | 2.77E-06 |
| U-235 | 2.86E-08 |
| U-236 | 2.30E-08 |
| U-238 | 7.74E-09 |

**Haz. Waste No(s).**

D006, D008, D009, D011

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Waste consists of CH-TRU debris from the Curium Recovery Facility at ORNL

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | ORNL General Research & Development CH-TRU Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 32.3 | 0.0 | 32.3 |
| 55-gal POC - 12" w/ Liner | 0.0 | 0.0 | 0.0 |
| 55-gal POC - 6" w/ Liner | 0.0 | 0.0 | 0.0 |
| **Final Form Total** | 32.4 | 0.0 | 32.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 20.43 |
| Aluminum-based Metal/Alloys | 5.08 |
| Other Metal/Alloys | 5.08 |
| Other Inorganic Materials | 20.43 |
| Cellulose | 37.63 |
| Rubber | 24.76 |
| Plastic | 10.27 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.12 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 2.25 |
| Packaging Material, Plastic | 0.48 |
| Packaging Material, Rubber | 0.57 |
| Packaging Material, Steel | 134.73 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.78E-01 |
| Am-243 | 1.48E-02 |
| Cm-244 | 2.73E-01 |
| Cs-137 | 8.78E-05 |
| Np-237 | 3.90E-03 |
| Pu-238 | 9.11E-02 |
| Pu-239 | 8.59E-02 |
| Pu-240 | 8.69E-02 |
| Pu-241 | 1.12E+00 |
| Pu-242 | 4.56E-03 |
| Pu-244 | 3.35E-05 |
| Sr-90 | 1.31E-04 |
| Th-229 | 6.26E-07 |
| Th-230 | 1.25E-11 |
| Th-232 | 2.15E-07 |
| U-233 | 7.61E-04 |
| U-234 | 1.36E-05 |
| U-235 | 3.39E-06 |
| U-236 | 3.35E-06 |
| U-238 | 1.53E-05 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D028, F002, F005

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Waste consists of CH-TRU debris from general R&D at ORNL

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | ORNL General Research & Development RH-TRU Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 14.40 |
| Aluminum-based Metal/Alloys | 3.58 |
| Other Metal/Alloys | 3.58 |
| Other Inorganic Materials | 14.40 |
| Cellulose | 26.54 |
| Rubber | 17.46 |
| Plastic | 7.25 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.09 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.58E-02 |
| Am-243 | 4.36E-03 |
| Cm-244 | 3.19E-05 |
| Cs-137 | 1.68E-05 |
| Np-237 | 2.59E-04 |
| Pu-239 | 2.16E-02 |
| Pu-240 | 3.38E-10 |
| Pu-241 | 3.42E-08 |
| Pu-242 | 9.19E-16 |
| Pu-244 | 1.66E-20 |
| Sr-90 | 1.68E-05 |
| Th-229 | 1.25E-16 |
| Th-230 | 9.37E-42 |
| Th-232 | 8.23E-31 |
| U-233 | 3.97E-11 |
| U-234 | 5.98E-35 |
| U-235 | 2.13E-12 |
| U-236 | 5.01E-19 |
| U-238 | 4.75E-27 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D028, F002, F005

**TRUCON Code(s)**

325

**Waste Stream Description**

Waste consists of RH-TRU debris from general R&D at ORNL

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **OR-IFEL-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** | 12/31/2018 |
| **Stream Name** | Irradiated Fuels Examination Laboratory CH-TRU Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 36.8 | 0.0 | 36.8 |
| **Final Form Total** | 36.8 | 0.0 | 36.8 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 57.62 |
| Aluminum-based Metal/Alloys | 10.48 |
| Other Metal/Alloys | 26.19 |
| Other Inorganic Materials | 5.24 |
| Cellulose | 44.52 |
| Rubber | 36.67 |
| Plastic | 68.10 |
| Cement | 0.00 |
| Solidified Inorganic Material | 13.10 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.33E-02 |
| Cm-244 | 1.50E-01 |
| Cs-137 | 1.17E-02 |
| Np-237 | 8.06E-06 |
| Pu-238 | 4.24E-02 |
| Pu-239 | 5.27E-02 |
| Pu-240 | 9.06E-03 |
| Pu-241 | 3.06E-01 |
| Pu-242 | 2.67E-07 |
| Pu-244 | 9.13E-20 |
| Sr-90 | 2.53E-03 |
| Th-229 | 3.32E-08 |
| Th-230 | 2.95E-10 |
| Th-232 | 2.07E-06 |
| U-233 | 3.78E-03 |
| U-234 | 3.20E-04 |
| U-235 | 6.23E-06 |
| U-236 | 1.41E-05 |
| U-238 | 7.81E-06 |

**Haz. Waste No(s).**

D006, D007, D008, D009, D011, D019, F001, F002, F005

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Waste consists of CH-TRU debris from the Irradiated Fuels Examination Laboratory at ORNL

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **OR-ISTP-CH-HET**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Oak Ridge National Laboratory | **Summary Category** | S5000 | **Defense Determination** | Defense-Related | **Handling** | CH |
| **Source Cat.** | Materials Production/Recovery Effluents | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | ORNL Isotopes Facilities CH-TRU Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 131.5 | 0.0 | 131.5 |
| 55-gal POC - 12" w/ Liner | 0.2 | 0.0 | 0.2 |
| 55-gal POC - 6" w/ Liner | 0.0 | 0.0 | 0.0 |
| **Final Form Total** | 131.7 | 0.0 | 131.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 59.63 |
| Aluminum-based Metal/Alloys | 3.13 |
| Other Metal/Alloys | 17.12 |
| Other Inorganic Materials | 3.68 |
| Cellulose | 29.82 |
| Rubber | 16.38 |
| Plastic | 53.93 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.37 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 1.53 |
| Packaging Material, Plastic | 0.35 |
| Packaging Material, Rubber | 0.57 |
| Packaging Material, Steel | 133.66 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.11E+00 |
| Am-243 | 7.04E-03 |
| Cm-244 | 9.04E+00 |
| Cs-137 | 6.63E-04 |
| Np-237 | 6.26E-04 |
| Pu-238 | 3.43E+00 |
| Pu-239 | 2.24E-01 |
| Pu-240 | 1.86E-01 |
| Pu-241 | 3.20E+00 |
| Pu-242 | 7.04E-03 |
| Pu-244 | 3.33E-07 |
| Sr-90 | 1.77E-04 |
| Th-229 | 1.24E-06 |
| Th-230 | 2.77E-07 |
| Th-232 | 2.75E-07 |
| U-233 | 3.17E-03 |
| U-234 | 6.15E-04 |
| U-235 | 6.60E-06 |
| U-236 | 1.05E-06 |
| U-238 | 4.11E-06 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Waste consists of CH-TRU debris from isotopes production at ORNL

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | ORNL Isotopes Facilities RH-TRU Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 76.18 |
| Aluminum-based Metal/Alloys | 4.00 |
| Other Metal/Alloys | 21.87 |
| Other Inorganic Materials | 4.70 |
| Cellulose | 38.09 |
| Rubber | 20.93 |
| Plastic | 68.89 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.47 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.60E+01 |
| Am-243 | 1.67E-02 |
| Cm-244 | 9.95E+01 |
| Cs-137 | 1.66E-04 |
| Np-237 | 1.52E-03 |
| Pu-238 | 1.69E+01 |
| Pu-239 | 8.06E-01 |
| Pu-240 | 1.62E+00 |
| Pu-241 | 4.47E+00 |
| Pu-242 | 7.18E-04 |
| Sr-90 | 1.66E-04 |
| Th-229 | 7.31E-16 |
| Th-230 | 7.07E-10 |
| Th-232 | 3.97E-04 |
| U-233 | 2.33E-10 |
| U-234 | 7.71E-04 |
| U-235 | 1.67E-05 |
| U-236 | 4.79E-09 |
| U-238 | 1.11E-14 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

325

**Waste Stream Description**

Waste consists of RH-TRU debris from isotopes production at ORNL

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **OR-MRF-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** | 12/31/2018 |
| **Stream Name** | ORNL Metal Recovery Facility CH-TRU Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 8.6 | 0.0 | 8.6 |
| **Final Form Total** | 8.6 | 0.0 | 8.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 65.09 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 2.60 |
| Cellulose | 72.90 |
| Rubber | 26.04 |
| Plastic | 36.45 |
| Cement | 0.00 |
| Solidified Inorganic Material | 5.20 |
| Solidified Organic Material | 52.07 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.02E-01 |
| Am-243 | 1.46E-04 |
| Cm-244 | 1.30E-02 |
| Cs-137 | 1.75E-04 |
| Np-237 | 6.03E-06 |
| Pu-238 | 1.38E-02 |
| Pu-239 | 1.31E-01 |
| Pu-240 | 3.90E-02 |
| Pu-241 | 7.68E-02 |
| Pu-242 | 1.37E-05 |
| Sr-90 | 1.75E-04 |
| Th-229 | 2.61E-08 |
| Th-230 | 9.32E-11 |
| Th-232 | 2.56E-19 |
| U-233 | 9.90E-05 |
| U-234 | 3.44E-06 |
| U-235 | 1.11E-07 |
| U-236 | 3.46E-09 |
| U-238 | 2.24E-06 |

**Haz. Waste No(s).**

D007, D008, D009, D011

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Waste consists of CH-TRU debris from ORNL metal recovery facility activities

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **OR-MRF-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** | 12/31/2018 |
| **Stream Name** | ORNL Metal Recovery Facility RH-TRU Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner | 1.9 | 0.0 | 1.9 |
| **Final Form Total** | 1.9 | 0.0 | 1.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 58.86 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 2.35 |
| Cellulose | 65.93 |
| Rubber | 23.54 |
| Plastic | 32.96 |
| Cement | 0.00 |
| Solidified Inorganic Material | 47.09 |
| Solidified Organic Material | 4.71 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Cs-137 | 8.08E+00 |
| Pu-239 | 2.30E+00 |
| Sr-90 | 5.27E+01 |
| U-235 | 2.27E-10 |

**Haz. Waste No(s).**

D007, D008

**TRUCON Code(s)**

325

**Waste Stream Description**

Waste consists of RH-TRU debris from ORNL metal recovery facility activities

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | New Brunswick Laboratory CH-TRU Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 12.4 | 0.0 | 12.4 |
| **Final Form Total** | 12.4 | 0.0 | 12.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 28.28 |
| Aluminum-based Metal/Alloys | 1.85 |
| Other Metal/Alloys | 36.60 |
| Other Inorganic Materials | 62.49 |
| Cellulose | 11.09 |
| Rubber | 19.78 |
| Plastic | 11.09 |
| Cement | 0.00 |
| Solidified Inorganic Material | 13.31 |
| Solidified Organic Material | 0.37 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.71E-02 |
| Am-243 | 3.85E-05 |
| Cm-244 | 4.11E-03 |
| Cs-137 | 1.61E-05 |
| Np-237 | 2.80E-06 |
| Pu-238 | 1.20E-02 |
| Pu-239 | 7.63E-02 |
| Pu-240 | 2.99E-02 |
| Pu-241 | 2.25E-01 |
| Pu-242 | 7.95E-06 |
| Sr-90 | 1.61E-05 |
| Th-229 | 7.04E-09 |
| Th-230 | 1.21E-11 |
| Th-232 | 2.18E-22 |
| U-233 | 4.16E-04 |
| U-234 | 1.31E-05 |
| U-235 | 8.53E-07 |
| U-236 | 8.86E-11 |
| U-238 | 7.14E-06 |

**Haz. Waste No(s).**

D004, D005, D007, D008, D009, D011, D022, F002, F005

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Waste consists of CH-TRU debris from NBL

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Nuclear Fuel Services CH-TRU Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 103.7 | 0.0 | 103.7 |
| **Final Form Total** | 103.7 | 0.0 | 103.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 59.69 |
| Aluminum-based Metal/Alloys | 5.27 |
| Other Metal/Alloys | 4.83 |
| Other Inorganic Materials | 319.96 |
| Cellulose | 12.29 |
| Rubber | 2.63 |
| Plastic | 33.80 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.44 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.31E-01 |
| Am-243 | 2.79E-06 |
| Cm-244 | 4.63E-03 |
| Cs-137 | 5.59E-06 |
| Np-237 | 6.62E-06 |
| Pu-238 | 1.56E-01 |
| Pu-239 | 1.24E+00 |
| Pu-240 | 4.11E-01 |
| Pu-241 | 3.27E+00 |
| Pu-242 | 8.40E-05 |
| Sr-90 | 5.59E-06 |
| Th-229 | 2.23E-06 |
| Th-230 | 9.27E-12 |
| Th-232 | 2.78E-06 |
| U-233 | 1.88E-03 |
| U-234 | 1.01E-05 |
| U-235 | 7.07E-07 |
| U-236 | 1.22E-09 |
| U-238 | 2.84E-05 |

**Haz. Waste No(s).**

D006, D008, D009, D011, F002

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Waste consists of CH-TRU debris from NFS

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Nuclear Fuel Services CH-TRU Homogeneous Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 8.8 | 0.0 | 8.8 |
| 55-gal POC - 12" w/ Liner | 0.1 | 0.0 | 0.1 |
| **Final Form Total** | 8.9 | 0.0 | 8.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 6.86 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 13.72 |
| Cement | 11.24 |
| Solidified Inorganic Material | 69.59 |
| Solidified Organic Material | 11.02 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 6.30 |
| Packaging Material, Plastic | 1.73 |
| Packaging Material, Rubber | 0.58 |
| Packaging Material, Steel | 152.78 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.06E+00 |
| Am-243 | 5.89E-04 |
| Cs-137 | 2.55E-05 |
| Np-237 | 5.69E-05 |
| Pu-238 | 1.45E+00 |
| Pu-239 | 1.14E+01 |
| Pu-240 | 3.81E+00 |
| Pu-241 | 3.07E+01 |
| Pu-242 | 7.14E-04 |
| Sr-90 | 2.55E-05 |
| Th-229 | 9.21E-06 |
| Th-230 | 9.15E-12 |
| Th-232 | 5.19E-06 |
| U-233 | 6.13E-04 |
| U-234 | 1.02E-05 |
| U-235 | 4.99E-07 |
| U-236 | 1.13E-08 |
| U-238 | 2.37E-05 |

**Haz. Waste No(s).**

D006, D009

**TRUCON Code(s)**

111/211

**Waste Stream Description**

Waste consists of homogeneous waste from NFS

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Nuclear Fuel Services CH-TRU Soil Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 26.7 | 0.0 | 26.7 |
| **Final Form Total** | 26.7 | 0.0 | 26.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.00 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 1.59 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 10.62 |
| Soil | 518.71 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 8.17E-02 |
| Cs-137 | 9.35E-08 |
| Np-237 | 1.02E-06 |
| Pu-238 | 2.73E-07 |
| Pu-239 | 1.46E-02 |
| Pu-240 | 1.55E-01 |
| Pu-241 | 5.27E-02 |
| Pu-242 | 1.97E-01 |
| Sr-90 | 3.79E-07 |
| Th-229 | 2.84E-07 |
| Th-230 | 3.14E-05 |
| Th-232 | 3.11E-07 |
| U-233 | 2.55E-05 |
| U-234 | 5.29E-06 |
| U-235 | 2.48E-07 |
| U-236 | 4.58E-10 |
| U-238 | 5.81E-06 |

**Haz. Waste No(s).**

F002

**TRUCON Code(s)**

111/211

**Waste Stream Description**

Waste consists of soils from NFS

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **OR-OXIDE-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** | 12/31/2018 |
| **Stream Name** | ORNL Oxide CH-TRU Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal POC - 6" 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 | 431.59 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 863.18 |
| Cellulose | 143.86 |
| 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, Cellulose | 3725.00 |
| Packaging Material, Plastic | 642.50 |
| Packaging Material, Rubber | 9.83 |
| Packaging Material, Steel | 5558.33 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.02E+03 |
| Am-243 | 2.43E-03 |
| Cs-137 | 4.79E-05 |
| Np-237 | 2.60E-02 |
| Pu-238 | 8.96E+02 |
| Pu-239 | 3.35E+02 |
| Pu-240 | 8.67E+02 |
| Pu-241 | 1.65E+04 |
| Pu-242 | 3.90E+00 |
| Sr-90 | 4.79E-05 |
| Th-229 | 2.84E-04 |
| Th-230 | 1.95E-05 |
| Th-232 | 9.05E-13 |
| U-233 | 3.22E+00 |
| U-234 | 1.07E-01 |
| U-235 | 9.32E-05 |
| U-236 | 9.30E-04 |
| U-238 | 1.72E-03 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Waste consists of CH-TRU debris from ORNL oxide handling, packaging, and production activities

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Paducah Gaseous Diffusion Plant CH-TRU Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 6.5 | 0.0 | 6.5 |
| **Final Form Total** | 6.5 | 0.0 | 6.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 281.18 |
| Aluminum-based Metal/Alloys | 7.94 |
| Other Metal/Alloys | 67.26 |
| Other Inorganic Materials | 37.83 |
| Cellulose | 11.21 |
| Rubber | 8.41 |
| Plastic | 39.23 |
| Cement | 0.00 |
| Solidified Inorganic Material | 2.80 |
| Solidified Organic Material | 11.21 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.68E-02 |
| Am-243 | 3.93E-06 |
| Cs-137 | 2.61E-05 |
| Np-237 | 1.77E-02 |
| Pu-238 | 2.31E-02 |
| Pu-239 | 1.40E-01 |
| Pu-240 | 3.16E-02 |
| Pu-241 | 5.22E-01 |
| Pu-242 | 3.15E-06 |
| Sr-90 | 2.61E-05 |
| Th-229 | 8.77E-09 |
| Th-230 | 5.74E-10 |
| Th-232 | 6.18E-08 |
| U-233 | 9.97E-04 |
| U-234 | 6.25E-04 |
| U-235 | 1.07E-04 |
| U-236 | 9.35E-11 |
| U-238 | 2.63E-03 |

**Haz. Waste No(s).**

D005, D007, D008, D011

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Waste consists of CH-TRU debris from PGDP

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | ORNL Radiochemical Processing Research & Development CH-TRU Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 36.1 | 0.0 | 36.1 |
| 55-gal POC - 6" w/ Liner | 0.0 | 0.0 | 0.0 |
| **Final Form Total** | 36.1 | 0.0 | 36.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 51.33 |
| Aluminum-based Metal/Alloys | 1.92 |
| Other Metal/Alloys | 7.12 |
| Other Inorganic Materials | 5.89 |
| Cellulose | 29.57 |
| Rubber | 7.25 |
| Plastic | 32.71 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 1.10 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 1.24 |
| Packaging Material, Plastic | 0.21 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 131.33 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.52E-01 |
| Am-243 | 6.36E-03 |
| Cm-244 | 1.04E+00 |
| Cs-137 | 4.97E-03 |
| Np-237 | 5.82E-04 |
| Pu-238 | 1.91E-01 |
| Pu-239 | 4.35E-01 |
| Pu-240 | 1.69E-01 |
| Pu-241 | 9.46E-01 |
| Pu-242 | 4.57E-05 |
| Pu-244 | 1.60E-05 |
| Sr-90 | 1.90E-03 |
| Th-229 | 1.24E-05 |
| Th-230 | 4.93E-09 |
| Th-232 | 2.77E-07 |
| U-233 | 1.86E-02 |
| U-234 | 7.33E-05 |
| U-235 | 1.56E-06 |
| U-236 | 2.73E-08 |
| U-238 | 5.48E-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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | ORNL Radiochemical Processing Research & Development RH-TRU Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner | 6.3 | 0.0 | 6.3 |
| **Final Form Total** | 6.3 | 0.0 | 6.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 55.65 |
| Aluminum-based Metal/Alloys | 2.08 |
| Other Metal/Alloys | 7.72 |
| Other Inorganic Materials | 6.38 |
| Cellulose | 32.06 |
| Rubber | 7.87 |
| Plastic | 35.47 |
| Cement | 0.00 |
| Solidified Inorganic Material | 1.19 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.23E-03 |
| Cm-244 | 1.49E-02 |
| Cs-137 | 1.20E+01 |
| Np-237 | 5.25E-08 |
| Pu-238 | 5.98E-03 |
| Pu-239 | 1.23E-02 |
| Pu-240 | 4.59E-04 |
| Pu-241 | 9.43E-03 |
| Pu-242 | 2.67E-06 |
| Sr-90 | 1.40E+00 |
| Th-229 | 6.57E-06 |
| Th-230 | 3.19E-08 |
| Th-232 | 3.84E-05 |
| U-233 | 2.27E-03 |
| U-234 | 1.05E-04 |
| U-235 | 2.13E-06 |
| U-236 | 4.08E-10 |
| U-238 | 5.64E-05 |

**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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Radiochemical Engineering Development Center CH-TRU Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 336.2 | 249.9 | 586.1 |
| 55-gal POC - 12" w/ Liner | 0.8 | 0.0 | 0.8 |
| 55-gal POC - 6" w/ Liner | 0.0 | 0.0 | 0.0 |
| **Final Form Total** | 337.0 | 249.9 | 586.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 49.54 |
| Aluminum-based Metal/Alloys | 2.40 |
| Other Metal/Alloys | 1.50 |
| Other Inorganic Materials | 19.22 |
| Cellulose | 7.21 |
| Rubber | 1.95 |
| Plastic | 68.31 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.99 |
| Packaging Material, Plastic | 0.25 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 132.68 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.81E-01 |
| Am-243 | 1.38E-02 |
| Cm-244 | 6.95E+00 |
| Cs-137 | 4.71E-02 |
| Np-237 | 1.92E-03 |
| Pu-238 | 6.72E+00 |
| Pu-239 | 6.07E-02 |
| Pu-240 | 9.78E-02 |
| Pu-241 | 5.92E-01 |
| Pu-242 | 8.62E-04 |
| Pu-244 | 2.00E-06 |
| Sr-90 | 3.15E-01 |
| Th-229 | 2.66E-06 |
| Th-230 | 1.41E-05 |
| Th-232 | 2.47E-08 |
| U-233 | 7.83E-04 |
| U-234 | 1.21E-04 |
| U-235 | 2.57E-07 |
| U-236 | 4.68E-08 |
| U-238 | 5.16E-06 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Waste consists of CH-TRU debris from REDC at ORNL

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Radiochemical Engineering Development Center RH-TRU Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can NS15 w/ Liner | 3.5 | 0.0 | 3.5 |
| RH Can NS30 w/ Liner | 3.6 | 5.0 | 8.6 |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner | 41.6 | 75.6 | 117.2 |
| **Final Form Total** | 48.7 | 80.6 | 129.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 173.10 |
| Aluminum-based Metal/Alloys | 0.03 |
| Other Metal/Alloys | 17.30 |
| Other Inorganic Materials | 49.12 |
| Cellulose | 19.55 |
| Rubber | 4.86 |
| Plastic | 25.23 |
| Cement | 0.00 |
| Solidified Inorganic Material | 3.54 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 154.18 |
| Packaging Material, Rubber | 0.51 |
| Packaging Material, Steel | 1019.29 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.84E+00 |
| Am-243 | 2.93E-01 |
| Cm-244 | 4.39E+01 |
| Cs-137 | 1.46E+00 |
| Np-237 | 2.82E-03 |
| Pu-238 | 1.15E+01 |
| Pu-239 | 1.79E-01 |
| Pu-240 | 7.28E-01 |
| Pu-241 | 8.09E+00 |
| Pu-242 | 9.05E-03 |
| Pu-244 | 2.15E-09 |
| Sr-90 | 2.53E+01 |
| Th-229 | 2.96E-14 |
| Th-230 | 2.84E-10 |
| Th-232 | 7.36E-21 |
| U-233 | 3.64E-09 |
| U-234 | 3.11E-04 |
| U-235 | 4.06E-06 |
| U-236 | 2.57E-09 |
| U-238 | 9.46E-05 |

**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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | ORNL Reactor Fuels Research & Development CH-TRU Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 67.4 | 0.0 | 67.4 |
| 55-gal POC - 12" w/ Liner | 0.0 | 0.0 | 0.0 |
| 55-gal POC - 6" w/ Liner | 0.0 | 0.0 | 0.0 |
| **Final Form Total** | 67.5 | 0.0 | 67.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 29.86 |
| Aluminum-based Metal/Alloys | 5.43 |
| Other Metal/Alloys | 13.57 |
| Other Inorganic Materials | 2.71 |
| Cellulose | 23.07 |
| Rubber | 19.00 |
| Plastic | 35.29 |
| Cement | 0.00 |
| Solidified Inorganic Material | 6.79 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 1.74 |
| Packaging Material, Plastic | 0.34 |
| Packaging Material, Rubber | 0.57 |
| Packaging Material, Steel | 132.99 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.84E-01 |
| Am-243 | 1.84E-04 |
| Cm-244 | 8.89E-02 |
| Cs-137 | 1.62E-01 |
| Np-237 | 1.56E-05 |
| Pu-238 | 6.57E-01 |
| Pu-239 | 1.12E+00 |
| Pu-240 | 5.18E-01 |
| Pu-241 | 6.05E+00 |
| Pu-242 | 1.70E-04 |
| Pu-244 | 9.98E-21 |
| Sr-90 | 2.75E-01 |
| Th-229 | 1.59E-04 |
| Th-230 | 4.47E-09 |
| Th-232 | 2.39E-06 |
| U-233 | 4.00E-01 |
| U-234 | 4.86E-03 |
| U-235 | 4.82E-06 |
| U-236 | 1.58E-06 |
| U-238 | 7.89E-06 |

**Haz. Waste No(s).**

D006, D007, D008, D009, D011, D019, F001, F002, F005

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Waste consists of CH-TRU debris from reactor fuels R&D at ORNL

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | ORNL Reactor Fuels Research & Development CH-TRU Homogeneous Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 1.1 | 0.0 | 1.1 |
| **Final Form Total** | 1.1 | 0.0 | 1.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 5.43 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 10.86 |
| Cement | 9.05 |
| Solidified Inorganic Material | 55.19 |
| Solidified Organic Material | 9.05 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.15E-02 |
| Cs-137 | 1.46E-03 |
| Np-237 | 5.65E-07 |
| Pu-238 | 3.89E-04 |
| Pu-239 | 9.94E-04 |
| Sr-90 | 2.15E-02 |
| Th-229 | 3.97E-14 |
| Th-230 | 6.55E-12 |
| U-233 | 4.08E-11 |
| U-234 | 4.14E-08 |
| U-235 | 3.23E-11 |

**Haz. Waste No(s).**

D006, D007, D008, D009, D010

**TRUCON Code(s)**

111/211

**Waste Stream Description**

Waste consists of homogeneous waste from reactor fuels R&D at ORNL

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | ORNL Reactor Fuels Research & Development RH-TRU Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner | 17.6 | 10.1 | 27.7 |
| **Final Form Total** | 17.6 | 10.1 | 27.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 106.05 |
| Aluminum-based Metal/Alloys | 24.10 |
| Other Metal/Alloys | 21.69 |
| Other Inorganic Materials | 21.69 |
| Cellulose | 33.74 |
| Rubber | 7.23 |
| Plastic | 19.28 |
| Cement | 0.00 |
| Solidified Inorganic Material | 4.82 |
| Solidified Organic Material | 2.41 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.20E+00 |
| Am-243 | 2.48E-02 |
| Cm-244 | 4.63E+00 |
| Cs-137 | 6.98E+01 |
| Np-237 | 1.26E-04 |
| Pu-238 | 3.49E+00 |
| Pu-239 | 6.66E-01 |
| Pu-240 | 9.11E-01 |
| Pu-241 | 9.21E+01 |
| Pu-242 | 6.72E-03 |
| Pu-244 | 5.57E-04 |
| Sr-90 | 3.75E+01 |
| Th-229 | 4.50E-07 |
| Th-230 | 4.44E-02 |
| Th-232 | 2.64E-06 |
| U-233 | 5.11E-02 |
| U-234 | 1.13E-03 |
| U-235 | 2.93E-05 |
| U-236 | 6.29E-05 |
| U-238 | 1.89E-04 |

**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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | ORNL Solid Waste Storage Area 5 North 7802N Trench Area Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 8.03 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 199.17 |
| Cellulose | 1.06 |
| Rubber | 0.00 |
| Plastic | 1.06 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 2.11 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.04E-01 |
| Am-243 | 3.02E-04 |
| Cm-244 | 4.31E-01 |
| Cs-137 | 1.96E-04 |
| Np-237 | 1.25E-04 |
| Pu-238 | 1.12E-02 |
| Pu-239 | 3.16E-03 |
| Pu-240 | 8.85E-04 |
| Pu-241 | 4.22E-03 |
| Pu-242 | 7.33E-08 |
| Sr-90 | 1.95E-04 |
| Th-229 | 6.54E-06 |
| Th-230 | 4.04E-09 |
| Th-232 | 2.40E-21 |
| U-233 | 2.71E-02 |
| U-234 | 2.20E-04 |
| U-235 | 6.22E-12 |
| U-236 | 4.96E-11 |
| U-238 | 2.28E-17 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D019, D028, F001, F002, F005

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Waste consists of CH-TRU debris from SWSA 5 7802N Trench area

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | ORNL Solid Waste Storage Area 5 North 7802N Trench Area Soil Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 2.92 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 1.46 |
| Other Inorganic Materials | 6.58 |
| Cellulose | 2.92 |
| Rubber | 0.00 |
| Plastic | 16.09 |
| Cement | 0.00 |
| Solidified Inorganic Material | 118.46 |
| Solidified Organic Material | 2.92 |
| Soil | 579.85 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.23E-02 |
| Am-243 | 5.99E-05 |
| Cm-244 | 8.64E+00 |
| Cs-137 | 5.61E-06 |
| Np-237 | 2.79E-06 |
| Pu-238 | 4.28E-02 |
| Pu-239 | 2.59E-02 |
| Pu-240 | 1.05E-02 |
| Pu-241 | 7.31E-02 |
| Pu-242 | 4.42E-06 |
| Sr-90 | 5.59E-06 |
| Th-229 | 4.49E-07 |
| Th-230 | 8.31E-11 |
| Th-232 | 3.69E-07 |
| U-233 | 2.41E-11 |
| U-234 | 4.64E-06 |
| U-235 | 9.49E-08 |
| U-236 | 5.67E-10 |
| U-238 | 1.33E-15 |

**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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | TBD CH-TRU Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 22.9 | 0.0 | 22.9 |
| **Final Form Total** | 22.9 | 0.0 | 22.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 34.61 |
| Aluminum-based Metal/Alloys | 6.29 |
| Other Metal/Alloys | 15.73 |
| Other Inorganic Materials | 3.15 |
| Cellulose | 26.74 |
| Rubber | 22.02 |
| Plastic | 40.90 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 7.87 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.85E+00 |
| Am-243 | 1.74E-04 |
| Cm-244 | 6.06E-03 |
| Cs-137 | 6.38E-03 |
| Np-237 | 1.64E-03 |
| Pu-238 | 8.45E+00 |
| Pu-239 | 1.18E+00 |
| Pu-240 | 8.95E-01 |
| Pu-241 | 1.04E+00 |
| Pu-242 | 5.00E-04 |
| Pu-244 | 6.22E-05 |
| Sr-90 | 2.46E-03 |
| Th-229 | 8.74E-04 |
| Th-230 | 1.41E-05 |
| Th-232 | 2.20E-05 |
| U-233 | 2.37E-01 |
| U-234 | 2.50E-03 |
| U-235 | 5.76E-05 |
| U-236 | 1.65E-05 |
| U-238 | 1.04E-04 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D022, F001, F002, F004, F005

**TRUCON Code(s)**

125/225

**Waste Stream Description**

CH-TRU Debris Waste Needing Further Evaluation

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | TBD RH-TRU Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner | 13.2 | 9.5 | 22.7 |
| **Final Form Total** | 13.2 | 9.5 | 22.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 270.96 |
| Aluminum-based Metal/Alloys | 61.58 |
| Other Metal/Alloys | 55.42 |
| Other Inorganic Materials | 61.58 |
| Cellulose | 86.21 |
| Rubber | 18.47 |
| Plastic | 49.27 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 12.32 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.18E-02 |
| Am-243 | 3.71E-06 |
| Cm-244 | 1.03E-01 |
| Cs-137 | 1.21E+02 |
| Np-237 | 6.24E-05 |
| Pu-238 | 3.55E+00 |
| Pu-239 | 4.95E-03 |
| Pu-240 | 1.69E-03 |
| Pu-241 | 2.70E-01 |
| Pu-242 | 1.91E-06 |
| Pu-244 | 2.51E-07 |
| Sr-90 | 7.41E+01 |
| Th-229 | 1.92E-04 |
| Th-230 | 1.88E-06 |
| Th-232 | 1.09E-13 |
| U-233 | 4.10E-02 |
| U-234 | 2.91E-03 |
| U-235 | 4.16E-05 |
| U-236 | 6.67E-05 |
| U-238 | 2.59E-05 |

**Haz. Waste No(s).**

D005, D006, D007, D008, D009, D011

**TRUCON Code(s)**

325

**Waste Stream Description**

RH-TRU Debris Waste Needing Further Evaluation

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **OR-W1A-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** | 12/31/2018 |
| **Stream Name** | ER CH TRU Soils | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 9.0 | 0.0 | 9.0 |
| **Final Form Total** | 9.0 | 0.0 | 9.0 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.00 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.52 |
| Rubber | 0.00 |
| Plastic | 0.52 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 2.10 |
| Soil | 258.76 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.47E-01 |
| Am-243 | 7.46E-05 |
| Cm-244 | 2.44E-03 |
| Cs-137 | 2.80E+00 |
| Np-237 | 2.49E-04 |
| Pu-238 | 4.72E-02 |
| Pu-239 | 1.19E-01 |
| Pu-240 | 4.20E-04 |
| Pu-241 | 6.82E-01 |
| Pu-242 | 6.54E-05 |
| Sr-90 | 2.64E-02 |
| Th-229 | 5.04E-01 |
| Th-230 | 2.93E-04 |
| Th-232 | 7.00E-03 |
| U-233 | 6.59E-01 |
| U-234 | 2.28E-02 |
| U-235 | 3.89E-04 |
| U-236 | 5.93E-04 |
| U-238 | 6.83E-03 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

111/211

**Waste Stream Description**

This waste is made up of soils.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **OR-W1A-RH-SOIL**

**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** | 12/31/2018 |
| **Stream Name** | ER RH TRU Soils | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner | 10.1 | 0.0 | 10.1 |
| **Final Form Total** | 10.1 | 0.0 | 10.1 |

**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 | 1.96 |
| Rubber | 0.00 |
| Plastic | 1.96 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 7.84 |
| Soil | 968.58 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.45E-01 |
| Cm-244 | 3.53E-02 |
| Cs-137 | 7.50E-01 |
| Np-237 | 1.44E-08 |
| Pu-238 | 1.28E-02 |
| Pu-239 | 1.41E-01 |
| Pu-240 | 7.92E-02 |
| Pu-241 | 1.42E+01 |
| Pu-242 | 7.55E-05 |
| Sr-90 | 2.25E-01 |
| Th-229 | 5.41E-07 |
| Th-230 | 1.86E-09 |
| Th-232 | 5.78E-22 |
| U-233 | 6.15E-02 |
| U-234 | 2.03E-03 |
| U-235 | 3.39E-05 |
| U-236 | 2.34E-10 |
| U-238 | 9.96E-04 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

311

**Waste Stream Description**

This waste is made up of soils.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | ORNL-Liquid Waste Treatment CH-TRU Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 8.4 | 0.0 | 8.4 |
| **Final Form Total** | 8.4 | 0.0 | 8.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 28.46 |
| Aluminum-based Metal/Alloys | 5.18 |
| Other Metal/Alloys | 12.94 |
| Other Inorganic Materials | 2.59 |
| Cellulose | 21.99 |
| Rubber | 18.11 |
| Plastic | 33.64 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 6.47 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.35E-02 |
| Am-243 | 9.57E-05 |
| Cm-244 | 7.76E-04 |
| Cs-137 | 1.59E-01 |
| Np-237 | 1.17E-05 |
| Pu-238 | 1.38E-02 |
| Pu-239 | 8.35E-01 |
| Pu-240 | 1.19E-03 |
| Pu-241 | 7.95E-03 |
| Pu-242 | 2.17E-06 |
| Sr-90 | 2.77E-03 |
| Th-229 | 2.09E-05 |
| Th-230 | 6.30E-06 |
| Th-232 | 1.11E-05 |
| U-233 | 3.21E-04 |
| U-234 | 3.21E-04 |
| U-235 | 4.75E-06 |
| U-236 | 3.75E-06 |
| U-238 | 9.33E-06 |

**Haz. Waste No(s).**

D008

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Waste consists of CH-TRU debris from ORNL liquids waste system.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Oak Ridge Y-12 CH-TRU Debris Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 21.93 |
| Aluminum-based Metal/Alloys | 3.99 |
| Other Metal/Alloys | 9.97 |
| Other Inorganic Materials | 1.99 |
| Cellulose | 16.95 |
| Rubber | 13.96 |
| Plastic | 25.92 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 4.98 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Np-237 | 1.01E-02 |
| Pu-238 | 4.14E-04 |
| Pu-239 | 4.92E-02 |
| Pu-240 | 2.06E-05 |
| Th-229 | 7.70E-12 |
| Th-230 | 1.60E-08 |
| Th-232 | 6.03E-23 |
| U-233 | 8.76E-08 |
| U-234 | 8.71E-04 |
| U-235 | 1.19E-04 |
| U-236 | 1.22E-12 |
| U-238 | 9.75E-04 |

**Haz. Waste No(s).**

D008

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Waste consists of CH-TRU debris from Y-12

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | RH-TRU Non Mixed Debris Waste from 100-D | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 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 | 1945.45 |
| 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, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.27E-02 |
| Am-243 | 2.43E-05 |
| Cs-137 | 7.20E-01 |
| Np-237 | 4.10E-06 |
| Pu-238 | 1.05E-02 |
| Pu-239 | 1.52E-02 |
| Pu-240 | 1.96E-02 |
| Pu-241 | 1.14E+00 |
| Pu-242 | 7.65E-06 |
| Sr-90 | 5.13E-01 |
| Th-229 | 2.77E-14 |
| Th-230 | 5.06E-12 |
| Th-232 | 5.16E-19 |
| U-233 | 1.05E-10 |
| U-234 | 1.82E-07 |
| U-235 | 3.98E-06 |
| U-236 | 3.49E-09 |
| U-238 | 2.95E-05 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

325

**Waste Stream Description**

RH TRU Aluminum capsules from swelling test experiments. Waste was generated by Washington Closure Hanford during reactor burial ground remediation.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | 105-C, 105KE, and 105-N Bldg. TRU CH Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 38.4 | 0.0 | 38.4 |
| SWB Dir Ld w/ Liner | 20.7 | 0.0 | 20.7 |
| **Final Form Total** | 59.1 | 0.0 | 59.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 135.42 |
| Aluminum-based Metal/Alloys | 6.90 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 44.85 |
| Cellulose | 27.60 |
| Rubber | 24.15 |
| Plastic | 51.06 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 24.29 |
| Packaging Material, Rubber | 0.43 |
| Packaging Material, Steel | 138.18 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.69E-02 |
| Cs-137 | 2.70E-03 |
| Np-237 | 7.22E-08 |
| Pu-238 | 4.72E-03 |
| Pu-239 | 2.48E-02 |
| Pu-240 | 1.19E-02 |
| Pu-241 | 2.72E-01 |
| Pu-242 | 5.39E-07 |
| Sr-90 | 5.12E-03 |
| Th-229 | 3.52E-16 |
| Th-230 | 1.98E-11 |
| Th-232 | 7.06E-19 |
| U-233 | 1.36E-12 |
| U-234 | 3.00E-07 |
| U-235 | 4.62E-09 |
| U-236 | 3.18E-09 |
| U-238 | 9.41E-08 |

**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.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | NLOP sludge | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 69.1 | 0.0 | 69.1 |
| **Final Form Total** | 69.1 | 0.0 | 69.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 35.75 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 12.47 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 0.00 |
| Cement | 921.75 |
| Solidified Inorganic Material | 614.50 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.80E-01 |
| Cs-137 | 1.36E+00 |
| Np-237 | 1.03E-05 |
| Pu-238 | 6.32E-02 |
| Pu-239 | 3.35E-01 |
| Pu-240 | 1.84E-01 |
| Pu-241 | 5.42E+00 |
| Pu-242 | 8.76E-05 |
| Sr-90 | 6.72E+00 |
| Th-229 | 1.72E-13 |
| Th-230 | 5.44E-08 |
| Th-232 | 6.43E-16 |
| U-233 | 4.03E-10 |
| U-234 | 5.93E-04 |
| U-235 | 2.23E-05 |
| U-236 | 1.33E-06 |
| U-238 | 4.76E-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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | 105-C, 105KE, and 105-N Bldg RH-TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 115.9 | 0.0 | 115.9 |
| **Final Form Total** | 115.9 | 0.0 | 115.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 148.52 |
| Aluminum-based Metal/Alloys | 7.57 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 49.19 |
| Cellulose | 30.27 |
| Rubber | 26.49 |
| Plastic | 52.97 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.98E-02 |
| Cm-244 | 1.20E-04 |
| Cs-137 | 1.34E+00 |
| Np-237 | 3.10E-07 |
| Pu-238 | 1.83E-02 |
| Pu-239 | 6.75E-02 |
| Pu-240 | 3.60E-02 |
| Pu-241 | 5.37E-01 |
| Pu-242 | 1.00E-06 |
| Sr-90 | 6.42E-01 |
| Th-229 | 3.16E-15 |
| Th-230 | 2.77E-10 |
| Th-232 | 4.45E-18 |
| U-233 | 8.43E-12 |
| U-234 | 2.67E-06 |
| U-235 | 1.82E-07 |
| U-236 | 1.39E-08 |
| U-238 | 3.88E-06 |

**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)**

325

**Waste Stream Description**

The 105-KE RH waste stream is composed solely of cartridge-type water filters from the Primary Recirculation System. The waste stream includes 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.* ***2.03*** *Data ver.* ***D.18.00.33***
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** | 12/31/2018 |
| **Stream Name** | 105KE TRU RH Non-mixed solidified inorganics | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 687.5 | 0.0 | 687.5 |
| **Final Form Total** | 687.5 | 0.0 | 687.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 3.86 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.14 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 0.00 |
| Cement | 1.05 |
| Solidified Inorganic Material | 9.44 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.07E+00 |
| Cs-137 | 4.55E+00 |
| Np-237 | 8.85E-05 |
| Pu-238 | 1.16E-01 |
| Pu-239 | 5.92E-01 |
| Pu-240 | 3.43E-01 |
| Pu-241 | 3.84E+00 |
| Pu-242 | 1.43E-04 |
| Sr-90 | 6.30E+00 |
| Th-229 | 2.34E-12 |
| Th-230 | 1.95E-07 |
| Th-232 | 1.33E-13 |
| U-233 | 4.48E-09 |
| U-234 | 1.76E-03 |
| U-235 | 7.15E-05 |
| U-236 | 2.25E-04 |
| U-238 | 1.56E-03 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

311

**Waste Stream Description**

Solidified inorganic RH TRU waste generated from Facility/Equipment Operation and Maintenance activities at the K Basin facility.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Misc 200 Area TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 72.0 | 0.0 | 72.0 |
| SWB Dir Ld w/ Liner | 3.8 | 0.0 | 3.8 |
| **Final Form Total** | 75.8 | 0.0 | 75.8 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 1117.27 |
| Aluminum-based Metal/Alloys | 252.78 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 66.17 |
| Cellulose | 48.49 |
| Rubber | 16.72 |
| Plastic | 66.19 |
| Cement | 0.00 |
| Solidified Inorganic Material | 10.62 |
| Solidified Organic Material | 0.00 |
| Soil | 5.71 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 34.95 |
| Packaging Material, Rubber | 0.54 |
| Packaging Material, Steel | 130.75 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.65E-02 |
| Cs-137 | 1.24E-04 |
| Np-237 | 2.08E-07 |
| Pu-238 | 4.80E-03 |
| Pu-239 | 1.99E-01 |
| Pu-240 | 4.53E-02 |
| Pu-241 | 2.99E-01 |
| Pu-242 | 3.88E-06 |
| Sr-90 | 9.18E-06 |
| Th-229 | 1.83E-15 |
| Th-230 | 1.23E-11 |
| Th-232 | 4.77E-18 |
| U-233 | 5.27E-12 |
| U-234 | 1.96E-07 |
| U-235 | 2.98E-09 |
| U-236 | 1.61E-08 |
| U-238 | 1.35E-08 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, F001, F002, F003, F004, F005

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Containers with both combustible and noncombustible waste items from various general operations/maintenance/evaporator in 200 area. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Soil from Groundwater projects and contaminated soil from PFP operable units PW-1, PW-3, PW-6, CW-5 | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 13.0 | 3959.6 | 3972.6 |
| SLB2 Dir Ld | 0.0 | 369.5 | 369.5 |
| **Final Form Total** | 13.0 | 4329.1 | 4342.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 2.86 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 410.19 |
| Cellulose | 3.78 |
| Rubber | 1.75 |
| Plastic | 7.39 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 434.28 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 33.59 |
| Packaging Material, Rubber | 0.52 |
| Packaging Material, Steel | 132.55 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.27E-01 |
| Cs-137 | 6.81E-04 |
| Np-237 | 1.88E-06 |
| Pu-238 | 9.69E-03 |
| Pu-239 | 1.68E-01 |
| Pu-240 | 5.03E-02 |
| Pu-241 | 2.82E-01 |
| Pu-242 | 3.98E-06 |
| Sr-90 | 1.03E-02 |
| Th-229 | 4.61E-12 |
| Th-230 | 1.64E-08 |
| Th-232 | 7.12E-09 |
| U-233 | 6.58E-09 |
| U-234 | 1.11E-06 |
| U-235 | 4.31E-08 |
| U-236 | 5.81E-08 |
| U-238 | 8.71E-07 |

**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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | 201C TRU Mixed Solid Inorganic | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 14.5 | 0.0 | 14.5 |
| **Final Form Total** | 14.5 | 0.0 | 14.5 |

**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 | 25.78 |
| Other Inorganic Materials | 8.54 |
| Cellulose | 60.16 |
| Rubber | 111.34 |
| Plastic | 30.07 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.87 |
| Solidified Organic Material | 0.00 |
| Soil | 293.34 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.94E+00 |
| Cs-137 | 1.58E-01 |
| Np-237 | 4.42E-06 |
| Pu-238 | 6.07E-05 |
| Pu-239 | 1.30E-01 |
| Pu-240 | 3.20E-02 |
| Pu-241 | 2.32E-03 |
| Pu-242 | 4.66E-08 |
| Sr-90 | 4.06E+00 |
| Th-229 | 1.37E-14 |
| Th-230 | 3.43E-13 |
| Th-232 | 1.14E-18 |
| U-233 | 6.65E-11 |
| U-234 | 1.06E-08 |
| U-235 | 8.95E-10 |
| U-236 | 6.63E-09 |
| U-238 | 4.83E-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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | 202S TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 1.3 | 0.0 | 1.3 |
| **Final Form Total** | 1.3 | 0.0 | 1.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 2.26 |
| Aluminum-based Metal/Alloys | 0.75 |
| Other Metal/Alloys | 0.63 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 2.76 |
| Rubber | 0.63 |
| Plastic | 43.82 |
| Cement | 0.00 |
| Solidified Inorganic Material | 2.96 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.96E-02 |
| Cs-137 | 7.78E-08 |
| Np-237 | 1.62E-06 |
| Pu-238 | 8.46E-03 |
| Pu-239 | 5.19E-02 |
| Pu-240 | 1.94E-02 |
| Pu-241 | 8.96E-02 |
| Pu-242 | 2.23E-06 |
| Sr-90 | 6.97E-08 |
| Th-229 | 1.87E-14 |
| Th-230 | 7.32E-12 |
| Th-232 | 9.08E-19 |
| U-233 | 5.38E-11 |
| U-234 | 1.97E-07 |
| U-235 | 4.09E-10 |
| U-236 | 4.60E-09 |
| U-238 | 2.77E-15 |

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

**TRUCON Code(s)**
125/225

**Waste Stream Description**

Generated from investigations at the North Sample Gallery of the 202-S Canyon (REDOX CANYON AND SERVICE FACILITY).Debris waste of personal protective equipment, sharp metal objects, and cleanup material generated in S canyon investigation, waste characterization samples. Predominant debris waste consists of over 80% plastic.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***
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** | 12/31/2018 |
| **Stream Name** | 209E TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 14.7 | 0.0 | 14.7 |
| SWB Dir Ld w/ Liner | 86.5 | 0.0 | 86.5 |
| **Final Form Total** | 101.2 | 0.0 | 101.2 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 245.04 |
| Aluminum-based Metal/Alloys | 0.11 |
| Other Metal/Alloys | 2.49 |
| Other Inorganic Materials | 29.62 |
| Cellulose | 136.71 |
| Rubber | 52.07 |
| Plastic | 118.35 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 6.37 |
| Packaging Material, Rubber | 0.25 |
| Packaging Material, Steel | 150.66 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.66E+01 |
| Cs-137 | 4.54E-08 |
| Np-237 | 2.71E-04 |
| Pu-238 | 5.06E+00 |
| Pu-239 | 3.78E+01 |
| Pu-240 | 1.38E+01 |
| Pu-241 | 1.15E+02 |
| Pu-242 | 2.02E-03 |
| Sr-90 | 4.08E-08 |
| Th-229 | 2.14E-12 |
| Th-230 | 5.25E-08 |
| Th-232 | 4.94E-16 |
| U-233 | 7.24E-09 |
| U-234 | 8.67E-04 |
| U-235 | 2.82E-05 |
| U-236 | 2.86E-06 |
| U-238 | 7.16E-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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | 209E TRU RH Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal 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 | 6.82 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 2.27 |
| Cellulose | 68.18 |
| Rubber | 9.09 |
| Plastic | 65.45 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.21E+01 |
| Np-237 | 1.24E-04 |
| Pu-238 | 2.25E+00 |
| Pu-239 | 1.59E+01 |
| Pu-240 | 5.55E+00 |
| Pu-241 | 4.02E+01 |
| Pu-242 | 6.92E-04 |
| Th-229 | 2.21E-12 |
| Th-230 | 3.75E-09 |
| Th-232 | 4.91E-16 |
| U-233 | 4.89E-09 |
| U-234 | 7.31E-05 |
| U-235 | 1.72E-07 |
| U-236 | 1.81E-06 |
| U-238 | 1.18E-12 |

**Haz. Waste No(s).**

D006, D007, D018, D019, F002, F003, F005

**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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | 216-Z-9 TRU Mixed Soil | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 342.3 | 0.0 | 342.3 |
| **Final Form Total** | 342.3 | 0.0 | 342.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 1.92 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 15.52 |
| Cellulose | 0.32 |
| Rubber | 0.00 |
| Plastic | 0.96 |
| Cement | 0.00 |
| Solidified Inorganic Material | 17.02 |
| Solidified Organic Material | 0.00 |
| Soil | 17.03 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.19E+00 |
| Np-237 | 1.04E-05 |
| Pu-238 | 1.04E+00 |
| Pu-239 | 1.31E+01 |
| Pu-240 | 3.09E+00 |
| Pu-241 | 3.47E+01 |
| Pu-242 | 1.85E-04 |
| Th-229 | 3.93E-14 |
| Th-230 | 6.87E-10 |
| Th-232 | 1.11E-16 |
| U-233 | 1.73E-10 |
| U-234 | 2.11E-05 |
| U-235 | 9.05E-08 |
| U-236 | 6.40E-07 |
| U-238 | 2.01E-13 |

**Haz. Waste No(s).**

D005, D006, D007, D008, D009, D011, D039, F001, F002, F003, F005

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Soil contaminated with large quantities of plutonium, americium, organics, and neutralized acid waste solutions that were removed from the 216-Z-9 Crib. Original packaging material (e.g., 10-L stainless steel slip-lid cans, plastic bags, and vermiculite) now waste due to deterioration and TRU contamination.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***
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** | 12/31/2018 |
| **Stream Name** | 221U Solidified sludge | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 4.90 |
| Aluminum-based Metal/Alloys | 0.68 |
| Other Metal/Alloys | 0.21 |
| Other Inorganic Materials | 0.91 |
| Cellulose | 0.52 |
| Rubber | 0.12 |
| Plastic | 0.46 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.09 |
| Solidified Organic Material | 0.00 |
| Soil | 0.09 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.93E-04 |
| Cs-137 | 6.32E-04 |
| Np-237 | 6.44E-10 |
| Pu-238 | 3.63E-05 |
| Pu-239 | 1.62E-03 |
| Pu-240 | 3.69E-04 |
| Pu-241 | 1.65E-03 |
| Pu-242 | 3.14E-08 |
| Sr-90 | 5.69E-04 |
| Th-229 | 1.95E-18 |
| Th-230 | 2.39E-14 |
| Th-232 | 1.32E-20 |
| U-233 | 9.55E-15 |
| U-234 | 7.36E-10 |
| U-235 | 1.11E-11 |
| U-236 | 7.64E-11 |
| U-238 | 3.41E-17 |

**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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **RL221U-08**

**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** | 12/31/2018 |
| **Stream Name** | U Plant Tank 10 Waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 30.3 | 0.0 | 30.3 |
| **Final Form Total** | 30.3 | 0.0 | 30.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.00 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 0.00 |
| Cement | 0.00 |
| Solidified Inorganic Material | 228.10 |
| Solidified Organic Material | 2.30 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.14E-01 |
| Am-243 | 4.76E-08 |
| Cm-244 | 1.85E-02 |
| Cs-137 | 1.47E+01 |
| Np-237 | 2.08E-03 |
| Pu-238 | 2.05E-01 |
| Pu-239 | 1.61E+00 |
| Pu-240 | 4.56E-01 |
| Pu-241 | 1.58E+01 |
| Pu-242 | 4.61E-05 |
| Sr-90 | 1.12E+01 |
| Th-229 | 5.26E-11 |
| Th-230 | 6.89E-07 |
| Th-232 | 3.13E-07 |
| U-233 | 1.07E-07 |
| U-234 | 8.32E-03 |
| U-235 | 8.73E-06 |
| U-236 | 1.22E-07 |
| U-238 | 1.63E-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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | 222S TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 65.7 | 0.0 | 65.7 |
| SWB Dir Ld w/ Liner | 22.6 | 94.0 | 116.6 |
| **Final Form Total** | 88.3 | 94.0 | 182.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 727.94 |
| Aluminum-based Metal/Alloys | 144.41 |
| Other Metal/Alloys | 0.02 |
| Other Inorganic Materials | 48.46 |
| Cellulose | 73.64 |
| Rubber | 29.08 |
| Plastic | 81.71 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 12.15 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 14.01 |
| 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 | 1.59E-01 |
| Am-243 | 2.77E-07 |
| Cs-137 | 9.33E-04 |
| Np-237 | 2.06E-05 |
| Pu-238 | 1.18E-02 |
| Pu-239 | 7.17E-02 |
| Pu-240 | 3.06E-02 |
| Pu-241 | 6.00E-01 |
| Pu-242 | 2.10E-06 |
| Sr-90 | 8.26E-04 |
| Th-229 | 1.47E-07 |
| Th-230 | 1.80E-11 |
| Th-232 | 1.43E-18 |
| U-233 | 2.09E-04 |
| U-234 | 3.82E-07 |
| U-235 | 4.25E-09 |
| U-236 | 7.25E-09 |
| U-238 | 9.15E-05 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D030, D039, F001, F002, F003, F005

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Combustible waste and Noncombustible waste - TRU wastes were generated from multiple operations, primarily from the hot cells, the hoods, or from within the gloveboxes (for standards laboratory tasks) located in the Analytical laboratory.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | 222S TRU RH Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 1.3 | 0.0 | 1.3 |
| **Final Form Total** | 1.3 | 0.0 | 1.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 717.94 |
| Aluminum-based Metal/Alloys | 113.36 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 55.43 |
| Cellulose | 136.20 |
| Rubber | 58.13 |
| Plastic | 139.48 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 19.95 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.38E-01 |
| Am-243 | 1.43E-02 |
| Cs-137 | 1.30E-01 |
| Np-237 | 1.57E-03 |
| Pu-238 | 3.09E-02 |
| Pu-239 | 3.54E+00 |
| Pu-240 | 9.07E-02 |
| Pu-241 | 6.17E+00 |
| Pu-242 | 3.16E-04 |
| Pu-244 | 1.31E-06 |
| Sr-90 | 2.12E-01 |
| Th-229 | 2.61E-04 |
| Th-230 | 6.20E-11 |
| Th-232 | 9.55E-18 |
| U-233 | 2.47E-01 |
| U-234 | 1.11E-06 |
| U-235 | 6.00E-06 |
| U-236 | 3.22E-08 |
| U-238 | 2.21E-04 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D039, F001, F002, F003, F004, F005

**TRUCON Code(s)**

325

**Waste Stream Description**

Combustible waste and Noncombustible waste- TRU wastes were generated from multiple operations, primarily from the hot cells, the hoods, or from within the gloveboxes (for standards laboratory tasks) located in the Analytical laboratory.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | 231-Z TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 153.1 | 0.0 | 153.1 |
| SWB Dir Ld w/ Liner | 455.0 | 0.0 | 455.0 |
| **Final Form Total** | 608.1 | 0.0 | 608.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 259.16 |
| Aluminum-based Metal/Alloys | 1.12 |
| Other Metal/Alloys | 4.16 |
| Other Inorganic Materials | 39.26 |
| Cellulose | 50.80 |
| Rubber | 9.31 |
| Plastic | 66.70 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 10.15 |
| Packaging Material, Rubber | 0.29 |
| Packaging Material, Steel | 148.03 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.47E-01 |
| Am-243 | 8.75E-08 |
| Cs-137 | 3.29E-05 |
| Np-237 | 1.10E-05 |
| Pu-238 | 9.38E-02 |
| Pu-239 | 7.74E-01 |
| Pu-240 | 2.47E-01 |
| Pu-241 | 3.92E+00 |
| Pu-242 | 2.10E-05 |
| Sr-90 | 2.91E-05 |
| Th-229 | 1.22E-13 |
| Th-230 | 6.97E-09 |
| Th-232 | 1.49E-07 |
| U-233 | 3.55E-10 |
| U-234 | 9.58E-05 |
| U-235 | 1.79E-06 |
| U-236 | 5.85E-08 |
| U-238 | 7.54E-05 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D034, D035, D037, D043, F001, F002, F003, F004, F005

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Combustible and noncombustible 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.* ***2.03*** *Data ver.* ***D.18.00.33***
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** | 12/31/2018 |
| **Stream Name** | 231Z TRU Mixed Solid Inorganic | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 77.99 |
| Other Inorganic Materials | 0.14 |
| Cellulose | 4.88 |
| Rubber | 1.16 |
| Plastic | 15.29 |
| Cement | 0.00 |
| Solidified Inorganic Material | 69.36 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.37E-01 |
| Np-237 | 1.70E-06 |
| Pu-238 | 9.35E-05 |
| Pu-239 | 3.68E-01 |
| Pu-240 | 1.27E-01 |
| Pu-241 | 1.11E-01 |
| Pu-242 | 1.13E-05 |
| Th-229 | 1.60E-13 |
| Th-230 | 2.27E-12 |
| Th-232 | 1.41E-16 |
| U-233 | 1.42E-10 |
| U-234 | 1.20E-08 |
| U-235 | 1.41E-08 |
| U-236 | 1.47E-07 |
| U-238 | 6.86E-14 |

**Haz. Waste No(s).**

D006, D007, D008, D009, F001, F002, F003, F005

**TRUCON Code(s)**

122/222

**Waste Stream Description**

Solidified inorganic waste generated during operations, cleanout, and D&D activities of the 231-Z Building, which has also been called the 231-W Building, the Concentration Building, the Isolation Building, the Plutonium Metallurgical Laboratory, and the 231-Z Materials Engineering Laboratory.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | 233S TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 13.7 | 0.0 | 13.7 |
| SWB Dir Ld w/ Liner | 28.2 | 0.0 | 28.2 |
| **Final Form Total** | 41.9 | 0.0 | 41.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 207.32 |
| Aluminum-based Metal/Alloys | 0.87 |
| Other Metal/Alloys | 1.89 |
| Other Inorganic Materials | 4.73 |
| Cellulose | 14.18 |
| Rubber | 3.07 |
| Plastic | 16.83 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.55 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 12.79 |
| Packaging Material, Rubber | 0.31 |
| Packaging Material, Steel | 146.19 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.39E-01 |
| Cs-137 | 5.93E-05 |
| Np-237 | 7.29E-05 |
| Pu-238 | 5.25E-02 |
| Pu-239 | 3.81E-01 |
| Pu-240 | 1.71E-01 |
| Pu-241 | 2.05E+00 |
| Pu-242 | 3.48E-05 |
| Sr-90 | 5.33E-05 |
| Th-229 | 8.74E-13 |
| Th-230 | 9.93E-11 |
| Th-232 | 7.98E-18 |
| U-233 | 2.49E-09 |
| U-234 | 1.95E-06 |
| U-235 | 2.74E-08 |
| U-236 | 4.04E-08 |
| U-238 | 3.66E-07 |

**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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | 233S solidified inorganic waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 5.3 | 0.0 | 5.3 |
| **Final Form Total** | 5.3 | 0.0 | 5.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.04 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 508.44 |
| Cellulose | 0.00 |
| Rubber | 0.04 |
| Plastic | 0.65 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.38E-02 |
| Cs-137 | 9.78E-07 |
| Np-237 | 5.96E-05 |
| Pu-238 | 1.66E-02 |
| Pu-239 | 6.95E-02 |
| Pu-240 | 2.80E-02 |
| Pu-241 | 1.09E-01 |
| Pu-242 | 1.78E-05 |
| Sr-90 | 8.06E-07 |
| Th-229 | 9.10E-13 |
| Th-230 | 1.83E-11 |
| Th-232 | 1.66E-18 |
| U-233 | 2.30E-09 |
| U-234 | 4.37E-07 |
| U-235 | 6.16E-10 |
| U-236 | 7.46E-09 |
| U-238 | 2.48E-14 |

**Haz. Waste No(s).**

D007

**TRUCON Code(s)**

122/222

**Waste Stream Description**

Solidified inorganic CH TRU waste generated from 233 Facility/Equipment Operation and Maintenance activities

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | 300 Area TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 35.1 | 0.0 | 35.1 |
| SWB Dir Ld w/ Liner | 79.0 | 0.0 | 79.0 |
| **Final Form Total** | 114.0 | 0.0 | 114.0 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 95.20 |
| Aluminum-based Metal/Alloys | 0.13 |
| Other Metal/Alloys | 10.35 |
| Other Inorganic Materials | 42.46 |
| Cellulose | 15.48 |
| Rubber | 3.22 |
| Plastic | 27.46 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 12.13 |
| Packaging Material, Rubber | 0.31 |
| Packaging Material, Steel | 146.65 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.91E+00 |
| Am-243 | 2.94E-04 |
| Cm-244 | 2.87E-02 |
| Cs-137 | 1.51E+00 |
| Np-237 | 3.55E-05 |
| Pu-238 | 7.08E-01 |
| Pu-239 | 1.06E+01 |
| Pu-240 | 3.37E+00 |
| Pu-241 | 4.28E+01 |
| Pu-242 | 1.13E-03 |
| Sr-90 | 1.70E-04 |
| Th-229 | 4.34E-07 |
| Th-230 | 8.79E-08 |
| Th-232 | 5.46E-05 |
| U-233 | 7.05E-04 |
| U-234 | 8.67E-04 |
| U-235 | 3.76E-05 |
| U-236 | 6.99E-07 |
| U-238 | 3.22E-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.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | 300 Area Mixed Solidified Inorganics | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 1.91 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 20.17 |
| Cement | 374.61 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.27E+00 |
| Cs-137 | 3.26E-04 |
| Np-237 | 1.77E-05 |
| Pu-238 | 4.77E-01 |
| Pu-239 | 2.65E+00 |
| Pu-240 | 1.35E+00 |
| Pu-241 | 1.54E+01 |
| Pu-242 | 2.25E-04 |
| Sr-90 | 4.01E-04 |
| Th-229 | 1.32E-13 |
| Th-230 | 2.36E-09 |
| Th-232 | 4.84E-17 |
| U-233 | 4.55E-10 |
| U-234 | 4.14E-05 |
| U-235 | 1.13E-06 |
| U-236 | 2.80E-07 |
| U-238 | 1.92E-05 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D034, D037, D043, F001, F002, F003, F004, F005

**TRUCON Code(s)**

122/222

**Waste Stream Description**

Solidified inorganic CH TRU waste generated from operations, including fuel fabrication, reactor studies, research and development, maintenance, and laboratory operations in the Hanford 300 Area.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **RL300-07**

**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** | 12/31/2018 |
| **Stream Name** | 300 Area RH TRU Non-Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner | 113.4 | 0.0 | 113.4 |
| **Final Form Total** | 113.4 | 0.0 | 113.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 161.54 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 1236.81 |
| Cellulose | 40.39 |
| Rubber | 0.00 |
| Plastic | 10.10 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.32E+00 |
| Am-243 | 3.01E-02 |
| Cm-244 | 1.87E+00 |
| Cs-137 | 3.57E+02 |
| Np-237 | 2.33E-04 |
| Pu-238 | 1.83E+00 |
| Pu-239 | 5.16E-01 |
| Pu-240 | 6.07E-01 |
| Pu-241 | 2.51E+01 |
| Pu-242 | 2.23E-03 |
| Pu-244 | 2.13E-15 |
| Sr-90 | 1.70E+02 |
| Th-229 | 2.47E-06 |
| Th-230 | 1.11E-07 |
| Th-232 | 1.23E-13 |
| U-233 | 1.56E-03 |
| U-234 | 7.19E-04 |
| U-235 | 1.22E-05 |
| U-236 | 1.39E-04 |
| U-238 | 3.85E-04 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

RH TRUM 300 Area debris waste generated from operations, including fuel fabrication, reactor studies, research and development, maintenance, and laboratory operations.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | 300 Area TRU RH Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner | 114.7 | 0.0 | 114.7 |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 268.4 | 0.0 | 268.4 |
| **Final Form Total** | 383.1 | 0.0 | 383.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 13.49 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 103.27 |
| Cellulose | 3.37 |
| Rubber | 0.00 |
| Plastic | 0.84 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 74.18 |
| Packaging Material, Rubber | 0.92 |
| Packaging Material, Steel | 2881.28 |
| Packaging Material, Lead | 2745.37 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.19E+00 |
| Am-243 | 4.87E-06 |
| Cm-244 | 5.03E-01 |
| Cs-137 | 2.96E+02 |
| Np-237 | 3.15E-06 |
| Pu-238 | 8.29E-02 |
| Pu-239 | 2.42E-02 |
| Pu-240 | 2.45E-02 |
| Pu-241 | 6.66E-01 |
| Pu-242 | 3.29E-05 |
| Pu-244 | 7.70E-14 |
| Sr-90 | 1.87E+02 |
| Th-229 | 1.32E-14 |
| Th-230 | 7.35E-11 |
| Th-232 | 2.53E-18 |
| U-233 | 5.52E-11 |
| U-234 | 1.95E-06 |
| U-235 | 1.48E-07 |
| U-236 | 9.29E-09 |
| U-238 | 2.76E-06 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D027, D028, D029, D030, D033, D034, D036, D039, D040, D043, F001, F002, F003, F005

**TRUCON Code(s)**

325

**Waste Stream Description**

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***
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** | 12/31/2018 |
| **Stream Name** | 308 TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 31.9 | 0.0 | 31.9 |
| SWB Dir Ld w/ Liner | 315.8 | 0.0 | 315.8 |
| **Final Form Total** | 347.8 | 0.0 | 347.8 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 321.00 |
| Aluminum-based Metal/Alloys | 0.31 |
| Other Metal/Alloys | 6.04 |
| Other Inorganic Materials | 5.69 |
| Cellulose | 11.34 |
| Rubber | 2.53 |
| Plastic | 13.06 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 4.47 |
| Packaging Material, Rubber | 0.23 |
| Packaging Material, Steel | 151.99 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.95E+01 |
| Am-243 | 5.33E-06 |
| Cs-137 | 4.66E-04 |
| Np-237 | 1.41E-04 |
| Pu-238 | 1.63E+01 |
| Pu-239 | 2.72E+01 |
| Pu-240 | 1.76E+01 |
| Pu-241 | 2.74E+02 |
| Pu-242 | 1.67E-02 |
| Sr-90 | 4.18E-04 |
| Th-229 | 1.32E-07 |
| Th-230 | 3.70E-08 |
| Th-232 | 1.52E-06 |
| U-233 | 2.15E-04 |
| U-234 | 7.39E-04 |
| U-235 | 4.05E-05 |
| U-236 | 3.65E-06 |
| U-238 | 5.84E-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.* ***2.03*** *Data ver.* ***D.18.00.33***
NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | 308 Building TRU Solid Inorganics | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 94.05 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 7.14 |
| Cement | 226.79 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.10E-01 |
| Np-237 | 5.78E-06 |
| Pu-238 | 1.08E-01 |
| Pu-239 | 7.95E-01 |
| Pu-240 | 3.02E-01 |
| Pu-241 | 1.12E+00 |
| Pu-242 | 3.65E-05 |
| Th-229 | 3.38E-13 |
| Th-230 | 1.59E-09 |
| Th-232 | 2.12E-16 |
| U-233 | 3.78E-10 |
| U-234 | 1.07E-05 |
| U-235 | 2.43E-08 |
| U-236 | 2.77E-07 |
| U-238 | 1.76E-13 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**
122/222

**Waste Stream Description**

Waste materials consist of absorbed liquids, including oils or hydraulic fluids, and inorganic debris (such as iron-based metal containers). 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 containers.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***
NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | 308 Building TRU RH Non-Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 20.7 | 0.0 | 20.7 |
| **Final Form Total** | 20.7 | 0.0 | 20.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.49 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.08 |
| Other Inorganic Materials | 0.07 |
| Cellulose | 0.09 |
| Rubber | 0.03 |
| Plastic | 0.19 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.08E-04 |
| Cm-244 | 6.07E-06 |
| Cs-137 | 1.48E-01 |
| Np-237 | 5.56E-10 |
| Pu-238 | 1.61E-04 |
| Pu-239 | 1.15E-04 |
| Pu-240 | 1.23E-04 |
| Pu-241 | 2.24E-03 |
| Pu-242 | 3.75E-08 |
| Sr-90 | 2.62E-01 |
| Th-229 | 2.70E-18 |
| Th-230 | 1.78E-13 |
| Th-232 | 7.28E-21 |
| U-233 | 1.04E-14 |
| U-234 | 4.25E-09 |
| U-235 | 1.45E-10 |
| U-236 | 3.28E-11 |
| U-238 | 4.89E-08 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

325

**Waste Stream Description**

Debris waste stream associated with the 308 Bldg. fuel development laboratory, fuel fabrication capabilities, and deactivation. Examples of waste items in this waste stream include plutonium alloys, casting skulls, clad plates, plastic mounts, 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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | 325 TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 503.8 | 6.3 | 510.1 |
| SWB Dir Ld w/ Liner | 199.3 | 0.0 | 199.3 |
| **Final Form Total** | 703.1 | 6.3 | 709.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 57.63 |
| Aluminum-based Metal/Alloys | 0.23 |
| Other Metal/Alloys | 2.57 |
| Other Inorganic Materials | 18.38 |
| Cellulose | 10.18 |
| Rubber | 2.64 |
| Plastic | 17.70 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.20 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 26.74 |
| Packaging Material, Rubber | 0.46 |
| Packaging Material, Steel | 136.47 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.63E-01 |
| Am-243 | 5.46E-05 |
| Cm-244 | 4.86E-03 |
| Cs-137 | 7.59E-03 |
| Np-237 | 4.44E-05 |
| Pu-238 | 1.63E-01 |
| Pu-239 | 6.70E-01 |
| Pu-240 | 3.06E-01 |
| Pu-241 | 6.07E+00 |
| Pu-242 | 4.27E-05 |
| Sr-90 | 2.07E-02 |
| Th-229 | 1.27E-07 |
| Th-230 | 7.23E-08 |
| Th-232 | 1.06E-05 |
| U-233 | 2.06E-04 |
| U-234 | 1.12E-03 |
| U-235 | 3.31E-05 |
| U-236 | 6.34E-08 |
| U-238 | 6.92E-04 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Debris waste stream containing waste materials associated with the 325 Bldg. laboratory operations, sample analysis, facility cleanout, and facility waste treatment. Operations waste includes any discarded item used in laboratory analysis (e.g., glass beakers, tweezers, latex gloves, plastic tape, glass pipettes) and facility cleanout (e.g., glassware, wipes, and equipment). Maintenance waste may include filters, wipes, and various types of gloves. Small amounts of solid sample residues (unused samples) generated during lab operations are present in the waste.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***
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** | 12/31/2018 |
| **Stream Name** | 325 TRU Mixed Solid Inorganic | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 12.2 | 0.0 | 12.2 |
| **Final Form Total** | 12.2 | 0.0 | 12.2 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 91.90 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.02 |
| Other Inorganic Materials | 559.33 |
| Cellulose | 2.34 |
| Rubber | 2.33 |
| Plastic | 21.61 |
| Cement | 47.90 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 101.55 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.92E+00 |
| Am-243 | 1.00E-02 |
| Cm-244 | 3.90E+00 |
| Cs-137 | 9.61E-03 |
| Np-237 | 3.45E-04 |
| Pu-238 | 7.46E-01 |
| Pu-239 | 2.03E+00 |
| Pu-240 | 7.91E-01 |
| Pu-241 | 2.10E+01 |
| Pu-242 | 2.23E-04 |
| Sr-90 | 9.70E-03 |
| Th-229 | 3.16E-12 |
| Th-230 | 2.25E-09 |
| Th-232 | 2.88E-17 |
| U-233 | 1.03E-08 |
| U-234 | 4.24E-05 |
| U-235 | 1.41E-06 |
| U-236 | 1.65E-07 |
| U-238 | 1.82E-05 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D033, D034, D036, D037, D038, D039, D040, D043, F001, F002, F003, F004, F005

**TRUCON Code(s)**

122/222

**Waste Stream Description**

The mixed solid inorganic portion of the 325 waste stream from liquid laboratory samples neutralized and solidified using nonhazardous absorbents. Small amounts of neutralized and solidified liquids from hazardous waste treatment may also be present in the waste. Corrosive liquids, such as hydrochloric acid and sodium hydroxide were neutralized and solidified in cement before being packaged as waste.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **RL325-05**

**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** | 12/31/2018 |
| **Stream Name** | 325 TRU Non-Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 25.2 | 12.4 | 37.6 |
| SWB Dir Ld w/ Liner | 24.4 | 35.7 | 60.2 |
| **Final Form Total** | 49.6 | 48.1 | 97.8 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 816.26 |
| Aluminum-based Metal/Alloys | 3.19 |
| Other Metal/Alloys | 36.37 |
| Other Inorganic Materials | 249.97 |
| Cellulose | 144.19 |
| Rubber | 37.38 |
| Plastic | 250.71 |
| Cement | 10.37 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 2.81 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 14.86 |
| Packaging Material, Rubber | 0.33 |
| Packaging Material, Steel | 144.74 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.50E-01 |
| Am-243 | 1.58E-03 |
| Cm-244 | 4.78E-01 |
| Cs-137 | 4.35E-02 |
| Np-237 | 2.56E-04 |
| Pu-238 | 1.00E+01 |
| Pu-239 | 9.43E-01 |
| Pu-240 | 1.94E-01 |
| Pu-241 | 3.05E+00 |
| Pu-242 | 5.43E-05 |
| Pu-244 | 1.89E-13 |
| Sr-90 | 1.64E-01 |
| Th-229 | 2.48E-07 |
| Th-230 | 2.12E-10 |
| Th-232 | 3.06E-09 |
| U-233 | 1.60E-07 |
| U-234 | 3.73E-05 |
| U-235 | 3.60E-07 |
| U-236 | 8.60E-08 |
| U-238 | 1.16E-06 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

CH 325 building debris with a solid inorganic waste component. Waste generated 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.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **RL325-07**

**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** | 12/31/2018 |
| **Stream Name** | 325 TRU RH Non-Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 40.2 | 84.5 | 124.6 |
| **Final Form Total** | 40.2 | 84.5 | 124.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 374.22 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 3176.53 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 79.83 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.44E+00 |
| Am-243 | 1.20E-02 |
| Cm-244 | 6.22E-01 |
| Cs-137 | 3.13E+00 |
| Np-237 | 1.24E-04 |
| Pu-238 | 1.40E+01 |
| Pu-239 | 3.52E-01 |
| Pu-240 | 3.55E-01 |
| Pu-241 | 3.49E+01 |
| Pu-242 | 6.92E-04 |
| Sr-90 | 1.72E+01 |
| Th-229 | 3.66E-13 |
| Th-230 | 3.55E-09 |
| Th-232 | 4.02E-16 |
| U-233 | 2.08E-09 |
| U-234 | 1.76E-04 |
| U-235 | 8.75E-06 |
| U-236 | 2.06E-06 |
| U-238 | 2.55E-05 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

RH 325 Building debris waste stream. Waste generated from associated 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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | 325 TRU RH Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 206.9 | 53.5 | 260.4 |
| **Final Form Total** | 206.9 | 53.5 | 260.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 72.62 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 616.39 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 15.49 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.68E-01 |
| Am-243 | 4.39E-06 |
| Cm-244 | 6.76E-03 |
| Cs-137 | 7.59E-01 |
| Np-237 | 4.22E-04 |
| Pu-238 | 2.48E-02 |
| Pu-239 | 1.95E-01 |
| Pu-240 | 8.03E-02 |
| Pu-241 | 1.02E+00 |
| Pu-242 | 1.46E-05 |
| Sr-90 | 4.85E+00 |
| Th-229 | 5.92E-07 |
| Th-230 | 1.01E-08 |
| Th-232 | 4.65E-06 |
| U-233 | 9.62E-04 |
| U-234 | 1.57E-04 |
| U-235 | 6.42E-06 |
| U-236 | 1.71E-07 |
| U-238 | 1.22E-05 |

**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. 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.* ***2.03*** *Data ver.* ***D.18.00.33***
NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **RL325-09**

## Appendix A
### Waste Profile Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Hanford (Richland) Site | **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** | 12/31/2018 |
| **Stream Name** | B325 Solidified sludges | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 6.5 | 0.0 | 6.5 |
| **Final Form Total** | 6.5 | 0.0 | 6.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 172.47 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.04 |
| Other Inorganic Materials | 1049.71 |
| Cellulose | 4.40 |
| Rubber | 4.36 |
| Plastic | 40.55 |
| Cement | 89.90 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 190.58 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.34E-01 |
| Am-243 | 1.36E-03 |
| Cm-244 | 7.35E-02 |
| Cs-137 | 1.18E+01 |
| Np-237 | 1.03E-05 |
| Pu-238 | 1.00E-01 |
| Pu-239 | 1.07E-02 |
| Pu-240 | 1.91E-02 |
| Pu-241 | 9.41E-01 |
| Pu-242 | 9.21E-05 |
| Sr-90 | 1.23E+02 |
| Th-229 | 2.11E-13 |
| Th-230 | 1.37E-09 |
| Th-232 | 1.52E-15 |
| U-233 | 6.88E-10 |
| U-234 | 3.78E-05 |
| U-235 | 4.20E-07 |
| U-236 | 7.71E-06 |
| U-238 | 1.20E-05 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D028, D029, D030, D033, D034, D036, D038, D039, D040, D043, F001, F002, F004, F005

**TRUCON Code(s)**

311

**Waste Stream Description**

Waste materials consist of absorbed liquids, including oils or hydraulic fluids, and inorganic debris (such as iron-based metal containers). 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 containers.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***
NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **RL618-01**

## Appendix A
### Waste Profile Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Hanford (Richland) Site | **Summary Category** | S5000 | **Defense Determination** | Defense-Related | **Handling** | CH |
| **Source Cat.** | Facility/Equipment Operation and Maintenance Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | 618 - 10&11 Burial Grounds TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| SWB Dir Ld w/ Liner | 5.6 | 0.0 | 5.6 |
| **Final Form Total** | 5.6 | 0.0 | 5.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.71 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 1.28 |
| Other Inorganic Materials | 1.23 |
| Cellulose | 0.09 |
| Rubber | 0.19 |
| Plastic | 0.19 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.48 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 1.21 |
| Packaging Material, Rubber | 0.19 |
| Packaging Material, Steel | 154.26 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.60E-01 |
| Am-243 | 7.70E-05 |
| Cs-137 | 1.41E-02 |
| Np-237 | 6.97E-05 |
| Pu-238 | 1.95E-01 |
| Pu-239 | 1.16E+00 |
| Pu-240 | 4.47E-01 |
| Pu-241 | 2.09E+00 |
| Pu-242 | 5.14E-05 |
| Sr-90 | 1.62E-02 |
| Th-229 | 1.86E-12 |
| Th-230 | 3.89E-10 |
| Th-232 | 4.70E-17 |
| U-233 | 3.55E-09 |
| U-234 | 6.94E-06 |
| U-235 | 1.71E-05 |
| U-236 | 1.59E-07 |
| U-238 | 1.35E-04 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**
125/225

**Waste Stream Description**
Retrieved containerized debris waste from Burial Grounds 618 - 10 and 11

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***
NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **RL618-08**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Hanford (Richland) Site | **Summary Category** | S5000 | **Defense Determination** | Defense-Related | **Handling** | RH |
| **Source Cat.** | Facility/Equipment Operation and Maintenance Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | 618 - 10&11 Burial Grounds TRU RH Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 18.7 | 0.0 | 18.7 |
| **Final Form Total** | 18.7 | 0.0 | 18.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 73.26 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 132.09 |
| Other Inorganic Materials | 141.18 |
| Cellulose | 9.73 |
| Rubber | 19.52 |
| Plastic | 19.52 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 48.77 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.53E-02 |
| Cs-137 | 1.38E+01 |
| Np-237 | 2.91E-07 |
| Pu-238 | 1.10E-02 |
| Pu-239 | 6.55E-02 |
| Pu-240 | 2.52E-02 |
| Pu-241 | 1.05E-01 |
| Sr-90 | 1.58E+01 |
| Th-229 | 2.64E-15 |
| Th-230 | 2.22E-11 |
| Th-232 | 2.66E-18 |
| U-233 | 7.51E-12 |
| U-234 | 3.97E-07 |
| U-235 | 9.86E-06 |
| U-236 | 8.97E-09 |
| U-238 | 1.87E-04 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

325

**Waste Stream Description**

Retrieved containerized debris waste from Burial Grounds 618 - 10 and 11.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | TRU Soils/Absorbents from the Arid Lands Ecology Reserve | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 2.54 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 3.17 |
| Plastic | 80.63 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 377.78 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.02E-04 |
| Cs-137 | 4.67E-07 |
| Np-237 | 6.00E-10 |
| Pu-238 | 3.95E-05 |
| Pu-239 | 8.41E-02 |
| Pu-240 | 2.72E-03 |
| Pu-241 | 6.18E-03 |
| Pu-242 | 2.66E-07 |
| Pu-244 | 3.60E-11 |
| Sr-90 | 4.21E-07 |
| Th-229 | 1.71E-18 |
| Th-230 | 2.60E-14 |
| Th-232 | 9.74E-20 |
| U-233 | 8.55E-15 |
| U-234 | 8.01E-10 |
| U-235 | 5.80E-10 |
| U-236 | 5.64E-10 |
| U-238 | 2.89E-16 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Soils and debris from the 6652H building.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Argonne Nat Lab TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 11.1 | 0.0 | 11.1 |
| **Final Form Total** | 11.1 | 0.0 | 11.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 572.53 |
| Aluminum-based Metal/Alloys | 77.67 |
| Other Metal/Alloys | 9.56 |
| Other Inorganic Materials | 38.39 |
| Cellulose | 93.75 |
| Rubber | 40.18 |
| Plastic | 95.53 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 25.29 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.65E+00 |
| Cs-137 | 6.45E-08 |
| Np-237 | 5.53E-05 |
| Pu-238 | 1.96E+01 |
| Pu-239 | 4.10E+00 |
| Pu-240 | 2.09E+00 |
| Pu-241 | 1.47E+01 |
| Pu-242 | 7.29E-05 |
| Sr-90 | 5.70E-08 |
| Th-229 | 3.66E-12 |
| Th-230 | 9.73E-07 |
| Th-232 | 1.30E-06 |
| U-233 | 3.83E-09 |
| U-234 | 4.20E-03 |
| U-235 | 9.65E-05 |
| U-236 | 2.04E-06 |
| U-238 | 1.35E-04 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters. The waste is generated from R&D/R&D Laboratory Waste activities at the Argonne National Laboratory - East (IL).

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Bartlesville RH-TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 0.3 | 0.0 | 0.3 |
| **Final Form Total** | 0.3 | 0.0 | 0.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 478.48 |
| Aluminum-based Metal/Alloys | 75.55 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 36.94 |
| Cellulose | 90.77 |
| Rubber | 38.74 |
| Plastic | 92.96 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 13.30 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.34E+00 |
| Np-237 | 1.65E-05 |
| Pu-238 | 1.23E-06 |
| Pu-239 | 1.02E-05 |
| Pu-240 | 4.95E-06 |
| Pu-241 | 9.52E-06 |
| Pu-242 | 1.43E-09 |
| Th-229 | 1.46E-12 |
| Th-230 | 2.65E-14 |
| Th-232 | 4.96E-21 |
| U-233 | 1.34E-09 |
| U-234 | 1.49E-10 |
| U-235 | 3.73E-13 |
| U-236 | 5.43E-12 |
| U-238 | 8.22E-18 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

325

**Waste Stream Description**

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***
NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Battelle Columbus TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 18.9 | 0.0 | 18.9 |
| SWB Dir Ld w/ Liner | 11.3 | 0.0 | 11.3 |
| **Final Form Total** | 30.2 | 0.0 | 30.2 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 839.99 |
| Aluminum-based Metal/Alloys | 177.01 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 53.29 |
| Cellulose | 64.33 |
| Rubber | 24.00 |
| Plastic | 75.32 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 11.34 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 23.44 |
| Packaging Material, Rubber | 0.42 |
| Packaging Material, Steel | 138.77 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.95E-01 |
| Np-237 | 3.67E-05 |
| Pu-238 | 2.88E+00 |
| Pu-239 | 4.94E-01 |
| Pu-240 | 2.21E-01 |
| Pu-241 | 4.73E+00 |
| Pu-242 | 1.07E-05 |
| Th-229 | 4.34E-13 |
| Th-230 | 5.02E-08 |
| Th-232 | 1.34E-07 |
| U-233 | 1.24E-09 |
| U-234 | 7.15E-04 |
| U-235 | 2.26E-05 |
| U-236 | 5.24E-08 |
| U-238 | 1.17E-04 |

**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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | BATCO TRU RH Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 6.8 | 0.0 | 6.8 |
| **Final Form Total** | 6.8 | 0.0 | 6.8 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 1502.25 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 13.42 |
| 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, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.30E-01 |
| Am-243 | 3.70E-03 |
| Cm-244 | 2.18E-01 |
| Cs-137 | 6.89E+00 |
| Np-237 | 2.98E-06 |
| Pu-238 | 4.24E-01 |
| Pu-239 | 6.18E-02 |
| Pu-240 | 1.01E-01 |
| Pu-241 | 3.74E+00 |
| Pu-242 | 2.69E-04 |
| Sr-90 | 4.41E+00 |
| Th-229 | 2.35E-12 |
| Th-230 | 9.28E-09 |
| Th-232 | 8.06E-15 |
| U-233 | 1.74E-09 |
| U-234 | 7.31E-05 |
| U-235 | 2.44E-06 |
| U-236 | 1.02E-05 |
| U-238 | 4.73E-05 |

**Haz. Waste No(s).**

D006, D008, P015

**TRUCON Code(s)**

325

**Waste Stream Description**

Typically, drums contain metals. 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.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Bettis TRU Non-Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal 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 | 307.44 |
| Aluminum-based Metal/Alloys | 48.46 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 23.95 |
| Cellulose | 58.48 |
| Rubber | 25.06 |
| Plastic | 59.59 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 8.35 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.65E-02 |
| Cs-137 | 3.68E-04 |
| Np-237 | 5.77E-08 |
| Pu-238 | 8.95E-03 |
| Pu-239 | 4.47E-02 |
| Pu-240 | 2.52E-02 |
| Pu-241 | 1.92E-01 |
| Pu-242 | 1.00E-06 |
| Sr-90 | 3.31E-04 |
| Th-229 | 1.74E-16 |
| Th-230 | 4.71E-08 |
| Th-232 | 9.01E-19 |
| U-233 | 8.53E-13 |
| U-234 | 7.32E-04 |
| U-235 | 2.69E-05 |
| U-236 | 5.22E-09 |
| U-238 | 2.84E-07 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

325

**Waste Stream Description**

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. Drums may be used for disposal of high-efficiency particulate air filters.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Babcock and Wilcox TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 57.8 | 0.0 | 57.8 |
| SWB Dir Ld w/ Liner | 86.5 | 0.0 | 86.5 |
| **Final Form Total** | 144.2 | 0.0 | 144.2 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 68.12 |
| Aluminum-based Metal/Alloys | 0.29 |
| Other Metal/Alloys | 6.86 |
| Other Inorganic Materials | 45.22 |
| Cellulose | 32.93 |
| Rubber | 7.04 |
| Plastic | 35.84 |
| Cement | 0.00 |
| Solidified Inorganic Material | 1.17 |
| Solidified Organic Material | 0.20 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 15.42 |
| Packaging Material, Rubber | 0.34 |
| Packaging Material, Steel | 144.35 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.96E+00 |
| Cs-137 | 1.31E-03 |
| Np-237 | 7.49E-06 |
| Pu-238 | 3.43E-01 |
| Pu-239 | 1.74E+00 |
| Pu-240 | 8.68E-01 |
| Pu-241 | 1.69E+01 |
| Pu-242 | 7.73E-05 |
| Sr-90 | 1.18E-03 |
| Th-229 | 4.27E-14 |
| Th-230 | 4.62E-09 |
| Th-232 | 3.11E-17 |
| U-233 | 1.60E-10 |
| U-234 | 7.53E-05 |
| U-235 | 1.82E-06 |
| U-236 | 1.80E-07 |
| U-238 | 7.98E-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.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Babcock & Wilcox solidified inorganics | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 11.1 | 0.0 | 11.1 |
| **Final Form Total** | 11.1 | 0.0 | 11.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 1.19 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 169.77 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 4.76 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.62E+00 |
| Cs-137 | 2.61E-07 |
| Np-237 | 2.07E-05 |
| Pu-238 | 6.58E-01 |
| Pu-239 | 3.85E+00 |
| Pu-240 | 1.95E+00 |
| Pu-241 | 2.31E+01 |
| Pu-242 | 2.61E-04 |
| Sr-90 | 2.35E-07 |
| Th-229 | 1.77E-13 |
| Th-230 | 5.84E-09 |
| Th-232 | 9.09E-17 |
| U-233 | 5.54E-10 |
| U-234 | 8.70E-05 |
| U-235 | 2.63E-06 |
| U-236 | 4.61E-07 |
| U-238 | 4.30E-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.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Babcock and Wilcox TRU RH Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal 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 | 23.16 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 1.16 |
| Other Inorganic Materials | 11.58 |
| Cellulose | 155.14 |
| Rubber | 1.74 |
| Plastic | 104.20 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.93E+00 |
| Np-237 | 1.60E-05 |
| Pu-238 | 8.33E-01 |
| Pu-239 | 3.45E+00 |
| Pu-240 | 1.95E+00 |
| Pu-241 | 4.42E+01 |
| Pu-242 | 7.86E-05 |
| Th-229 | 1.16E-13 |
| Th-230 | 1.39E-09 |
| Th-232 | 1.72E-16 |
| U-233 | 3.67E-10 |
| U-234 | 2.70E-05 |
| U-235 | 3.74E-08 |
| U-236 | 6.35E-07 |
| U-238 | 1.34E-13 |

**Haz. Waste No(s).**

D005, D006, D007, D008, D009, D011, F001, F002, F003, F005

**TRUCON Code(s)**

325

**Waste Stream Description**

Combustible and noncombustible debris waste generated from operations and decontamination and decommissioning of the Babcock and Wilcox Parks Township Site Plutonium Facility. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Kerr McGee TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 4.6 | 0.0 | 4.6 |
| **Final Form Total** | 4.6 | 0.0 | 4.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 344.48 |
| Aluminum-based Metal/Alloys | 1.61 |
| Other Metal/Alloys | 0.34 |
| Other Inorganic Materials | 34.62 |
| Cellulose | 38.74 |
| Rubber | 8.39 |
| Plastic | 54.87 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.08 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.00E+00 |
| Np-237 | 2.50E-06 |
| Pu-238 | 1.79E-01 |
| Pu-239 | 8.92E-01 |
| Pu-240 | 4.69E-01 |
| Pu-241 | 8.81E+00 |
| Pu-242 | 5.21E-05 |
| Th-229 | 1.02E-14 |
| Th-230 | 2.66E-10 |
| Th-232 | 2.19E-17 |
| U-233 | 4.30E-11 |
| U-234 | 5.68E-06 |
| U-235 | 5.77E-08 |
| U-236 | 1.11E-07 |
| U-238 | 7.58E-07 |

**Haz. Waste No(s).**

D007, D008, D009, D040, F001, F002, F003

**TRUCON Code(s)**

125/225

**Waste Stream Description**

The CFFD (KM) waste stream consists of heterogeneous debris waste generated at the Cimarron Plutonium Fuel Fabrication Facility, operated by the Kerr-McGee Nuclear Corporation. This facility was a MOX fuel fabrication facility. The waste was generated during D&D activities at the facility. The waste includes typical D&D waste, e.g., paper, plastic, leaded rubber gloves, rags, glass, equipment, disassembled gloveboxes, and HEPA filters.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **RLCFF-03**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Hanford (Richland) Site | **Summary Category** | S3000 | **Defense Determination** | Defense-Related | **Handling** | CH |
| **Source Cat.** | Facility/Equipment Operation and Maintenance Waste | **Waste Matrix Code Group** | Solidified Inorganics | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Kerr McGee TRU Mixed Solid Inorganic | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 30.74 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 22.05 |
| Other Inorganic Materials | 451.76 |
| Cellulose | 8.13 |
| Rubber | 0.98 |
| Plastic | 33.79 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.21E+00 |
| Np-237 | 3.03E-06 |
| Pu-238 | 3.35E+00 |
| Pu-239 | 1.42E+00 |
| Pu-240 | 6.98E-01 |
| Pu-241 | 6.78E+00 |
| Pu-242 | 8.83E-05 |
| Th-229 | 1.20E-14 |
| Th-230 | 3.66E-09 |
| Th-232 | 3.26E-17 |
| U-233 | 5.13E-11 |
| U-234 | 8.84E-05 |
| U-235 | 4.65E-07 |
| U-236 | 1.65E-07 |
| U-238 | 9.72E-06 |

**Haz. Waste No(s).**

D007, D008, D009, F001, F002, F003

**TRUCON Code(s)**

122/222

**Waste Stream Description**

Waste generated from R&D/R&D Laboratory Waste activities at the Kerr McGee.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Tank Farms TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 0.2 | 7.8 | 8.0 |
| SWB Dir Ld w/ Liner | 1.9 | 0.0 | 1.9 |
| **Final Form Total** | 2.1 | 7.8 | 9.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 21.58 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 19.08 |
| Other Inorganic Materials | 11.11 |
| Cellulose | 1.61 |
| Rubber | 0.01 |
| Plastic | 1.91 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 29.94 |
| Packaging Material, Rubber | 0.49 |
| Packaging Material, Steel | 134.24 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.76E-03 |
| Cs-137 | 2.22E-02 |
| Np-237 | 9.73E-09 |
| Pu-238 | 3.33E-04 |
| Pu-239 | 2.63E-03 |
| Pu-240 | 6.74E-04 |
| Pu-241 | 4.39E-03 |
| Sr-90 | 2.00E-02 |
| Th-229 | 3.91E-17 |
| Th-230 | 2.89E-13 |
| Th-232 | 3.15E-20 |
| U-233 | 1.67E-13 |
| U-234 | 7.76E-09 |
| U-235 | 2.07E-11 |
| U-236 | 1.60E-10 |

**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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **RLCH2-09**

**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 Organics | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Tank Farms Absorbed Oils | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal 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 | 2.05 |
| 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 | 103.09 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.99E-03 |
| Cs-137 | 4.45E-01 |
| Np-237 | 1.14E-08 |
| Pu-238 | 9.92E-05 |
| Pu-239 | 3.27E-03 |
| Pu-240 | 7.00E-04 |
| Sr-90 | 4.18E+00 |
| Th-229 | 1.78E-17 |
| Th-230 | 3.30E-14 |
| Th-232 | 1.28E-20 |
| U-233 | 1.21E-13 |
| U-234 | 1.43E-09 |
| U-235 | 1.61E-11 |
| U-236 | 1.04E-10 |

**Haz. Waste No(s).**

D007, F001, F002, F003, F004, F005

**TRUCON Code(s)**

314

**Waste Stream Description**

Solidified organic waste generated during Tank Farms operations.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Energy Systems Group TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 18.3 | 0.0 | 18.3 |
| SWB Dir Ld w/ Liner | 7.5 | 0.0 | 7.5 |
| **Final Form Total** | 25.8 | 0.0 | 25.8 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 317.41 |
| Aluminum-based Metal/Alloys | 0.94 |
| Other Metal/Alloys | 10.14 |
| Other Inorganic Materials | 41.75 |
| Cellulose | 39.67 |
| Rubber | 26.50 |
| Plastic | 53.84 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 26.36 |
| Packaging Material, Rubber | 0.45 |
| Packaging Material, Steel | 136.74 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.72E-01 |
| Cs-137 | 7.07E-02 |
| Np-237 | 3.00E-06 |
| Pu-238 | 1.73E-01 |
| Pu-239 | 1.02E+00 |
| Pu-240 | 4.98E-01 |
| Pu-241 | 9.36E+00 |
| Pu-242 | 1.25E-04 |
| Sr-90 | 6.78E-02 |
| Th-229 | 3.01E-09 |
| Th-230 | 6.82E-08 |
| Th-232 | 1.78E-17 |
| U-233 | 4.89E-06 |
| U-234 | 1.06E-03 |
| U-235 | 2.01E-05 |
| U-236 | 1.03E-07 |
| U-238 | 1.39E-05 |

**Haz. Waste No(s).**

D006, D007, D008, F001, F002, F003

**TRUCON Code(s)**

125/225

**Waste Stream Description**

RLETECD waste is composed of heterogeneous debris consisting of organic and inorganic debris material generated from glove box operations at the Energy Technology Engineering Center. Examples of waste items in this waste stream include cardboard tubes, cladding material, plastic, paper, glove port flanges, rubber air hoses, electrical connectors, wooden broom handles, plexiglas 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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Energy Systems Group TRU Solid Inorganics | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 1.1 | 0.0 | 1.1 |
| **Final Form Total** | 1.1 | 0.0 | 1.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 29.44 |
| Aluminum-based Metal/Alloys | 29.44 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 29.44 |
| Rubber | 29.44 |
| Plastic | 29.44 |
| Cement | 22.22 |
| Solidified Inorganic Material | 61.90 |
| Solidified Organic Material | 0.00 |
| Soil | 124.83 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.71E-02 |
| Cs-137 | 3.14E-03 |
| Np-237 | 5.49E-08 |
| Pu-238 | 7.98E-03 |
| Pu-239 | 1.73E-01 |
| Pu-240 | 4.68E-02 |
| Pu-241 | 4.82E-01 |
| Pu-242 | 5.14E-05 |
| Sr-90 | 2.83E-03 |
| Th-229 | 1.58E-16 |
| Th-230 | 1.27E-09 |
| Th-232 | 1.67E-18 |
| U-233 | 7.90E-13 |
| U-234 | 1.98E-05 |
| U-235 | 7.22E-07 |
| U-236 | 9.69E-09 |
| U-238 | 7.63E-09 |

**No Hazardous Waste Numbers Provided**

**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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Energy Systems Group RH TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 22.8 | 0.0 | 22.8 |
| **Final Form Total** | 22.8 | 0.0 | 22.8 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 7.26 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 34.55 |
| Other Inorganic Materials | 3.27 |
| Cellulose | 86.49 |
| Rubber | 10.25 |
| Plastic | 46.59 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.94E-01 |
| Cs-137 | 7.16E-02 |
| Np-237 | 4.18E-07 |
| Pu-238 | 3.04E-02 |
| Pu-239 | 1.40E-01 |
| Pu-240 | 7.51E-02 |
| Pu-241 | 1.70E+00 |
| Pu-242 | 2.86E-06 |
| Sr-90 | 2.11E-02 |
| Th-229 | 1.25E-15 |
| Th-230 | 2.00E-11 |
| Th-232 | 2.69E-18 |
| U-233 | 6.16E-12 |
| U-234 | 6.17E-07 |
| U-235 | 9.62E-10 |
| U-236 | 1.56E-08 |
| U-238 | 3.11E-15 |

**Haz. Waste No(s).**
D006, D007, D008, F001, F002, F003

**TRUCON Code(s)**
325

**Waste Stream Description**

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters. The waste is generated from R&D/R&D Laboratory Waste activities at the Rockwell International, Energy Systems Group (CA).

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***
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** | 12/31/2018 |
| **Stream Name** | Exxon TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 134.6 | 0.0 | 134.6 |
| **Final Form Total** | 134.6 | 0.0 | 134.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 38.57 |
| Aluminum-based Metal/Alloys | 0.16 |
| Other Metal/Alloys | 7.62 |
| Other Inorganic Materials | 25.00 |
| Cellulose | 4.58 |
| Rubber | 1.06 |
| Plastic | 4.90 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.28E+00 |
| Np-237 | 1.14E-05 |
| Pu-238 | 8.65E-01 |
| Pu-239 | 5.72E-01 |
| Pu-240 | 4.88E-01 |
| Pu-241 | 1.08E+01 |
| Pu-242 | 5.94E-04 |
| Th-229 | 7.45E-14 |
| Th-230 | 4.15E-09 |
| Th-232 | 1.75E-17 |
| U-233 | 2.67E-10 |
| U-234 | 7.32E-05 |
| U-235 | 7.36E-07 |
| U-236 | 1.01E-07 |
| U-238 | 2.93E-05 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011

**TRUCON Code(s)**

125/225

**Waste Stream Description**

RLEXXOD waste is comprised of heterogeneous debris consisting of organic and inorganic debris material generated from processing, cleanout, and D&D of the Mixed Oxide Fuel Fabrication Plant. Examples of waste items in this waste stream include unirradiated MOX fuel pellets, MOX powder and scrap, cladding material, MOX standards, plastic, paper, gloves and glove rings, filters, cans, HEPA filters, cardboard, electrical components, tools, scales and scale parts, screens, paint brushes, bags, floor sweepings, pots and pans, tool boxes, steel plates and racks, grinder parts, pellet trays, conduit pipe, motors, filter and vacuum hoses, and rags.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | FFTF TRU Non-Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 1.1 | 0.0 | 1.1 |
| **Final Form Total** | 1.1 | 0.0 | 1.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 115.56 |
| Aluminum-based Metal/Alloys | 0.47 |
| Other Metal/Alloys | 22.84 |
| Other Inorganic Materials | 74.91 |
| Cellulose | 13.72 |
| Rubber | 3.16 |
| Plastic | 1.52 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.21E-02 |
| Cs-137 | 9.40E-03 |
| Np-237 | 2.67E-08 |
| Pu-238 | 3.27E-03 |
| Pu-239 | 1.05E-02 |
| Pu-240 | 9.06E-03 |
| Pu-241 | 6.61E-02 |
| Sr-90 | 6.31E-03 |
| Th-229 | 8.08E-17 |
| Th-230 | 2.16E-12 |
| Th-232 | 3.24E-19 |
| U-233 | 3.96E-13 |
| U-234 | 6.64E-08 |
| U-235 | 7.25E-11 |
| U-236 | 1.88E-09 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Combustible and noncombustible debris from Fast Flux Test Reactor operations, maintenance, and clean out. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | FFTF RH-TRU Non-Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 0.3 | 0.0 | 0.3 |
| **Final Form Total** | 0.3 | 0.0 | 0.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 4.99 |
| Aluminum-based Metal/Alloys | 0.02 |
| Other Metal/Alloys | 0.99 |
| Other Inorganic Materials | 3.24 |
| Cellulose | 0.59 |
| Rubber | 0.14 |
| Plastic | 0.63 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 8.92E-03 |
| Am-243 | 7.29E-11 |
| Cs-137 | 1.37E+00 |
| Np-237 | 2.42E-08 |
| Pu-238 | 2.23E-03 |
| Pu-239 | 7.12E-03 |
| Pu-240 | 6.12E-03 |
| Pu-241 | 8.10E-02 |
| Sr-90 | 1.46E-03 |
| Th-229 | 1.19E-16 |
| Th-230 | 2.46E-12 |
| Th-232 | 3.62E-19 |
| U-233 | 4.56E-13 |
| U-234 | 5.87E-08 |
| U-235 | 6.31E-11 |
| U-236 | 1.63E-09 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

325

**Waste Stream Description**

Combustible and noncombustible debris from Fast Flux Test Reactor operations, maintenance, and clean out. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | GE San Jose and Vallecitos TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 27.1 | 0.0 | 27.1 |
| SWB Dir Ld w/ Liner | 82.7 | 0.0 | 82.7 |
| **Final Form Total** | 109.8 | 0.0 | 109.8 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 472.61 |
| Aluminum-based Metal/Alloys | 0.53 |
| Other Metal/Alloys | 9.40 |
| Other Inorganic Materials | 50.29 |
| Cellulose | 42.27 |
| Rubber | 10.50 |
| Plastic | 105.98 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 9.97 |
| Packaging Material, Rubber | 0.28 |
| Packaging Material, Steel | 148.15 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.06E+00 |
| Cs-137 | 2.38E-07 |
| Np-237 | 6.44E-06 |
| Pu-238 | 2.32E-01 |
| Pu-239 | 1.29E+00 |
| Pu-240 | 5.62E-01 |
| Pu-241 | 6.81E+00 |
| Pu-242 | 8.87E-05 |
| Sr-90 | 2.14E-07 |
| Th-229 | 4.51E-14 |
| Th-230 | 3.93E-08 |
| Th-232 | 2.01E-17 |
| U-233 | 1.58E-10 |
| U-234 | 6.12E-04 |
| U-235 | 1.29E-05 |
| U-236 | 1.16E-07 |
| U-238 | 4.42E-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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | GE Vallecitos TRU Homogeneous Solids | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 4.68 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.24 |
| Cellulose | 5.37 |
| Rubber | 0.04 |
| Plastic | 9.32 |
| Cement | 0.00 |
| Solidified Inorganic Material | 422.98 |
| Solidified Organic Material | 6.49 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.05E+00 |
| Cs-137 | 3.33E-08 |
| Np-237 | 1.22E-05 |
| Pu-238 | 9.17E-01 |
| Pu-239 | 3.71E+00 |
| Pu-240 | 2.10E+00 |
| Pu-241 | 5.48E+01 |
| Pu-242 | 8.46E-05 |
| Sr-90 | 3.06E-08 |
| Th-229 | 4.76E-14 |
| Th-230 | 2.46E-08 |
| Th-232 | 9.81E-17 |
| U-233 | 2.05E-10 |
| U-234 | 3.45E-04 |
| U-235 | 1.08E-05 |
| U-236 | 4.97E-07 |
| U-238 | 1.62E-04 |

**Haz. Waste No(s).**

D006, D007, D008, D011, D035

**TRUCON Code(s)**

122/222

**Waste Stream Description**

Homogeneous solids from decontamination and decommissioning of Building 102 at the GE-Vallecitos Nuclear Center.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | GE San Jose and Vallecitos TRU RH Non-Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 6.5 | 0.0 | 6.5 |
| **Final Form Total** | 6.5 | 0.0 | 6.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 1123.51 |
| Aluminum-based Metal/Alloys | 177.40 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 86.74 |
| Cellulose | 213.15 |
| Rubber | 90.96 |
| Plastic | 218.28 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 31.23 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.94E+00 |
| Cs-137 | 1.23E+00 |
| Np-237 | 1.96E-05 |
| Pu-238 | 1.99E-01 |
| Pu-239 | 9.98E+00 |
| Pu-240 | 2.27E+00 |
| Pu-241 | 4.92E+00 |
| Pu-242 | 1.94E-04 |
| Sr-90 | 9.18E-01 |
| Th-229 | 1.39E-12 |
| Th-230 | 4.23E-08 |
| Th-232 | 2.03E-15 |
| U-233 | 1.40E-09 |
| U-234 | 1.42E-04 |
| U-235 | 5.82E-06 |
| U-236 | 2.35E-06 |
| U-238 | 1.69E-04 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

325

**Waste Stream Description**

Combustible and noncombustible debris waste from decontamination and decommissioning of Building 102 at the GE-Vallecitos Nuclear Center. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Trench Designation waste stream | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 211.7 | 0.0 | 211.7 |
| SWB Dir Ld w/ Liner | 315.8 | 0.0 | 315.8 |
| **Final Form Total** | 527.5 | 0.0 | 527.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 28.95 |
| Aluminum-based Metal/Alloys | 0.10 |
| Other Metal/Alloys | 6.84 |
| Other Inorganic Materials | 9.55 |
| Cellulose | 24.99 |
| Rubber | 8.62 |
| Plastic | 30.00 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 15.46 |
| Packaging Material, Rubber | 0.34 |
| Packaging Material, Steel | 144.33 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 8.35E-01 |
| Am-243 | 1.32E-05 |
| Cm-244 | 1.55E-03 |
| Cs-137 | 5.32E-03 |
| Np-237 | 2.27E-05 |
| Pu-238 | 1.60E-01 |
| Pu-239 | 7.27E-01 |
| Pu-240 | 3.37E-01 |
| Pu-241 | 7.08E+00 |
| Pu-242 | 2.49E-05 |
| Sr-90 | 4.71E-03 |
| Th-229 | 3.92E-07 |
| Th-230 | 3.65E-09 |
| Th-232 | 1.44E-07 |
| U-233 | 4.08E-04 |
| U-234 | 5.14E-05 |
| U-235 | 1.70E-06 |
| U-236 | 7.99E-08 |
| U-238 | 2.58E-05 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D032, D033, D034, D035, D037, D038, D043, F001, F002, F003, F004, F005

**TRUCON Code(s)**

125/225

**Waste Stream Description**

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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Trench Designation waste stream | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 182.86 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 110.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 73.33 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.61E-01 |
| Np-237 | 3.52E-07 |
| Pu-238 | 1.78E-02 |
| Pu-239 | 7.14E-02 |
| Pu-240 | 4.03E-02 |
| Pu-241 | 1.10E+00 |
| Th-229 | 1.06E-15 |
| Th-230 | 1.17E-11 |
| Th-232 | 1.44E-18 |
| U-233 | 5.20E-12 |
| U-234 | 3.61E-07 |
| U-235 | 4.92E-10 |
| U-236 | 8.35E-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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Trench Designation waste stream | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 17.6 | 0.0 | 17.6 |
| **Final Form Total** | 17.6 | 0.0 | 17.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 43.10 |
| Aluminum-based Metal/Alloys | 0.15 |
| Other Metal/Alloys | 10.04 |
| Other Inorganic Materials | 14.22 |
| Cellulose | 37.50 |
| Rubber | 12.69 |
| Plastic | 45.30 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 8.12E-01 |
| Am-243 | 3.58E-06 |
| Cs-137 | 1.13E-01 |
| Np-237 | 5.68E-06 |
| Pu-238 | 9.78E-02 |
| Pu-239 | 5.41E-01 |
| Pu-240 | 2.10E-01 |
| Pu-241 | 5.75E+00 |
| Pu-242 | 8.44E-06 |
| Sr-90 | 9.19E-02 |
| Th-229 | 6.99E-08 |
| Th-230 | 6.45E-11 |
| Th-232 | 7.50E-18 |
| U-233 | 1.14E-04 |
| U-234 | 1.99E-06 |
| U-235 | 3.73E-09 |
| U-236 | 4.34E-08 |
| U-238 | 9.16E-15 |

**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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | International Atomic Energy Agency TRU Non-Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 546.74 |
| Aluminum-based Metal/Alloys | 86.17 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 42.59 |
| Cellulose | 104.00 |
| Rubber | 44.57 |
| Plastic | 105.98 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 14.86 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.88E+00 |
| Cs-137 | 3.56E-05 |
| Np-237 | 4.86E-06 |
| Pu-238 | 9.52E-01 |
| Pu-239 | 5.26E-01 |
| Pu-240 | 6.76E-01 |
| Pu-241 | 3.01E+00 |
| Pu-242 | 9.98E-04 |
| Sr-90 | 3.21E-05 |
| Th-229 | 1.95E-14 |
| Th-230 | 8.25E-10 |
| Th-232 | 3.16E-17 |
| U-233 | 8.33E-11 |
| U-234 | 2.22E-05 |
| U-235 | 4.15E-09 |
| U-236 | 1.60E-07 |
| U-238 | 1.24E-12 |

**No Hazardous Waste Numbers Provided**

**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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Lawrence Berkeley Nat Lab TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal 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 | 1138.02 |
| Aluminum-based Metal/Alloys | 179.36 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 88.65 |
| Cellulose | 216.47 |
| Rubber | 92.77 |
| Plastic | 220.59 |
| Cement | 0.00 |
| Solidified Inorganic Material | 30.92 |
| Solidified Organic Material | 0.00 |
| Soil | 37.11 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.93E-01 |
| Cm-244 | 4.59E+01 |
| Np-237 | 4.12E-06 |
| Pu-238 | 4.69E-02 |
| Pu-239 | 2.36E-01 |
| Pu-240 | 5.08E-01 |
| Pu-241 | 9.05E-01 |
| Pu-242 | 5.39E-06 |
| Th-229 | 3.10E-13 |
| Th-230 | 9.54E-10 |
| Th-232 | 2.86E-16 |
| U-233 | 3.04E-10 |
| U-234 | 5.50E-06 |
| U-235 | 8.39E-09 |
| U-236 | 3.87E-07 |
| U-238 | 3.01E-14 |

**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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Lawrence Livermore TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 0.4 | 0.0 | 0.4 |
| SWB Dir Ld w/ Liner | 1.9 | 0.0 | 1.9 |
| **Final Form Total** | 2.3 | 0.0 | 2.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 178.08 |
| Aluminum-based Metal/Alloys | 28.07 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 13.87 |
| Cellulose | 33.87 |
| Rubber | 14.52 |
| Plastic | 34.52 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 4.84 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 7.69 |
| Packaging Material, Rubber | 0.26 |
| Packaging Material, Steel | 149.74 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.07E-01 |
| Np-237 | 1.41E-06 |
| Pu-238 | 1.12E-02 |
| Pu-239 | 1.99E-01 |
| Pu-240 | 6.04E-02 |
| Pu-241 | 1.59E-01 |
| Pu-242 | 4.03E-06 |
| Th-229 | 1.66E-13 |
| Th-230 | 8.66E-08 |
| Th-232 | 8.96E-17 |
| U-233 | 1.30E-10 |
| U-234 | 2.10E-04 |
| U-235 | 9.54E-06 |
| U-236 | 8.06E-08 |
| U-238 | 2.94E-04 |

**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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | P11 Criticality Facility TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| SWB Dir Ld w/ Liner | 24.4 | 0.0 | 24.4 |
| **Final Form Total** | 24.4 | 0.0 | 24.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 59.46 |
| Aluminum-based Metal/Alloys | 29.81 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 59.46 |
| Cellulose | 29.65 |
| Rubber | 0.00 |
| Plastic | 29.65 |
| Cement | 29.81 |
| Solidified Inorganic Material | 0.25 |
| Solidified Organic Material | 0.25 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 1.21 |
| Packaging Material, Rubber | 0.19 |
| Packaging Material, Steel | 154.26 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.70E-02 |
| Np-237 | 1.61E-07 |
| Pu-238 | 1.21E-02 |
| Pu-239 | 4.90E-02 |
| Pu-240 | 2.77E-02 |
| Pu-241 | 7.24E-01 |
| Pu-242 | 1.12E-06 |
| Th-229 | 6.21E-16 |
| Th-230 | 1.05E-11 |
| Th-232 | 1.29E-18 |
| U-233 | 2.69E-12 |
| U-234 | 2.82E-07 |
| U-235 | 3.86E-10 |
| U-236 | 6.56E-09 |
| U-238 | 1.39E-15 |

**Haz. Waste No(s).**

D005, D006, D007

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Misc. demolition debris.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | 2345Z TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 1890.8 | 0.4 | 1891.3 |
| SLB2 Dir Ld | 140.4 | 0.0 | 140.4 |
| SWB Dir Ld w/ Liner | 2306.8 | 0.0 | 2306.8 |
| **Final Form Total** | 4338.0 | 0.4 | 4338.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 40.62 |
| Aluminum-based Metal/Alloys | 0.20 |
| Other Metal/Alloys | 0.88 |
| Other Inorganic Materials | 6.46 |
| Cellulose | 10.12 |
| Rubber | 5.73 |
| Plastic | 15.95 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.01 |
| Solidified Organic Material | 0.01 |
| Soil | 0.12 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 16.65 |
| Packaging Material, Rubber | 0.35 |
| Packaging Material, Steel | 143.82 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.61E+00 |
| Am-243 | 1.90E-05 |
| Cs-137 | 7.99E-05 |
| Np-237 | 2.43E-05 |
| Pu-238 | 3.18E-01 |
| Pu-239 | 1.57E+00 |
| Pu-240 | 7.16E-01 |
| Pu-241 | 1.13E+01 |
| Pu-242 | 2.16E-04 |
| Sr-90 | 7.35E-05 |
| Th-229 | 8.13E-08 |
| Th-230 | 2.85E-09 |
| Th-232 | 3.87E-08 |
| U-233 | 1.32E-04 |
| U-234 | 4.74E-05 |
| U-235 | 1.33E-06 |
| U-236 | 1.48E-07 |
| U-238 | 2.07E-05 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D032, D034, D035, D036, D037, D043, F001, F002, F003, F004, F005

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Combustible and noncombustible debris waste generated from operations, maintenance, and D&D activities at the Plutonium Finishing Plant (PFP), which includes the 234-5Z, 232-Z, 236-Z, 2736-ZB, 242-Z, and 291-Z Buildings. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | PFP Absorbed Plutonium Nitrate Solutions | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 36.8 | 0.0 | 36.8 |
| **Final Form Total** | 36.8 | 0.0 | 36.8 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 1.38 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.10 |
| Cellulose | 1.63 |
| Rubber | 0.02 |
| Plastic | 4.60 |
| Cement | 0.00 |
| Solidified Inorganic Material | 163.88 |
| Solidified Organic Material | 7.82 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.43E+00 |
| Cs-137 | 1.27E-06 |
| Np-237 | 2.22E-05 |
| Pu-238 | 7.45E-01 |
| Pu-239 | 5.80E+00 |
| Pu-240 | 1.86E+00 |
| Pu-241 | 1.87E+01 |
| Pu-242 | 3.70E-04 |
| Sr-90 | 1.14E-06 |
| Th-229 | 1.58E-13 |
| Th-230 | 2.68E-08 |
| Th-232 | 6.67E-17 |
| U-233 | 5.51E-10 |
| U-234 | 4.24E-04 |
| U-235 | 2.29E-06 |
| U-236 | 3.86E-07 |
| U-238 | 1.96E-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).

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | PFP Comprehensive Homogenous Solids | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 66.4 | 0.0 | 66.4 |
| **Final Form Total** | 66.4 | 0.0 | 66.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 5.30 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.15 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 3.45 |
| Rubber | 0.07 |
| Plastic | 4.91 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 26.63 |
| Soil | 0.12 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.80E+00 |
| Cs-137 | 4.06E-05 |
| Np-237 | 4.29E-05 |
| Pu-238 | 1.42E+00 |
| Pu-239 | 1.50E+01 |
| Pu-240 | 4.88E+00 |
| Pu-241 | 6.45E+01 |
| Pu-242 | 5.63E-04 |
| Sr-90 | 3.65E-05 |
| Th-229 | 2.91E-13 |
| Th-230 | 4.65E-09 |
| Th-232 | 1.75E-16 |
| U-233 | 1.03E-09 |
| U-234 | 8.65E-05 |
| U-235 | 2.14E-06 |
| U-236 | 1.01E-06 |
| U-238 | 2.92E-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.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **RLPFP-05**

**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** | 12/31/2018 |
| **Stream Name** | PFP TRU Non-Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 309.5 | 0.2 | 309.8 |
| SLB2 Dir Ld | 450.8 | 88.7 | 539.5 |
| SWB Dir Ld w/ Liner | 1759.7 | 0.0 | 1759.7 |
| **Final Form Total** | 2520.0 | 88.9 | 2608.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 116.63 |
| Aluminum-based Metal/Alloys | 0.57 |
| Other Metal/Alloys | 2.52 |
| Other Inorganic Materials | 18.54 |
| Cellulose | 29.06 |
| Rubber | 16.45 |
| Plastic | 45.78 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.04 |
| Solidified Organic Material | 0.04 |
| Soil | 0.34 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 5.17 |
| Packaging Material, Rubber | 0.22 |
| Packaging Material, Steel | 153.56 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.61E-01 |
| Am-243 | 1.38E-08 |
| Cs-137 | 2.07E-08 |
| Np-237 | 2.07E-05 |
| Pu-238 | 1.15E-01 |
| Pu-239 | 1.10E+00 |
| Pu-240 | 3.19E-01 |
| Pu-241 | 3.76E+00 |
| Pu-242 | 7.11E-05 |
| Sr-90 | 1.91E-08 |
| Th-229 | 3.95E-15 |
| Th-230 | 1.62E-12 |
| Th-232 | 2.33E-19 |
| U-233 | 8.99E-11 |
| U-234 | 3.38E-07 |
| U-235 | 2.02E-07 |
| U-236 | 9.44E-09 |
| U-238 | 3.10E-07 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

CH Plutonium Finishing Plant (PFP) generated combustible and noncombustible debris waste generated from operations, maintenance, and D&D activities. Buildings include the 234-5Z, 232-Z, 236-Z, 2736-ZB, 242-Z, and 291-Z. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | 2345Z RH-TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 29.8 | 0.0 | 29.8 |
| **Final Form Total** | 29.8 | 0.0 | 29.8 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 33.46 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 20.48 |
| Other Inorganic Materials | 17.26 |
| Cellulose | 4.73 |
| Rubber | 9.24 |
| Plastic | 25.80 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.14E+01 |
| Am-243 | 1.23E-13 |
| Cs-137 | 1.50E-05 |
| Np-237 | 2.05E-04 |
| Pu-238 | 3.99E+00 |
| Pu-239 | 1.09E+01 |
| Pu-240 | 5.27E+00 |
| Pu-241 | 9.15E+01 |
| Pu-242 | 1.52E-03 |
| Sr-90 | 1.35E-05 |
| Th-229 | 1.60E-12 |
| Th-230 | 4.47E-09 |
| Th-232 | 1.89E-16 |
| U-233 | 5.43E-09 |
| U-234 | 1.10E-04 |
| U-235 | 1.11E-06 |
| U-236 | 1.09E-06 |
| U-238 | 3.96E-06 |

**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.* ***2.03*** *Data ver.* ***D.18.00.33***
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** | 12/31/2018 |
| **Stream Name** | 202A and 202AL TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 312.7 | 0.0 | 312.7 |
| SWB Dir Ld w/ Liner | 133.5 | 141.0 | 274.5 |
| **Final Form Total** | 446.2 | 141.0 | 587.2 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 60.47 |
| Aluminum-based Metal/Alloys | 0.22 |
| Other Metal/Alloys | 0.71 |
| Other Inorganic Materials | 18.78 |
| Cellulose | 24.22 |
| Rubber | 23.12 |
| Plastic | 40.92 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.02 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 20.12 |
| Packaging Material, Rubber | 0.39 |
| Packaging Material, Steel | 141.08 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.84E+00 |
| Am-243 | 1.01E-06 |
| Cs-137 | 2.12E-02 |
| Np-237 | 3.01E-05 |
| Pu-238 | 2.88E+00 |
| Pu-239 | 1.57E+01 |
| Pu-240 | 5.98E+00 |
| Pu-241 | 1.40E+02 |
| Pu-242 | 1.41E-03 |
| Sr-90 | 1.90E-02 |
| Th-229 | 2.29E-06 |
| Th-230 | 2.46E-09 |
| Th-232 | 2.14E-16 |
| U-233 | 3.72E-03 |
| U-234 | 6.72E-05 |
| U-235 | 3.95E-07 |
| U-236 | 1.24E-06 |
| U-238 | 4.70E-06 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D034, D035, D037, D043, F001, F002, F003, F004, F005

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Combustible and noncombustible 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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | 202A & 202AL TRU RH Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 23.9 | 0.0 | 23.9 |
| **Final Form Total** | 23.9 | 0.0 | 23.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 28.14 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.70 |
| Other Inorganic Materials | 21.10 |
| Cellulose | 14.07 |
| Rubber | 47.83 |
| Plastic | 35.17 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.28E-02 |
| Np-237 | 2.83E-07 |
| Pu-238 | 1.27E-03 |
| Pu-239 | 4.53E-03 |
| Pu-240 | 1.08E-03 |
| Pu-241 | 1.75E-01 |
| Pu-242 | 6.08E-08 |
| Th-229 | 1.79E-14 |
| Th-230 | 3.26E-11 |
| Th-232 | 1.26E-18 |
| U-233 | 1.88E-11 |
| U-234 | 1.69E-07 |
| U-235 | 1.79E-10 |
| U-236 | 1.28E-09 |
| U-238 | 3.77E-16 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011

**TRUCON Code(s)**

325

**Waste Stream Description**

Combustible and noncombustible debris waste generated from facility/equipment operation and maintenance, and analytical laboratory waste activities at the Plutonium Uranium Extraction Facility. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Rocky Flats TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 199.9 | 0.0 | 199.9 |
| SWB Dir Ld w/ Liner | 3.8 | 0.0 | 3.8 |
| **Final Form Total** | 203.7 | 0.0 | 203.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 450.77 |
| Aluminum-based Metal/Alloys | 62.78 |
| Other Metal/Alloys | 18.87 |
| Other Inorganic Materials | 83.72 |
| Cellulose | 48.13 |
| Rubber | 11.42 |
| Plastic | 42.45 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.02 |
| Soil | 7.97 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.06 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.98 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.03E-01 |
| Np-237 | 5.47E-06 |
| Pu-238 | 1.62E-02 |
| Pu-239 | 6.26E-01 |
| Pu-240 | 1.49E-01 |
| Pu-241 | 3.98E-01 |
| Pu-242 | 1.23E-05 |
| Th-229 | 3.96E-13 |
| Th-230 | 4.84E-06 |
| Th-232 | 1.26E-16 |
| U-233 | 4.00E-10 |
| U-234 | 1.55E-02 |
| U-235 | 7.05E-04 |
| U-236 | 1.50E-07 |
| U-238 | 2.17E-02 |

**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.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | GE San Jose TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 3.4 | 0.0 | 3.4 |
| **Final Form Total** | 3.4 | 0.0 | 3.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 289.03 |
| Aluminum-based Metal/Alloys | 0.28 |
| Other Metal/Alloys | 6.90 |
| Other Inorganic Materials | 27.04 |
| Cellulose | 23.48 |
| Rubber | 5.74 |
| Plastic | 61.50 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.63E+01 |
| Np-237 | 1.66E-04 |
| Pu-238 | 1.96E+00 |
| Pu-239 | 9.82E+00 |
| Pu-240 | 5.53E+00 |
| Pu-241 | 3.94E+01 |
| Pu-242 | 2.22E-04 |
| Th-229 | 1.18E-11 |
| Th-230 | 5.94E-07 |
| Th-232 | 4.96E-15 |
| U-233 | 1.19E-08 |
| U-234 | 1.95E-03 |
| U-235 | 7.57E-05 |
| U-236 | 5.74E-06 |
| U-238 | 1.86E-04 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Combustible and noncombustible debris waste from decontamination and decommissioning at the GE-San Jose Nuclear Center. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | SWOC TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 37.4 | 12.6 | 50.0 |
| SWB Dir Ld w/ Liner | 52.6 | 11.3 | 63.9 |
| **Final Form Total** | 90.0 | 23.9 | 113.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 36.14 |
| Aluminum-based Metal/Alloys | 0.60 |
| Other Metal/Alloys | 1.07 |
| Other Inorganic Materials | 7.46 |
| Cellulose | 22.13 |
| Rubber | 79.16 |
| Plastic | 83.79 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.17 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 16.79 |
| Packaging Material, Rubber | 0.35 |
| Packaging Material, Steel | 143.40 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.22E+00 |
| Am-243 | 2.65E-08 |
| Cs-137 | 4.18E-03 |
| Np-237 | 5.32E-06 |
| Pu-238 | 4.83E-01 |
| Pu-239 | 1.82E+00 |
| Pu-240 | 9.78E-01 |
| Pu-241 | 2.37E+01 |
| Pu-242 | 1.38E-03 |
| Sr-90 | 5.18E-06 |
| Th-229 | 8.41E-09 |
| Th-230 | 4.49E-10 |
| Th-232 | 3.50E-17 |
| U-233 | 1.37E-05 |
| U-234 | 1.18E-05 |
| U-235 | 8.51E-08 |
| U-236 | 2.03E-07 |
| U-238 | 2.45E-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.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **RLSWO-05**

**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** | 12/31/2018 |
| **Stream Name** | SWOC TRU Non-Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 14.5 | 9.9 | 24.4 |
| SWB Dir Ld w/ Liner | 99.6 | 3.8 | 103.4 |
| **Final Form Total** | 114.1 | 13.6 | 127.8 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 28.51 |
| Aluminum-based Metal/Alloys | 0.47 |
| Other Metal/Alloys | 0.84 |
| Other Inorganic Materials | 5.89 |
| Cellulose | 17.45 |
| Rubber | 62.44 |
| Plastic | 66.09 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.14 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 7.98 |
| Packaging Material, Rubber | 0.26 |
| Packaging Material, Steel | 149.54 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.42E-02 |
| Am-243 | 2.58E-14 |
| Cs-137 | 4.38E-07 |
| Np-237 | 7.39E-06 |
| Pu-238 | 2.86E-02 |
| Pu-239 | 1.96E-01 |
| Pu-240 | 6.19E-02 |
| Pu-241 | 3.82E-01 |
| Pu-242 | 5.93E-06 |
| Sr-90 | 4.36E-07 |
| Th-229 | 2.67E-09 |
| Th-230 | 3.49E-12 |
| Th-232 | 2.81E-10 |
| U-233 | 3.04E-05 |
| U-234 | 4.20E-07 |
| U-235 | 1.18E-08 |
| U-236 | 1.83E-09 |
| U-238 | 1.67E-07 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

CH Hanford Solid Waste Operations Complex facilities Non-mixed combustible and noncombustible debris waste generated from operations, maintenance, and clean. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Ward TRU Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 40.7 | 0.0 | 40.7 |
| SWB Dir Ld w/ Liner | 173.0 | 0.0 | 173.0 |
| **Final Form Total** | 213.7 | 0.0 | 213.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 185.91 |
| Aluminum-based Metal/Alloys | 0.84 |
| Other Metal/Alloys | 4.06 |
| Other Inorganic Materials | 30.25 |
| Cellulose | 39.31 |
| Rubber | 10.30 |
| Plastic | 58.10 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.01 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 7.98 |
| Packaging Material, Rubber | 0.26 |
| Packaging Material, Steel | 149.54 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.90E-01 |
| Cs-137 | 7.85E-10 |
| Np-237 | 5.21E-05 |
| Pu-238 | 5.96E-02 |
| Pu-239 | 2.15E-01 |
| Pu-240 | 1.12E-01 |
| Pu-241 | 2.28E+00 |
| Pu-242 | 2.26E-05 |
| Sr-90 | 7.09E-10 |
| Th-229 | 4.78E-13 |
| Th-230 | 5.43E-09 |
| Th-232 | 4.00E-18 |
| U-233 | 1.55E-09 |
| U-234 | 8.50E-05 |
| U-235 | 2.99E-06 |
| U-236 | 2.32E-08 |
| U-238 | 1.36E-05 |

**Haz. Waste No(s).**

D007, D008, D009, D035, F001, F002, F003, F005

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Combustible and noncombustible debris waste generated during decontamination and decommissioning of the Westinghouse Advanced Reactors Division facility in Cheswick, PA. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | WARD solidified inorganics | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 8.0 | 0.0 | 8.0 |
| **Final Form Total** | 8.0 | 0.0 | 8.0 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.73 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.10 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 2.92 |
| Rubber | 0.00 |
| Plastic | 37.76 |
| Cement | 366.14 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.56E+01 |
| Cs-137 | 8.06E-08 |
| Np-237 | 5.01E-05 |
| Pu-238 | 3.00E+00 |
| Pu-239 | 7.40E+00 |
| Pu-240 | 4.88E+00 |
| Pu-241 | 7.73E+01 |
| Pu-242 | 3.96E-03 |
| Th-229 | 3.27E-13 |
| Th-230 | 1.30E-08 |
| Th-232 | 3.57E-16 |
| U-233 | 1.09E-09 |
| U-234 | 1.85E-04 |
| U-235 | 4.83E-06 |
| U-236 | 1.45E-06 |
| U-238 | 4.56E-06 |

**Haz. Waste No(s).**

D007, D008, D009, D035, F001, F002, F003, F005

**TRUCON Code(s)**

122/222

**Waste Stream Description**

Solidified inorganic waste generated during decontamination and decommissioning of the Westinghouse Advanced Reactors Division facility in Cheswick, PA.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Waste Treatment Plant TRU RH Mixed Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 0.0 | 0.3 | 0.3 |
| **Final Form Total** | 0.0 | 0.3 | 0.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 56.03 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 14.86 |
| 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, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.25E-03 |
| Cs-137 | 1.41E+00 |
| Np-237 | 5.60E-06 |
| Pu-238 | 3.61E-03 |
| Pu-239 | 1.86E-03 |
| Pu-240 | 3.96E-04 |
| Pu-241 | 6.95E-04 |
| Sr-90 | 1.57E+00 |
| Th-229 | 5.50E-08 |
| Th-230 | 9.79E-10 |
| Th-232 | 1.03E-16 |
| U-233 | 5.21E-05 |
| U-234 | 8.93E-06 |
| U-235 | 3.47E-07 |
| U-236 | 1.74E-07 |
| U-238 | 7.81E-06 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

325

**Waste Stream Description**

RH debris waste to be generated from future WTP operations

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **SA-W134**

## 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** | 12/31/2018 |
| **Stream Name** | CH TRU Project Generated Waste (PGW) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 141.50 |
| Aluminum-based Metal/Alloys | 32.04 |
| Other Metal/Alloys | 6.39 |
| Other Inorganic Materials | 7.01 |
| Cellulose | 5.03 |
| Rubber | 1.70 |
| Plastic | 8.91 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.92E-02 |
| Cs-137 | 2.27E-01 |
| Np-237 | 1.82E-08 |
| Pu-238 | 8.04E-03 |
| Pu-239 | 3.96E-02 |
| Pu-240 | 2.23E-02 |
| Pu-241 | 1.88E-01 |
| Pu-242 | 5.75E-06 |
| Sr-90 | 1.01E-02 |
| Th-229 | 5.60E-13 |
| Th-230 | 2.82E-09 |
| Th-232 | 1.65E-05 |
| U-233 | 2.12E-09 |
| U-234 | 1.02E-04 |
| U-235 | 3.44E-06 |
| U-236 | 1.98E-09 |
| U-238 | 1.25E-06 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D011, D019, D022, D028, F002, F005

**TRUCON Code(s)**

125/225

**Waste Stream Description**

CH PGW TRU waste from repackaging RH

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **SA-W135**

## Appendix A
### 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** | 12/31/2018 |
| **Stream Name** | TRU Waste from SNL/NM - Remote Handled | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner | 3.2 | 0.0 | 3.2 |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/o Liner | 1.2 | 0.0 | 1.2 |
| **Final Form Total** | 4.4 | 0.0 | 4.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 163.60 |
| Aluminum-based Metal/Alloys | 23.28 |
| Other Metal/Alloys | 9.91 |
| Other Inorganic Materials | 10.83 |
| Cellulose | 7.84 |
| Rubber | 2.06 |
| Plastic | 11.74 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 6.68 |
| Packaging Material, Rubber | 0.70 |
| Packaging Material, Steel | 1698.17 |
| Packaging Material, Lead | 1087.39 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.25E+00 |
| Cs-137 | 3.51E+01 |
| Np-237 | 3.09E-06 |
| Pu-238 | 1.59E+00 |
| Pu-239 | 4.31E+00 |
| Pu-240 | 2.75E+00 |
| Pu-241 | 3.25E+01 |
| Pu-242 | 1.29E-03 |
| Sr-90 | 2.62E+01 |
| Th-229 | 6.66E-11 |
| Th-230 | 4.18E-07 |
| Th-232 | 1.81E-17 |
| U-233 | 2.52E-07 |
| U-234 | 1.52E-02 |
| U-235 | 4.89E-04 |
| U-236 | 2.44E-07 |
| U-238 | 1.63E-04 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D011, D019, D022, D028, F002, F005

**TRUCON Code(s)**

321

**Waste Stream Description**

Heterogeneous RH fuel pieces from accident scenarios R&D and experimental vessels, includes Project Generated Waste (PGW) from repackaging

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | CH TRU Debris waste from Z-machine | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| SWB Dir Ld w/o Liner | 15.0 | 28.2 | 43.2 |
| **Final Form Total** | 15.0 | 28.2 | 43.2 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 230.72 |
| Aluminum-based Metal/Alloys | 2.03 |
| Other Metal/Alloys | 1.80 |
| Other Inorganic Materials | 0.01 |
| Cellulose | 0.00 |
| Rubber | 0.32 |
| Plastic | 0.20 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.34 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.19 |
| Packaging Material, Steel | 154.26 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 8.13E+00 |
| Np-237 | 1.06E-05 |
| Pu-238 | 2.45E-03 |
| Pu-239 | 8.38E-02 |
| Pu-240 | 2.18E-02 |
| Pu-241 | 1.22E-01 |
| Pu-242 | 2.55E-06 |
| Th-229 | 1.05E-14 |
| Th-230 | 5.19E-13 |
| Th-232 | 2.55E-19 |
| U-233 | 8.97E-11 |
| U-234 | 2.81E-08 |
| U-235 | 3.30E-10 |
| U-236 | 2.58E-09 |
| U-238 | 1.58E-15 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**
125/225

**Waste Stream Description**
CH debris waste from the Z-machine, Pu ICE experiments. Waste generated at SNL/NM, but is LANL waste

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***
NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | CH TRU solidified waste | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 12.50 |
| Other Inorganic Materials | 14.88 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 0.00 |
| Cement | 0.01 |
| Solidified Inorganic Material | 6.90 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.84E-01 |
| Cs-137 | 7.52E-03 |
| Np-237 | 8.50E-07 |
| Pu-238 | 2.05E-01 |
| Pu-239 | 5.84E-01 |
| Pu-240 | 2.58E-01 |
| Pu-241 | 1.76E+00 |
| Pu-242 | 2.40E-04 |
| Th-229 | 2.58E-15 |
| Th-230 | 8.42E-10 |
| Th-232 | 9.24E-18 |
| U-233 | 1.26E-11 |
| U-234 | 1.51E-05 |
| U-235 | 5.08E-07 |
| U-236 | 5.35E-08 |
| U-238 | 1.08E-05 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**
125/225

**Waste Stream Description**
Solidified PuNO3 sample used for instrumental analysis, Pu sources, and Am-241 salt standards.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***
NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | CH TRU sealed source | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.00 |
| Aluminum-based Metal/Alloys | 1.19 |
| Other Metal/Alloys | 4.90 |
| Other Inorganic Materials | 78.57 |
| 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, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.64E-03 |
| Cs-137 | 8.10E-07 |
| Np-237 | 1.59E-08 |
| Pu-238 | 3.88E-07 |
| Pu-239 | 7.54E-05 |
| Th-229 | 5.41E-17 |
| Th-230 | 2.56E-16 |
| U-233 | 2.51E-13 |
| U-234 | 7.88E-12 |
| U-235 | 5.20E-13 |

**Haz. Waste No(s).**

D006, D007, D008, D009, D011

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Sealed sources from instrumentation and on circuit boards.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **SA-W139**

## Appendix A
### Waste Profile Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Sandia National Laboratories | **Summary Category** | S5000 | **Defense Determination** | Defense-Related | **Handling** | RH |
| **Source Cat.** | Remediation/D&D Waste | **Waste Matrix Code Group** | Composite Filter Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | D&D from AHCF | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/o Liner | 0.0 | 0.7 | 0.7 |
| **Final Form Total** | 0.0 | 0.7 | 0.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 60.61 |
| Aluminum-based Metal/Alloys | 14.39 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.61 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 0.00 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.15 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 1.65 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.08E+01 |
| Cs-137 | 2.43E+02 |
| Np-237 | 6.69E-06 |
| Pu-238 | 1.07E+01 |
| Pu-239 | 2.85E+01 |
| Pu-240 | 1.82E+01 |
| Pu-241 | 2.37E+02 |
| Pu-242 | 8.53E-03 |
| Sr-90 | 1.82E+02 |
| Th-229 | 1.47E-10 |
| Th-230 | 9.21E-07 |
| Th-232 | 1.33E-17 |
| U-233 | 1.67E-06 |
| U-234 | 1.00E-01 |
| U-235 | 3.23E-03 |
| U-236 | 5.38E-07 |
| U-238 | 1.08E-03 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

321

**Waste Stream Description**

Filter and associated PGW from AHCF

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **SP-CHHD**

## Appendix A
### Waste Profile Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Separations Process Research Unit | **Summary Category** | S5000 | **Defense Determination** | Defense-Related | **Handling** | CH |
| **Source Cat.** | Remediation/D&D Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | D&D Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 5.6 | 0.0 | 5.6 |
| **Final Form Total** | 6.3 | 0.0 | 6.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 3.67 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 139.87 |
| Other Inorganic Materials | 25.33 |
| Cellulose | 48.64 |
| Rubber | 0.00 |
| Plastic | 24.64 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 4.78 |
| Packaging Material, Rubber | 0.23 |
| Packaging Material, Steel | 151.77 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.46E-03 |
| Cs-137 | 4.84E-01 |
| Np-237 | 4.33E-09 |
| Pu-238 | 4.43E-04 |
| Pu-239 | 4.12E-02 |
| Pu-241 | 4.84E-03 |
| Pu-242 | 1.09E-04 |
| Sr-90 | 1.92E-02 |
| Th-229 | 2.49E-18 |
| Th-230 | 9.18E-09 |
| U-233 | 2.83E-14 |
| U-234 | 3.33E-04 |
| U-235 | 2.09E-05 |
| U-238 | 3.60E-04 |

**Haz. Waste No(s).**
D007, D008, D011

**TRUCON Code(s)**
111/211

**Waste Stream Description**
Process components, inorganic solids, Wastelock, piping, asbestos insulation, PPE, herculite and poly sheets, absorbent pads, and miscellaneous debris.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***
NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **SP-RHHD**

## Appendix A
### Waste Profile Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Separations Process Research Unit | **Summary Category** | S5000 | **Defense Determination** | Defense-Related | **Handling** | RH |
| **Source Cat.** | Remediation/D&D Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | D&D Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner | 1.9 | 0.0 | 1.9 |
| **Final Form Total** | 1.9 | 0.0 | 1.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 52.91 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 904.07 |
| Other Inorganic Materials | 164.87 |
| Cellulose | 36.24 |
| Rubber | 0.00 |
| Plastic | 1.69 |
| Cement | 299.47 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.63E-01 |
| Cs-137 | 4.54E+00 |
| Np-237 | 1.59E-07 |
| Pu-238 | 6.05E-03 |
| Pu-239 | 3.67E-01 |
| Pu-241 | 3.63E-02 |
| Pu-242 | 1.48E-03 |
| Sr-90 | 1.38E+00 |
| Th-229 | 9.15E-17 |
| Th-230 | 1.28E-07 |
| Th-232 | 3.68E-16 |
| U-233 | 1.04E-12 |
| U-234 | 4.64E-03 |
| U-235 | 4.52E-04 |
| U-236 | 2.49E-06 |
| U-238 | 5.07E-03 |

**Haz. Waste No(s).**

D007, D008, D009, D011

**TRUCON Code(s)**

317

**Waste Stream Description**

Process components, inorganic solids, piping, miscellaneous debris, lead, PPE, herculite and poly sheets, plastic bags, Wastelock, absorbent pads, and paper towels.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **SP-RHIN**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Separations Process Research Unit | **Summary Category** | S3000 | **Defense Determination** | Defense-Related | **Handling** | RH |
| **Source Cat.** | Remediation/D&D Waste | **Waste Matrix Code Group** | Solidified Inorganics | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Process cell and sump cleanout sludge | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 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 | 10.32 |
| Cement | 0.00 |
| Solidified Inorganic Material | 190.79 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.21E-02 |
| Cs-137 | 1.94E+01 |
| Np-237 | 6.98E-08 |
| Pu-238 | 9.97E-03 |
| Pu-239 | 8.80E-01 |
| Pu-241 | 1.73E-01 |
| Pu-242 | 6.78E-03 |
| Sr-90 | 4.30E-01 |
| Th-229 | 4.00E-17 |
| Th-230 | 1.78E-07 |
| U-233 | 4.55E-13 |
| U-234 | 6.44E-03 |
| U-235 | 4.96E-04 |
| U-238 | 9.95E-03 |

**Haz. Waste No(s).**

D007, D008, D011

**TRUCON Code(s)**

311

**Waste Stream Description**

Inorganic solids with Aquaset IIG added to absorb free water

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **SR-221H-EUOx**

**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** | 12/31/2018 |
| **Stream Name** | 221H U Oxide CH TRU Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal POC - 12" w/ Liner | 1.5 | 0.0 | 1.5 |
| **Final Form Total** | 1.5 | 0.0 | 1.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 418.03 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 1567.62 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 104.51 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 575.82 |
| Packaging Material, Plastic | 157.99 |
| Packaging Material, Rubber | 2.42 |
| Packaging Material, Steel | 2254.10 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.23E-03 |
| Am-243 | 1.40E-09 |
| Cm-244 | 1.09E-03 |
| Cs-137 | 1.17E-03 |
| Np-237 | 1.32E-03 |
| Pu-238 | 5.07E-03 |
| Pu-239 | 3.45E-01 |
| Pu-240 | 6.34E-07 |
| Pu-242 | 1.32E-03 |
| Sr-90 | 1.17E-03 |
| Th-229 | 2.20E-02 |
| Th-230 | 4.29E-03 |
| Th-232 | 1.32E-03 |
| U-233 | 4.96E+00 |
| U-234 | 7.21E+00 |
| U-235 | 5.79E-01 |
| U-236 | 4.84E-14 |
| U-238 | 1.71E-02 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

125/225

**Waste Stream Description**

The uranium oxide material is being blended and packaged specifically for disposal at WIPP.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | SR-AGNS-HOM | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 0.8 | 0.0 | 0.8 |
| **Final Form Total** | 1.3 | 0.0 | 1.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 121.21 |
| 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 | 1608.66 |
| Solidified Inorganic Material | 1.73 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.68 |
| Packaging Material, Rubber | 0.85 |
| Packaging Material, Steel | 359.84 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.87E-01 |
| Np-237 | 5.33E-04 |
| Pu-238 | 6.07E-01 |
| Pu-239 | 1.07E+00 |
| Pu-240 | 2.52E-01 |
| Pu-241 | 8.63E+00 |
| Pu-242 | 4.38E-05 |
| Th-229 | 3.61E-12 |
| Th-230 | 4.10E-09 |
| Th-232 | 6.62E-18 |
| U-233 | 1.37E-08 |
| U-234 | 7.96E-05 |
| U-235 | 3.44E-06 |
| U-236 | 4.47E-08 |
| U-238 | 7.36E-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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | BCL JN-1 CH TRU Homogeneous Sludge | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 1.59 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.24 |
| Cellulose | 1.87 |
| Rubber | 0.00 |
| Plastic | 6.11 |
| Cement | 0.00 |
| Solidified Inorganic Material | 92.20 |
| Solidified Organic Material | 164.31 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.38E-01 |
| Am-243 | 1.09E-04 |
| Cm-244 | 7.89E-03 |
| Cs-137 | 3.54E-02 |
| Np-237 | 1.54E-06 |
| Pu-238 | 1.14E-01 |
| Pu-239 | 1.55E-02 |
| Pu-240 | 2.52E-02 |
| Pu-241 | 1.59E+00 |
| Pu-242 | 7.52E-05 |
| Sr-90 | 3.52E-02 |
| Th-229 | 7.66E-14 |
| Th-230 | 1.01E-09 |
| Th-232 | 2.43E-16 |
| U-233 | 1.90E-10 |
| U-234 | 2.28E-05 |
| U-235 | 3.69E-07 |
| U-236 | 9.88E-07 |
| U-238 | 2.18E-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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | Composite Filter Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | CH Mixed TRU Cartridge Water Filters(S5000) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.00 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 93.82 |
| Cellulose | 89.33 |
| Rubber | 3.44 |
| Plastic | 17.18 |
| Cement | 0.00 |
| Solidified Inorganic Material | 26.16 |
| Solidified Organic Material | 34.09 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.79E-02 |
| Am-243 | 1.31E-04 |
| Cs-137 | 4.65E-03 |
| Np-237 | 1.87E-05 |
| Pu-238 | 2.23E-01 |
| Pu-239 | 3.92E-03 |
| Pu-240 | 6.45E-03 |
| Pu-242 | 7.67E-08 |
| Sr-90 | 4.54E-03 |
| Th-229 | 3.00E-12 |
| Th-230 | 6.90E-09 |
| Th-232 | 1.06E-18 |
| U-233 | 2.88E-09 |
| U-234 | 5.49E-05 |
| U-235 | 8.03E-07 |
| U-236 | 2.87E-09 |
| U-238 | 1.55E-05 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

119/219

**Waste Stream Description**

This waste consists of CH Cartridge Water Filters

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | BCL JN-4 CH TRU Heterogeneous Debris | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| SWB Dir Ld w/o Liner | 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 | 199.50 |
| Aluminum-based Metal/Alloys | 2.04 |
| Other Metal/Alloys | 1.02 |
| Other Inorganic Materials | 4.08 |
| Cellulose | 53.06 |
| Rubber | 11.74 |
| Plastic | 81.63 |
| Cement | 0.00 |
| Solidified Inorganic Material | 157.66 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.19 |
| Packaging Material, Steel | 154.26 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.65E-02 |
| Np-237 | 4.16E-08 |
| Pu-238 | 7.58E+00 |
| Pu-239 | 2.66E-02 |
| Pu-240 | 1.23E-02 |
| Pu-241 | 2.24E-01 |
| Pu-242 | 3.81E-06 |
| Th-229 | 6.38E-17 |
| Th-230 | 2.52E-09 |
| Th-232 | 2.25E-19 |
| U-233 | 4.38E-13 |
| U-234 | 1.09E-04 |
| U-235 | 1.31E-10 |
| U-236 | 1.83E-09 |
| U-238 | 2.95E-15 |

**Haz. Waste No(s).**

D005, D006, D007, D008, D009, D011, F002, F005

**TRUCON Code(s)**

121/221

**Waste Stream Description**

Heterogeneous debris waste from the D&D of Battelle Columbus Lab Building JN-4

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | CH TRU - Heterogeneous debris from the DWPF laboratory | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 6.98 |
| Aluminum-based Metal/Alloys | 3.49 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 13.96 |
| Cellulose | 33.74 |
| Rubber | 0.00 |
| Plastic | 58.17 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.51E-01 |
| Cs-137 | 1.25E-02 |
| Np-237 | 5.26E-06 |
| Pu-238 | 9.01E-02 |
| Pu-239 | 1.48E-02 |
| Pu-240 | 2.33E-01 |
| Pu-241 | 2.80E-01 |
| Sr-90 | 1.23E-02 |
| Th-229 | 1.49E-05 |
| Th-230 | 1.79E-10 |
| Th-232 | 2.45E-17 |
| U-233 | 1.41E-02 |
| U-234 | 3.20E-06 |
| U-235 | 1.95E-06 |
| U-236 | 8.27E-08 |
| U-238 | 5.52E-05 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

125/225, 154

**Waste Stream Description**

CH TRU waste consisting of contaminated laboratory debris

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Commingled waste from HBL and 235F. | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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/o Liner | 1.9 | 0.0 | 1.9 |
| **Final Form Total** | 2.5 | 0.0 | 2.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 171.62 |
| Aluminum-based Metal/Alloys | 11.82 |
| Other Metal/Alloys | 18.95 |
| Other Inorganic Materials | 18.95 |
| Cellulose | 28.30 |
| Rubber | 1.78 |
| Plastic | 21.06 |
| Cement | 0.00 |
| Solidified Inorganic Material | 1.37 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 9.22 |
| Packaging Material, Rubber | 0.29 |
| Packaging Material, Steel | 148.05 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.98E-05 |
| Np-237 | 6.86E-05 |
| Pu-238 | 5.22E-01 |
| Pu-239 | 3.75E-04 |
| Pu-240 | 2.05E-04 |
| Pu-241 | 8.84E-03 |
| Pu-242 | 2.44E-07 |
| Th-229 | 3.21E-13 |
| Th-230 | 1.74E-10 |
| Th-232 | 3.75E-21 |
| U-233 | 1.46E-09 |
| U-234 | 7.51E-06 |
| U-235 | 1.85E-12 |
| U-236 | 3.04E-11 |
| U-238 | 1.90E-16 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D029, D043, F002, F005, U133

**TRUCON Code(s)**

125/225, 154

**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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | CH TRU Heterogeneous debris from the K Area Plutonium surveillance program | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 2.1 | 183.5 | 185.6 |
| **Final Form Total** | 2.1 | 183.5 | 185.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 24.37 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 2.25 |
| Rubber | 20.87 |
| Plastic | 157.14 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.58E-01 |
| Np-237 | 5.98E-06 |
| Pu-238 | 2.33E-01 |
| Pu-239 | 2.00E+00 |
| Pu-240 | 5.19E-01 |
| Pu-241 | 4.36E+00 |
| Pu-242 | 1.71E-04 |
| Th-229 | 2.43E-14 |
| Th-230 | 7.76E-11 |
| Th-232 | 9.48E-18 |
| U-233 | 1.15E-10 |
| U-234 | 3.36E-06 |
| U-235 | 3.82E-06 |
| U-236 | 7.69E-08 |
| U-238 | 1.34E-07 |

**No Hazardous Waste Numbers Provided**

**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.* ***2.03*** *Data ver.* ***D.18.00.33***
NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **SR-KAC-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** | 12/31/2018 |
| **Stream Name** | CH Mixed TRU Heterogeneous debris from the K Area Plutonium surveillance program | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 24.37 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 2.25 |
| Rubber | 20.87 |
| Plastic | 157.14 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.58E-01 |
| Np-237 | 5.98E-06 |
| Pu-238 | 2.33E-01 |
| Pu-239 | 2.00E+00 |
| Pu-240 | 5.19E-01 |
| Pu-241 | 4.36E+00 |
| Pu-242 | 1.71E-04 |
| Th-229 | 2.43E-14 |
| Th-230 | 7.76E-11 |
| Th-232 | 9.48E-18 |
| U-233 | 1.15E-10 |
| U-234 | 3.36E-06 |
| U-235 | 3.82E-06 |
| U-236 | 7.69E-08 |
| U-238 | 1.34E-07 |

**Haz. Waste No(s).**

D006, D008

**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.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **SR-KAC-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** | 12/31/2018 |
| **Stream Name** | K-Area Pu Oxide waste associated with 6 MT material | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal CCO w/ Liner | 0.0 | 234.2 | 234.2 |
| **Final Form Total** | 0.0 | 234.2 | 234.2 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 522.02 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 86.65 |
| Other Inorganic Materials | 216.97 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 34.69 |
| Cement | 8.66 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 1804.69 |
| Packaging Material, Plastic | 602.34 |
| Packaging Material, Rubber | 9.22 |
| Packaging Material, Steel | 6328.13 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 9.51E+02 |
| Np-237 | 1.59E-02 |
| Pu-238 | 2.42E+02 |
| Pu-239 | 9.49E+02 |
| Pu-240 | 4.61E+02 |
| Pu-241 | 4.76E+03 |
| Pu-242 | 2.14E-01 |
| Th-229 | 7.84E-09 |
| Th-230 | 5.98E-07 |
| Th-232 | 3.37E-18 |
| U-233 | 8.91E-04 |
| U-234 | 6.50E-01 |
| U-235 | 6.09E-03 |
| U-236 | 1.37E-06 |
| U-238 | 2.40E-03 |

**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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***
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** | 12/31/2018 |
| **Stream Name** | CH TRU Heterogeneous debris from the Los Alamos Scientific Laboratory (LASL) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 4.6 | 0.0 | 4.6 |
| **Final Form Total** | 4.6 | 0.0 | 4.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 63.94 |
| Aluminum-based Metal/Alloys | 0.05 |
| Other Metal/Alloys | 1.15 |
| Other Inorganic Materials | 6.65 |
| Cellulose | 7.73 |
| Rubber | 6.54 |
| Plastic | 7.81 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.18 |
| Solidified Organic Material | 0.01 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 9.20E-01 |
| Am-243 | 3.76E-07 |
| Cs-137 | 2.37E-06 |
| Np-237 | 4.70E-05 |
| Pu-238 | 3.97E+02 |
| Pu-239 | 4.68E-01 |
| Pu-240 | 7.40E-01 |
| Pu-241 | 6.19E+00 |
| Pu-242 | 9.40E-04 |
| Sr-90 | 2.82E-06 |
| Th-229 | 6.34E-08 |
| Th-230 | 3.49E-06 |
| Th-232 | 6.44E-08 |
| U-233 | 1.44E-04 |
| U-234 | 7.88E-02 |
| U-235 | 1.12E-06 |
| U-236 | 1.10E-07 |
| U-238 | 7.29E-13 |

**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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | CH Mixed TRU/F listed solvents - Heterogeneous debris from Mound Laboratories | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 1.3 | 0.0 | 1.3 |
| 55-gal Drum Dir Ld w/o Liner | 0.2 | 0.0 | 0.2 |
| SWB Dir Ld w/o Liner | 13.2 | 0.0 | 13.2 |
| **Final Form Total** | 14.6 | 0.0 | 14.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 80.88 |
| Aluminum-based Metal/Alloys | 0.28 |
| Other Metal/Alloys | 1.53 |
| Other Inorganic Materials | 14.07 |
| Cellulose | 28.22 |
| Rubber | 4.18 |
| Plastic | 20.35 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.53 |
| Solidified Organic Material | 0.00 |
| Soil | 4.79 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 3.16 |
| Packaging Material, Rubber | 0.23 |
| Packaging Material, Steel | 151.77 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.39E-02 |
| Am-243 | 8.19E-08 |
| Cm-244 | 3.49E-06 |
| Cs-137 | 6.00E-06 |
| Np-237 | 6.89E-06 |
| Pu-238 | 5.75E+00 |
| Pu-239 | 8.34E-02 |
| Pu-240 | 1.28E-02 |
| Pu-241 | 2.91E-01 |
| Pu-242 | 8.11E-06 |
| Sr-90 | 5.97E-06 |
| Th-229 | 6.12E-07 |
| Th-230 | 2.40E-06 |
| Th-232 | 2.49E-07 |
| U-233 | 1.74E-03 |
| U-234 | 1.08E-03 |
| U-235 | 4.65E-07 |
| U-236 | 1.52E-09 |
| U-238 | 8.34E-06 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D030, D032, D034, D037, D043, F002, F003, F004, F005, F007, F009

**TRUCON Code(s)**

125/225, 154

**Waste Stream Description**

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | CH TRU Heterogeneous debris from the Mound Plant | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 15.3 | 0.0 | 15.3 |
| SLB2 Dir Ld | 14.8 | 0.0 | 14.8 |
| SWB Dir Ld w/o Liner | 30.1 | 0.0 | 30.1 |
| **Final Form Total** | 60.2 | 0.0 | 60.2 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 56.83 |
| Aluminum-based Metal/Alloys | 0.11 |
| Other Metal/Alloys | 0.71 |
| Other Inorganic Materials | 6.54 |
| Cellulose | 18.38 |
| Rubber | 2.40 |
| Plastic | 10.67 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.57 |
| Solidified Organic Material | 0.26 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 9.35 |
| Packaging Material, Rubber | 0.27 |
| Packaging Material, Steel | 150.62 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.50E-01 |
| Am-243 | 1.89E-06 |
| Cm-244 | 1.00E-03 |
| Cs-137 | 2.50E-03 |
| Np-237 | 5.60E-05 |
| Pu-238 | 2.69E+02 |
| Pu-239 | 3.30E-01 |
| Pu-240 | 4.49E-01 |
| Pu-241 | 3.89E+00 |
| Pu-242 | 5.48E-04 |
| Sr-90 | 2.49E-03 |
| Th-229 | 1.66E-13 |
| Th-230 | 1.88E-06 |
| Th-232 | 1.62E-06 |
| U-233 | 9.43E-10 |
| U-234 | 5.26E-02 |
| U-235 | 1.04E-06 |
| U-236 | 5.32E-08 |
| U-238 | 3.81E-06 |

**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)**

125/225, 154, 425

**Waste Stream Description**

This CH TRU waste stream consists of debris shipped to the SRS from the Mound Plant in 1971 and 1972.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | CH Mixed TRU Soil / Gravel (S4000) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 0.2 | 0.0 | 0.2 |
| 55-gal Drum Dir Ld w/o Liner | 1.9 | 0.0 | 1.9 |
| **Final Form Total** | 2.1 | 0.0 | 2.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.10 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 68.28 |
| Cellulose | 0.34 |
| Rubber | 0.12 |
| Plastic | 5.02 |
| Cement | 0.00 |
| Solidified Inorganic Material | 19.94 |
| Solidified Organic Material | 0.00 |
| Soil | 835.36 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 3.67 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.50E-03 |
| Cs-137 | 2.02E-06 |
| Np-237 | 1.03E-06 |
| Pu-238 | 4.99E-01 |
| Pu-239 | 1.24E-02 |
| Pu-240 | 1.79E-03 |
| Pu-241 | 1.88E-02 |
| Pu-242 | 2.39E-06 |
| Sr-90 | 2.01E-06 |
| Th-229 | 4.79E-15 |
| Th-230 | 4.20E-09 |
| Th-232 | 3.28E-20 |
| U-233 | 2.18E-11 |
| U-234 | 9.50E-05 |
| U-235 | 6.11E-11 |
| U-236 | 2.66E-10 |
| U-238 | 1.85E-15 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, F002, F003, F004, F005, F007, F009

**TRUCON Code(s)**

111/211

**Waste Stream Description**

Soil mixed with absorbent and some commingled debris.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **SR-NIST-HET**

## Appendix A
### Waste Profile Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Savannah River Site | **Summary Category** | S5000 | **Defense Determination** | Defense-Related | **Handling** | CH |
| **Source Cat.** | Other/Multiple Sources | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Heterogeneous Debris Waste from the NIST | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 105.71 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 13.21 |
| Cement | 138.10 |
| Solidified Inorganic Material | 7.29 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.05E+01 |
| Np-237 | 5.86E-05 |
| Pu-238 | 3.81E+01 |
| Pu-239 | 1.23E+01 |
| Pu-240 | 2.90E+00 |
| Pu-241 | 9.97E+01 |
| Pu-242 | 5.18E-04 |
| Th-229 | 1.31E-13 |
| Th-230 | 1.32E-07 |
| Th-232 | 1.11E-13 |
| U-233 | 7.48E-10 |
| U-234 | 2.71E-03 |
| U-235 | 2.99E-05 |
| U-236 | 3.75E-04 |
| U-238 | 1.19E-06 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**
125/225, 154

**Waste Stream Description**
This material consist of a combination of unirradiated PuO/UO fuel pellets, Pacemaker source and solidified Pu solutions

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***
NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | RH TRU Heterogeneous debris from the HB-Line | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal 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 | 136.56 |
| Aluminum-based Metal/Alloys | 7.89 |
| Other Metal/Alloys | 10.26 |
| Other Inorganic Materials | 55.26 |
| Cellulose | 46.57 |
| Rubber | 116.83 |
| Plastic | 412.84 |
| Cement | 0.00 |
| Solidified Inorganic Material | 2.37 |
| Solidified Organic Material | 0.79 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.66E-02 |
| Np-237 | 5.53E-01 |
| Pu-238 | 3.33E+02 |
| Pu-239 | 2.71E-01 |
| Pu-240 | 1.40E-01 |
| Pu-241 | 6.13E+00 |
| Pu-242 | 1.61E-04 |
| Th-229 | 1.65E-09 |
| Th-230 | 2.14E-07 |
| Th-232 | 7.51E-16 |
| U-233 | 9.38E-06 |
| U-234 | 7.72E-03 |
| U-235 | 1.37E-05 |
| U-236 | 3.81E-06 |
| U-238 | 1.21E-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 composed of dry heterogeneous organic and inorganic debris.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | RH TRU spent Berl saddles from H-Canyon dissolver off-gas system. | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 1.7 | 0.0 | 1.7 |
| **Final Form Total** | 1.7 | 0.0 | 1.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 171.06 |
| Aluminum-based Metal/Alloys | 9.89 |
| Other Metal/Alloys | 12.85 |
| Other Inorganic Materials | 69.21 |
| Cellulose | 58.34 |
| Rubber | 146.34 |
| Plastic | 517.13 |
| Cement | 0.00 |
| Solidified Inorganic Material | 2.97 |
| Solidified Organic Material | 0.99 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Np-237 | 5.48E-04 |
| Pu-238 | 1.30E+00 |
| Pu-239 | 1.16E-02 |
| Pu-240 | 7.94E-03 |
| Pu-242 | 1.37E-04 |
| Th-229 | 2.57E-12 |
| Th-230 | 6.73E-09 |
| Th-232 | 1.45E-19 |
| U-233 | 1.17E-08 |
| U-234 | 1.56E-04 |
| U-235 | 5.73E-11 |
| U-236 | 1.18E-09 |
| U-238 | 1.06E-13 |

**Haz. Waste No(s).**

D007, D009, D011

**TRUCON Code(s)**

321

**Waste Stream Description**

This waste stream is composed of spent Berl saddles (silicon dioxide and aluminum oxide).

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | RH TRU Heterogeneous debris from the 235F facility. | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner | 1.3 | 0.0 | 1.3 |
| **Final Form Total** | 1.3 | 0.0 | 1.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 57.02 |
| Aluminum-based Metal/Alloys | 3.11 |
| Other Metal/Alloys | 1.52 |
| Other Inorganic Materials | 16.56 |
| Cellulose | 9.69 |
| Rubber | 58.23 |
| Plastic | 73.30 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.68 |
| Solidified Organic Material | 0.13 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.02E+02 |
| Np-237 | 2.82E-02 |
| Pu-238 | 3.00E+02 |
| Pu-239 | 2.38E+00 |
| Pu-240 | 6.29E-01 |
| Pu-241 | 3.70E+03 |
| Pu-242 | 2.29E-04 |
| Th-229 | 1.31E-10 |
| Th-230 | 9.99E-08 |
| Th-232 | 1.15E-17 |
| U-233 | 5.98E-07 |
| U-234 | 4.32E-03 |
| U-235 | 1.17E-08 |
| U-236 | 9.30E-08 |
| U-238 | 1.78E-13 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

322, 325

**Waste Stream Description**

This waste stream is composed of metal equipment and debris

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | RH TRU Heterogeneous debris from the 772F and 772-1F laboratories. | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 115.23 |
| Aluminum-based Metal/Alloys | 8.46 |
| Other Metal/Alloys | 23.26 |
| Other Inorganic Materials | 232.57 |
| Cellulose | 58.14 |
| Rubber | 43.34 |
| Plastic | 576.14 |
| Cement | 0.00 |
| Solidified Inorganic Material | 1.06 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.44E-02 |
| Cs-137 | 9.74E-01 |
| Np-237 | 6.33E-06 |
| Pu-238 | 5.14E-02 |
| Pu-239 | 4.25E-02 |
| Pu-240 | 1.29E-02 |
| Pu-241 | 6.40E-02 |
| Pu-242 | 2.12E-06 |
| Sr-90 | 9.50E-01 |
| Th-229 | 3.06E-13 |
| Th-230 | 6.80E-10 |
| Th-232 | 2.06E-16 |
| U-233 | 4.36E-10 |
| U-234 | 5.83E-06 |
| U-235 | 2.95E-08 |
| U-236 | 2.64E-07 |
| U-238 | 5.26E-15 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

322, 325

**Waste Stream Description**

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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | RH TRU Heterogeneous debris from the SRNL | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner | 16.4 | 0.0 | 16.4 |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner | 0.6 | 10.7 | 11.3 |
| **Final Form Total** | 17.0 | 10.7 | 27.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 190.27 |
| Aluminum-based Metal/Alloys | 2.09 |
| Other Metal/Alloys | 12.74 |
| Other Inorganic Materials | 125.26 |
| Cellulose | 68.17 |
| Rubber | 103.23 |
| Plastic | 213.81 |
| Cement | 0.00 |
| Solidified Inorganic Material | 4.32 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 30.26 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.54E-01 |
| Am-243 | 5.14E-02 |
| Cm-244 | 3.61E+00 |
| Cs-137 | 8.41E-01 |
| Np-237 | 4.03E-06 |
| Pu-238 | 2.62E+00 |
| Pu-239 | 7.28E-02 |
| Pu-240 | 4.28E-02 |
| Pu-241 | 4.43E-01 |
| Pu-242 | 2.04E-05 |
| Pu-244 | 3.26E-14 |
| Sr-90 | 6.14E-01 |
| Th-229 | 1.33E-13 |
| Th-230 | 7.16E-09 |
| Th-232 | 5.49E-18 |
| U-233 | 2.23E-10 |
| U-234 | 1.09E-04 |
| U-235 | 1.00E-09 |
| U-236 | 1.64E-08 |
| U-238 | 4.43E-14 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D043, F002, F004, F005

**TRUCON Code(s)**

321, 322, 325

**Waste Stream Description**

This waste stream is 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.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **SR-RH-DWPF-HET**

**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** | 12/31/2018 |
| **Stream Name** | RH TRU - Heterogeneous debris from the DWPF | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/o Liner | 0.0 | 3.3 | 3.3 |
| **Final Form Total** | 0.0 | 3.3 | 3.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 8.12 |
| Aluminum-based Metal/Alloys | 4.06 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 16.25 |
| Cellulose | 39.26 |
| Rubber | 0.00 |
| Plastic | 67.69 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 1.65 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.26E-01 |
| Cs-137 | 1.91E-01 |
| Np-237 | 4.09E-06 |
| Pu-238 | 1.15E-01 |
| Pu-239 | 1.72E-02 |
| Pu-240 | 2.71E-01 |
| Pu-241 | 5.79E-01 |
| Sr-90 | 1.91E-02 |
| Th-229 | 1.44E-07 |
| Th-230 | 1.49E-14 |
| Th-232 | 1.98E-21 |
| U-233 | 1.64E-02 |
| U-234 | 3.25E-08 |
| U-235 | 2.27E-06 |
| U-236 | 8.02E-10 |
| U-238 | 6.43E-05 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

325

**Waste Stream Description**

RH TRU waste consisting of contaminated debris

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **SR-RH-FBL.01**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Savannah River Site | **Summary Category** | S5000 | **Defense Determination** | Defense-Related | **Handling** | RH |
| **Source Cat.** | Facility/Equipment Operation and Maintenance Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | RH TRU Heterogeneous debris from the FB-Line | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner | 1.3 | 0.0 | 1.3 |
| **Final Form Total** | 1.3 | 0.0 | 1.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 27.33 |
| Aluminum-based Metal/Alloys | 0.31 |
| Other Metal/Alloys | 0.70 |
| Other Inorganic Materials | 128.57 |
| Cellulose | 6.04 |
| Rubber | 9.19 |
| Plastic | 76.61 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.08 |
| Solidified Organic Material | 0.45 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.30E+00 |
| Cs-137 | 4.25E-06 |
| Np-237 | 1.34E-05 |
| Pu-238 | 1.41E+00 |
| Pu-239 | 1.45E+00 |
| Pu-240 | 1.44E+00 |
| Pu-241 | 1.09E+01 |
| Pu-242 | 7.12E-05 |
| Sr-90 | 4.16E-06 |
| Th-229 | 1.19E-05 |
| Th-230 | 2.13E-08 |
| Th-232 | 1.77E-16 |
| U-233 | 1.04E-02 |
| U-234 | 2.05E-04 |
| U-235 | 2.96E-06 |
| U-236 | 5.53E-07 |
| U-238 | 2.07E-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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | RH TRU Heterogeneous debris from the F-Canyon dissolver off-gas system. | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal 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 | 1700.62 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 124.08 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.02E-03 |
| Np-237 | 6.26E-05 |
| Pu-238 | 4.96E-05 |
| Pu-239 | 1.91E-03 |
| Pu-240 | 1.39E-03 |
| Pu-241 | 9.39E-03 |
| Pu-242 | 5.21E-01 |
| Th-229 | 2.01E-12 |
| Th-230 | 1.40E-05 |
| Th-232 | 5.89E-15 |
| U-233 | 3.52E-09 |
| U-234 | 1.17E-01 |
| U-235 | 1.49E+00 |
| U-236 | 9.18E-06 |
| U-238 | 7.46E-02 |

**Haz. Waste No(s).**

D006, D007, D008, D009, D011, D019, D022, D028, 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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | RH Debris from Mound Laboratories | **Activity Concentrations Decayed to CY** | 2018 | | |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner | 3.2 | 0.0 | 3.2 |
| **Final Form Total** | 3.2 | 0.0 | 3.2 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 60.66 |
| Aluminum-based Metal/Alloys | 0.04 |
| Other Metal/Alloys | 0.48 |
| Other Inorganic Materials | 8.30 |
| Cellulose | 3.67 |
| Rubber | 2.88 |
| Plastic | 6.71 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.36 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.66E-01 |
| Np-237 | 2.31E-07 |
| Pu-238 | 7.13E+02 |
| Pu-239 | 5.25E-01 |
| Pu-240 | 2.87E-01 |
| Pu-241 | 1.07E+01 |
| Pu-242 | 3.42E-04 |
| Th-229 | 4.92E-16 |
| Th-230 | 6.18E-07 |
| Th-232 | 1.34E-17 |
| U-233 | 2.74E-12 |
| U-234 | 1.66E-02 |
| U-235 | 4.14E-09 |
| U-236 | 6.81E-08 |
| U-238 | 4.25E-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.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **SR-RH-SDD.01**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Savannah River Site | **Summary Category** | S5000 | **Defense Determination** | Defense-Related | **Handling** | RH |
| **Source Cat.** | Discarding Excess/Expired Materials | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Remote Handled PuBe Sources | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 1793.65 |
| Aluminum-based Metal/Alloys | 52.78 |
| Other Metal/Alloys | 15.08 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 1906.35 |
| 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, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 9.60E+00 |
| Np-237 | 3.28E-05 |
| Pu-238 | 1.38E+02 |
| Pu-239 | 2.26E+00 |
| Pu-240 | 1.36E+00 |
| Pu-241 | 4.60E+01 |
| Pu-242 | 2.27E-03 |
| Th-229 | 2.44E-13 |
| Th-230 | 2.30E-07 |
| Th-232 | 1.20E-16 |
| U-233 | 7.65E-10 |
| U-234 | 4.49E-03 |
| U-235 | 2.44E-08 |
| U-236 | 4.43E-07 |
| U-238 | 3.87E-12 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

320

**Waste Stream Description**

This waste stream consists of three PuBe sources.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **SR-RH-SWD.01**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Savannah River Site | **Summary Category** | S5000 | **Defense Determination** | Defense-Related | **Handling** | RH |
| **Source Cat.** | Remediation/D&D Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Remote Handled (RH) Mixed TRU Debris (S5000) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 8.41 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 264.60 |
| Other Inorganic Materials | 33.49 |
| Cellulose | 31.27 |
| Rubber | 5.56 |
| Plastic | 80.00 |
| Cement | 0.00 |
| Solidified Inorganic Material | 11.70 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.41E-02 |
| Am-243 | 2.93E-02 |
| Cm-244 | 2.42E+00 |
| Cs-137 | 7.61E-03 |
| Np-237 | 2.13E-04 |
| Pu-238 | 1.16E-01 |
| Pu-239 | 1.37E-01 |
| Pu-240 | 4.37E-02 |
| Pu-241 | 1.18E+00 |
| Pu-242 | 1.49E-05 |
| Pu-244 | 3.54E-16 |
| Sr-90 | 5.36E-03 |
| Th-229 | 9.96E-13 |
| Th-230 | 3.87E-11 |
| Th-232 | 7.82E-19 |
| U-233 | 4.53E-09 |
| U-234 | 1.67E-06 |
| U-235 | 6.74E-10 |
| U-236 | 6.37E-09 |
| U-238 | 1.16E-14 |

**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)**

322

**Waste Stream Description**

RH Mixed TRU waste resulting from solvent tank emptying and closure in the E-Area of SRS.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | CH TRU - Heterogeneous debris from the D&D of the 211-F-Area | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 3.8 | 0.0 | 3.8 |
| **Final Form Total** | 5.7 | 0.0 | 5.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 51.04 |
| Aluminum-based Metal/Alloys | 0.50 |
| Other Metal/Alloys | 0.04 |
| Other Inorganic Materials | 0.48 |
| Cellulose | 2.26 |
| Rubber | 0.00 |
| Plastic | 22.46 |
| Cement | 1.07 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 12.28 |
| Packaging Material, Rubber | 0.32 |
| Packaging Material, Steel | 145.98 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.93E-03 |
| Am-243 | 5.33E-07 |
| Cm-244 | 4.74E-05 |
| Cs-137 | 2.20E-05 |
| Np-237 | 7.51E-06 |
| Pu-238 | 5.99E-01 |
| Pu-239 | 3.39E-02 |
| Pu-240 | 4.74E-03 |
| Pu-241 | 7.54E-02 |
| Pu-242 | 4.20E-06 |
| Sr-90 | 5.36E-03 |
| Th-229 | 1.86E-10 |
| Th-230 | 2.69E-10 |
| Th-232 | 1.17E-17 |
| U-233 | 5.30E-07 |
| U-234 | 1.07E-05 |
| U-235 | 8.06E-09 |
| U-236 | 5.94E-08 |
| U-238 | 1.70E-07 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011

**TRUCON Code(s)**

125/225

**Waste Stream Description**

This waste stream is composed of metal equipment, tools and debris and small amounts of Portland cement

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Organic Sludge from D&D of the SRS F-Area 800 Series Underground Tanks | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 3.6 | 0.0 | 3.6 |
| **Final Form Total** | 4.0 | 0.0 | 4.0 |

**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 | 7.86 |
| Cement | 525.04 |
| Solidified Inorganic Material | 3.94 |
| Solidified Organic Material | 27.63 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 3.86 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.87E-02 |
| Am-243 | 1.43E-04 |
| Np-237 | 2.03E-02 |
| Pu-238 | 2.38E+00 |
| Pu-239 | 2.18E-01 |
| Pu-240 | 4.14E-02 |
| Pu-241 | 5.13E-01 |
| Pu-242 | 9.46E-02 |
| Th-229 | 3.25E-05 |
| Th-230 | 7.67E-06 |
| Th-232 | 1.22E-13 |
| U-233 | 9.25E-02 |
| U-234 | 2.09E-01 |
| U-235 | 1.65E-04 |
| U-236 | 6.20E-04 |
| U-238 | 1.00E-02 |

**Haz. Waste No(s).**

D004, D005, D007, D008, D009, D011

**TRUCON Code(s)**

112/212

**Waste Stream Description**

Absorbed organic sludge

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Sludge from D&D of the SRS F-Area 800 Series Underground Tanks | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 8.4 | 0.0 | 8.4 |
| SWB Dir Ld w/o Liner | 1.9 | 0.0 | 1.9 |
| **Final Form Total** | 10.7 | 0.0 | 10.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 39.30 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 2.84 |
| Cellulose | 15.00 |
| Rubber | 0.00 |
| Plastic | 30.77 |
| Cement | 162.43 |
| Solidified Inorganic Material | 8.55 |
| Solidified Organic Material | 0.05 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 1.44 |
| Packaging Material, Rubber | 0.50 |
| Packaging Material, Steel | 133.87 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.50E-01 |
| Am-243 | 5.80E-05 |
| Cm-244 | 2.61E-03 |
| Cs-137 | 4.26E-04 |
| Np-237 | 5.83E-04 |
| Pu-238 | 4.61E+01 |
| Pu-239 | 2.63E+00 |
| Pu-240 | 3.68E-01 |
| Pu-241 | 5.44E+00 |
| Pu-242 | 1.27E-03 |
| Sr-90 | 1.83E-04 |
| Th-229 | 2.73E-12 |
| Th-230 | 2.96E-08 |
| Th-232 | 1.17E-15 |
| U-233 | 1.24E-08 |
| U-234 | 9.73E-04 |
| U-235 | 2.55E-06 |
| U-236 | 4.79E-06 |
| U-238 | 7.51E-05 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011

**TRUCON Code(s)**

127/227

**Waste Stream Description**

Absorbed sludge

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | CH Mixed TRU Debris (S5000) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 0.8 | 0.0 | 0.8 |
| 55-gal Drum Dir Ld w/o Liner | 4.8 | 0.0 | 4.8 |
| SWB Dir Ld w/o Liner | 63.9 | 0.0 | 63.9 |
| **Final Form Total** | 69.6 | 0.0 | 69.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 62.02 |
| Aluminum-based Metal/Alloys | 0.82 |
| Other Metal/Alloys | 0.06 |
| Other Inorganic Materials | 1.95 |
| Cellulose | 7.45 |
| Rubber | 4.26 |
| Plastic | 20.04 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.44 |
| Packaging Material, Rubber | 0.22 |
| Packaging Material, Steel | 152.24 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.96E-02 |
| Am-243 | 5.32E-06 |
| Cm-244 | 1.65E-03 |
| Cs-137 | 5.64E-05 |
| Np-237 | 6.67E-05 |
| Pu-238 | 7.12E+00 |
| Pu-239 | 1.46E-01 |
| Pu-240 | 4.12E-02 |
| Pu-241 | 5.12E-01 |
| Pu-242 | 1.07E-04 |
| Sr-90 | 5.59E-05 |
| Th-229 | 2.55E-09 |
| Th-230 | 4.32E-08 |
| Th-232 | 1.69E-09 |
| U-233 | 5.80E-06 |
| U-234 | 9.91E-04 |
| U-235 | 1.37E-07 |
| U-236 | 6.10E-09 |
| U-238 | 5.04E-06 |

**Haz. Waste No(s).**

D008, F001, F002, F004, F005, F007, F009, U133, U151

**TRUCON Code(s)**

125/225, 154

**Waste Stream Description**

CH Mixed TRU waste resulting from remediation and re-packaging of Mixed "defense related" TRU waste.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Spill cleanup debris. | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 1.1 | 0.0 | 1.1 |
| **Final Form Total** | 1.1 | 0.0 | 1.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 129.05 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 32.10 |
| Cellulose | 25.67 |
| Rubber | 0.00 |
| Plastic | 24.38 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.42E-01 |
| Am-243 | 4.22E-01 |
| Cm-244 | 3.48E+01 |
| Cs-137 | 5.20E-06 |
| Np-237 | 5.54E-07 |
| Pu-238 | 6.56E-01 |
| Pu-239 | 9.18E-04 |
| Pu-240 | 1.65E-01 |
| Pu-241 | 2.29E-01 |
| Pu-242 | 1.33E-04 |
| Pu-244 | 5.92E-15 |
| Sr-90 | 5.16E-06 |
| Th-229 | 8.66E-16 |
| Th-230 | 2.18E-10 |
| Th-232 | 2.78E-18 |
| U-233 | 5.91E-12 |
| U-234 | 9.44E-06 |
| U-235 | 4.37E-12 |
| U-236 | 2.30E-08 |
| U-238 | 1.04E-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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | CH Mixed TRU HEPA Filters (S5000) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 24.92 |
| Aluminum-based Metal/Alloys | 0.23 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 1.55 |
| Cellulose | 10.31 |
| Rubber | 0.00 |
| Plastic | 18.05 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.73E-01 |
| Am-243 | 1.12E-14 |
| Cs-137 | 1.98E-07 |
| Np-237 | 1.96E-06 |
| Pu-238 | 7.17E-02 |
| Pu-239 | 9.33E-01 |
| Pu-240 | 2.51E-01 |
| Pu-241 | 2.47E+00 |
| Pu-242 | 3.16E-05 |
| Sr-90 | 1.97E-07 |
| Th-229 | 1.03E-07 |
| Th-230 | 1.50E-09 |
| Th-232 | 4.58E-18 |
| U-233 | 2.35E-04 |
| U-234 | 3.32E-05 |
| U-235 | 7.02E-07 |
| U-236 | 3.71E-08 |
| U-238 | 5.10E-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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | CH Mixed TRU/Thirds Heterogeneous debris from 221F | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 0.8 | 0.0 | 0.8 |
| SWB Dir Ld w/o Liner | 5.6 | 0.0 | 5.6 |
| **Final Form Total** | 6.5 | 0.0 | 6.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 42.53 |
| Aluminum-based Metal/Alloys | 0.44 |
| Other Metal/Alloys | 0.52 |
| Other Inorganic Materials | 6.78 |
| Cellulose | 29.60 |
| Rubber | 7.07 |
| Plastic | 31.39 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.02 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 4.76 |
| Packaging Material, Rubber | 0.24 |
| Packaging Material, Steel | 151.05 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.71E-01 |
| Am-243 | 7.73E-07 |
| Cm-244 | 4.55E-03 |
| Cs-137 | 8.18E-05 |
| Np-237 | 4.85E-06 |
| Pu-238 | 3.84E-01 |
| Pu-239 | 1.52E+00 |
| Pu-240 | 4.19E-01 |
| Pu-241 | 5.73E+00 |
| Pu-242 | 2.59E-04 |
| Sr-90 | 8.14E-05 |
| Th-229 | 1.36E-14 |
| Th-230 | 6.22E-09 |
| Th-232 | 4.78E-08 |
| U-233 | 7.84E-11 |
| U-234 | 1.71E-04 |
| U-235 | 2.23E-06 |
| U-236 | 4.96E-08 |
| U-238 | 1.48E-05 |

**Haz. Waste No(s).**

D006, D007, D008, D009, D022, D028, D029, F001, F002, F003, F005

**TRUCON Code(s)**

125/225, 154

**Waste Stream Description**

200 Areas (F and H Separations Facilities). This waste is primarily solids consisting of mainly booties, lab coats, floor sweepings, rags, labware, and other job control wastes. Small HEPAs, liquids, sludges and resins may also be found in this stream. The waste is generated primarily through separation activities in the course of plutonium production, includes small amounts of TRU waste from on site laboratories.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **SR-W026-221F-HET-A**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Savannah River Site | **Summary Category** | S5000 | **Defense Determination** | Defense-Related | **Handling** | CH |
| **Source Cat.** | Remediation/D&D Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | CH Mixed TRU/Thirds Heterogeneous debris from 221F | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 4.6 | 0.0 | 4.6 |
| SLB2 Dir Ld | 7.4 | 0.0 | 7.4 |
| **Final Form Total** | 12.0 | 0.0 | 12.0 |

**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 | 0.61 |
| Other Inorganic Materials | 41.16 |
| Cellulose | 0.05 |
| Rubber | 0.00 |
| Plastic | 2.37 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 14.12 |
| Packaging Material, Rubber | 0.28 |
| Packaging Material, Steel | 151.41 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 8.86E-02 |
| Cm-244 | 2.13E-03 |
| Cs-137 | 6.29E-02 |
| Np-237 | 8.56E-07 |
| Pu-238 | 1.11E-02 |
| Pu-239 | 2.02E-01 |
| Pu-240 | 5.08E-02 |
| Pu-241 | 1.29E+00 |
| Pu-242 | 8.80E-06 |
| Sr-90 | 1.76E-02 |
| Th-229 | 1.16E-09 |
| Th-230 | 2.95E-09 |
| Th-232 | 7.26E-17 |
| U-233 | 2.63E-06 |
| U-234 | 6.42E-05 |
| U-235 | 2.03E-06 |
| U-236 | 2.98E-07 |
| U-238 | 7.74E-07 |

**Haz. Waste No(s).**

D006, D007, D008, D009, D011, D019, D022, D028, D029, F002, F005

**TRUCON Code(s)**

125/225, 154, 425

**Waste Stream Description**

200 Areas (F Separations Facilities). This waste consists of silver impregnated ceramic saddles removed from the F-Canyon dissolver off-gas system.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | CH Mixed TRU Solids (S3000) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 1.67 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 1.62 |
| Rubber | 0.63 |
| Plastic | 26.65 |
| Cement | 0.00 |
| Solidified Inorganic Material | 255.28 |
| Solidified Organic Material | 4.38 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.63E-01 |
| Am-243 | 1.16E-07 |
| Cs-137 | 2.21E-02 |
| Np-237 | 1.50E-05 |
| Pu-238 | 3.50E-01 |
| Pu-239 | 1.83E+00 |
| Pu-240 | 4.11E-01 |
| Pu-241 | 3.62E+00 |
| Pu-242 | 5.81E-05 |
| Sr-90 | 1.15E-05 |
| Th-229 | 9.76E-14 |
| Th-230 | 1.79E-09 |
| Th-232 | 1.08E-17 |
| U-233 | 3.74E-10 |
| U-234 | 3.54E-05 |
| U-235 | 3.19E-08 |
| U-236 | 7.30E-08 |
| U-238 | 3.08E-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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | Combustible Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | CH Mixed TRU/Thirds Heterogeneous debris from 772F | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 6.9 | 79.4 | 86.3 |
| SWB Dir Ld w/o Liner | 5.6 | 24.4 | 30.1 |
| **Final Form Total** | 17.6 | 103.8 | 121.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 10.98 |
| Aluminum-based Metal/Alloys | 0.64 |
| Other Metal/Alloys | 0.86 |
| Other Inorganic Materials | 18.27 |
| Cellulose | 6.41 |
| Rubber | 4.12 |
| Plastic | 43.98 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.08 |
| Solidified Organic Material | 0.01 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 1.52 |
| Packaging Material, Rubber | 0.47 |
| Packaging Material, Steel | 135.65 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.32E-01 |
| Am-243 | 2.10E-06 |
| Cm-244 | 2.76E-03 |
| Cs-137 | 8.55E-04 |
| Np-237 | 2.37E-04 |
| Pu-238 | 8.53E+00 |
| Pu-239 | 3.88E-01 |
| Pu-240 | 9.65E-02 |
| Pu-241 | 1.70E+00 |
| Pu-242 | 4.43E-05 |
| Sr-90 | 8.45E-04 |
| Th-229 | 3.15E-08 |
| Th-230 | 5.57E-08 |
| Th-232 | 5.06E-07 |
| U-233 | 7.53E-05 |
| U-234 | 1.56E-03 |
| U-235 | 1.53E-06 |
| U-236 | 1.14E-08 |
| U-238 | 1.29E-06 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

125/225, 154

**Waste Stream Description**

This waste stream is composed of Job Control waste, sludges and resins, HEPA filters and metal equipment.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | CH Mixed TRU/F listed solvents - Heterogeneous debris from 221F | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 2.1 | 0.0 | 2.1 |
| SWB Dir Ld w/o Liner | 5.6 | 0.0 | 5.6 |
| **Final Form Total** | 7.7 | 0.0 | 7.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 46.77 |
| Aluminum-based Metal/Alloys | 0.13 |
| Other Metal/Alloys | 0.02 |
| Other Inorganic Materials | 1.89 |
| Cellulose | 40.42 |
| Rubber | 0.59 |
| Plastic | 18.64 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 9.96 |
| Packaging Material, Rubber | 0.29 |
| Packaging Material, Steel | 147.55 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.96E-01 |
| Am-243 | 1.97E-07 |
| Cm-244 | 2.53E-05 |
| Cs-137 | 4.50E-07 |
| Np-237 | 1.88E-06 |
| Pu-238 | 5.22E-02 |
| Pu-239 | 6.38E-01 |
| Pu-240 | 1.61E-01 |
| Pu-241 | 1.61E+00 |
| Pu-242 | 1.53E-05 |
| Sr-90 | 4.46E-07 |
| Th-229 | 4.06E-09 |
| Th-230 | 1.19E-09 |
| Th-232 | 2.94E-18 |
| U-233 | 9.23E-06 |
| U-234 | 2.63E-05 |
| U-235 | 1.06E-07 |
| U-236 | 2.38E-08 |
| U-238 | 3.21E-07 |

**Haz. Waste No(s).**

D006, D008, D009, F001, F002, F005

**TRUCON Code(s)**

125/225, 154

**Waste Stream Description**

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste. This stream differs from SR-W026 because solvent rags are suspected to be in the waste.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | CH TRU HEPA filters | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 2.7 | 0.0 | 2.7 |
| 55-gal Drum Dir Ld w/o Liner | 0.8 | 4.2 | 5.0 |
| SLB2 Dir Ld | 7.4 | 0.0 | 7.4 |
| SWB Dir Ld w/o Liner | 79.0 | 16.9 | 95.9 |
| **Final Form Total** | 89.9 | 21.1 | 111.0 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 4.13 |
| Aluminum-based Metal/Alloys | 22.80 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 9.73 |
| Cellulose | 6.37 |
| Rubber | 0.09 |
| Plastic | 13.19 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.90 |
| Packaging Material, Rubber | 0.21 |
| Packaging Material, Steel | 153.25 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.42E-02 |
| Am-243 | 1.19E-07 |
| Cs-137 | 1.36E-03 |
| Np-237 | 3.97E-05 |
| Pu-238 | 9.10E+00 |
| Pu-239 | 3.56E-02 |
| Pu-240 | 1.00E-02 |
| Pu-241 | 1.80E-01 |
| Pu-242 | 1.80E-05 |
| Sr-90 | 1.35E-03 |
| Th-229 | 1.86E-13 |
| Th-230 | 7.89E-08 |
| Th-232 | 1.83E-19 |
| U-233 | 8.45E-10 |
| U-234 | 1.78E-03 |
| U-235 | 1.10E-07 |
| U-236 | 1.48E-09 |
| U-238 | 1.39E-14 |

**Haz. Waste No(s).**

D006, D007, D008, D009, D011, D019, D022, D029, D035, D039, D040, D043

**TRUCON Code(s)**

119/219, 425

**Waste Stream Description**

This waste stream is mixed TRU composed of HEPA filters

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | CH Mixed TRU/F listed solvents - Heterogeneous debris from 221H | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 3.6 | 0.0 | 3.6 |
| 55-gal Drum Dir Ld w/o Liner | 14.7 | 0.0 | 14.7 |
| SWB Dir Ld w/o Liner | 75.2 | 0.0 | 75.2 |
| **Final Form Total** | 93.5 | 0.0 | 93.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 24.87 |
| Aluminum-based Metal/Alloys | 1.16 |
| Other Metal/Alloys | 0.38 |
| Other Inorganic Materials | 9.19 |
| Cellulose | 5.90 |
| Rubber | 16.21 |
| Plastic | 51.24 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.13 |
| Solidified Organic Material | 0.01 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 1.40 |
| Packaging Material, Rubber | 0.27 |
| Packaging Material, Steel | 149.42 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.47E-01 |
| Am-243 | 1.79E-06 |
| Cm-244 | 2.54E-03 |
| Cs-137 | 1.38E-05 |
| Np-237 | 1.49E-03 |
| Pu-238 | 7.64E+01 |
| Pu-239 | 2.51E-01 |
| Pu-240 | 7.05E-02 |
| Pu-241 | 5.18E+00 |
| Pu-242 | 1.60E-04 |
| Sr-90 | 1.36E-05 |
| Th-229 | 1.25E-07 |
| Th-230 | 5.26E-07 |
| Th-232 | 2.26E-06 |
| U-233 | 3.54E-04 |
| U-234 | 1.47E-02 |
| U-235 | 2.29E-06 |
| U-236 | 8.35E-09 |
| U-238 | 2.39E-06 |

**Haz. Waste No(s).**

D006, D008, D009, D019, D022, D029, D039, D040, D043, F001, F002, F003, F005, U133

**TRUCON Code(s)**

125/225, 154

**Waste Stream Description**

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste. This stream differs from SR-W026 because solvent rags are suspected to be in the waste. Small HEPA filters, sludges, resins, absorbed liquids, and large metal equipment are also in these waste streams.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **SR-W027-221H-HET-C**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Savannah River Site | **Summary Category** | S5000 | **Defense Determination** | Defense-Related | **Handling** | CH |
| **Source Cat.** | Materials Production/Recovery Effluents | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | CH Mixed TRU - Heterogeneous debris from 221H | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 1.3 | 0.0 | 1.3 |
| 55-gal Drum Dir Ld w/o Liner | 12.0 | 12.4 | 24.4 |
| SWB Dir Ld w/o Liner | 13.2 | 20.7 | 33.8 |
| **Final Form Total** | 26.4 | 33.1 | 59.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 45.81 |
| Aluminum-based Metal/Alloys | 6.97 |
| Other Metal/Alloys | 0.30 |
| Other Inorganic Materials | 15.62 |
| Cellulose | 4.26 |
| Rubber | 25.53 |
| Plastic | 52.68 |
| Cement | 0.00 |
| Solidified Inorganic Material | 1.49 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.78 |
| Packaging Material, Rubber | 0.35 |
| Packaging Material, Steel | 143.60 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.35E-01 |
| Am-243 | 7.02E-06 |
| Cs-137 | 2.91E-05 |
| Np-237 | 2.31E-03 |
| Pu-238 | 1.73E+00 |
| Pu-239 | 8.48E-01 |
| Pu-240 | 2.04E-01 |
| Pu-241 | 1.44E+00 |
| Pu-242 | 1.16E-04 |
| Sr-90 | 2.90E-05 |
| Th-229 | 6.08E-09 |
| Th-230 | 1.69E-08 |
| Th-232 | 2.38E-18 |
| U-233 | 1.73E-05 |
| U-234 | 4.71E-04 |
| U-235 | 7.07E-06 |
| U-236 | 2.41E-08 |
| U-238 | 4.32E-07 |

**Haz. Waste No(s).**

D006, D007, D008, D009, D011

**TRUCON Code(s)**

125/225, 154

**Waste Stream Description**

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste. Small HEPA filters, sludges, resins, absorbed liquids, and large metal equipment are also in this waste stream.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | CH Mixed TRU Absorbed / Stabilized Liquids | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 0.6 | 0.0 | 0.6 |
| 55-gal Drum Dir Ld w/o Liner | 0.2 | 0.0 | 0.2 |
| **Final Form Total** | 0.8 | 0.0 | 0.8 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 5.99 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 105.82 |
| Cellulose | 3.99 |
| Rubber | 3.99 |
| Plastic | 45.92 |
| Cement | 0.00 |
| Solidified Inorganic Material | 31.95 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 27.54 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.37E-01 |
| Am-243 | 1.15E-07 |
| Cs-137 | 5.04E-03 |
| Np-237 | 1.39E-04 |
| Pu-238 | 7.47E-01 |
| Pu-239 | 7.97E-01 |
| Pu-240 | 2.17E-01 |
| Pu-241 | 2.15E+00 |
| Pu-242 | 7.75E-05 |
| Sr-90 | 5.00E-03 |
| Th-229 | 2.45E-09 |
| Th-230 | 6.92E-08 |
| Th-232 | 1.56E-15 |
| U-233 | 5.56E-06 |
| U-234 | 1.51E-03 |
| U-235 | 2.88E-05 |
| U-236 | 6.33E-06 |
| U-238 | 1.51E-06 |

**Haz. Waste No(s).**

D006, D007, D008, D009, D011, D019, D022, D029, D043, F002, F005, U133

**TRUCON Code(s)**

127/227

**Waste Stream Description**

This waste stream is comprised of greater than 50 percent by volume absorbed liquid waste

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | Composite Filter Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | CH Mixed TRU consisting of HEPA Filters from the 235-F. | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| 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 | 9.4 | 0.0 | 9.4 |
| **Final Form Total** | 9.8 | 0.0 | 9.8 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 2.77 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.67 |
| Cellulose | 27.14 |
| Rubber | 0.00 |
| Plastic | 16.94 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 1.57 |
| Packaging Material, Rubber | 0.21 |
| Packaging Material, Steel | 153.20 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.09E-02 |
| Am-243 | 2.16E-14 |
| Cs-137 | 6.61E-08 |
| Np-237 | 1.70E-04 |
| Pu-238 | 9.58E-01 |
| Pu-239 | 6.50E-03 |
| Pu-240 | 2.82E-03 |
| Pu-241 | 4.02E-02 |
| Pu-242 | 4.98E-06 |
| Sr-90 | 6.57E-08 |
| Th-229 | 5.09E-13 |
| Th-230 | 1.08E-08 |
| Th-232 | 3.29E-20 |
| U-233 | 2.89E-09 |
| U-234 | 2.98E-04 |
| U-235 | 2.51E-06 |
| U-236 | 3.33E-10 |
| U-238 | 3.09E-15 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035

**TRUCON Code(s)**

119/219, 154

**Waste Stream Description**

This waste stream is composed of spent HEPA Filters

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | CH Mixed TRU/F listed solvents - Heterogeneous debris from 235F | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 3.4 | 0.0 | 3.4 |
| SWB Dir Ld w/o Liner | 3.8 | 0.0 | 3.8 |
| **Final Form Total** | 7.1 | 0.0 | 7.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 55.28 |
| Aluminum-based Metal/Alloys | 1.56 |
| Other Metal/Alloys | 2.76 |
| Other Inorganic Materials | 7.74 |
| Cellulose | 9.55 |
| Rubber | 26.05 |
| Plastic | 47.03 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.18 |
| Solidified Organic Material | 0.09 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.37 |
| Packaging Material, Steel | 142.58 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.42E-01 |
| Am-243 | 1.47E-06 |
| Cm-244 | 3.02E-04 |
| Cs-137 | 2.35E-06 |
| Np-237 | 4.28E-03 |
| Pu-238 | 1.20E+02 |
| Pu-239 | 1.62E-01 |
| Pu-240 | 6.98E-02 |
| Pu-241 | 4.91E+00 |
| Pu-242 | 1.34E-04 |
| Sr-90 | 2.33E-06 |
| Th-229 | 7.78E-08 |
| Th-230 | 1.15E-06 |
| Th-232 | 1.51E-06 |
| U-233 | 2.21E-04 |
| U-234 | 3.21E-02 |
| U-235 | 3.18E-06 |
| U-236 | 8.27E-09 |
| U-238 | 1.45E-06 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, F002, F003

**TRUCON Code(s)**

125/225, 154

**Waste Stream Description**

This mixed 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.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **SR-W027-235F-HOM**

**Appendix A**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Savannah River Site | **Summary Category** | S3000 | **Defense Determination** | Defense-Related | **Handling** | CH |
| **Source Cat.** | Facility/Equipment Operation and Maintenance Waste | **Waste Matrix Code Group** | Solidified Inorganics | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | CH mixed TRU S3000 solids from 235F | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 2.78 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 2.78 |
| Cellulose | 2.78 |
| Rubber | 2.78 |
| Plastic | 8.33 |
| Cement | 0.00 |
| Solidified Inorganic Material | 258.21 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.42E-01 |
| Np-237 | 2.37E-07 |
| Pu-238 | 2.41E+02 |
| Pu-239 | 1.74E-01 |
| Pu-240 | 9.54E-02 |
| Pu-241 | 3.91E+00 |
| Pu-242 | 1.14E-04 |
| Th-229 | 4.88E-16 |
| Th-230 | 1.16E-07 |
| Th-232 | 2.51E-18 |
| U-233 | 2.87E-12 |
| U-234 | 4.17E-03 |
| U-235 | 1.03E-09 |
| U-236 | 1.69E-08 |
| U-238 | 1.06E-13 |

**Haz. Waste No(s).**

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

**TRUCON Code(s)**

127/227

**Waste Stream Description**

This waste consists of sludge from tank cleanout.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **SR-W027-235F-IR**

**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** | 12/31/2018 |
| **Stream Name** | Unknown | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 0.0 | 47.3 | 47.3 |
| SWB Dir Ld w/o Liner | 0.0 | 11.3 | 11.3 |
| **Final Form Total** | 0.0 | 58.5 | 58.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 65.02 |
| Aluminum-based Metal/Alloys | 1.83 |
| Other Metal/Alloys | 3.25 |
| Other Inorganic Materials | 9.11 |
| Cellulose | 11.23 |
| Rubber | 30.64 |
| Plastic | 55.32 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.21 |
| Solidified Organic Material | 0.10 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.49 |
| Packaging Material, Steel | 134.29 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.46E-01 |
| Am-243 | 1.73E-06 |
| Cm-244 | 4.12E-04 |
| Cs-137 | 3.02E-06 |
| Np-237 | 5.03E-03 |
| Pu-238 | 1.46E+02 |
| Pu-239 | 1.91E-01 |
| Pu-240 | 8.22E-02 |
| Pu-241 | 6.97E+00 |
| Pu-242 | 1.57E-04 |
| Sr-90 | 3.02E-06 |
| Th-229 | 2.29E-09 |
| Th-230 | 3.32E-08 |
| Th-232 | 1.77E-06 |
| U-233 | 2.60E-04 |
| U-234 | 3.61E-02 |
| U-235 | 3.74E-06 |
| U-236 | 2.43E-10 |
| U-238 | 1.70E-06 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, F002, F003

**TRUCON Code(s)**

125/225, 154

**Waste Stream Description**

This waste stream will be composed of heterogeneous debris from inventory reduction activities resulting from D&D of the 235F Metallurgical Building.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | CH Mixed TRU Debris (S5000) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 1.3 | 0.0 | 1.3 |
| **Final Form Total** | 1.3 | 0.0 | 1.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 140.39 |
| Aluminum-based Metal/Alloys | 3.59 |
| Other Metal/Alloys | 8.26 |
| Other Inorganic Materials | 18.31 |
| Cellulose | 23.34 |
| Rubber | 67.86 |
| Plastic | 96.22 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 1.08 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.70E+00 |
| Np-237 | 4.97E-04 |
| Pu-238 | 2.40E-02 |
| Pu-239 | 4.17E-02 |
| Pu-240 | 9.86E-03 |
| Pu-241 | 1.18E+02 |
| Pu-242 | 1.72E-06 |
| Th-229 | 2.32E-12 |
| Th-230 | 7.99E-12 |
| Th-232 | 1.80E-19 |
| U-233 | 1.06E-08 |
| U-234 | 3.45E-07 |
| U-235 | 2.06E-10 |
| U-236 | 1.46E-09 |
| U-238 | 1.33E-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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | CH Mixed TRU/F listed solvents - Heterogeneous debris from 773A | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 12.4 | 0.0 | 12.4 |
| 55-gal Drum Dir Ld w/o Liner | 10.9 | 210.4 | 221.3 |
| SLB2 Dir Ld | 7.4 | 0.0 | 7.4 |
| SWB Dir Ld w/o Liner | 75.2 | 71.4 | 146.6 |
| **Final Form Total** | 105.9 | 281.9 | 387.8 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 34.79 |
| Aluminum-based Metal/Alloys | 0.66 |
| Other Metal/Alloys | 1.20 |
| Other Inorganic Materials | 13.64 |
| Cellulose | 10.99 |
| Rubber | 6.67 |
| Plastic | 30.37 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.15 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 1.17 |
| Packaging Material, Rubber | 0.41 |
| Packaging Material, Steel | 139.55 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.64E-01 |
| Am-243 | 1.04E-03 |
| Cm-244 | 8.44E-02 |
| Cs-137 | 7.34E-04 |
| Np-237 | 2.33E-04 |
| Pu-238 | 9.73E+00 |
| Pu-239 | 4.16E-01 |
| Pu-240 | 9.57E-02 |
| Pu-241 | 1.51E+00 |
| Pu-242 | 2.06E-05 |
| Pu-244 | 1.13E-15 |
| Sr-90 | 7.30E-04 |
| Th-229 | 1.57E-08 |
| Th-230 | 6.73E-08 |
| Th-232 | 5.17E-07 |
| U-233 | 4.47E-05 |
| U-234 | 1.88E-03 |
| U-235 | 1.08E-06 |
| U-236 | 1.13E-08 |
| U-238 | 1.02E-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 mixed 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.* ***2.03*** *Data ver.* ***D.18.00.33***

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 Inorganics | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | CH Mixed TRU Homogeneous Solids (S3000) | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 1.1 | 0.0 | 1.1 |
| **Final Form Total** | 1.1 | 0.0 | 1.1 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 1.45 |
| Aluminum-based Metal/Alloys | 0.03 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 6.90 |
| Rubber | 2.18 |
| Plastic | 21.81 |
| Cement | 0.00 |
| Solidified Inorganic Material | 89.24 |
| Solidified Organic Material | 240.95 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.95E-04 |
| Cs-137 | 6.38E-03 |
| Np-237 | 1.34E-05 |
| Pu-238 | 6.44E+01 |
| Pu-239 | 4.16E-05 |
| Pu-240 | 2.12E-05 |
| Pu-241 | 3.78E-04 |
| Pu-242 | 2.04E-05 |
| Sr-90 | 6.33E-03 |
| Th-229 | 6.29E-14 |
| Th-230 | 5.64E-07 |
| Th-232 | 3.88E-22 |
| U-233 | 2.86E-10 |
| U-234 | 1.27E-02 |
| U-235 | 2.05E-13 |
| U-236 | 3.14E-12 |
| U-238 | 1.58E-14 |

**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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | Combustible Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | CH Mixed TRU - Heterogeneous debris from FB-Line | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 31.7 | 0.0 | 31.7 |
| SWB Dir Ld w/o Liner | 32.0 | 0.0 | 32.0 |
| **Final Form Total** | 63.7 | 0.0 | 63.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 25.46 |
| Aluminum-based Metal/Alloys | 0.26 |
| Other Metal/Alloys | 0.32 |
| Other Inorganic Materials | 8.59 |
| Cellulose | 9.15 |
| Rubber | 8.30 |
| Plastic | 58.12 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.19 |
| Solidified Organic Material | 0.04 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 18.29 |
| Packaging Material, Rubber | 0.38 |
| Packaging Material, Steel | 141.94 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 8.51E-01 |
| Am-243 | 1.29E-06 |
| Cm-244 | 2.79E-03 |
| Cs-137 | 4.42E-06 |
| Np-237 | 4.86E-05 |
| Pu-238 | 3.62E-01 |
| Pu-239 | 2.51E+00 |
| Pu-240 | 7.20E-01 |
| Pu-241 | 8.47E+00 |
| Pu-242 | 1.32E-04 |
| Sr-90 | 4.40E-06 |
| Th-229 | 5.23E-09 |
| Th-230 | 2.80E-09 |
| Th-232 | 7.04E-08 |
| U-233 | 1.19E-05 |
| U-234 | 6.35E-05 |
| U-235 | 1.85E-07 |
| U-236 | 1.07E-07 |
| U-238 | 7.63E-07 |

**Haz. Waste No(s).**

D005, D006, D007, D008, D009, D011, D018, D019, D022, D029, D039, D040, D043, F001, F002, F003, F005, U002, U151

**TRUCON Code(s)**

125/225, 133/233, 154

**Waste Stream Description**

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste. Small HEPA filters, sludges, resins, absorbed liquids, and metal equipment is also present in the waste stream.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | CH mixed TRU from 221H | | | | | **Activity Concentrations Decayed to CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 4.2 | 0.0 | 4.2 |
| SLB2 Dir Ld | 14.8 | 0.0 | 14.8 |
| SWB Dir Ld w/o Liner | 63.9 | 0.0 | 63.9 |
| **Final Form Total** | 82.9 | 0.0 | 82.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 40.04 |
| Aluminum-based Metal/Alloys | 0.01 |
| Other Metal/Alloys | 0.04 |
| Other Inorganic Materials | 3.31 |
| Cellulose | 46.63 |
| Rubber | 1.64 |
| Plastic | 27.37 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.20 |
| Packaging Material, Steel | 154.93 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.66E-03 |
| Am-243 | 4.80E-10 |
| Cm-244 | 5.44E-05 |
| Cs-137 | 2.01E-05 |
| Np-237 | 4.10E-05 |
| Pu-238 | 2.52E+00 |
| Pu-239 | 1.33E-02 |
| Pu-240 | 3.97E-03 |
| Pu-241 | 6.25E-02 |
| Pu-242 | 7.72E-06 |
| Sr-90 | 2.00E-05 |
| Th-229 | 1.22E-13 |
| Th-230 | 1.66E-08 |
| Th-232 | 4.64E-20 |
| U-233 | 6.96E-10 |
| U-234 | 4.66E-04 |
| U-235 | 4.32E-09 |
| U-236 | 4.70E-10 |
| U-238 | 4.79E-15 |

**Haz. Waste No(s).**

D006, D007, D008, D009, D011, D019, D022, D029, D043, F002, F005, U133

**TRUCON Code(s)**

125/225, 154, 425

**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.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

# APPENDIX B POTENTIAL TRU WASTE PROFILE REPORTS

The following WPRs contain final form information through CY 2033 on potential TRU waste streams as of the inventory date, December 31, 2018. These waste streams were placed in the potential category for various reasons, as stated in section 4.1 of this report.

The TRU waste generator sites that have reported potential TRU waste streams are:

BL Babcock and Wilcox Nuclear Energy Services
IN Idaho National Laboratory
RL Hanford (Richland) Site
RP Hanford Site – Office of River Protection
SR Savannah River Site
WV West Valley Demonstration Project

**Waste Stream ID:** **BL-Parks**

**Appendix B**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Babcock and Wilcox Nuclear Energy Services | **Summary Category** | S5000 | **Defense Determination** | Pending Determination | **Handling** | CH |
| **Source Cat.** | Source Information Not Compiled | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Parks Township TRU Waste | | | | | **Activity Concentrations as of CY** | 2000 |

**Waste Volume Detail ($m^3$)**

| 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 | 5.6 | 0.0 | 5.6 |
| **Final Form Total** | 9.6 | 0.0 | 9.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.00 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| 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, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.35 |
| Packaging Material, Steel | 144.01 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.98E+00 |
| Cs-137 | 4.11E-03 |
| Pu-238 | 3.44E+00 |
| Pu-239 | 1.82E+01 |
| Pu-240 | 6.85E+00 |
| Pu-241 | 1.83E+02 |
| Pu-242 | 4.04E-03 |
| U-234 | 3.08E-05 |
| U-235 | 1.39E-06 |
| U-238 | 2.79E-06 |

**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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Parks Township TRU Waste | | | | | **Activity Concentrations as of CY** | 2000 |

**Waste Volume Detail ($m^3$)**

| 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, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.94E-02 |
| Pu-239 | 6.23E+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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-BN-539**

**Appendix B**

**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** | 12/31/2018 |
| **Stream Name** | TRU Radioactive - Only Debris Waste | | | | | **Activity Concentrations as of CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| SLB2 Dir Ld | 51.7 | 0.0 | 51.7 |
| **Final Form Total** | 51.7 | 0.0 | 51.7 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.00 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| 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, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.11 |
| Packaging Material, Steel | 165.09 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.31E-03 |
| Np-237 | 3.40E-08 |
| Pu-238 | 1.13E-02 |
| Pu-239 | 2.72E-02 |
| Pu-240 | 6.06E-03 |
| Pu-241 | 3.54E-02 |
| Pu-242 | 8.05E-07 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

Heterogeneous debris waste generated in WMF-676 from the treatment of RCRA-empty containers including shredded boxes.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-DD-001**

**Appendix B**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Idaho National Laboratory | **Summary Category** | S9000 | **Defense Determination** | Defense-Related | **Handling** | CH |
| **Source Cat.** | Remediation/D&D Waste | **Waste Matrix Code Group** | Unknown | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | To Be Determined | | | | | **Activity Concentrations as of CY** | N/A |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| SWB Dir Ld w/ Liner | 0.0 | 4000.6 | 4000.6 |
| **Final Form Total** | 0.0 | 4000.6 | 4000.6 |

**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, Cellulose | 0.00 |
| Packaging Material, Plastic | 1.21 |
| Packaging Material, Rubber | 0.19 |
| Packaging Material, Steel | 154.26 |
| Packaging Material, Lead | 0.00 |

**No Final Form Radionuclides Provided**

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

Waste generated during D&D of AMWTP

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **IN-ID-TRU-RHNH**

**Appendix B**

**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** | 12/31/2018 |
| **Stream Name** | Newly Generated Secondary TRU Waste from Repackaging of MFC RH-TRU | | | | | **Activity Concentrations as of CY** | 2017 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 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, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 6.24E-02 |
| Cs-137 | 4.02E+00 |
| Pu-238 | 2.04E-02 |
| Pu-239 | 1.02E-01 |
| Pu-240 | 2.41E-02 |
| Pu-241 | 4.28E-01 |
| Pu-242 | 3.14E-05 |
| Sr-90 | 2.55E+00 |
| U-233 | 5.69E-04 |
| U-234 | 3.51E-04 |
| U-235 | 1.94E-05 |
| U-238 | 5.31E-06 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste stream was generated at CPP-659 and CPP-666 hot cell facilities secondary waste during the repackaging of MFC RH-TRU debris. Waste is debris, consisting of plastic, wipes, chop saws, empty containers, and tools.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | SBW Treatment - Steam Reforming - Carbonate Waste Form | | | | | **Activity Concentrations as of CY** | 2006 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid - Dir Ld | 979.0 | 0.0 | 979.0 |
| **Final Form Total** | 979.0 | 0.0 | 979.0 |

**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 | 0.00 |
| Cement | 0.00 |
| Solidified Inorganic Material | 1333.96 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.00 |
| Packaging Material, Steel | 560.67 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.22E-01 |
| Am-243 | 1.74E-04 |
| Cm-244 | 1.24E-03 |
| Cs-137 | 1.77E+02 |
| Np-237 | 2.47E-03 |
| Pu-238 | 3.81E+00 |
| Pu-239 | 4.13E-01 |
| Pu-240 | 1.53E-01 |
| Pu-241 | 1.55E+00 |
| Pu-242 | 7.89E-05 |
| Sr-90 | 1.16E+02 |
| U-233 | 3.45E-05 |
| U-234 | 5.49E-03 |
| U-235 | 1.35E-04 |
| U-238 | 1.32E-04 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, F001, F002, F005, U134

**No TRUCON Codes Provided**

**Waste Stream Description**

The liquid SBW would be transferred from the storage tanks to the steam reforming process over a 3-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 96% 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 1100 canisters with a surface dose rate <100 Rem/hr.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | SBW Treatment - Steam Reforming Process - Debris | | | | | **Activity Concentrations as of CY** | 2019 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid - Dir Ld | 0.0 | 89.0 | 89.0 |
| **Final Form Total** | 0.0 | 89.0 | 89.0 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 700.00 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 2.00 |
| 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, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.00 |
| Packaging Material, Steel | 560.67 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 5.27E-03 |
| Am-243 | 2.85E-06 |
| Cm-244 | 2.02E-05 |
| Cs-137 | 2.90E+00 |
| Np-237 | 4.03E-05 |
| Pu-238 | 6.22E-02 |
| Pu-239 | 6.75E-03 |
| Pu-240 | 2.50E-03 |
| Pu-241 | 2.54E-02 |
| Pu-242 | 1.29E-06 |
| Sr-90 | 1.90E+00 |
| U-233 | 5.64E-07 |
| U-234 | 8.98E-05 |
| U-235 | 2.20E-06 |
| U-238 | 2.16E-06 |

**Haz. Waste No(s).**

D004, D005, D006, D007, D008, D009, D010, D011, F001, F002, F005, U134

**No TRUCON Codes Provided**

**Waste Stream Description**

The debris from the steam reforming process would include spent HEPA filters and other failed equipment.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **RL170-08**

**Appendix B**

**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** | 12/31/2018 |
| **Stream Name** | 1706-KEL facility TRU RH Mixed Debris | | | | | **Activity Concentrations as of CY** | 2010 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 0.3 | 0.0 | 0.3 |
| **Final Form Total** | 0.3 | 0.0 | 0.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 68.28 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 522.78 |
| Cellulose | 17.07 |
| Rubber | 0.00 |
| Plastic | 4.27 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.73E-02 |
| Cs-137 | 1.21E-02 |
| Pu-238 | 5.24E-03 |
| Pu-239 | 2.09E-02 |
| Pu-240 | 1.18E-02 |
| Pu-241 | 3.48E-01 |
| Pu-242 | 4.73E-07 |
| Sr-90 | 1.10E-02 |

**Haz. Waste No(s).**

D008

**No TRUCON Codes Provided**

**Waste Stream Description**

RH 1706-KEL Facility waste originated from the laboratory portion. The containers are likely from a small-scale cleanout of the 1706-KEL developmental laboratory after various studies (e.g., corrosion, decontamination, etc.).Piping, Tubing, Test equipment components, mineral sorbent and lead shielding - metal 85% other absorbent 15%.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **RL200-10**

**Appendix B**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Hanford (Richland) Site | **Summary Category** | S4000 | **Defense Determination** | Defense-Related | **Handling** | RH |
| **Source Cat.** | Other/Multiple Sources | **Waste Matrix Code Group** | Contaminated Soil/Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Groundwater TRU RH Soils | | | | | **Activity Concentrations as of CY** | 2015 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal 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, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.71E-03 |
| Cs-137 | 5.64E-04 |
| Pu-239 | 7.73E-03 |
| Pu-240 | 7.73E-03 |
| Sr-90 | 2.27E-03 |
| U-234 | 8.82E-07 |
| U-235 | 3.58E-08 |
| U-236 | 1.85E-08 |
| U-238 | 8.64E-07 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

RH soils from Groundwater projects.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | 300 Area TRU RH Non-Mixed Debris | | | | | **Activity Concentrations as of CY** | 2001 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner | 7.6 | 0.0 | 7.6 |
| **Final Form Total** | 7.6 | 0.0 | 7.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 86.17 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 659.78 |
| Cellulose | 21.54 |
| Rubber | 0.00 |
| Plastic | 5.39 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 45.24 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.28E-01 |
| Am-243 | 3.30E-01 |
| Cs-137 | 5.27E+05 |
| Np-237 | 2.30E-06 |
| Pu-238 | 8.12E-01 |
| Pu-239 | 3.19E-01 |
| Pu-240 | 1.22E-01 |
| Pu-241 | 5.37E+00 |
| Pu-242 | 2.15E-04 |
| Sr-90 | 3.81E+05 |
| Th-232 | 1.23E-05 |
| U-234 | 4.59E-05 |
| U-235 | 7.01E-07 |
| U-236 | 1.70E-06 |
| U-238 | 1.24E-05 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

325

**Waste Stream Description**

High Cs-137 content, vitrified waste form in heavily shielded casks.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **RLALPHA-08**

**Appendix B**

**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** | 12/31/2018 |
| **Stream Name** | Alpha Caissons TRU RH Debris | | | | | **Activity Concentrations as of CY** | N/A |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 1075.1 | 0.0 | 1075.1 |
| **Final Form Total** | 1075.1 | 0.0 | 1075.1 |

**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, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**No Final Form Radionuclides Provided**

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

Debris waste generated from operations within the 300 area hot cells.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Tank Farms TRU RH Mixed Debris | | | | | **Activity Concentrations as of CY** | 2001 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 3.5 | 0.0 | 3.5 |
| **Final Form Total** | 3.5 | 0.0 | 3.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 2.19 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 265.75 |
| Other Inorganic Materials | 5.24 |
| Cellulose | 0.00 |
| Rubber | 32.64 |
| Plastic | 9.07 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.12E-02 |
| Cs-137 | 3.26E+00 |
| Pu-238 | 1.12E-03 |
| Pu-239 | 3.57E-02 |
| Pu-240 | 7.18E-03 |
| Pu-241 | 1.07E-02 |
| Sr-90 | 1.45E+02 |
| U-233 | 4.49E-04 |
| U-235 | 1.29E-05 |
| U-238 | 3.00E-04 |

**Haz. Waste No(s).**

D030, D032, F001, F002, F003, F004, F005

**TRUCON Code(s)**

325

**Waste Stream Description**

RH waste- Equipment removed from waste tanks (instrument trees, pumps, circulators, agitators, heaters, sluicers, steam coils, air lances, cameras). The waste stream ranges from contaminated clothing to process equipment contaminated with RCRA constituents.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **RLDD-01**

**Appendix B**

**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** | 12/31/2018 |
| **Stream Name** | Future D&D and CERCLA waste projects TRU Debris | | | | | **Activity Concentrations as of CY** | N/A |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/ Liner | 0.0 | 176.4 | 176.4 |
| SWB Dir Ld w/ Liner | 0.0 | 526.4 | 526.4 |
| **Final Form Total** | 0.0 | 702.8 | 702.8 |

**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, Cellulose | 0.00 |
| Packaging Material, Plastic | 10.12 |
| Packaging Material, Rubber | 0.29 |
| Packaging Material, Steel | 148.05 |
| Packaging Material, Lead | 0.00 |

**No Final Form Radionuclides Provided**

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

CH Debris to be generated from future D&D and CERCLA waste projects. Includes PUREX facility, PUREX tunnels, REDOX, Liquid Waste Sites, Plutonium Concentration and Isolation facilities, 200-WA-1, 325 facility, and 618-11 burial grounds. Additional waste volume from 200-SW-2 not included as part of volume [10,000 m3].

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **RLDD-08**

**Appendix B**

**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** | 12/31/2018 |
| **Stream Name** | Future D&D and CERCLA waste projects TRU RH Debris | | | | | **Activity Concentrations as of CY** | N/A |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Lead Shielded Cntr w/ 1 - 30 gal w/ Liner | 0.0 | 71.8 | 71.8 |
| **Final Form Total** | 0.0 | 71.8 | 71.8 |

**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, Cellulose | 0.00 |
| Packaging Material, Plastic | 86.55 |
| Packaging Material, Rubber | 1.07 |
| Packaging Material, Steel | 3718.18 |
| Packaging Material, Lead | 3918.18 |

**No Final Form Radionuclides Provided**

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

RH Debris to be generated from future D&D and CERCLA waste projects. Includes PUREX facility, PUREX tunnels, REDOX, Liquid Waste Sites, Plutonium Concentration and Isolation facilities, 200-WA-1, 325 facility, and 618-11 burial grounds. Additional waste volume from 200-SW-2 not included as part of volume [10,000 m3].

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **RLN622FD-01**

**Appendix B**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Hanford (Richland) Site | **Summary Category** | S5000 | **Defense Determination** | Defense-Related | **Handling** | CH |
| **Source Cat.** | Facility/Equipment Operation and Maintenance Waste | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | Weather station radiological sources | | | | | **Activity Concentrations as of CY** | 2007 |

**Waste Volume Detail ($m^3$)**

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

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based 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, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.39E-01 |
| Np-237 | 3.36E-06 |
| Pu-238 | 2.50E-04 |
| Pu-239 | 1.02E-02 |
| Pu-240 | 2.33E-03 |
| Pu-241 | 1.70E-02 |
| Pu-242 | 2.00E-07 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

Source facility is the weather station, Radiological Sources

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | PFP CH-TRU Contaminated Soil | | | | | **Activity Concentrations as of CY** | 2010 |

**Waste Volume Detail ($m^3$)**

| 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, Cellulose | 0.00 |
| Packaging Material, Plastic | 36.71 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 2.48E-02 |
| Cs-137 | 9.52E-07 |
| Pu-238 | 9.39E-04 |
| Pu-239 | 7.28E-02 |
| Pu-240 | 1.60E-02 |
| Pu-241 | 1.21E-01 |
| Pu-242 | 1.28E-06 |
| Sr-90 | 8.65E-07 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

125/225

**Waste Stream Description**

Soil remediation wastes in PFP Zone.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | CUPRC TRU Non-Mixed Debris | | | | | **Activity Concentrations as of CY** | 1987 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| SWB Dir Ld w/ Liner | 1.9 | 0.0 | 1.9 |
| **Final Form Total** | 1.9 | 0.0 | 1.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.00 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 46.69 |
| Other Inorganic Materials | 665.11 |
| 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, Cellulose | 0.00 |
| Packaging Material, Plastic | 1.21 |
| Packaging Material, Rubber | 0.19 |
| Packaging Material, Steel | 154.26 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 4.91E-02 |
| Pu-238 | 2.00E-02 |
| Pu-239 | 1.83E-01 |
| Pu-240 | 4.67E-02 |
| Pu-241 | 1.28E+00 |
| Pu-242 | 3.13E-06 |
| Th-232 | 5.53E-05 |
| U-234 | 6.27E-07 |
| U-235 | 2.84E-08 |
| U-238 | 6.10E-07 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

125/225

**Waste Stream Description**

The waste is generated from R&D/R&D Laboratory Waste activities at the CEER University Laboratory.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Contaminated Soil from vicinity of PUREX | | | | | **Activity Concentrations as of CY** | 2011 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| SWB Dir Ld w/ Liner | 0.0 | 376.0 | 376.0 |
| **Final Form Total** | 0.0 | 376.0 | 376.0 |

**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 | 0.00 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 1.21 |
| Packaging Material, Rubber | 0.19 |
| Packaging Material, Steel | 154.26 |
| 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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | Bismuth Phosphate Process TRU Solids | | | | | **Activity Concentrations as of CY** | 2004 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 446.9 | 0.0 | 446.9 |
| **Final Form Total** | 446.9 | 0.0 | 446.9 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.00 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 0.00 |
| Cement | 0.00 |
| Solidified Inorganic Material | 1080.83 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.23E-02 |
| Cs-137 | 6.00E-01 |
| Np-237 | 1.20E-05 |
| Pu-238 | 6.48E-03 |
| Pu-239 | 5.07E-01 |
| Pu-240 | 6.12E-02 |
| Pu-241 | 1.86E-01 |
| Pu-242 | 3.02E-06 |
| Sr-90 | 7.83E+00 |
| U-233 | 1.08E-09 |
| U-234 | 1.65E-03 |
| U-235 | 5.32E-05 |
| U-236 | 1.59E-05 |
| U-238 | 1.22E-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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | 224 Waste | | | | | **Activity Concentrations as of CY** | 2004 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 329.3 | 0.0 | 329.3 |
| **Final Form Total** | 329.3 | 0.0 | 329.3 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.00 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 0.00 |
| Cement | 0.00 |
| Solidified Inorganic Material | 1053.81 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.18E-01 |
| Cs-137 | 1.63E-01 |
| Np-237 | 1.59E-06 |
| Pu-238 | 1.09E-02 |
| Pu-239 | 1.52E+00 |
| Pu-240 | 1.27E-01 |
| Pu-241 | 2.12E-01 |
| Pu-242 | 4.82E-06 |
| Sr-90 | 3.30E+00 |
| U-233 | 1.22E-10 |
| U-234 | 1.76E-04 |
| U-235 | 7.12E-06 |
| U-236 | 1.72E-06 |
| U-238 | 1.61E-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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | Bismuth Phosphate Process TRU Solids | | | | | **Activity Concentrations as of CY** | 2004 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 809.1 | 0.0 | 809.1 |
| **Final Form Total** | 809.1 | 0.0 | 809.1 |

**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 | 1085.12 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.38E-01 |
| Cs-137 | 3.26E-01 |
| Np-237 | 7.88E-05 |
| Pu-238 | 2.91E-03 |
| Pu-239 | 5.30E-01 |
| Pu-240 | 4.30E-02 |
| Pu-241 | 6.69E-02 |
| Pu-242 | 5.40E-07 |
| Sr-90 | 1.18E+01 |
| U-233 | 3.05E-09 |
| U-234 | 3.54E-03 |
| U-235 | 1.57E-04 |
| U-236 | 2.84E-05 |
| U-238 | 3.60E-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

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **SR-KAC-HET-1**

**Appendix B**

**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** | 12/31/2018 |
| **Stream Name** | CH TRU Heterogeneous debris from the K-Area downblend of 7.1 MT material | | | | | **Activity Concentrations as of CY** | 2020 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 0.0 | 161.5 | 161.5 |
| **Final Form Total** | 0.0 | 161.5 | 161.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 24.37 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 2.25 |
| Rubber | 20.87 |
| Plastic | 157.14 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 7.25E-01 |
| Np-237 | 4.78E-06 |
| Pu-238 | 2.43E-01 |
| Pu-239 | 2.01E+00 |
| Pu-240 | 5.20E-01 |
| Pu-241 | 5.56E+00 |
| Pu-242 | 1.71E-04 |
| U-235 | 3.81E-06 |
| U-238 | 1.34E-07 |

**No Hazardous Waste Numbers Provided**

**TRUCON Code(s)**

125/225, 154

**Waste Stream Description**

This waste stream consists of plutonium contaminated debris resulting from downblend and packaging Pu oxide

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **SR-KAC-PuOx-1**

**Appendix B**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | Savannah River Site | **Summary Category** | S5000 | **Defense Determination** | Defense-Related | **Handling** | CH |
| **Source Cat.** | Discarding Excess/Expired Materials | **Waste Matrix Code Group** | Heterogeneous Debris Waste | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | K-Area Pu Oxide waste associated with 7.1 MT material | | | | | **Activity Concentrations as of CY** | 2020 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal CCO w/ Liner | 0.0 | 204.3 | 204.3 |
| **Final Form Total** | 0.0 | 204.3 | 204.3 |

**Waste Material Parameters**

| **Material Parameter** | **Average Density ($kg/m^3$)** |
|---|---|
| Iron-based Metal/Alloys | 520.31 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 86.72 |
| Other Inorganic Materials | 216.80 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 34.69 |
| Cement | 8.67 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 1804.69 |
| Packaging Material, Plastic | 602.34 |
| Packaging Material, Rubber | 9.22 |
| Packaging Material, Steel | 6328.13 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| **Isotope** | **Typical Concentration ($Ci/m^3$)** |
|---|---|
| Am-241 | 1.03E+03 |
| Np-237 | 1.72E-02 |
| Pu-238 | 2.63E+02 |
| Pu-239 | 1.03E+03 |
| Pu-240 | 5.00E+02 |
| Pu-241 | 5.19E+03 |
| Pu-242 | 2.32E-01 |
| U-233 | 9.67E-04 |
| U-234 | 7.05E-01 |
| U-235 | 6.61E-03 |
| U-238 | 2.60E-03 |

**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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | TRU Spent Absorbents CH | | | | | **Activity Concentrations as of CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 0.2 | 0.0 | 0.2 |
| SLB2 Dir Ld | 29.6 | 0.0 | 29.6 |
| **Final Form Total** | 29.8 | 0.0 | 29.8 |

**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 | 193.15 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 0.00 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 64.49 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.11 |
| Packaging Material, Steel | 164.84 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 9.16E-02 |
| Am-243 | 4.30E-03 |
| Cs-137 | 5.60E-03 |
| Np-237 | 1.96E-06 |
| Pu-238 | 3.21E-02 |
| Pu-239 | 3.61E-02 |
| Pu-240 | 2.76E-02 |
| Pu-241 | 3.99E-01 |
| Pu-242 | 1.42E-03 |
| Sr-90 | 4.09E-03 |
| U-233 | 2.45E-05 |
| U-234 | 1.17E-05 |
| U-235 | 2.58E-06 |
| U-238 | 2.10E-05 |

**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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **WV-T004a**

**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** | 12/31/2018 |
| **Stream Name** | CH TRU Liquids/Absorbed Liquids | | | | | **Activity Concentrations as of CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 4.8 | 0.0 | 4.8 |
| **Final Form Total** | 4.8 | 0.0 | 4.8 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based 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 | 40.58 |
| Solidified Inorganic Material | 273.29 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.54E+00 |
| Am-243 | 7.20E-04 |
| Cm-244 | 2.37E-03 |
| Cs-137 | 1.69E-01 |
| Np-237 | 1.42E-05 |
| Pu-238 | 2.58E+00 |
| Pu-239 | 1.15E+00 |
| Pu-240 | 8.85E-01 |
| Pu-241 | 6.82E+00 |
| Pu-242 | 2.23E-04 |
| Sr-90 | 1.86E-01 |
| U-233 | 7.98E-04 |
| U-234 | 3.79E-04 |
| U-235 | 1.88E-05 |
| U-238 | 1.94E-04 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste stream consists of liquid, absorbed liquid, and/or solidified liquid waste with associated fissile material generated from decontamination and decommissioning activities.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **WV-T004b**

**Appendix B**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | West Valley Demonstration Project | **Summary Category** | S3000 | **Defense Determination** | Pending Determination | **Handling** | RH |
| **Source Cat.** | Remediation/D&D Waste | **Waste Matrix Code Group** | Solidified Inorganics | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | RH TRU Liquids | | | | | **Activity Concentrations as of CY** | 2015 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner | 3.2 | 0.0 | 3.2 |
| **Final Form Total** | 3.2 | 0.0 | 3.2 |

**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 | 679.37 |
| Solidified Inorganic Material | 339.68 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.78E-01 |
| Am-243 | 8.60E-03 |
| Cm-244 | 2.05E-03 |
| Cs-137 | 9.08E-01 |
| Np-237 | 8.63E-05 |
| Pu-238 | 1.72E-01 |
| Pu-239 | 1.17E-01 |
| Pu-240 | 8.32E-02 |
| Pu-241 | 1.77E+00 |
| Pu-242 | 3.17E-03 |
| Sr-90 | 2.46E+00 |
| U-233 | 1.07E-03 |
| U-234 | 4.98E-04 |
| U-235 | 3.30E-06 |
| U-238 | 7.21E-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 decontamination and decommissioning activities.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | CH TRU General Waste | | | | | **Activity Concentrations as of CY** | 2010 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 104.8 | 10.7 | 115.5 |
| SWB Dir Ld w/o Liner | 120.3 | 5.6 | 126.0 |
| **Final Form Total** | 225.1 | 16.4 | 241.5 |

**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 | 54.64 |
| Other Inorganic Materials | 56.86 |
| Cellulose | 52.42 |
| Rubber | 21.81 |
| Plastic | 32.74 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.37 |
| Packaging Material, Steel | 142.43 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.72E-01 |
| Am-243 | 5.52E-03 |
| Cm-244 | 1.39E-03 |
| Cs-137 | 6.62E-03 |
| Np-237 | 5.02E-06 |
| Pu-238 | 2.23E-01 |
| Pu-239 | 9.61E-02 |
| Pu-240 | 7.87E-02 |
| Pu-241 | 1.92E+00 |
| Pu-242 | 3.06E-03 |
| Sr-90 | 1.93E-02 |
| U-233 | 1.69E-04 |
| U-234 | 9.97E-05 |
| U-235 | 2.72E-06 |
| U-238 | 2.22E-05 |

**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.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | RH TRU General Waste | | | | | **Activity Concentrations as of CY** | 2004 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner | 265.2 | 4.4 | 269.6 |
| **Final Form Total** | 265.2 | 4.4 | 269.6 |

**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 | 112.36 |
| Other Inorganic Materials | 111.60 |
| Cellulose | 111.60 |
| Rubber | 44.87 |
| Plastic | 67.49 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.31E+00 |
| Am-243 | 5.85E-03 |
| Cm-244 | 2.61E-02 |
| Cs-137 | 1.31E+01 |
| Np-237 | 4.09E-04 |
| Pu-238 | 5.04E-01 |
| Pu-239 | 3.11E-01 |
| Pu-240 | 2.35E-01 |
| Pu-241 | 3.64E+00 |
| Pu-242 | 8.35E-04 |
| Sr-90 | 1.46E+01 |
| U-233 | 3.52E-03 |
| U-234 | 1.64E-03 |
| U-235 | 4.81E-05 |
| U-238 | 3.27E-04 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste stream consists of radiologically contaminated solid waste generated from various site activities. The specific contents include but are not limited to Anti-C clothing, hoses, glovebags, tools, pre-filters, HEPA filters, Roughing filters, other filters, sweeping compound, glove boxes, tools, evaporators, dissolver tanks, condensers, piping DAW, plastic bags, bottles, and cell floor debris etc.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | RH TRU Spent Filter Media | | | | | **Activity Concentrations as of CY** | 2008 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner | 7.6 | 0.0 | 7.6 |
| **Final Form Total** | 7.6 | 0.0 | 7.6 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.00 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 248.68 |
| 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, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 3.76E-02 |
| Cs-137 | 1.78E+01 |
| Np-237 | 7.38E-05 |
| Pu-238 | 1.69E-02 |
| Pu-239 | 4.06E-02 |
| Pu-240 | 3.11E-02 |
| Pu-241 | 3.04E-01 |
| Sr-90 | 5.87E-01 |
| U-235 | 9.15E-05 |
| U-238 | 1.44E-04 |

**No Hazardous Waste Numbers Provided**

**No TRUCON Codes Provided**

**Waste Stream Description**

This waste stream consists of spent filter media generated from filtration of the Fuel Receiving & Storage pool where radiologically contaminated equipment was stored.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

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** | 12/31/2018 |
| **Stream Name** | CH TRU Mixed Waste | | | | | **Activity Concentrations as of CY** | 2018 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 2.7 | 0.0 | 2.7 |
| SLB2 Dir Ld | 7.4 | 0.0 | 7.4 |
| SWB Dir Ld w/o Liner | 5.6 | 0.0 | 5.6 |
| **Final Form Total** | 15.8 | 0.0 | 15.8 |

**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 | 118.65 |
| Cellulose | 118.65 |
| Rubber | 47.40 |
| Plastic | 71.07 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.22 |
| Packaging Material, Steel | 155.05 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.06E-01 |
| Am-243 | 1.94E-03 |
| Cm-244 | 1.18E-03 |
| Cs-137 | 5.15E-02 |
| Np-237 | 9.01E-07 |
| Pu-238 | 1.70E-01 |
| Pu-239 | 4.64E-02 |
| Pu-240 | 3.55E-02 |
| Pu-241 | 8.11E-01 |
| Pu-242 | 5.85E-03 |
| Sr-90 | 8.84E-01 |
| U-233 | 3.78E-03 |
| U-234 | 1.80E-03 |
| U-235 | 9.61E-06 |
| U-238 | 7.46E-05 |

**Haz. Waste No(s).**

D006, D007, D008, D009, D010

**No TRUCON Codes Provided**

**Waste Stream Description**

Contains hazardous constituents from D&D activities and Laboratory Waste generated onsite in solid forms such as filters, vacuum cans, glove box debris, piping, hoses, pumps, anti C clothing, bags, wipes, and floor debris. If any liquids are found, then the liquid would be solidified and not expected to be TRU.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | RH TRU Mixed Waste | | | | | **Activity Concentrations as of CY** | 2004 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner | 31.5 | 0.0 | 31.5 |
| **Final Form Total** | 31.5 | 0.0 | 31.5 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 161.59 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 202.22 |
| Cellulose | 0.00 |
| Rubber | 40.32 |
| Plastic | 60.63 |
| Cement | 0.00 |
| Solidified Inorganic Material | 0.00 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.35E+01 |
| Am-243 | 4.42E-02 |
| Cm-244 | 2.21E-01 |
| Cs-137 | 2.55E+02 |
| Np-237 | 3.51E-03 |
| Pu-238 | 4.92E+00 |
| Pu-239 | 4.16E+00 |
| Pu-240 | 3.17E+00 |
| Pu-241 | 4.94E+01 |
| Pu-242 | 2.06E-02 |
| Sr-90 | 1.67E+02 |
| U-233 | 3.12E-02 |
| U-234 | 1.49E-02 |
| U-235 | 2.32E-03 |
| U-238 | 9.49E-03 |

**Haz. Waste No(s).**

D006, D007, D008, D009, D010, D011

**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.

*Comprehensive Inventory Database ver.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**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** | 12/31/2018 |
| **Stream Name** | CH TRU Mixed Liquids | | | | | **Activity Concentrations as of CY** | 2017 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 3.4 | 0.0 | 3.4 |
| **Final Form Total** | 3.4 | 0.0 | 3.4 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.00 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 0.00 |
| Cement | 875.00 |
| Solidified Inorganic Material | 437.50 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.08E-01 |
| Am-243 | 1.13E-03 |
| Cm-244 | 2.61E-03 |
| Cs-137 | 3.77E-01 |
| Np-237 | 3.90E-03 |
| Pu-238 | 1.51E-01 |
| Pu-239 | 4.78E-02 |
| Pu-240 | 3.64E-02 |
| Pu-241 | 5.42E-01 |
| Pu-242 | 2.20E-04 |
| Sr-90 | 1.10E+01 |
| U-233 | 3.08E-02 |
| U-234 | 1.47E-02 |
| U-235 | 7.18E-04 |
| U-238 | 3.46E-03 |

**Haz. Waste No(s).**

D007, D009

**No TRUCON Codes Provided**

**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.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **WV-W050b**

**Appendix B**

**Waste Profile Report**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Site** | West Valley Demonstration Project | **Summary Category** | S3000 | **Defense Determination** | Pending Determination | **Handling** | RH |
| **Source Cat.** | Remediation/D&D Waste | **Waste Matrix Code Group** | Solidified Inorganics | | | **Inventory Date** | 12/31/2018 |
| **Stream Name** | RH TRU Mixed Liquids | | | | | **Activity Concentrations as of CY** | 2017 |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner | 5.0 | 0.0 | 5.0 |
| **Final Form Total** | 5.0 | 0.0 | 5.0 |

**Waste Material Parameters**

| Material Parameter | Average Density ($kg/m^3$) |
|---|---|
| Iron-based Metal/Alloys | 0.00 |
| Aluminum-based Metal/Alloys | 0.00 |
| Other Metal/Alloys | 0.00 |
| Other Inorganic Materials | 0.00 |
| Cellulose | 0.00 |
| Rubber | 0.00 |
| Plastic | 0.00 |
| Cement | 1115.08 |
| Solidified Inorganic Material | 557.54 |
| Solidified Organic Material | 0.00 |
| Soil | 0.00 |
| Vitrified | 0.00 |
| Packaging Material, Cellulose | 0.00 |
| Packaging Material, Plastic | 8.62 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 922.22 |
| Packaging Material, Lead | 0.00 |

**Final Form Radionuclides**

| Isotope | Typical Concentration ($Ci/m^3$) |
|---|---|
| Am-241 | 1.41E-01 |
| Am-243 | 1.68E-03 |
| Cm-244 | 3.42E-03 |
| Cs-137 | 5.77E-01 |
| Np-237 | 4.92E-03 |
| Pu-238 | 1.92E-01 |
| Pu-239 | 6.15E-02 |
| Pu-240 | 4.68E-02 |
| Pu-241 | 7.02E-01 |
| Pu-242 | 3.20E-04 |
| Sr-90 | 1.40E+01 |
| U-233 | 3.90E-02 |
| U-234 | 1.86E-02 |
| U-235 | 9.08E-04 |
| U-238 | 4.40E-03 |

**Haz. Waste No(s).**

D007, D009

**No TRUCON Codes Provided**

**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.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

**Waste Stream ID:** **WV-Z001**

**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** | 12/31/2018 |
| **Stream Name** | West Valley Buried TRU Waste | | | | | **Activity Concentrations as of CY** | N/A |

**Waste Volume Detail ($m^3$)**

| Final Form Volumes | | | |
|---|---|---|---|
| **Container Type** | **Stored** | **Proj.** | **Total** |
| 55-gal Drum Dir Ld w/o Liner | 0.0 | 4300.2 | 4300.2 |
| **Final Form Total** | 0.0 | 4300.2 | 4300.2 |

**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 | 251.15 |
| 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, Cellulose | 0.00 |
| Packaging Material, Plastic | 0.00 |
| Packaging Material, Rubber | 0.56 |
| Packaging Material, Steel | 129.52 |
| 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.* ***2.03*** *Data ver.* ***D.18.00.33***

NOTE: Actual numerical values have been rounded for presentation purposes

# APPENDIX C 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 the WIPP or reclassified as LLW). This appendix contains a crosswalk that maps current ATWIR-2019 TRU waste generator site waste streams to the Adjusted ATWIR-2018 TRU waste generator site waste streams. This appendix does not include emplaced waste at the WIPP or waste temporarily stored at WCS.

Table C-1 displays the association of each ATWIR-2019 waste stream to its respective Adjusted ATWIR-2018 waste stream(s). Waste streams that are newly reported in the ATWIR-2019 and that do not map to a previous waste stream from Adjusted ATWIR-2018 are indicated as *New Waste Stream*.

Table C-2 shows the inverse of Table C-1. Table C-2 displays the association of each Adjusted ATWIR-2018 waste stream to its respective ATWIR-2019 waste stream(s). Waste streams that were previously reported in the Adjusted ATWIR-2018 and that do not map to a current ATWIR-2019 waste stream are indicated as *Depleted Waste Stream,* along with a reason.

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 |
| ND | Nuclear Radiation Development Site |
| NT | Nevada National Security Site |
| OR | Oak Ridge National Laboratory |
| RL | Hanford (Richland) Site |
| RP | Hanford Site – Office of River Protection |
| SA | Sandia National Laboratories |
| SP | Separations Process Research Unit |
| SR | Savannah River Site |
| WV | West Valley Demonstration Project |

**Table C-1. Crosswalk of ATWIR-2019 to Adjusted ATWIR-2018 Waste Streams**

| Site Code | ATWIR-2019 Waste Streams | Adjusted ATWIR-2018 Waste Streams |
|---|---|---|
| AE | AE-T001 | AE-T001 |
| AE | AE-T003 | AE-T003 |
| AE | AE-T009 | AE-T009 |
| 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-102 | IN-AE-102 |
| IN | IN-AE-105 | IN-AE-105 |
| IN | IN-AE-AGHC-02 | IN-AE-AGHC-02 |
| IN | IN-BC-203 | IN-BC-203 |
| IN | IN-BN-501 | IN-BN-501 |
| IN | IN-BN-522 | IN-BN-522 |
| IN | IN-BN-529 | IN-BN-529 |
| IN | IN-BN-538 | IN-BN-538 |
| IN | IN-BN-539 | IN-BN-539 |
| IN | IN-BN004 | IN-BN004 |
| IN | IN-BN222 | IN-BN222 |
| IN | IN-BN510 | IN-BN510 |
| IN | IN-BN510.1 | IN-BN510.1 |
| IN | IN-BN510.2 | IN-BN510.2 |
| IN | IN-BN510.3 | IN-BN510.3 |
| IN | IN-BN510.4 | IN-AE-105, IN-BC-203, IN-BN510.4, IN-BN-523, IN-BN-525, IN-BN-527, IN-BN-529, IN-IC-605, IN-ID-AMWTP-Hot Silver, IN-ID-AMWTP-U232, IN-IT-152, IN-JH-826, IN-JH-827, IN-MX-142 |
| IN | IN-BN600 | IN-BN600 |
| IN | IN-BN650 | IN-BN650, IN-RF-361, IN-RF-421, IN-UN-00C |
| IN | IN-BN835 | IN-BN835 |
| IN | IN-BN836 | IN-BN836 |
| IN | IN-BNINW216 | IN-BNINW216 |
| IN | IN-BNINW218 | IN-BNINW218 |
| IN | IN-BW-515 | IN-BW-515 |
| IN | IN-BW-516 | IN-BW-516 |
| IN | IN-BW-517 | IN-BW-517 |
| IN | IN-DD-001 | *New Waste Stream* |
| IN | IN-ID-ANLE-BIN | IN-ID-ANLE-BIN |
| IN | IN-ID-ANLW-W269-RH | IN-ID-ANLW-W269-RH |

**Table C-1. Crosswalk of ATWIR-2019 to Adjusted ATWIR-2018 Waste Streams**
**Continued**

| Site Code | ATWIR-2019 Waste Streams | Adjusted ATWIR-2018 Waste Streams |
|---|---|---|
| IN | IN-ID-BTO-030 | IN-ID-BTO-030 |
| IN | IN-ID-EBR-S5000 | IN-ID-EBR-S5000 |
| IN | IN-ID-HFEF-S3000-RP | IN-ID-HFEF-S3000-RP |
| IN | IN-ID-HFEF-S5000-RP | IN-ID-HFEF-S5000-RP |
| IN | IN-ID-INL-152M | IN-ID-INL-152M |
| IN | IN-ID-MFC-SOLID | IN-ID-MFC-SOLID |
| IN | IN-ID-MISC-RH | IN-ID-MISC-RH |
| 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-ID-RF-S5000-RH |
| IN | IN-ID-RF-S5100-A | IN-ID-RF-S5100-A |
| IN | IN-ID-RF-S5126 | IN-ID-RF-S5126 |
| IN | IN-ID-RF-S5300-A | IN-ID-RF-S5300-A |
| IN | IN-ID-Sample Fuel | IN-ID-Sample Fuel |
| 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-Source Material | IN-ID-Source Material |
| IN | IN-ID-SRP-S3000 | IN-ID-SRP-S3000 |
| IN | IN-ID-TRA-W345-RH | IN-ID-TRA-W345-RH |
| IN | IN-ID-TRU-RHNH | IN-ID-TRU-RHNH |
| IN | IN-IW-608 | IN-IW-608 |
| IN | IN-MD-842 | IN-MD-842 |
| IN | IN-MO-530 | IN-MO-530 |
| IN | IN-MO-535 | IN-MO-535 |
| IN | IN-MO-540 | IN-MO-540 |
| IN | IN-MO-545 | *New Waste Stream* |
| IN | IN-MX-142 | IN-MX-142 |
| IN | IN-NRF-SPC-103 | IN-NRF-SPC-103 |
| IN | IN-RF-005 | IN-RF-005 |
| IN | IN-RF-090 | IN-RF-090 |
| IN | IN-RF-311 | IN-RF-311 |
| IN | IN-RF-393 | IN-RF-393 |
| IN | IN-RF-409 | IN-RF-409 |
| IN | IN-RF-410 | IN-RF-410 |
| IN | IN-RF-411 | IN-RF-411 |
| IN | IN-RF-412 | IN-RF-412 |
| IN | IN-RF-414 | IN-RF-414 |
| IN | IN-RF-420 | IN-RF-420 |
| IN | IN-RF-422 | IN-RF-422 |
| IN | IN-RF-697 | IN-RF-697 |

**Table C-1. Crosswalk of ATWIR-2019 to Adjusted ATWIR-2018 Waste Streams**
**Continued**

| Site Code | ATWIR-2019 Waste Streams | Adjusted ATWIR-2018 Waste Streams |
|---|---|---|
| IN | IN-RF-745 | IN-RF-745 |
| IN | IN-RF-753 | IN-RF-753 |
| IN | IN-RF-823 | IN-RF-823 |
| IN | IN-RF-990 | IN-RF-990 |
| IN | IN-SBW-01A | IN-SBW-01A |
| IN | IN-SBW-01B | IN-SBW-01B |
| IN | IN-SD-178 | IN-SD-178 |
| KA | KA-T001 | KA-T001 |
| KA | KA-T002 | KA-T002 |
| KA | KA-W016 | KA-W016 |
| KN | KN-B234TRU | KN-B234TRU |
| LA | LA-CIN01.001 | LA-CIN01.001 |
| LA | LA-CIN02.001 | LA-CIN02.001 |
| LA | LA-CIN03.001 | LA-CIN03.001 |
| LA | LA-LA225D | LA-LA225D |
| LA | LA-LA238HONR | LA-LA238HONR |
| LA | LA-LA238HOR | LA-LA238HOR |
| LA | LA-LAMHD02238 | LA-LAMHD02238 |
| LA | LA-LAMIN04S | LA-LAMIN04S |
| LA | LA-LANHD01 | LA-LANHD01 |
| LA | LA-LANHD02238 | LA-LANHD02238 |
| LA | LA-LANIN03NC | LA-LANIN03NC |
| LA | LA-MHD01.001 | LA-CIN01.001, LA-MHD01.001, LA-MIN02-V.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-MIN02-V.001 |
| LA | LA-MIN03-NC.001 | LA-MIN03-NC.001 |
| LA | LA-MIN04-S.001 | LA-MIN04-S.001 |
| LA | LA-MIN05-V.001 | LA-MHD03.001, LA-MIN05-V.001 |
| LA | LA-MIN06-NS.001 | LA-MIN02-V.001 |
| LA | LA-MSG04.001 | LA-MSG04.001 |
| LA | LA-NCD01 | *New Waste Stream* |
| LA | LA-OS-00-01.001 | LA-MHD01.001, 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-03-10 | LA-TA-03-10 |
| LA | LA-TA-03-14 | LA-TA-03-14 |

**Table C-1. Crosswalk of ATWIR-2019 to Adjusted ATWIR-2018 Waste Streams**
**Continued**

| Site Code | ATWIR-2019 Waste Streams | Adjusted ATWIR-2018 Waste Streams |
|---|---|---|
| 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-CVD-C&NC | LA-TA-03-CVD-C&NC |
| LA | LA-TA-21-01 | *New Waste Stream* |
| 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-21-12 | 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-55-14 | *New Waste Stream* |
| LA | LA-TA-55-19 | LA-TA-55-19 |
| LA | LA-TA-55-20 | *New Waste Stream* |
| 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 | *New Waste Stream* |
| LA | LA-TA-55-38 | LA-TA-55-38 |
| LA | LA-TA-55-54 | *New Waste Stream* |
| LA | LA-TRU-Empty-110 | LA-TRU-Empty-110 |
| LA | LA-TRU-Empty-55 | LA-TA-55-30, LA-TRU-Empty-55 |
| LA | LA-TRU-Empty-85 | 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 |
| 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-CHEM-RH-HET | OR-CHEM-RH-HET |

**Table C-1. Crosswalk of ATWIR-2019 to Adjusted ATWIR-2018 Waste Streams**
**Continued**

| Site Code | ATWIR-2019 Waste Streams | Adjusted ATWIR-2018 Waste Streams |
|---|---|---|
| OR | OR-CRF-CH-HET | OR-CRF-CH-HET |
| OR | OR-GENR-CH-HET | OR-GENR-CH-HET |
| OR | OR-GENR-RH-HET | OR-GENR-RH-HET |
| OR | OR-IFEL-CH-HET | OR-IFEL-CH-HET |
| OR | OR-ISTP-CH-HET | OR-ISTP-CH-HET |
| OR | OR-ISTP-RH-HET | OR-ISTP-RH-HET |
| OR | OR-MRF-CH-HET | OR-MRF-CH-HET |
| OR | OR-MRF-RH-HET | OR-TBD-RH-HET |
| OR | OR-NBL-CH-HET | OR-NBL-CH-HET |
| OR | OR-NFS-CH-HET | OR-NFS-CH-HET |
| OR | OR-NFS-CH-HOM | OR-NFS-CH-HOM |
| OR | OR-NFS-CH-SOIL | OR-NFS-CH-SOIL |
| OR | OR-OXIDE-CH-HET | OR-OXIDE-CH-HET |
| OR | OR-PGDP-CH-HET | OR-PGDP-CH-HET |
| OR | OR-RADP-CH-HET | OR-RADP-CH-HET |
| 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-W1A-CH-SOIL | OR-W213-RH-SOILS |
| OR | OR-W1A-RH-SOIL | 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 | RL100D-08 |
| RL | RL105-01 | RL105-01 |
| RL | RL105-03 | RL105-03 |
| RL | RL105-08 | RL105-08 |
| RL | RL105-09 | RL105-09 |
| RL | RL170-08 | RL170-08 |
| RL | RL200-01 | RL200-01 |
| RL | RL200-02 | RL200-02 |
| RL | RL200-10 | RL200-10 |
| RL | RL201-03 | RL201-03 |
| RL | RL202S-01 | RL202S-01 |
| RL | RL209E-01 | RL209E-01 |

**Table C-1. Crosswalk of ATWIR-2019 to Adjusted ATWIR-2018 Waste Streams**
**Continued**

| Site Code | ATWIR-2019 Waste Streams | Adjusted ATWIR-2018 Waste Streams |
|---|---|---|
| RL | RL209E-08 | RL209E-08 |
| RL | RL216Z-02 | RL216Z-02 |
| RL | RL221U-03 | RL221U-03 |
| RL | RL221U-08 | RL221U-08 |
| 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 | RL300-07 | RL300-07 |
| 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 | RL325-05 | RL325-05 |
| RL | RL325-07 | RL325-07 |
| RL | RL325-08 | RL325-08 |
| RL | RL325-09 | RL325-09 |
| RL | RL618-01 | RL618-01 |
| RL | RL618-08 | RL618-08 |
| RL | RLALE-02 | RLALE-02 |
| RL | RLALPHA-08 | RLALPHA-08 |
| 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 | RLCH2-09 | RLCH2-09 |

**Table C-1. Crosswalk of ATWIR-2019 to Adjusted ATWIR-2018 Waste Streams**
**Continued**

| Site Code | ATWIR-2019 Waste Streams | Adjusted ATWIR-2018 Waste Streams |
|---|---|---|
| RL | RLDD-01 | RLDD-01 |
| RL | RLDD-02 | RLDD-02 |
| RL | RLDD-08 | RLDD-08 |
| RL | RLDD-10 | RLDD-10 |
| 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-03 |
| RL | RLHAN-08 | RLHAN-08 |
| RL | RLIAEA-03 | RLIAEA-03 |
| RL | RLMLB-08 | RLMLB-08 |
| RL | RLMLL-01 | RLMLL-01 |
| RL | RLN622FD-01 | RLN622FD-01 |
| RL | RLP11-01 | RLP11-01 |
| RL | RLPFP-01 | RLPFP-01 |
| RL | RLPFP-02 | RLPFP-02 |
| RL | RLPFP-03 | RLPFP-03 |
| RL | RLPFP-04 | RLPFP-04 |
| RL | RLPFP-05 | RLPFP-05 |
| RL | RLPFP-08 | RLPFP-08 |
| RL | RLPRC-01 | RLPRC-01 |
| RL | RLPURX-01 | RLPURX-01 |
| RL | RLPURX-02 | RLPURX-02 |
| RL | RLPURX-08 | RLPURX-08 |
| RL | RLRFET-01 | RLRFET-01 |
| RL | RLSAN-01 | RLSAN-01 |
| RL | RLSWO-01 | RLSWO-01 |
| RL | RLSWO-05 | RLSWO-05 |
| 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 |

**Table C-1. Crosswalk of ATWIR-2019 to Adjusted ATWIR-2018 Waste Streams**
**Continued**

| Site Code | ATWIR-2019 Waste Streams | Adjusted ATWIR-2018 Waste Streams |
|---|---|---|
| SA | SA-W134 | SA-W134 |
| SA | SA-W135 | SA-W135 |
| SA | SA-W136 | SA-W136 |
| SA | SA-W137 | SA-W137 |
| SA | SA-W138M | SA-W138M |
| SA | SA-W139 | SA-W139 |
| SP | SP-CHHD | SP-CHHD |
| SP | SP-RHHD | SP-RHHD |
| SP | SP-RHIN | SP-RHIN |
| SR | SR-221H-EUOx | SR-221H-EUOx |
| 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-DWPF-HET |
| SR | SR-HBL-235F-HET | SR-HBL-235F-HET |
| SR | SR-KAC-HET | SR-KAC-HET |
| SR | SR-KAC-HET-1 | *New Waste Stream* |
| SR | SR-KAC-HET-A | SR-KAC-HET |
| SR | SR-KAC-PuOx | SR-KAC-PuOx |
| SR | SR-KAC-PuOx-1 | *New Waste Stream* |
| 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.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-DWPF-HET | *New Waste Stream* |
| SR | SR-RH-FBL.01 | SR-RH-FBL.01 |
| SR | SR-RH-FBL.02 | SR-RH-FBL.02 |
| SR | SR-RH-MNDPAD1.01 | SR-RH-MNDPAD1.01 |
| SR | SR-RH-SDD.01 | SR-RH-SDD.01 |
| SR | SR-RH-SWD.01 | SR-RH-SWD.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 |

**Table C-1. Crosswalk of ATWIR-2019 to Adjusted ATWIR-2018 Waste Streams**
**Continued**

| Site Code | ATWIR-2019 Waste Streams | Adjusted ATWIR-2018 Waste Streams |
|---|---|---|
| SR | SR-SWMF-HET-B | SR-SWMF-HET-B |
| SR | SR-W026-221F-HEPA | SR-W026-221F-HEPA |
| SR | SR-W026-221F-HET | SR-W026-221F-HET |
| SR | SR-W026-221F-HET-A | SR-W026-221F-HET-A |
| SR | SR-W026-221F-HOM | SR-W026-221F-HOM |
| SR | SR-W026-772F-HET | SR-W026-772F-HET |
| 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 | SR-W027-235F-HOM |
| SR | SR-W027-235F-IR | SR-W027-235F-IR |
| SR | SR-W027-321-322M-HET | SR-W027-321-322M-HET |
| SR | SR-W027-773A-HET | SR-W027-773A-HET |
| 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 |
| WV | WV-M010a | WV-M010a |
| WV | WV-T004a | WV-T004a |
| WV | WV-T004b | WV-T004b |
| 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 | WV-W050a |
| WV | WV-W050b | WV-W050b |
| WV | WV-Z001 | WV-Z001 |

Data Source: CID Data Version D.18.00.33 (LANL-CO 2019b). Note: This table contains data for WIPP-bound and potential waste streams only.

**Table C-2. Crosswalk of Adjusted ATWIR-2018 to ATWIR-2019 Waste Streams**

| Site Code | Adjusted ATWIR-2018 Waste Streams | ATWIR-2019 Waste Streams |
|---|---|---|
| AE | AE-T001 | AE-T001 |
| AE | AE-T003 | AE-T003 |
| AE | AE-T009 | AE-T009 |
| AW | AW-5410N | *Depleted Waste Stream – Repackaged as non-TRU* |
| AW | AW-5649N | *Depleted Waste Stream – Repackaged as non-TRU* |
| AW | AW-5882N | *Depleted Waste Stream – Repackaged as non-TRU* |
| 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-102 | IN-AE-102 |
| IN | IN-AE-105 | IN-AE-105, IN-BN510.4 |
| IN | IN-AE-AGHC-02 | IN-AE-AGHC-02 |
| IN | IN-BC-203 | IN-BC-203, IN-BN510.4 |
| IN | IN-BN-501 | IN-BN-501 |
| IN | IN-BN-522 | IN-BN-522 |
| IN | IN-BN-523 | IN-BN510.4 |
| IN | IN-BN-525 | IN-BN510.4 |
| IN | IN-BN-527 | IN-BN510.4 |
| IN | IN-BN-529 | IN-BN510.4, IN-BN-529 |
| IN | IN-BN-538 | IN-BN-538 |
| IN | IN-BN-539 | IN-BN-539 |
| IN | IN-BN004 | IN-BN004 |
| IN | IN-BN222 | IN-BN222 |
| IN | IN-BN510 | IN-BN510 |
| IN | IN-BN510.1 | IN-BN510.1 |
| IN | IN-BN510.2 | IN-BN510.2 |
| IN | IN-BN510.3 | IN-BN510.3 |
| IN | IN-BN510.4 | IN-BN510.4 |
| IN | IN-BN600 | IN-BN600 |
| IN | IN-BN650 | IN-BN650 |
| IN | IN-BN835 | IN-BN835 |
| IN | IN-BN836 | IN-BN836 |
| IN | IN-BNINW216 | IN-BNINW216 |
| IN | IN-BNINW218 | IN-BNINW218 |
| IN | IN-BW-515 | IN-BW-515 |
| IN | IN-BW-516 | IN-BW-516 |
| IN | IN-BW-517 | IN-BW-517 |

**Table C-2. Crosswalk of Adjusted ATWIR-2018 to ATWIR-2019 Waste Streams**
**Continued**

| Site Code | Adjusted ATWIR-2018 Waste Streams | ATWIR-2019 Waste Streams |
|---|---|---|
| IN | IN-IC-605 | IN-BN510.4 |
| IN | IN-ID-AMWTP-Hot Silver | IN-BN510.4 |
| IN | IN-ID-AMWTP-U232 | IN-BN510.4 |
| IN | IN-ID-ANLE-BIN | IN-ID-ANLE-BIN |
| IN | IN-ID-ANLW-W269-RH | IN-ID-ANLW-W269-RH |
| IN | IN-ID-BTO-030 | IN-ID-BTO-030 |
| IN | IN-ID-EBR-S5000 | IN-ID-EBR-S5000 |
| IN | IN-ID-HFEF-S3000-RP | IN-ID-HFEF-S3000-RP |
| IN | IN-ID-HFEF-S5000-RP | IN-ID-HFEF-S5000-RP |
| IN | IN-ID-INL-152M | IN-ID-INL-152M |
| IN | IN-ID-MFC-SOLID | IN-ID-MFC-SOLID |
| IN | IN-ID-MISC-RH | IN-ID-MISC-RH |
| IN | IN-ID-Miscellaneous | *Depleted Waste Stream – Determined to be LLW* |
| 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-ID-RF-S5000-RH |
| IN | IN-ID-RF-S5100-A | IN-ID-RF-S5100-A |
| IN | IN-ID-RF-S5126 | IN-ID-RF-S5126 |
| IN | IN-ID-RF-S5300-A | IN-ID-RF-S5300-A |
| IN | IN-ID-Sample Fuel | IN-ID-Sample Fuel |
| 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-Source Material | IN-ID-Source Material |
| IN | IN-ID-SRP-S3000 | IN-ID-SRP-S3000 |
| IN | IN-ID-TRA-W345-RH | IN-ID-TRA-W345-RH |
| IN | IN-ID-TRU-RHNH | IN-ID-TRU-RHNH |
| IN | IN-IT-152 | IN-BN510.4 |
| IN | IN-IW-608 | IN-IW-608 |
| IN | IN-JH-826 | IN-BN510.4 |
| IN | IN-JH-827 | IN-BN510.4 |
| IN | IN-MD-842 | IN-MD-842 |
| IN | IN-MO-530 | IN-MO-530 |
| IN | IN-MO-535 | IN-MO-535 |
| IN | IN-MO-540 | IN-MO-540 |
| IN | IN-MX-142 | IN-BN510.4, IN-MX-142 |
| IN | IN-NRF-SPC-103 | IN-NRF-SPC-103 |

**Table C-2. Crosswalk of Adjusted ATWIR-2018 to ATWIR-2019 Waste Streams**
**Continued**

| Site Code | Adjusted ATWIR-2018 Waste Streams | ATWIR-2019 Waste Streams |
|---|---|---|
| IN | IN-RF-005 | IN-RF-005 |
| IN | IN-RF-090 | IN-RF-090 |
| IN | IN-RF-311 | IN-RF-311 |
| IN | IN-RF-361 | IN-BN650 |
| IN | IN-RF-393 | IN-RF-393 |
| IN | IN-RF-409 | IN-RF-409 |
| IN | IN-RF-410 | IN-RF-410 |
| IN | IN-RF-411 | IN-RF-411 |
| IN | IN-RF-412 | IN-RF-412 |
| IN | IN-RF-414 | IN-RF-414 |
| IN | IN-RF-420 | IN-RF-420 |
| IN | IN-RF-421 | IN-BN650 |
| IN | IN-RF-422 | IN-RF-422 |
| IN | IN-RF-697 | IN-RF-697 |
| IN | IN-RF-745 | IN-RF-745 |
| IN | IN-RF-753 | IN-RF-753 |
| IN | IN-RF-823 | IN-RF-823 |
| IN | IN-RF-990 | IN-RF-990 |
| IN | IN-SBW-01A | IN-SBW-01A |
| IN | IN-SBW-01B | IN-SBW-01B |
| IN | IN-SD-178 | IN-SD-178 |
| IN | IN-UN-00C | IN-BN650 |
| IN | IN-UNDETERMINED | *Depleted Waste Stream – Determined to be LLW* |
| KA | KA-T001 | KA-T001 |
| KA | KA-T002 | KA-T002 |
| KA | KA-W016 | KA-W016 |
| KN | KN-B234TRU | KN-B234TRU |
| LA | LA-CIN01.001 | LA-CIN01.001, LA-MHD01.001 |
| LA | LA-CIN02.001 | LA-CIN02.001 |
| LA | LA-CIN03.001 | LA-CIN03.001 |
| LA | LA-LA225D | LA-LA225D |
| LA | LA-LA238HONR | LA-LA238HONR |
| LA | LA-LA238HOR | LA-LA238HOR |
| LA | LA-LAMHD02238 | LA-LAMHD02238 |
| LA | LA-LAMIN04S | LA-LAMIN04S |
| LA | LA-LANHD01 | LA-LANHD01 |
| LA | LA-LANHD02238 | LA-LANHD02238 |
| LA | LA-LANIN03NC | LA-LANIN03NC |
| LA | LA-MHD01.001 | LA-MHD01.001, LA-OS-00-01.001, LA-TA-55-30 |
| LA | LA-MHD03.001 | LA-MHD03.001, LA-MIN05-V.001 |
| LA | LA-MHD04.001 | LA-MHD04.001 |

**Table C-2. Crosswalk of Adjusted ATWIR-2018 to ATWIR-2019 Waste Streams**
**Continued**

| Site Code | Adjusted ATWIR-2018 Waste Streams | ATWIR-2019 Waste Streams |
|---|---|---|
| LA | LA-MHD05-ITRI.001 | LA-MHD05-ITRI.001 |
| LA | LA-MHD08.001 | LA-MHD08.001 |
| LA | LA-MHD09.001 | LA-MHD09.001 |
| LA | LA-MIN02-V.001 | LA-MHD01.001, LA-MIN02-V.001, LA-MIN06-NS.001 |
| LA | LA-MIN03-NC.001 | LA-MIN03-NC.001 |
| LA | LA-MIN04-S.001 | LA-MIN04-S.001 |
| LA | LA-MIN05-V.001 | LA-MIN05-V.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-TA-00-01 |
| LA | LA-TA-00-03 | LA-TA-00-03 |
| 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-CVD-C&NC | LA-TA-03-CVD-C&NC |
| 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-21-12 | 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-TRU-Empty-55 |
| LA | LA-TA-55-38 | LA-TA-55-38 |
| LA | LA-TRU-Empty-110 | LA-TRU-Empty-110 |
| LA | LA-TRU-Empty-55 | LA-TRU-Empty-55 |
| LA | LA-TRU-Empty-85 | LA-TRU-Empty-85 |
| LB | LB-T001 | LB-T001 |
| LB | LB-T002 | LB-T002 |

**Table C-2. Crosswalk of Adjusted ATWIR-2018 to ATWIR-2019 Waste Streams**
**Continued**

| Site Code | Adjusted ATWIR-2018 Waste Streams | ATWIR-2019 Waste Streams |
|---|---|---|
| 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-CHEM-RH-HET | OR-CHEM-RH-HET |
| OR | OR-CRF-CH-HET | OR-CRF-CH-HET |
| OR | OR-GENR-CH-HET | OR-GENR-CH-HET |
| OR | OR-GENR-RH-HET | OR-GENR-RH-HET |
| OR | OR-IFEL-CH-HET | OR-IFEL-CH-HET |
| OR | OR-ISTP-CH-HET | OR-ISTP-CH-HET |
| OR | OR-ISTP-RH-HET | OR-ISTP-RH-HET |
| OR | OR-MRF-CH-HET | OR-MRF-CH-HET |
| OR | OR-NBL-CH-HET | OR-NBL-CH-HET |
| OR | OR-NFS-CH-HET | OR-NFS-CH-HET |
| OR | OR-NFS-CH-HOM | OR-NFS-CH-HOM |
| OR | OR-NFS-CH-SOIL | OR-NFS-CH-SOIL |
| OR | OR-OXIDE-CH-HET | OR-OXIDE-CH-HET |
| OR | OR-PGDP-CH-HET | OR-PGDP-CH-HET |
| OR | OR-RADP-CH-HET | OR-RADP-CH-HET |
| 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-MRF-RH-HET, OR-TBD-RH-HET |
| OR | OR-W213-RH-SOILS | OR-W1A-CH-SOIL, OR-W1A-RH-SOIL |
| OR | OR-WSTR-CH-HET | OR-WSTR-CH-HET |
| OR | OR-Y12-CH-HET | OR-Y12-CH-HET |
| RL | RL100D-08 | RL100D-08 |
| RL | RL105-01 | RL105-01 |
| RL | RL105-03 | RL105-03 |

**Table C-2. Crosswalk of Adjusted ATWIR-2018 to ATWIR-2019 Waste Streams**
**Continued**

| Site Code | Adjusted ATWIR-2018 Waste Streams | ATWIR-2019 Waste Streams |
|---|---|---|
| RL | RL105-08 | RL105-08 |
| RL | RL105-09 | RL105-09 |
| RL | RL170-08 | RL170-08 |
| RL | RL200-01 | RL200-01 |
| RL | RL200-02 | RL200-02 |
| RL | RL200-10 | RL200-10 |
| 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 | RL221U-03 | RL221U-03 |
| RL | RL221U-08 | RL221U-08 |
| 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 | RL300-07 | RL300-07 |
| 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 | RL325-05 | RL325-05 |
| RL | RL325-07 | RL325-07 |
| RL | RL325-08 | RL325-08 |
| RL | RL325-09 | RL325-09 |
| RL | RL618-01 | RL618-01 |
| RL | RL618-08 | RL618-08 |
| RL | RLALE-02 | RLALE-02 |
| RL | RLALPHA-08 | RLALPHA-08 |
| RL | RLARG-01 | RLARG-01 |
| RL | RLBART-08 | RLBART-08 |
| RL | RLBAT-01 | RLBAT-01 |
| RL | RLBAT-08 | RLBAT-08 |

**Table C-2. Crosswalk of Adjusted ATWIR-2018 to ATWIR-2019 Waste Streams**
**Continued**

| Site Code | Adjusted ATWIR-2018 Waste Streams | ATWIR-2019 Waste Streams |
|---|---|---|
| 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 | RLCH2-09 | RLCH2-09 |
| RL | RLDD-01 | RLDD-01 |
| RL | RLDD-02 | RLDD-02 |
| RL | RLDD-08 | RLDD-08 |
| RL | RLDD-10 | RLDD-10 |
| 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-03 |
| RL | RLHAN-08 | RLHAN-08 |
| RL | RLIAEA-03 | RLIAEA-03 |
| RL | RLMLB-08 | RLMLB-08 |
| RL | RLMLL-01 | RLMLL-01 |
| RL | RLN622FD-01 | RLN622FD-01 |
| RL | RLP11-01 | RLP11-01 |
| RL | RLPFP-01 | RLPFP-01 |
| RL | RLPFP-02 | RLPFP-02 |
| RL | RLPFP-03 | RLPFP-03 |
| RL | RLPFP-04 | RLPFP-04 |
| RL | RLPFP-05 | RLPFP-05 |
| RL | RLPFP-08 | RLPFP-08 |
| RL | RLPRC-01 | RLPRC-01 |
| RL | RLPURX-01 | RLPURX-01 |
| RL | RLPURX-02 | RLPURX-02 |
| RL | RLPURX-08 | RLPURX-08 |
| RL | RLRFET-01 | RLRFET-01 |

**Table C-2. Crosswalk of Adjusted ATWIR-2018 to ATWIR-2019 Waste Streams**
**Continued**

| Site Code | Adjusted ATWIR-2018 Waste Streams | ATWIR-2019 Waste Streams |
|---|---|---|
| RL | RLSAN-01 | RLSAN-01 |
| RL | RLSWO-01 | RLSWO-01 |
| RL | RLSWO-05 | RLSWO-05 |
| 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-W134 | SA-W134 |
| SA | SA-W135 | SA-W135 |
| SA | SA-W136 | SA-W136 |
| SA | SA-W137 | SA-W137 |
| SA | SA-W138M | SA-W138M |
| SA | SA-W139 | SA-W139 |
| SP | SP-CHHD | SP-CHHD |
| SP | SP-RHHD | SP-RHHD |
| SP | SP-RHIN | SP-RHIN |
| SR | SR-221H-EUOx | SR-221H-EUOx |
| 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-DWPF-HET |
| SR | SR-HBL-235F-HET | SR-HBL-235F-HET |
| SR | SR-KAC-HET | SR-KAC-HET, SR-KAC-HET-A |
| SR | SR-KAC-PuOx | SR-KAC-PuOx |
| 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.02 |
| SR | SR-RH-235F.01 | SR-RH-235F.01 |
| SR | SR-RH-772F.01 | SR-RH-772F.01 |
| SR | SR-RH-773A.01 | SR-RH-773A.01 |
| SR | SR-RH-FBL.01 | SR-RH-FBL.01 |
| SR | SR-RH-FBL.02 | SR-RH-FBL.02 |
| SR | SR-RH-MNDPAD1.01 | SR-RH-MNDPAD1.01 |
| SR | SR-RH-SDD.01 | SR-RH-SDD.01 |

**Table C-2. Crosswalk of Adjusted ATWIR-2018 to ATWIR-2019 Waste Streams**
**Continued**

| Site Code | Adjusted ATWIR-2018 Waste Streams | ATWIR-2019 Waste Streams |
|---|---|---|
| SR | SR-RH-SWD.01 | SR-RH-SWD.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 |
| SR | SR-T001-WSB-1 | *Depleted Waste Stream – Project canceled* |
| SR | SR-W026-221F-HEPA | SR-W026-221F-HEPA |
| SR | SR-W026-221F-HET | SR-W026-221F-HET |
| SR | SR-W026-221F-HET-A | SR-W026-221F-HET-A |
| SR | SR-W026-221F-HOM | SR-W026-221F-HOM |
| SR | SR-W026-772F-HET | SR-W026-772F-HET |
| SR | SR-W026-MFFF-1 | *Depleted Waste Stream – Project canceled* |
| SR | SR-W026-WSB-2 | *Depleted Waste Stream – Project canceled* |
| 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 | SR-W027-235F-HOM |
| SR | SR-W027-235F-IR | SR-W027-235F-IR |
| SR | SR-W027-321-322M-HET | SR-W027-321-322M-HET |
| SR | SR-W027-773A-HET | SR-W027-773A-HET |
| 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 |
| WV | WV-M010a | WV-M010a |
| WV | WV-T004a | WV-T004a |
| WV | WV-T004b | WV-T004b |
| 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 |

**Table C-2. Crosswalk of Adjusted ATWIR-2018 to ATWIR-2019 Waste Streams**
**Continued**

| Site Code | Adjusted ATWIR-2018 Waste Streams | ATWIR-2019 Waste Streams |
|---|---|---|
| WV | WV-W050a | WV-W050a |
| WV | WV-W050b | WV-W050b |
| WV | WV-Z001 | WV-Z001 |

Data Source: CID Data Version D.18.00.33 (LANL-CO 2019b). Note: This table contains data for WIPP-bound and potential waste streams only.