ANNUAL TRANSURANIC WASTE INVENTORY REPORT – 2023 (Data Cutoff Date 12/31/2022)

DOE/TRU-23-3425

Revision 0

Effective: February 2024



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U.S. Department of Energy Carlsbad Field Office

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HISTORY OF REVISION

Revision Number	Pages Affected	Description of Revision	
0	All	Initial issue to document the inventory estimate of	
		transuranic waste reported by the transuranic	
		waste generator sites as of December 31, 2022.	

TABLE OF CONTENTS

ACRONY	MS AND ABBREVIATIONS	7
EXECUT	IVE SUMMARY	9
1.0 INTR	ODUCTION	11
1.1	Annual TRU Waste Inventory Updates	12
1.2	TRU Waste Generator Sites	12
1.3	Temporary Storage of TRU Waste	14
1.4	Sources of TRU Waste Inventory Information	14
1.5	Uses of TRU Waste Inventory Information	14
2.0 MET	HODOLOGY	14
2.1	Collection, Compilation, Verification, and Validation of Inventory Information	15
2.2	Data Generated from CID Reports	18
2.2.1	Volume Reporting	18
2.2.2	2 Waste and Packaging Materials Reporting	19
2.2.3	Radionuclide Reporting	20
2.2.4	4 Complexing Agent and Oxyanion Reporting	21
2.3	Analyses Supporting the ATWIR	21
2.3.1	WDS Data Transformation 2022	21
2.3.2	2 Adjustment of 2022 Projected Inventory to CY 2033	21
3.0 TRU	WASTE INVENTORY ESTIMATES AND CHANGES	21
3.1	TRU Waste Volume Estimates	22
3.1.1	TRU Waste Inventory Total Volume by Site	22
3.1.2	2 Changes to TRU Waste Volume	23
3.2	Non-Radiological Material Estimates	24
3.2.1	Waste and Packaging Materials	25
3.2.2	2 Waste and Packaging Material Inventory Changes	25
3.2.3	3 Complexing Agents and Oxyanions	27
3.2.4	Changes to Complexing Agents and Oxyanions	28
3.3	TRU Waste Radionuclide Estimates	29
3.3.1	Radionuclide Inventory by Site	29
3.3.2	2 Radionuclide Changes	39
4.0 POTI	ENTIAL TRU WASTE AND TRU WASTE BEYOND CY 2033	40
	Potential TRU Waste	
4.2	TRU Waste Projected Beyond CY 2033	43
5.0 SUM	MARY	46
CO CTO	CCADV	47

7.0 REFERENCES
APPENDIX A WIPP-BOUND TRU WASTE PROFILE REPORTS52
APPENDIX B POTENTIAL TRU WASTE PROFILE REPORTS342
APPENDIX C CROSSWALK OF WASTE STREAMS379
LICT OF FIGURES
<u>LIST OF FIGURES</u>
Figure 1-1. U.S. Department of Energy TRU Waste Generator Sites
Figure 2-1. TRU Waste Inventory Process Flowchart
Figure 4-1. ATWIR-2023 Volume vs LWA Capacity Limit
LICT OF TABLES
<u>LIST OF TABLES</u>
Table ES-1. Summary of Parameter Changes
Table 3-1. CH-TRU Waste Inventory Total Volume
Table 3-2. RH-TRU Waste Inventory Total Volume
Table 3-3. CH/RH-TRU Waste Volume Changes
Table 3-4. CH/RH Waste and Packaging Material Inventory
Table 3-5. CH/RH Waste and Packaging Material Inventory Changes
Table 3-6. CH/RH Complexing Agent and Oxyanion Mass (kg) by Site
Table 3-7. CH/RH Complexing Agent and Oxyanion Changes
Table 3-8. Total CH Radionuclide Activity (Ci) on a Site Basis Decayed Through CY 2022 30
Table 3-9. Total RH Radionuclide Activity (Ci) on a Site Basis Decayed Through CY 2022 34
Table 3-10. Total Activity by Site Decayed Through CY 2022
Table 3-11. CH/RH Activity Changes Decayed Through CY 2033
Table 4-1. Potential WIPP CH/RH-TRU Waste Streams
Table 4-2. DOE-Directed Potential WIPP CH/RH-TRU Waste Streams
Table 4-3. Potential to WIPP-Bound Waste Streams
Table 4-4. Projected CH/RH-TRU Waste Volume Beyond CY 2033
Table C-1. Crosswalk of ATWIR-2023 to ATWIR-2022 Waste Streams
Table C-2. Crosswalk of ATWIR-2022 to ATWIR-2023 Waste Streams

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

CY calendar year

D&D decontamination and decommissioning

DOE U.S. Department of Energy DSA Documented Safety Analysis

DT data template

EDTA ethylenediaminetetraacetic acid

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

LQS large-quantity site LWA Land Withdrawal Act

m³ cubic meter(s)

MFC Material and Fuels Complex

NEPA National Environmental Policy Act NNSS Nevada National Security Site NRD Nuclear Radiation Development

ACRONYMS AND ABBREVIATIONS, cont.

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 Analyses for Licensing Evaluation

SNL Sandia National Laboratories SPRU Separations Process Research Unit

SRS Savannah River Site

TRU transuranic

WAC Waste Acceptance Criteria

WAP Waste Analysis Plan

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) – 2023 is to document the inventory estimate of transuranic (TRU) waste reported by the TRU waste generator sites as of December 31, 2022. This report also notes major changes to the inventory since the ATWIR-2022, which had a data cutoff date of December 31, 2021. 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 evaluations), performance assessments, planned changes, and other design changes as needed for the WIPP facility.

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 up to the final estimated year of TRU waste generation. At the direction of the DOE/CBFO, this ATWIR-2023 focuses on all TRU waste stored or projected to be generated through calendar year (CY) 2033 at the TRU waste generator sites. All data presented throughout this report are based on this directive, with the exception of section 4.2, which provides information on TRU waste projected beyond CY 2033.

Waste streams are designated as either WIPP-bound (appear to have no significant technical or legal constraints limiting the waste from being eligible for disposal in the WIPP facility) or potential (have uncertainties regarding eligibility for emplacement in the WIPP facility, as of the data cutoff date for this report). Regardless of its designation or status within this report, TRU waste must satisfy all WIPP waste characterization and certification criteria (e.g., WIPP Waste Acceptance Criteria, WIPP Hazardous Waste Facility Permit, and WIPP Waste Analysis Plan) before it can be disposed of in the WIPP facility.

This ATWIR-2023 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-2022. This inventory report includes estimates for TRU waste volume, waste and packaging material mass, chemical component mass, and radionuclide activity (decayed to common years 2022 and 2033). Table ES-1 presents an overview of the changes in the data from the ATWIR-2022. Specific details of these changes are discussed in section 3.0 of this report.

Table ES-1. Summary of Parameter Changes

Parameter	ATWIR-2022 Total	ATWIR-2023 Total	Net Change	Percent Change
Volume (m ³) ¹	1.12E+05	1.15E+05	+3.03E+03	+2.70%
Waste and Packaging Material Mass (kg) ¹	9.72E+07	9.89E+07	+1.64E+06	+1.69%
Radionuclide Activity (Ci) 1, 2	4.98E+06	4.93E+06	-4.52E+04	-0.91%
Complexing Agents Mass (kg) ³	1.61E+04	1.75E+04	+1.30E+03	+8.06%
Oxyanions Mass (kg) ³	6.47E+05	6.68E+05	+2.03E+04	+3.14%

Data Source: Comprehensive Inventory Database (CID) Data Versions D.21.00.33 (Los Alamos National Laboratory – Carlsbad Operations [LANL-CO] 2022a) and D.22.01.33 (LANL-CO 2023) are used for the ATWIR-2022 and for the ATWIR-2023, respectively.

Note: Actual numeric 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 the WIPP facility, and waste in temporary storage at Waste Control Specialists, LLC. Data in this table are presented as follows: volume in cubic meters (m³), mass in kilograms (kg), and activity in curies (Ci).

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 <u>INTRODUCTION</u>

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) – 2023, with a data cutoff date of December 31, 2022, provides the DOE 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. These tasks can include planned changes, National Environmental Policy Act (NEPA) reviews, design changes, identifying waste containing oxyanions and complexing agents, and various analyses such as the WIPP Documented Safety Analysis (DSA). This ATWIR-2023 focuses on all TRU waste stored or projected to be generated through calendar year (CY) 2033 at the TRU waste generator sites.

When submitting inventory updates, the TRU waste generator sites assign each waste stream a status of "WIPP-bound" or "potential". As of the data cutoff date for this report, WIPP-bound waste streams appear to have no significant technical or legal constraints limiting the waste from being eligible for disposal in the WIPP facility after all waste characterization and certification criteria have been satisfied, while potential waste streams have meaningful uncertainties regarding their eligibility, due to technical or legal considerations.

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-2022 (U.S. DOE 2022) with a data cutoff date of December 31, 2021. Section 4.0 discusses potential TRU waste streams as well as waste projected to be generated beyond 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-2022 and ATWIR-2023.

This ATWIR-2023 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 2022b).

1.1 Annual TRU Waste Inventory Updates

The TRU waste inventory estimates at the generator sites change frequently due to retrieval, treatment, characterization, and shipping activities; therefore, the inventory estimates are updated by the generator sites on an annual basis. This report is an update based on the sites' estimated inventory as of December 31, 2022.

Since the ATWIR-2022, 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:

- Addition of waste projected to be generated at Los Alamos National Laboratory (LANL);
- Reduction of waste at the Savannah River Site (SRS) stemming from an adjustment in projected inventory through 2033;
- Revisions made by LANL to final form container types in multiple waste streams;
- Recalculation of mass values performed by Idaho National Laboratory (INL) and LANL with updated data; and
- Acquisition of new characterization data, processing information, and repackaging experience by multiple sites, resulting in more accurate data and better estimates.

1.2 TRU Waste Generator Sites

As seen in Figure 1-1, TRU waste is currently stored at both small-quantity sites and large-quantity sites (LQSs) across the country. This figure presents the DOE TRU waste generator sites as of December 31, 2022, which are divided into two categories: active TRU waste generator sites (yellow) and sites de-inventoried of all TRU waste (red).

On December 30, 2022, the Knolls Atomic Power Laboratory – Nuclear Fuel Services (KAPL-NFS) reported to the CBFO that KAPL-NFS no longer had TRU waste inventory and did not have plans to generate TRU waste at that facility. On January 26, 2023, the CBFO requested the removal of KAPL-NFS from the list of facilities that contribute to the annual TRU waste collection activities (Gadbury 2023). Beginning with this report, KAPL-NFS will be considered as de-inventoried as long as the site remains in this status.

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

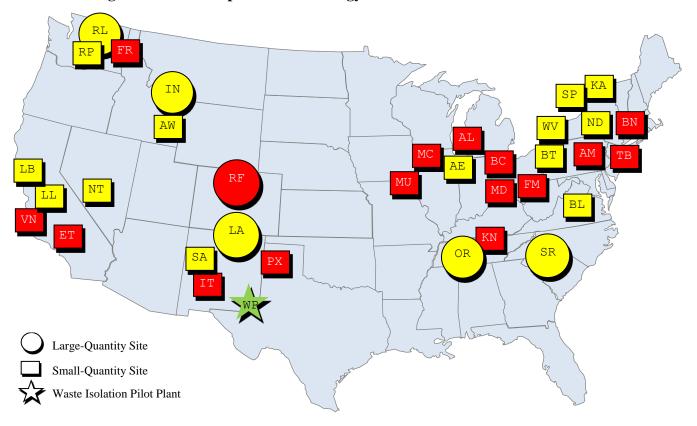


Figure 1-1. U.S. Department of Energy TRU Waste Generator Sites

Yellow	– Active TRU Waste Generator Sites	Red – I	De-inventoried of all TRU Waste
AE	Argonne National Laboratory	AL	Ames Laboratory
AW	Materials and Fuels Complex	AM	ARCO Medical Products
BL	Babcock and Wilcox Nuclear Energy Services (Potential)	BC	Battelle Columbus Laboratories
BT	Bettis Atomic Power Laboratory	BN	Brookhaven National Laboratory
IN	Idaho National Laboratory	ET	Energy Technology Engineering Center
KA	Knolls Atomic Power Laboratory-Schenectady	FM	Fernald Environmental Management Project
LA	Los Alamos National Laboratory	FR	Framatome
LB	Lawrence Berkeley National Laboratory	IT	Lovelace Respiratory Research Institute
LL	Lawrence Livermore National Laboratory	KN	Knolls Atomic Power Laboratory-Nuclear Fuel Services
ND	Nuclear Radiation Development Site	MC	U.S. Army Materiel Command
NT	Nevada National Security Site	MD	Mound Plant
OR	Oak Ridge National Laboratory	MU	University of Missouri Research Reactor
RL	Hanford (Richland) Site	PX	Pantex Plant
RP	Hanford Site - Office of River Protection (Potential)	RF	Rocky Flats Environmental Technology Site
SA	Sandia National Laboratories	TB	Teledyne Brown Engineering
SP	Separations Process Research Unit	VN	General Electric Vallecitos Nuclear Center
SR	Savannah River Site		

WV

West Valley Demonstration Project (Potential)

1.3 Temporary Storage of TRU Waste

As of December 31, 2022, ≈55.9 cubic meters (m³) of TRU waste from LANL remained in temporary storage at Waste Control Specialists, LLC (WCS) near Andrews, Texas. The WCS inventory is 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 TRU 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 facility. For ATWIR-2023, the TRU waste generator sites began with the inventory data used for the ATWIR-2022, 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 TRU 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. Sites develop and update site-specific project plans and schedules, which detail approaches for moving TRU waste to the WIPP facility 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 performance assessments, planned changes, design changes, and various analyses, such as the WIPP DSA and NEPA reviews. The DOE/CBFO tracks radiological and non-radiological (waste and packaging materials, and chemical components) information about the TRU waste destined for the WIPP facility. 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 <u>METHODOLOGY</u>

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. 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 (see section 2.3).
- 6. 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 data from the generator sites and to enter it into the CID is documented in LANL-CO procedure INV-SP-01, *Data Collection and Entry for the Comprehensive Inventory* (LANL-CO 2019). In December 2022, in accordance with INV-SP-01, a notification was sent from DOE/CBFO (Gerle 2022) to the active TRU waste generator sites initiating 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, and WIPP Waste Analysis Plan [WAP]) before it can be disposed of at the WIPP facility.

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 Inventory Team performed reviews for completeness, accuracy, and consistency. The sites were then contacted for resolutions of any issues identified. The reviews included, but were not limited to the 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;
- TRU alpha concentration is greater than 100 nanocuries per gram;
- Waste streams are categorized correctly as contact-handled (CH) or remote-handled (RH) TRU waste based on radionuclide threshold limits;
- Activity concentration for RH-TRU waste streams does not exceed the WIPP Land Withdrawal Act (LWA) limits (i.e., confirm RH-TRU waste does not exceed 23 curies [Ci] per liter) (U.S. Congress 1992 and 1996);
- Waste does not exceed mass limits for reported final form container types;

- Complexing agents and oxyanions are reported if applicable;
- Waste matrix code groups are consistent with waste materials reported; and
- Any significant differences between the current and previous year's waste stream data are identified and understood.

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.22.01.33 (LANL-CO 2023). Figure 2-1 presents a flowchart of the TRU waste inventory process.

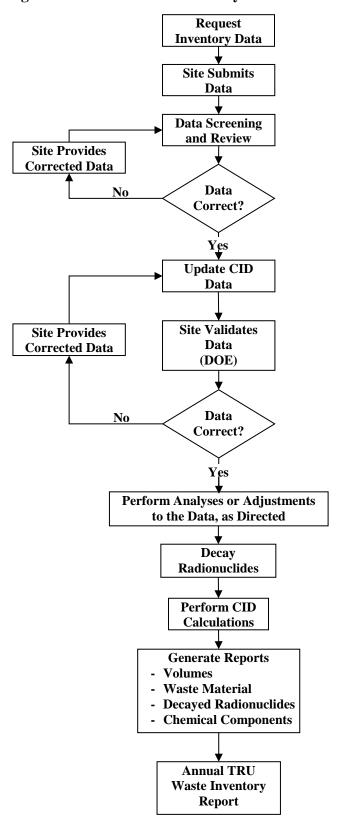


Figure 2-1. TRU Waste Inventory Process Flowchart

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 and LCO-QP19-1. 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 values. 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.). Where identified throughout this report, aggregate sums and calculations using raw values are determined prior to final rounding for presentation purposes in order to maintain a high level of precision. As such, manual verification of aggregate calculations using the rounded values may not be reconcilable.

Information for emplaced waste (disposed in the underground or held in aboveground storage at the WIPP facility) and waste in temporary storage at a designated storage location (e.g., 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 2023a), 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 includes stored and projected estimates in both the current form and the final form configurations. The current form represents the waste in its current packaging configuration. The final form represents estimates of the WIPP-approved container type(s) that will ultimately be used to ship the waste to the WIPP facility. For stored waste not already packaged in WIPP-approved containers, final form container types and counts reported are determined by considering 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 of waste emplaced at the WIPP facility and in temporary storage at WCS is directly reported as provided by 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, the CH- and RH-TRU waste volumes presented throughout this report are 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 components (steel, plastic, cellulose, rubber, and lead) 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 QA File QAM-12-17 (Van Soest 2012), QAM-19-06 (Toothman 2019), and QAM-21-10 (Van Soest 2021). The packaging material masses are standardized for all WIPP-approved container types 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 waste and packaging material mass expressed in kilograms (kg) 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 2022 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 Analyses 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 radionuclide activities in Ci for each waste stream. The radionuclides in Appendix A are decay-corrected through CY 2022. The radionuclides in Appendix B are not decay-corrected.

2.2.4 Complexing Agent and Oxyanion Reporting

When applicable, 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 ATWIR

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 2017b), as applicable, to support the preparation of this report.

2.3.1 WDS Data Transformation 2022

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, 2022, consistent with the methodology described in section 2.2. The WDS data were migrated into a standardized DT 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-73, WDS Data Transformation for Insertion in the 2022 Inventory CID Import Template (Van Soest 2023a). Transformations were included in this analysis for waste streams with waste containers residing in more than one location (WIPP underground, WIPP aboveground, or WCS). By using unique waste stream identification prefixes, these waste streams were separately transformed and tracked in the DT file for each location reported. The DT file was subsequently imported into the CID to update the information for TRU waste that is emplaced and in temporary storage.

2.3.2 Adjustment of 2022 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 as far into the future as can be estimated, an analysis was performed to adjust the updated projected inventory to the reporting term for this report (CY 2033). As such, INV-SAR-74, *Adjustment of 2022 Projected Inventory to 2033 Closure Year* (Van Soest 2023b), documents the adjustment of the inventory to CY 2033 to facilitate equivalent comparison with the ATWIR-2022 inventory. After the modifications described within INV-SAR-74 were performed on the updated inventory, the radionuclide activities underwent decay calculations. The data version was then labeled D.22.01.33 (LANL-CO 2023) and is used for the ATWIR-2023 inventory throughout this report.

3.0 TRU 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 numeric 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 based on TRU waste that is currently stored or projected to be generated through CY 2033. 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 estimated volumes, waste and packaging materials, and radionuclides in this report to the respective ATWIR-2022 estimated values. Chemical components are not reported in the emplaced or temporary storage inventory because these components are not tracked in the WDS. 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 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-2022.

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 \approx 40,600 m³ of CH-TRU waste is currently being reported at the sites and could be shipped to the WIPP facility in the future, provided all WIPP requirements are met. Approximately 98 percent of the anticipated CH-TRU waste is stored or will be generated at the LQSs (Hanford [Richland] Site [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 \approx 2,170 m³ of RH-TRU waste is currently being reported by the sites and could be shipped to the WIPP facility in the future, provided all WIPP requirements are met. Approximately 97 percent of the anticipated RH-TRU waste is stored or will be generated at the LQSs.

Table 3-1. CH-TRU Was	ste Inventory	Total	Volume

TRU Waste Generator Site	Stored Volume (m³)	Projected Volume (m³)	Anticipated Volume (m³)
Argonne National Laboratory	3.97E+01	1.01E+01	4.98E+01
Hanford (Richland) Site	1.10E+04	5.53E+03	1.66E+04
Idaho National Laboratory	1.06E+04	-	1.06E+04
Knolls Atomic Power Laboratory - Schenectady		3.60E-02	3.60E-02
Lawrence Berkeley National Laboratory	4.20E-01	-	4.20E-01

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

TRU Waste Generator Site	Stored Volume (m³)	Projected Volume (m³)	Anticipated Volume (m³)
Lawrence Livermore National Laboratory	2.40E+02	2.34E+02	4.74E+02
Los Alamos National Laboratory	4.56E+03	6.38E+03	1.09E+04
Material and Fuels Complex		1.62E+01	1.62E+01
Nevada National Security Site	7.52E+01	7.90E+01	1.54E+02
Nuclear Radiation Development Site	2.10E+00		2.10E+00
Oak Ridge National Laboratory	4.33E+02	1.11E+02	5.44E+02
Sandia National Laboratories	1.38E+01	5.26E+01	6.64E+01
Savannah River Site	4.54E+02	6.94E+02	1.15E+03
Separations Process Research Unit	6.27E+00		6.27E+00
Grand Total	2.75E+04	1.31E+04	4.06E+04

Data Source: CID Data Version D.22.01.33 (LANL-CO 2023). Note: This table only contains data for WIPP-bound waste streams at the TRU waste generator sites.

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

TRU Waste Generator Site	Stored Volume (m³)	Projected Volume (m³)	Anticipated Volume (m³)
Argonne National Laboratory	2.34E+01	1.08E+01	3.42E+01
Bettis Atomic Power Laboratory	7.56E+00		7.56E+00
Hanford (Richland) Site	1.47E+03	9.57E+01	1.56E+03
Idaho National Laboratory	2.11E+02		2.11E+02
Los Alamos National Laboratory	8.01E+01		8.01E+01
Material and Fuels Complex	6.93E+00	2.08E+01	2.77E+01
Oak Ridge National Laboratory	1.15E+02	9.79E+01	2.13E+02
Sandia National Laboratories	3.15E+00	6.60E-01	3.81E+00
Savannah River Site	3.15E+01		3.15E+01
Separations Process Research Unit	2.52E+00		2.52E+00
Grand Tota	1.95E+03	2.26E+02	2.17E+03

Data Source: CID Data Version D.22.01.33 (LANL-CO 2023). 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 the final form total volume of the combined CH- and RH-TRU waste between the ATWIR-2022 and this report. The net change column includes both increases and decreases in the 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 shows an increase of $\approx 1,540 \text{ m}^3$. This increase, when combined with the net increase of $\approx 1,490 \text{ m}^3$ of waste that was emplaced at the WIPP facility during CY 2022, results in an overall increase of $\approx 3,030 \text{ m}^3$.

As shown in Table 3-3, LANL is the only LQS that reported an increase in anticipated volume (\approx 2,920 m³). The increase at LANL is mainly due to the addition of waste projected to be generated from waste stream LA-MHD01.001, in order to meet programmatic planning needs, and the creation of the new waste stream LA-CIN04.001. This new waste stream inherited most of the waste inventory from LA-TA-21-13 and showed a stored volume estimate of this waste three times the previous estimate after modifying packaging assumptions. The site that reported the largest reduction in anticipated volume was SRS (\approx 555 m³), mainly due to lower projected volume estimates. INL also reported a large reduction in anticipated volume (\approx 431 m³); however, this is mostly due to the site emplacing the most volume (\approx 793 m³) at the WIPP facility during CY 2022.

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

TRU Waste Generator Site	ATWIR-2022 Total (m³)	ATWIR-2023 Total (m³)	Net Change (m³)
Hanford (Richland) Site	1.84E+04	1.81E+04	-2.22E+02
Idaho National Laboratory	1.12E+04	1.08E+04	-4.31E+02
Los Alamos National Laboratory	8.10E+03	1.10E+04	+2.92E+03
Oak Ridge National Laboratory	8.24E+02	7.57E+02	-6.70E+01
Savannah River Site	1.73E+03	1.18E+03	-5.55E+02
Small-Quantity Sites	9.51E+02	8.45E+02	-1.06E+02
Anticipated Total	4.12E+04	4.28E+04	+1.54E+03
WIPP (Emplaced)	7.11E+04	7.26E+04	+1.49E+03
WCS (Temporary Storage)	5.59E+01	5.59E+01	
Emplaced/Temporary Storage Total	7.12E+04	7.26E+04	+1.49E+03
Grand Total	1.12E+05	1.15E+05	+3.03E+03

Data Source: CID Data Versions D.21.00.33 (LANL-CO 2022a) and D.22.01.33 (LANL-CO 2023).

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-2022.

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	1.57E+05	9.39E+03	1.66E+05
Cellulose	7.56E+05	5.18E+04	8.08E+05
Cement	1.19E+06	4.28E+03	1.19E+06
Iron-based Metal/Alloys	4.88E+06	1.65E+05	5.05E+06
Other Inorganic Materials	3.55E+06	2.86E+05	3.83E+06
Other Metal/Alloys	2.08E+05	2.53E+04	2.33E+05
Plastic	8.90E+05	1.05E+05	9.96E+05
Rubber	2.20E+05	1.60E+04	2.36E+05
Soil	3.21E+06	1.07E+04	3.22E+06
Solidified Inorganic Material	2.83E+06	3.58E+04	2.86E+06
Solidified Organic Material	2.96E+05	2.20E+03	2.98E+05
Vitrified			
Packaging Material, Cellulose	9.69E+05		9.69E+05
Packaging Material, Lead		5.88E+06	5.88E+06
Packaging Material, Plastic	1.11E+06	1.76E+05	1.29E+06
Packaging Material, Rubber	2.20E+04	1.92E+03	2.39E+04
Packaging Material, Steel	1.04E+07	6.42E+06	1.69E+07
Grand Total	3.07E+07	1.32E+07	4.39E+07

Data Source: CID Data Version D.22.01.33 (LANL-CO 2023). 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 ATWIR-2022 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 \approx 455,000 kg and increased by \approx 747,000 kg for the waste emplaced at the WIPP and in temporary storage, netting an overall increase in waste material mass of \approx 292,000 kg. This net increase is largely attributed to LANL (\approx 464,000 kg) which was countered by a net decrease at SRS (\approx 138,000 kg). The increase at LANL is mainly due to the addition of waste projected to be generated from waste

stream LA-MHD01.001 in order to meet programmatic planning needs. The decrease at SRS is primarily due to a reduction in projected waste generation for the surplus plutonium disposition waste streams SR-KAC-HET and SR-KAC-PuOx.

Anticipated packaging material mass increased by $\approx 995,000$ kg at the generator sites and also increased by $\approx 357,000$ kg for the waste emplaced at the WIPP and in temporary storage, netting an overall increase in packaging material masses of ≈ 1.35 million kg. This net increase is largely attributed to the change in waste stream LA-MHD01-Pits (≈ 1.60 million kg), which is now projected to use more pipe overpack containers and fewer direct-loaded 55-gallon drums.

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

	ATWIR-	ATWIR-	Net
Waste and Packaging Material	2022 Total	2023 Total	Change
	(kg)	(kg)	(kg)
Waste Mat		T	
Aluminum-based Metal/Alloys	1.72E+05	1.66E+05	-5.77E+03
Cellulose	8.25E+05	8.08E+05	-1.67E+04
Cement	1.42E+06	1.19E+06	-2.33E+05
Iron-based Metal/Alloys	5.07E+06	5.05E+06	-1.59E+04
Other Inorganic Materials	3.97E+06	3.83E+06	-1.38E+05
Other Metal/Alloys	2.37E+05	2.33E+05	-3.97E+03
Plastic	1.05E+06	9.96E+05	-5.53E+04
Rubber	2.40E+05	2.36E+05	-3.91E+03
Soil	3.16E+06	3.22E+06	+6.20E+04
Solidified Inorganic Material	2.81E+06	2.86E+06	+5.79E+04
Solidified Organic Material	4.00E+05	2.98E+05	-1.02E+05
Vitrified			
Anticipated Waste Total	1.93E+07	1.89E+07	-4.55E+05
WIPP (Emplaced) Waste Total	3.13E+07	3.21E+07	+7.47E+05
WCS (Temporary Storage) Waste Total	2.89E+04	2.89E+04	
Emplaced/Temporary Storage Waste Total	3.14E+07	3.21E+07	+7.47E+05
Packaging M	aterial		
Packaging Material, Cellulose	7.88E+05	9.69E+05	+1.81E+05
Packaging Material, Lead	6.48E+06	5.88E+06	-5.98E+05
Packaging Material, Plastic	1.28E+06	1.29E+06	+6.14E+03
Packaging Material, Rubber	2.30E+04	2.39E+04	+8.28E+02
Packaging Material, Steel	1.54E+07	1.69E+07	+1.41E+06
Anticipated Packaging Total	2.40E+07	2.50E+07	+9.95E+05
WIPP (Emplaced) Packaging Total	2.25E+07	2.28E+07	+3.57E+05
WCS (Temporary Storage) Packaging Total	3.03E+04	3.03E+04	
Emplaced/Temporary Storage Packaging Total	2.25E+07	2.29E+07	+3.57E+05
Grand Total	9.72E+07	9.89E+07	+1.64E+06

Data Source: CID Data Versions D.21.00.33 (LANL-CO 2022a) and D.22.01.33 (LANL-CO 2023).

3.2.3 Complexing Agents and Oxyanions

This report is the mechanism the DOE uses to summarize the mass of 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.

The DOE collects the mass of complexing agents and oxyanions destined for emplacement in the WIPP facility because of their potential impact on PA. 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 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. Sites are not required to characterize complexing agents and oxyanions listed in Table 3-6 and therefore may have limited information on these chemical components. When limited information is available, a site will determine its best method for estimating the mass of a waste stream's chemical components, which can result in an identical mass for multiple components. As more information becomes available, through characterization and/or chemical compatibility evaluations, 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	SRS	Grand Total
				Comp	lexing Agen	ts				
Acetate		5.11E+03	8.00E-02				6.83E+00			5.12E+03
Acetic Acid	1.76E-01	3.25E+03	3.16E+03	4.28E-03		2.10E+00	6.83E+00	2.00E-09		6.42E+03
Citrate		2.50E+02	2.66E-02				6.83E+00			2.57E+02
Citric Acid	1.76E-01	1.07E+03	5.46E+00	5.80E+02		2.10E+00	6.83E+00	2.00E-09	1.62E+01	1.68E+03
EDTA	1.76E-01	3.82E+01	3.30E+00			5.69E-01	6.83E+00			4.90E+01
Oxalate	1.76E-01	4.03E+02	2.16E-03				6.83E+00			4.10E+02
Oxalic Acid	1.76E-01	3.47E+03	3.90E+01	5.92E+00		2.10E+00	6.83E+00			3.53E+03
				0	xyanions					
Nitrate	2.58E+02	1.15E+05	6.01E+04	1.84E+05	6.00E-02	2.08E+00	6.83E+00	1.00E-06	1.85E+01	3.60E+05
Phosphate	2.01E+02	1.26E+05	3.46E+04		-	2.10E+00	6.83E+00	-		1.61E+05
Sulfate	2.01E+02	2.31E+04	9.21E+04	3.14E+04		2.10E+00	6.83E+00		1.62E+01	1.47E+05

Data Source: CID Data Version D.22.01.33 (LANL-CO 2023). Note: This table only contains data for WIPP-bound waste streams at the TRU waste generator sites. Site acronyms used in this table are identified in the Acronyms and Abbreviations section of this report.

3.2.4 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 ATWIR-2022 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 facility or 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 an increase of \approx 1,300 kg and the total change in anticipated oxyanion mass was an increase of \approx 20,300 kg. The increase in complexing agents may primarily be attributed to a recalculation of these masses by INL for waste streams IN-ID-SDA-Debris, IN-ID-SDA-Sludge, and IN-ID-SDA-Soil, which accounted for a combined increase of \approx 1,190 kg. The oxyanion increase can be attributed solely to the INL waste stream IN-ID-SDA-Sludge with an increase of \approx 53,300 kg for the same reason indicated above. This increase was countered by data corrections made by LANL regarding the

mass of containers moving from waste stream LA-TA-21-13 to LA-CIN04.001, which resulted in a total oxyanion decrease of \approx 23,700 kg.

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

Chemical Component	ATWIR-2022 Total (kg)	ATWIR-2023 Total (kg)	Net Change (kg)
	Complexing	Agents	
Acetate	5.12E+03	5.12E+03	-6.04E-02
Acetic Acid	5.23E+03	6.42E+03	+1.19E+03
Citrate	2.58E+02	2.57E+02	-1.00E+00
Citric Acid	1.56E+03	1.68E+03	+1.15E+02
EDTA	4.84E+01	4.90E+01	+6.84E-01
Oxalate	4.12E+02	4.10E+02	-1.15E+00
Oxalic Acid	3.52E+03	3.53E+03	+1.73E+00
Grand Total	1.61E+04	1.75E+04	+1.30E+03
	Oxyanio	ons	
Nitrate	3.70E+05	3.60E+05	-9.63E+03
Phosphate	1.45E+05	1.61E+05	+1.60E+04
Sulfate	1.33E+05	1.47E+05	+1.39E+04
Grand Total	6.47E+05	6.68E+05	+2.03E+04

Data Source: CID Data Versions D.21.00.33 (LANL-CO 2022a) and D.22.01.33 (LANL-CO 2023). 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 to common dates for reporting purposes 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 2022, and the values in Table 3-11, which shows a comparison between the ATWIR-2022 and ATWIR-2023 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 anticipated activity inventory estimates for WIPP-bound 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 Decay-Corrected Through CY 2022

Radionuclide	ANL	Hanford (RL)	INL	KAPL-S	LANL	LBNL	LLNL	MFC	NNSS	NRD	ORNL	SNL	SPRU	SRS	Grand Total
Ac-225	2.59E-05	2.54E-03	1.25E-05	1.05E-04	1.64E-01	5.02E-19	5.59E-06	2.49E-15	6.78E-12	9.75E-13	4.59E+00	1.98E-12	1.95E-16	3.06E-04	4.76E+00
Ac-227	1.18E-05	2.54E-04	1.91E-02	2.26E-11	8.68E+01	4.01E-23	3.56E+01	1.23E-13	9.50E-11		5.24E+00	9.36E-11	2.01E-09	1.25E-01	1.28E+02
Ac-228	4.39E-05	9.04E-03	3.75E-05	2.47E-09	2.80E-06	6.71E-09	7.77E-07	4.71E-20	4.08E-15		2.43E-02	2.42E-05		1.37E-04	3.36E-02
Ag-108	1.45E-06	1.50E-07			5.82E-07						1.89E-04				1.92E-04
Ag-108m	1.66E-05	1.72E-06			6.69E-06						2.18E-03				2.20E-03
Ag-109m	2.72E-07	1.42E-06					5.44E-06				2.65E-05	6.19E-08			3.37E-05
Ag-110		1.41E-22									7.87E-03				7.87E-03
Ag-110m		1.04E-20									5.79E-01				5.79E-01
Am-241	2.75E+01	4.38E+04	2.03E+04	9.11E-02	4.64E+04	5.37E-03	7.49E+02	5.05E+01	1.07E+01	3.29E+01	2.65E+03	2.22E+00	2.80E-02	2.32E+05	3.46E+05
Am-242	6.43E-04	1.85E-03					2.08E-04				4.41E-03			1.03E-02	1.74E-02
Am-242m	6.46E-04	1.85E-03					2.09E-04				4.43E-03			1.03E-02	1.75E-02
Am-243	3.89E+00	4.36E-01	4.48E-01		1.41E+00	8.99E-04	3.41E-02	5.96E-03			4.46E+00			5.92E-01	1.13E+01
Am-245	1.97E-09				6.50E-04						4.98E-05				7.00E-04
Am-246	6.00E-10										7.41E-16				6.00E-10
At-217	2.59E-05	2.54E-03	1.25E-05	1.05E-04	1.64E-01	5.02E-19	5.59E-06	2.49E-15	6.78E-12	9.75E-13	4.59E+00	1.98E-12	1.95E-16	3.06E-04	4.76E+00
Ba-133	1.84E-05	1.79E-04			1.37E-05						2.75E-05			2.72E-06	2.41E-04
Ba-137m	3.76E+00	2.57E+02	4.11E+00		5.36E+00	6.95E-08	6.16E-01	8.20E-01			1.03E+02	2.92E-01	2.62E+00	5.08E-01	3.78E+02
Ba-140											1.79E-08				1.79E-08
Bi-210	1.13E-02	1.18E-02	7.42E-05	1.53E-11	2.29E-05	2.71E-11	1.29E-08	5.99E-18	3.73E-11		3.16E-03	2.58E-06	1.40E-11	1.10E-05	2.63E-02
Bi-211	1.18E-05	2.54E-04	9.82E-03	2.26E-11	4.45E+01	3.65E-24	1.83E+01	1.66E-14	9.50E-11		2.94E+00	9.36E-11	2.01E-09	6.50E-02	6.58E+01
Bi-212	3.31E-05	6.51E-01	1.77E-03	2.47E-09	4.46E+01	8.99E-11	2.36E-04	3.77E-22	2.86E-15		1.12E+01	2.42E-05		4.46E+00	6.09E+01
Bi-213	2.59E-05	2.54E-03	1.25E-05	1.05E-04	1.64E-01	5.01E-19	5.59E-06	2.49E-15	6.78E-12	9.75E-13	4.59E+00	1.98E-12	1.95E-16	3.06E-04	4.76E+00
Bi-214	2.77E-02	7.97E-02	3.63E-02	6.80E-11	6.73E-03	1.33E-08	6.33E-06	1.14E-14	2.81E-10		1.55E+00	1.76E-11	2.04E-10	5.01E-05	1.70E+00
Bk-249	1.36E-04				4.48E+01						3.44E+00				4.82E+01
Bk-250	3.36E-10										4.59E-16				3.36E-10
C-14	2.67E-03	6.77E-04									3.53E-01		1.39E-06	1.81E-03	3.58E-01
Ca-45	5.69E-08						 5.44E-0.5								5.69E-08
Cd-109	2.72E-07	1.42E-06					5.44E-06				2.65E-05	6.19E-08			3.37E-05
Cd-113 Cd-113m	1.33E-23 6.06E-05	6.84E-25 4.49E-07													1.40E-23
Ce-139		4.49E-07									 1.33E-05	 1.11E-16			6.10E-05
Ce-139											2.75E-01	1.11E-10			1.33E-05 2.75E-01
Ce-141 Ce-144	2.25E-04	3.96E-04			9.05E-05			5.37E-02			2.73E-01 2.20E-01				2.74E-01
Cf-249	3.00E-02	6.06E-02	9.02E-02		4.33E-01	2.13E-03	3.50E+00	3.37E-02			8.67E-01			1.28E-03	4.98E+00
Cf-250	1.47E-03	2.48E-02	9.02E-02		4.55E-01	3.97E-08	3.30E+00				1.02E+00			1.26E-03	1.04E+00
Cf-251	2.26E-04	1.22E-03	1.58E-04			3.97E-08	5.61E-06				5.06E-02			6.82E-04	5.29E-02
Cf-252	7.42E-06	6.87E-05	1.56E-04				2.55E-11				2.07E+01			1.50E-01	2.08E+01
Cf-253	7.42E-00	0.87E-03					2.33E-11				6.26E-06			1.50E-01	6.26E-06
C1-255	1.46E-07										0.20L-00				1.46E-07
Cn-242	5.19E-04	1.53E-03			2.26E+01		2.41E-05				4.16E-01			8.49E-03	2.31E+01
Cm-243	9.18E-03	1.60E-01	4.89E-01		8.94E-01	3.41E-05	5.45E-02	1.93E-02			1.52E+00			1.99E-02	3.17E+00
Cm-244	4.23E+01	8.53E+01	3.68E+00		8.24E+02	6.46E-04	1.64E+02	7.70E-01			2.97E+03			5.04E+01	4.14E+03
Cm-245	3.76E-05	1.11E+00	1.64E-04		1.36E-03	1.74E-08	1.68E-02				5.01E-01			7.27E-03	1.64E+00
Cm-246	2.41E-03	6.97E-04				5.83E-13					1.64E+01			6.78E-03	1.64E+01
Cm-247	4.16E-10	2.47E-09	6.83E-13				1.87E-06				1.57E-01			7.60E-03	1.64E-01
Cm-248	7.86E-05	7.76E-05				8.43E-08	2.20E-01				1.82E-01			8.23E-06	4.02E-01
Cm-249											1.95E-08				1.95E-08
Cm-250	2.40E-09										3.28E-15				2.40E-09
Co-58		6.95E-13									1.64E-04				1.64E-04
Co-60	3.25E-03	1.09E+00	1.21E-02		4.67E-04		2.27E-06	2.47E-03			1.07E-01	3.57E-05		6.63E-04	1.21E+00
Cs-134	1.92E-02	2.06E-03						2.72E-02			1.83E-01			8.95E-07	2.31E-01
Cs-135	2.76E-07	1.99E-07									3.67E-03				3.67E-03
Cs-137	3.98E+00	2.72E+02	4.35E+00		5.67E+00	7.36E-08	6.52E-01	8.68E-01			1.09E+02	3.09E-01	2.77E+00	5.37E-01	4.00E+02

Table 3-8. Total CH Radionuclide Activity (Ci) on a Site Basis Decay-Corrected Through CY 2022

Continued

Radionuclide	ANL	Hanford (RL)	INL	KAPL-S	LANL	LBNL	LLNL	MFC	NNSS	NRD	ORNL	SNL	SPRU	SRS	Grand Total
Es-253	ANL	Hamoru (KL)			LANL 	LDINL 		WIFC			8.48E-06	SINL 			8.48E-06
Eu-152	1.29E-04	1.28E-01	1.58E-04		8.63E-04		3.00E-05				4.63E-01	5.70E-06		1.09E-04	5.92E-01
Eu-154	1.61E-02	2.13E+00			1.90E-04		3.70E-03	6.06E-03			5.63E-01	1.13E-04		1.77E-03	2.72E+00
Eu-155	2.84E-03	1.13E+00			5.32E-05		3.70E 03	6.50E-03			2.91E-01			1.40E-06	1.43E+00
Fe-55	2.40E-03	9.76E-03			3.32E 03						2.73E+00				2.74E+00
Fe-59	9.54E-11	7.76E 03													9.54E-11
Fr-221	2.59E-05	2.54E-03	1.25E-05	1.05E-04	1.64E-01	5.02E-19	5.59E-06	2.49E-15	6.78E-12	9.75E-13	4.59E+00	1.98E-12	1.95E-16	3.06E-04	4.76E+00
Fr-223	1.62E-07	3.51E-06	2.64E-04	3.13E-13	1.20E+00	5.54E-25	4.92E-01	1.69E-15	1.31E-12	7.73E-13	7.23E-02	1.29E-12	2.77E-11	1.72E-03	1.76E+00
Gd-152	4.88E-19	2.28E-15	2.84E-20	3.13L-13	3.59E-19	3.34L-23	5.40E-21				1.03E-16	1.52E-19	2.77E-11	5.39E-19	2.38E-15
Gd-153	4.16E-10	6.85E-23			4.18E-06		J10E 21								4.18E-06
H-3	9.83E-03	9.65E+01			5.18E+04						3.59E+00			1.97E-04	5.19E+04
Ho-166m	7.03E 03	7.03E101									3.85E-04			3.29E-07	3.86E-04
I-129	1.25E-07	1.55E-05									2.85E-04			1.51E-03	1.81E-03
In-113m	1.23E-07										2.63E-04	6.90E-18			6.90E-18
Ir-192											8.63E-07				8.63E-07
K-40	8.03E-05	2.15E-02			9.69E-06		5.65E-08				1.02E-04	2.16E-04		6.21E-07	2.19E-02
Kr-85	1.96E-01	2.12E-03			7.18E-02									1.28E-06	2.70E-01
La-140					7.10E 02						2.06E-08				2.06E-08
Mn-54	9.77E-05	9.97E-05						6.67E-04							8.64E-04
Na-22	7.38E-03	3.76E-04			2.55E-03		6.05E-05				6.44E-07			4.51E-04	1.08E-02
Na-24					3.42E-24										3.42E-24
Nb-93m	9.79E-07	4.83E-07			3.12E 21						3.07E-02				3.07E-02
Nb-94		1.21E-03			2.39E-05		2.15E-08				J.07E 02			1.06E-07	1.23E-03
Nb-95	2.36E-09	9.80E-12									1.83E-01				1.83E-01
Nb-95m	1.26E-11	5.23E-14									1.42E-03				1.42E-03
Nd-144	4.12E-19	1.51E-17			1.66E-19			1.86E-18			3.32E-12				3.32E-12
Ni-59		1.18E-07												2.44E-10	1.18E-07
Ni-63	9.02E-06	1.42E-02									1.17E+02			2.1-1E 10	1.17E+02
Np-237	1.60E-02	2.98E+00	4.32E-01	6.35E-04	9.40E-01	8.60E-06	8.14E-03	4.27E-02	1.36E-04	1.21E-04	2.52E+00	8.24E-06	6.34E-08	4.91E-01	7.43E+00
Np-238	2.91E-06	8.35E-06					9.42E-07	4.27E 02			1.99E-05			4.64E-05	7.86E-05
Np-239	3.89E+00	4.36E-01	4.48E-01		1.41E+00	8.99E-04	3.41E-02	5.96E-03			4.46E+00			5.92E-01	1.13E+01
Np-240	1.08E-08	4.25E-14			2.66E-08	8.03E-20	2.09E-13				1.46E-05			4.21E-16	1.47E-05
Np-240m	9.00E-06	3.54E-11			2.22E-05	6.69E-17	1.74E-10				1.22E-02			3.51E-13	1.22E-02
P-32	2.21E-19														2.21E-19
Pa-231	7.11E-09	4.68E-04	3.95E-07	5.73E-11	6.41E-01	3.78E-20	8.07E-04	7.71E-11	5.44E-10		4.03E-01	8.54E-10	1.94E-08	1.90E-01	1.24E+00
Pa-233	1.60E-02	2.98E+00	2.86E-01	6.35E-04	6.97E-01	5.23E-06	5.11E-03	2.60E-02	1.36E-04	1.21E-04	1.59E+00	8.24E-06	6.34E-08	4.82E-01	6.08E+00
Pa-234	4.64E-06	7.14E-03	5.65E-03		4.45E-04	3.30E-13	1.06E-05	1.01E-06	7.04E-15		1.19E-04	1.42E-08	2.93E-06	4.58E-04	1.38E-02
Pa-234m	3.57E-03	5.49E+00	4.35E+00		3.42E-01	2.54E-10	8.12E-03	7.73E-04	5.41E-12		9.16E-02	1.10E-05	2.26E-03	3.53E-01	1.06E+01
Pb-209	2.59E-05	2.54E-03	1.25E-05	1.05E-04	1.64E-01	5.01E-19	5.59E-06	2.49E-15	6.78E-12	9.75E-13	4.59E+00	1.98E-12	1.95E-16	3.06E-04	4.76E+00
Pb-210	1.12E-02	1.18E-02	9.60E-05	1.53E-11	2.69E-05	3.50E-11	1.67E-08	1.06E-17	3.73E-11		4.09E-03	2.58E-06	1.40E-11	1.10E-05	2.72E-02
Pb-211	1.18E-05	2.54E-04	9.82E-03	2.26E-11	4.45E+01	3.65E-24	1.83E+01	1.66E-14	9.50E-11		2.94E+00	9.36E-11	2.01E-09	6.50E-02	6.58E+01
Pb-212	3.31E-05	6.51E-01	1.77E-03	2.47E-09	4.46E+01	8.99E-11	2.36E-04	3.77E-22	2.86E-15		1.12E+01	2.42E-05		4.46E+00	6.09E+01
Pb-214	2.77E-02	7.97E-02	3.63E-02	6.80E-11	6.73E-03	1.33E-08	6.33E-06	1.14E-14	2.81E-10		1.55E+00	1.76E-11	2.04E-10	5.01E-05	1.70E+00
Pd-107	6.69E-07	1.68E-07									3.43E-05				3.51E-05
Pm-147	2.79E-01	2.21E+00									8.09E+00				1.06E+01
Po-210	1.06E-02	1.18E-02	4.86E-06	1.53E-11	9.82E-06	1.74E-12	8.40E-10	2.14E-19	3.73E-11		2.09E-04	2.58E-06	1.40E-11	1.10E-05	2.26E-02
Po-211	3.24E-08	6.99E-07	2.70E-05	6.23E-14	1.22E-01	1.00E-26	5.03E-02	4.56E-17	2.61E-13		8.08E-03	2.57E-13	5.52E-12	1.79E-04	1.81E-01
Po-212	2.12E-05	4.17E-01	1.13E-03	1.58E-09	2.86E+01	5.76E-11	1.51E-04	2.41E-22	1.83E-15		7.15E+00	1.55E-05	3.32E 12	2.86E+00	3.90E+01
Po-213	2.54E-05	2.49E-03	1.22E-05	1.03E-04	1.60E-01	4.91E-19	5.47E-06	2.44E-15	6.64E-12	9.55E-13	4.50E+00	1.94E-12	1.91E-16	2.99E-04	4.66E+00
Po-214	2.77E-02	7.97E-02	3.63E-02	6.79E-11	6.73E-03	1.33E-08	6.33E-06	1.14E-14	2.81E-10	7.55E 15	1.55E+00	1.76E-11	2.03E-10	5.01E-05	1.70E+00
Po-215	1.18E-05	2.54E-04	9.82E-03	2.26E-11	4.45E+01	3.65E-24	1.83E+01	1.66E-14	9.50E-11		2.94E+00	9.36E-11	2.01E-09	6.50E-02	6.58E+01
Po-216	3.31E-05	6.51E-01	1.77E-03	2.47E-09	4.46E+01	8.99E-11	2.36E-04	3.77E-22	2.86E-15		1.12E+01	2.42E-05		4.46E+00	6.09E+01
Po-218	2.77E-02	7.97E-02	3.63E-02	6.80E-11	6.73E-03	1.33E-08	6.33E-06	1.15E-14	2.81E-10		1.55E+00	1.76E-11	2.04E-10	5.01E-05	1.70E+00
10 210	2		J.05E 0E	0.00E 11	0.,5E 05	1.000	0.55E 00	1.1.01	2.01L 10	ı	1.001	1., 02 11	10	5.01E 05	20.02100

Table 3-8. Total CH Radionuclide Activity (Ci) on a Site Basis Decay-Corrected Through CY 2022

Continued

Radionuclide	ANL	Hanford (RL)	INL	KAPL-S	LANL	LBNL	LLNL	MFC	NNSS	NRD	ORNL	SNL	SPRU	SRS	Grand Total
Pr-144	2.25E-04	3.96E-04			9.05E-05	LDINL 		5.38E-02			2.20E-01				2.74E-01
Pr-144m	3.15E-06	5.55E-06			1.27E-06			7.53E-04			3.08E-03				3.84E-03
Pu-236	9.10E-10	3.33E-00			1.27E-00			7.33E-04			3.06E-03				9.10E-10
Pu-238	4.37E+00	1.09E+04	1.69E+04	6.89E-01	4.08E+05	3.20E-03	8.49E+02	2.84E+00	1.96E+01		4.28E+03	4.08E-01	2.69E-03	7.34E+04	5.15E+05
Pu-239	7.51E+00	3.96E+04	1.09E+04 1.37E+04	8.07E-02	6.61E+04	3.63E-04	7.79E+02	5.58E+00	1.45E+02		4.26E+03 4.86E+02	7.75E+00	2.58E-01	4.10E+05	5.31E+05
Pu-240	4.01E+00	1.73E+04	3.17E+03	8.07E-02	1.71E+04	1.00E-05	3.62E+02	4.18E-01	3.29E+01		6.98E+02	1.93E+00	2.36E-01	1.38E+05	1.77E+05
Pu-240 Pu-241	2.64E+01	2.38E+05	1.75E+04		2.75E+05	1.00E-03 1.35E-04	2.16E+03		3.29E+01 1.14E+02		1.12E+04	8.16E+00	2.50E-02	1.08E+06	1.63E+06
	3.13E-02	8.38E+00			4.49E+00	5.41E-20	7.17E-02	 1.01E-04			4.09E+00			4.81E+01	6.57E+01
Pu-242	4.16E-10	8.38E+00 2.47E-09	5.22E-01 6.83E-13				1.87E-06		1.84E-03		4.09E+00 1.57E-01	3.55E-04	6.86E-04		
Pu-243	9.01E-06	3.55E-11			2.22E-05	 6.70E-17	1.87E-00 1.75E-10				1.37E-01 1.22E-02			7.60E-03	1.64E-01
Pu-244	6.00E-10	3.33E-11												3.51E-13	1.22E-02 6.00E-10
Pu-246			9.82E-03	2.26E-11	4.455.01	 3.65E-24	 1.83E+01	 1.66E-14	9.50E-11		7.41E-16	9.36E-11	 2.01F.00	 6 50E 02	
Ra-223	1.18E-05	2.54E-04			4.45E+01						2.94E+00		2.01E-09	6.50E-02	6.58E+01
Ra-224	3.31E-05	6.51E-01	1.77E-03	2.47E-09	4.46E+01	8.99E-11	2.36E-04	3.77E-22	2.86E-15	 0.75E 12	1.12E+01	2.42E-05	 1.05E-16	4.46E+00	6.09E+01
Ra-225	2.59E-05	2.54E-03	2.30E-05	1.05E-04	1.64E-01	1.35E-18	1.04E-05	6.69E-15	6.78E-12	9.75E-13	4.60E+00	1.98E-12	1.95E-16	3.09E-04	4.76E+00
Ra-226	2.77E-02	7.97E-02	3.64E-02	6.80E-11	6.74E-03	1.33E-08	6.34E-06	1.54E-14	2.81E-10		1.55E+00	1.76E-11	2.04E-10	5.01E-05	1.70E+00
Ra-228	4.39E-05	9.04E-03	3.75E-05	2.47E-09	2.80E-06	6.71E-09	7.77E-07	4.71E-20	4.08E-15		2.43E-02	2.42E-05		1.37E-04	3.36E-02
Rb-87	1.58E-10														1.58E-10
Rh-103m											1.01E-01				1.01E-01
Rh-106	6.47E-04	4.97E-04			5.96E-04			3.84E-02			1.15E+00			4.93E-09	1.19E+00
Rn-219	1.18E-05	2.54E-04	9.82E-03	2.26E-11	4.45E+01	3.65E-24	1.83E+01	1.66E-14	9.50E-11		2.94E+00	9.36E-11	2.01E-09	6.50E-02	6.58E+01
Rn-220	3.31E-05	6.51E-01	1.77E-03	2.47E-09	4.46E+01	8.99E-11	2.36E-04	3.77E-22	2.86E-15		1.12E+01	2.42E-05		4.46E+00	6.09E+01
Rn-222	2.77E-02	7.97E-02	3.63E-02	6.80E-11	6.73E-03	1.33E-08	6.33E-06	1.15E-14	2.81E-10		1.55E+00	1.76E-11	2.04E-10	5.01E-05	1.70E+00
Ru-103											1.01E-01				1.01E-01
Ru-106	6.47E-04	4.97E-04			5.96E-04			3.84E-02			1.15E+00			4.93E-09	1.19E+00
S-35	1.78E-05														1.78E-05
Sb-125	6.03E-05	1.15E-02			3.87E-05		4.43E-06	1.20E-02			5.60E-02			5.49E-05	7.96E-02
Sb-126	1.61E-25	1.30E-07			1.03E-06						5.11E-06				6.27E-06
Sb-126m	3.85E-06	9.28E-07			7.39E-06										1.22E-05
Se-75											2.46E-04				2.46E-04
Se-79	1.51E-06	6.29E-05													6.44E-05
Sm-147	4.81E-12	1.54E-10									1.06E-08				1.08E-08
Sm-148	4.34E-35	9.95E-31	1.24E-37		2.02E-35		2.36E-38				3.98E-15	7.99E-35		1.97E-34	3.98E-15
Sm-151		5.40E-03			2.97E-06						1.26E+00				1.27E+00
Sn-113												6.90E-18			6.90E-18
Sn-119m		6.14E-20													6.14E-20
Sn-121		3.57E-07			9.77E-05										9.81E-05
Sn-121m		4.60E-07			1.26E-04										1.26E-04
Sn-126	3.85E-06	9.28E-07			7.39E-06										1.22E-05
Sr-85	1.68E-08											3.78E-26			1.68E-08
Sr-89											6.66E-02				6.66E-02
Sr-90	3.30E+00	5.74E+02	4.79E+00		6.03E-01		6.75E-01	8.43E-01			1.25E+02	1.35E-02	1.09E-01	3.27E-01	7.09E+02
Ta-182		1.15E-14													1.15E-14
Tc-99	7.59E-03	2.03E-02									1.98E+01		1.46E-04	1.76E-05	1.99E+01
Te-123												6.98E-22			6.98E-22
Te-123m												2.06E-18			2.06E-18
Te-125m	1.47E-05	2.81E-03			9.45E-06		3.65E-07	9.84E-04			4.61E-03			1.34E-05	8.44E-03
Th-227	1.16E-05	2.51E-04	1.40E-02	2.23E-11	6.35E+01	1.04E-23	2.61E+01	4.01E-14	9.37E-11		4.00E+00	9.23E-11	1.98E-09	9.17E-02	9.37E+01
Th-228	3.30E-05	6.51E-01	2.06E-03	2.47E-09	5.21E+01	1.19E-10	2.41E-04	5.59E-22	2.86E-15		1.14E+01	2.42E-05		5.19E+00	6.93E+01
Th-229	2.59E-05	2.54E-03	4.41E-05	1.05E-04	1.64E-01	4.14E-18	1.99E-05	2.05E-14	6.78E-12	9.75E-13	4.60E+00	1.98E-12	1.95E-16	3.17E-04	4.77E+00
Th-230	4.91E-04	1.35E-03	3.10E-06	1.32E-08	3.42E-03	4.15E-16	9.96E-05	7.11E-10	1.01E-07		1.86E-02	1.11E-08	1.34E-07	3.19E-04	2.43E-02
Th-231	9.21E-05	2.04E-01	1.52E-01	7.88E-08	5.04E-02	3.58E-14	1.13E-03	3.64E-05	2.71E-06		6.12E-03	5.55E-06	1.31E-04	5.21E-03	4.20E-01
Th-232	2.02E-04	1.55E-02	3.13E-03	2.51E-09	2.33E-04	5.60E-07	6.48E-05	7.85E-18	8.69E-15		6.37E-02	2.42E-05		2.21E-04	8.30E-02
Th-234	3.57E-03	5.49E+00	4.35E+00		3.42E-01	2.54E-10	8.12E-03	7.73E-04	5.41E-12		9.16E-02	1.10E-05	2.26E-03	3.53E-01	1.06E+01

Table 3-8. Total CH Radionuclide Activity (Ci) on a Site Basis Decay-Corrected Through CY 2022

Continued

Radionuclide	ANL	Hanford (RL)	INL	KAPL-S	LANL	LBNL	LLNL	MFC	NNSS	NRD	ORNL	SNL	SPRU	SRS	Grand Total
T1-206	1.49E-08	1.55E-08	9.79E-11	2.02E-17	3.02E-11	3.57E-17	1.70E-14	7.91E-24	4.92E-17		4.18E-09	3.41E-12	1.84E-17	1.45E-11	3.47E-08
T1-207	1.18E-05	2.54E-04	9.79E-03	2.26E-11	4.44E+01	3.64E-24	1.82E+01	1.65E-14	9.47E-11		2.93E+00	9.33E-11	2.00E-09	6.48E-02	6.57E+01
T1-208	1.19E-05	2.34E-01	6.36E-04	8.89E-10	1.60E+01	3.23E-11	8.48E-05	1.35E-22	1.03E-15		4.01E+00	8.70E-06		1.60E+00	2.19E+01
T1-209	5.44E-07	5.34E-05	2.62E-07	2.20E-06	3.44E-03	1.05E-20	1.17E-07	5.23E-17	1.42E-13	2.05E-14	9.64E-02	4.16E-14	4.10E-18	6.42E-06	9.99E-02
U-232	1.03E-05	7.51E-01	5.79E-02		1.46E+03		1.15E-03				5.41E+01			1.44E+02	1.66E+03
U-233	6.99E-03	2.79E+00	4.99E+00	3.41E-02	4.18E+01	1.31E-12	2.26E+00	6.53E-09	8.84E-09	2.94E-09	4.30E+01	3.32E-09	9.52E-13	2.13E+00	9.70E+01
U-234	1.21E-01	5.16E+00	2.30E+00	7.84E-05	5.32E+01	9.02E-10	3.52E-02	7.74E-04	1.13E-03		1.37E+00	1.71E-04	2.09E-03	5.21E+00	6.74E+01
U-235	9.21E-05	2.04E-01	1.52E-01	7.88E-08	5.04E-02	3.58E-14	1.13E-03	3.64E-05	2.71E-06		6.12E-03	5.55E-06	1.31E-04	5.21E-03	4.20E-01
U-236	4.63E-06	5.47E-03	2.23E-05		8.59E-03	2.96E-14	1.84E-06	1.59E-06	1.85E-05		6.30E-03	5.67E-07		1.90E-02	3.94E-02
U-237	6.31E-04	5.68E+00	4.09E-01		6.44E+00	3.15E-09	5.06E-02		2.72E-03		2.67E-01	1.95E-04	5.98E-07	2.59E+01	3.87E+01
U-238	3.57E-03	5.49E+00	6.66E+00		5.13E-01	3.90E-10	1.25E-02	1.19E-03	5.41E-12		9.79E-02	1.10E-05	2.26E-03	5.20E-01	1.33E+01
U-240	9.00E-06	3.54E-11			2.22E-05	6.69E-17	1.74E-10				1.22E-02			3.51E-13	1.22E-02
Y-89m											6.20E-06				6.20E-06
Y-90	3.30E+00	5.74E+02	4.79E+00		6.03E-01		6.75E-01	8.43E-01			1.25E+02	1.35E-02	1.09E-01	3.27E-01	7.10E+02
Zn-65		3.06E-08									4.68E-03				4.68E-03
Zr-93	1.81E-06	9.00E-07									3.03E-02				3.03E-02
Zr-95	1.07E-09	4.45E-12									1.21E-01				1.21E-01
Grand Total	1.35E+02	3.51E+05	7.16E+04	8.98E-01	8.68E+05	1.37E-02	5.25E+03	6.38E+01	3.22E+02	3.29E+01	2.32E+04	2.11E+01	5.93E+00	1.94E+06	3.26E+06

Data Source: CID Data Version D.22.01.33 (LANL-CO 2023). Note: This table only contains data for WIPP-bound waste streams at the TRU waste generator sites. Site acronyms used in this table are identified in the Acronyms and Abbreviations section of this report.

Table 3-9. Total RH Radionuclide Activity (Ci) on a Site Basis Decay-Corrected Through CY 2022

Radionuclide	ANL	BAPL	Hanford (RL)	INL	LANL	MFC	ORNL	SNL	SPRU	SRS	Grand Total
Ac-225	4.05E-03	4.49E-05	8.37E-04	1.20E-03	3.97E-14	1.56E-10	1.45E-03	6.32E-10	2.48E-15	1.96E-05	7.59E-03
Ac-227	1.80E-01	1.96E-11	1.28E-01	3.63E-06	1.64E-07	6.86E-07	9.97E-04	3.00E-08	1.79E-08	1.21E-04	3.09E-01
Ac-228	1.57E-02	1.86E-15	8.12E-04	1.18E-15	8.45E-16	3.36E+00	1.26E-05	9.37E-17	5.27E-16	7.24E-15	3.38E+00
Ag-108	8.42E-04					3.97E-07					8.42E-04
Ag-108m	9.68E-03					4.56E-06					9.68E-03
Ag-109m	1.21E-01										1.21E-01
Ag-110	1.21E-04		3.42E-12			8.66E-08	6.78E-04				7.99E-04
Ag-110m	8.92E-03		2.51E-10			6.37E-06	4.98E-02				5.88E-02
Am-241	7.52E+01	3.02E-02	2.70E+03	8.56E+02	3.51E+00	9.78E+01	4.32E+02	2.79E+01	3.53E-01	1.69E+02	4.36E+03
Am-242	1.97E-01		1.09E+00			2.06E-05	3.80E-02			1.97E-02	1.34E+00
Am-242m	1.98E-01		1.09E+00			2.07E-05	3.82E-02			1.98E-02	1.35E+00
Am-243	1.58E+00	1.13E-04	4.30E+00	9.24E-15		5.03E-01	2.99E+01			8.92E-01	3.72E+01
Am-245	4.75E-13						7.70E-14			3.41E-12	3.96E-12
Ar-37	4.94E-16										4.94E-16
Ar-39	6.75E-03					3.44E-04					7.10E-03
Ar-42	1.73E-02										1.73E-02
At-217	4.05E-03	4.49E-05	8.37E-04	1.20E-03	3.97E-14	1.56E-10	1.45E-03	6.32E-10	2.48E-15	1.96E-05	7.59E-03
Ba-133	1.31E+00										1.31E+00
Ba-137m	1.19E+03	4.61E+01	1.46E+05	1.16E+04	1.23E+03	2.98E+03	4.64E+03	2.81E+02	1.79E+01	1.28E+01	1.68E+05
Ba-140						3.36E-04					3.36E-04
Be-10						2.83E-09					2.83E-09
Bi-210	6.20E-01	3.74E-13	1.30E+00	1.24E-08	1.71E-11	1.74E-06	5.31E-04	4.08E-10	8.58E-11	1.14E-08	1.92E+00
Bi-211	1.81E-01	1.96E-11	1.28E-01	3.63E-06	1.64E-07	6.88E-07	6.21E-04	3.00E-08	1.79E-08	1.21E-04	3.09E-01
Bi-212	1.86E+00	8.27E-03	1.68E-03	7.51E-01	4.71E-16	1.02E-01	5.49E-02	3.96E-17	2.74E-16	5.06E-15	2.78E+00
Bi-213	4.05E-03	4.48E-05	8.37E-04	1.20E-03	3.97E-14	1.56E-10	1.45E-03	6.32E-10	2.48E-15	1.96E-05	7.59E-03
Bi-214	2.47E-08	9.38E-12	3.16E+00	1.98E-07	2.20E-10	8.55E-04	2.61E-01	5.95E-09	1.25E-09	7.94E-08	3.42E+00
Bk-249	3.28E-08						5.31E-09			2.36E-07	2.74E-07
C-14		1.57E-03	3.31E-04			1.89E-02			2.95E-05	8.02E-04	2.16E-02
Ca-45	1.84E-04										1.84E-04
Cd-109	1.21E-01										1.21E-01
Cd-113	2.65E-19		1.53E-18			7.80E-21					1.81E-18
Cd-113m	5.75E-01		8.98E-01			2.33E-02					1.50E+00
Cd-115m	1.01E-11										1.01E-11
Ce-139	6.09E-04										6.09E-04
Ce-141	8.90E-15					1.74E-03	7.03E-01				7.05E-01
Ce-144	1.19E+00		3.44E-03		3.34E-03	8.70E+01	3.16E+00			2.44E-08	9.14E+01
Cf-249	5.07E-01			1.09E-03			6.07E+00			7.73E-04	6.58E+00
Cf-250	2.25E-02			8.74E-03			3.79E+01			9.34E-06	3.79E+01
Cf-251				2.83E-04			5.96E+00			5.05E-07	5.96E+00
Cf-252	2.56E-04			1.10E-04			2.31E+01			1.46E-03	2,31E+01
Cl-36						2.35E-02					2.35E-02
Cm-242	1.63E-01		8.99E-01			1.71E-05	1.38E+00			1.63E-02	2,46E+00
Cm-243	1.38E-01		2.06E+01			7.24E-02	5.35E+00			1.36E-03	2.61E+01
Cm-244	4.30E+01		4.92E+02	1.82E+02		1.74E+00	5.20E+03			5.40E+01	5.97E+03
Cm-245	1.10E-03		8.76E-02	1.48E-01		2.89E-02	9.73E-01			1.10E-02	1.25E+00
Cm-246	1.46E-05		3.55E-02	5.70E-06		2.92E-01	3.59E+01			1.47E-02	3.62E+01
Cm-247			1.12E-10	4.91E-11		2.92E 01	3.92E-05			2.78E-08	3.92E-05
CIII-247											

Table 3-9. Total RH Radionuclide Activity (Ci) on a Site Basis Decay-Corrected Through CY 2022

Continued

Continued											
Radionuclide	ANL	BAPL	Hanford (RL)	INL	LANL	MFC	ORNL	SNL	SPRU	SRS	Grand Total
Co-58	2.79E-07		7.22E-15			3.15E-05					3.18E-05
Co-60	1.54E+01	2.22E-01	2.79E+01	5.63E+01	1.20E-01	6.09E+01	1.46E+00		1.01E-05	3.46E-05	1.62E+02
Cr-51	8.32E-18					2.57E-04					2.57E-04
Cs-134	6.53E+00	2.35E-04	2.84E+01			4.50E+01	7.35E+01			3.36E-03	1.53E+02
Cs-135			5.47E-04			9.11E-04	2.02E-03				3.48E-03
Cs-137	1.27E+03	4.88E+01	1.54E+05	1.23E+04	1.31E+03	3.15E+03	4.91E+03	2.98E+02	1.90E+01	1.36E+01	1.78E+05
Dy-159	9.65E-05										9.65E-05
Eu-149	1.40E-06										1.40E-06
Eu-152	5.93E-01	3.72E+00	2.39E+00			5.08E-03	4.97E+01			4.60E-05	5.64E+01
Eu-154	7.14E+02	1.25E+00	3.42E+02	1.34E+01	4.18E-02	4.65E+01	2.01E+02			1.78E-01	1.32E+03
Eu-155	2.08E+00	1.85E-02	1.22E+02	6.09E+00	1.68E-01	2.56E+01	8.81E+00			1.87E-03	1.65E+02
Fe-55	1.70E+01	5.25E-03	7.72E-01			1.20E+01					2.98E+01
Fe-59	3.17E-12					8.39E-04					8.39E-04
Fr-221	4.05E-03	4.49E-05	8.37E-04	1.20E-03	3.97E-14	1.56E-10	1.45E-03	6.32E-10	2.48E-15	1.96E-05	7.59E-03
Fr-223	2.49E-03	2.71E-13	1.76E-03	5.00E-08	2.26E-09	9.47E-09	1.38E-05	4.14E-10	2.47E-10	1.66E-06	4.26E-03
Gd-152	4.73E-15	2.96E-14	6.34E-14			2.95E-17	1.01E-14			9.47E-19	1.08E-13
Gd-153	3.46E-03		2.12E-05								3.49E-03
H-3	1.05E+01	9.50E-02	6.77E+02			9.68E-01	7.63E-01			2.54E-02	6.90E+02
Hf-175	2.13E-08										2.13E-08
Hf-181	7.11E-14										7.11E-14
I-125	9.93E-09										9.93E-09
I-129	3.05E-10	1.98E-05	2.32E-03			5.27E-02	1.10E-04				5.51E-02
I-131							5.44E-02				5.44E-02
In-113m	2.25E-05										2.25E-05
In-114	2.09E-11										2.09E-11
In-114m	2.18E-11										2.18E-11
In-115	2.05E-17										2.05E-17
In-115m	1.12E-15										1.12E-15
Ir-194	6.26E-03										6.26E-03
K-42	1.73E-02										1.73E-02
Kr-85	2.73E+01	1.56E+00	2.24E+02		3.72E+02	1.38E+00	8.03E+00			3.13E-01	6.35E+02
La-140						3.87E-04					3.87E-04
Lu-177	6.50E-07										6.50E-07
Lu-177m	2.97E-06										2.97E-06
Mn-54	2.98E-01		7.11E-03			1.22E+00	1.64E-03				1.53E+00
Mo-93			2.73E-05			2.73E-02					2.74E-02
Na-22	9.61E-03		1.85E-05								9.63E-03
Nb-91	1.11E-02										1.11E-02
Nb-92						6.26E-10					6.26E-10
Nb-93m	3.22E-01	2.55E-03	2.77E-03			8.43E-03	1.86E-03				3.38E-01
Nb-94			7.62E-02			1.93E-01	1.24E-06				2.70E-01
Nb-95	1.89E-06		3.59E-16			3.71E-02	4.12E+00				4.16E+00
Nb-95m	1.01E-08		1.91E-18			4.34E-04	2.18E-02				2.22E-02
Nd-144	1.51E-14	2.80E-45	3.62E-14		1.52E-15	8.23E-14	1.10E-16			3.59E-16	1.36E-13
Nd-147			5.02E 11			2.55E-04				3.37E 10	2.55E-04
Ni-59	8.99E-03	1.03E-01	2.07E-04			1.94E-01				2.88E-10	3.06E-01
Ni-63	1.20E+00	7.81E+00	2.14E+00			3.35E+01				2.00E 10	4.46E+01
111 05	1.202100	7.01E 100	2.1 12 100		I .	J.JJE 101	1	1	I .	1	10102101

Table 3-9. Total RH Radionuclide Activity (Ci) on a Site Basis Decay-Corrected Through CY 2022

Continued

Continued											
Radionuclide	ANL	BAPL	Hanford (RL)	INL	LANL	MFC	ORNL	SNL	SPRU	SRS	Grand Total
Np-235	8.46E-02										8.46E-02
Np-237	7.95E-04	1.61E-04	2.88E-01	1.06E-03	8.82E-06	5.77E-02	4.15E-01	3.15E-05	8.03E-07	2.48E+00	3.24E+00
Np-238	8.91E-04		4.92E-03			9.30E-08	1.72E-04			8.89E-05	6.07E-03
Np-239	1.58E+00	1.13E-04	4.30E+00	9.24E-15		5.03E-01	2.99E+01			8.92E-01	3.72E+01
Np-240	7.98E-20		2.07E-09	3.42E-20		2.90E-14	4.37E-09			8.68E-16	6.44E-09
Np-240m	6.65E-17		1.73E-06	2.85E-17		2.42E-11	3.64E-06			7.23E-13	5.37E-06
Os-185	3.37E-08										3.37E-08
Os-194	6.26E-03										6.26E-03
Pa-231	5.64E-07	3.21E-10	1.77E-05	3.49E-05	1.40E-06	3.25E-08	6.76E-06	2.94E-07	1.73E-07	5.29E-04	5.91E-04
Pa-233	7.95E-04	1.61E-04	2.88E-01	1.06E-03	8.82E-06	5.63E-02	2.53E-01	3.12E-05	8.03E-07	2.48E+00	3.08E+00
Pa-234	5.67E-05	2.37E-11	1.47E-03	1.99E-03	5.30E-08	2.83E-06	4.71E-05	1.50E-06	2.06E-05	9.60E-05	3.69E-03
Pa-234m	4.36E-02	1.82E-08	1.13E+00	1.53E+00	4.07E-05	2.18E-03	3.62E-02	1.15E-03	1.59E-02	7.39E-02	2.84E+00
Pb-209	4.05E-03	4.48E-05	8.37E-04	1.20E-03	3.97E-14	1.56E-10	1.45E-03	6.32E-10	2.48E-15	1.96E-05	7.59E-03
Pb-210	6.19E-01	3.74E-13	1.30E+00	1.24E-08	1.71E-11	2.26E-06	6.88E-04	4.08E-10	8.58E-11	1.14E-08	1.92E+00
Pb-211	1.81E-01	1.96E-11	1.28E-01	3.63E-06	1.64E-07	6.88E-07	6.21E-04	3.00E-08	1.79E-08	1.21E-04	3.09E-01
Pb-212	1.86E+00	8.27E-03	1.68E-03	7.51E-01	4.71E-16	1.02E-01	5.49E-02	3.96E-17	2.74E-16	5.06E-15	2.78E+00
Pb-214	2.47E-08	9.38E-12	3.16E+00	1.98E-07	2.20E-10	8.55E-04	2.61E-01	5.95E-09	1.25E-09	7.94E-08	3.42E+00
Pd-107			7.64E-05			2.47E-05	4.79E-04				5.80E-04
Pm-145	3.96E-01										3.96E-01
Pm-146	3.62E-01					6.75E-04					3.63E-01
Pm-147	2.14E+01	5.42E-02	7.16E+00		4.89E-05	1.32E+00	1.24E+01			1.13E-02	4.23E+01
Pm-148	6.42E-15										6.42E-15
Pm-148m	1.21E-13										1.21E-13
Po-210	6.21E-01	3.74E-13	1.30E+00	1.17E-08	1.71E-11	1.12E-07	3.42E-05	4.08E-10	8.58E-11	1.14E-08	1.92E+00
Po-211	4.96E-04	5.40E-14	3.52E-04	9.97E-09	4.50E-10	1.89E-09	1.71E-06	8.25E-11	4.92E-11	3.32E-07	8.51E-04
Po-212	1.19E+00	5.29E-03	1.08E-03	4.81E-01	3.02E-16	6.57E-02	3.51E-02	2.54E-17	1.76E-16	3.24E-15	1.78E+00
Po-213	3.96E-03	4.39E-05	8.19E-04	1.17E-03	3.89E-14	1.52E-10	1.42E-03	6.19E-10	2.42E-15	1.92E-05	7.43E-03
Po-214	2.47E-08	9.38E-12	3.16E+00	1.98E-07	2.20E-10	8.55E-04	2.61E-01	5.95E-09	1.25E-09	7.93E-08	3.42E+00
Po-215	1.81E-01	1.96E-11	1.28E-01	3.63E-06	1.64E-07	6.88E-07	6.21E-04	3.00E-08	1.79E-08	1.21E-04	3.09E-01
Po-216	1.86E+00	8.27E-03	1.68E-03	7.51E-01	4.71E-16	1.02E-01	5.49E-02	3.96E-17	2.74E-16	5.06E-15	2.78E+00
Po-218	2.47E-08	9.39E-12	3.16E+00	1.98E-07	2.20E-10	8.55E-04	2.61E-01	5.95E-09	1.25E-09	7.94E-08	3.42E+00
Pr-144	1.19E+00		3.44E-03		3.34E-03	8.70E+01	3.16E+00			2.44E-08	9.14E+01
Pr-144m	1.67E-02		4.81E-05		4.68E-05	1.22E+00	4.43E-02			3.41E-10	1.28E+00
Pu-236	1.73E-01		6.02E-07	3.90E-07		3.81E-04	1.89E-04				1.74E-01
Pu-238	1.01E+02	1.21E+00	1.22E+03	8.26E+02	1.48E+00	2.00E+01	1.58E+03	1.36E+01	1.72E-02	4.10E+03	7.86E+03
Pu-239	8.45E+01	1.03E-03	1.07E+03	6.70E+02	9.26E+01	4.37E+01	4.83E+01	3.65E+01	1.25E+00	1.05E+01	2.06E+03
Pu-240	5.05E+01		5.70E+02	3.62E+02	2.51E+00	1.12E+01	1.30E+02	2.33E+01		5.78E+00	1.16E+03
Pu-241	5.81E+02	1.38E-01	1.12E+04	2.46E+03	6.06E+01	1.75E+02	5.81E+03	2.77E+02	1.46E-01	3.94E+03	2.45E+04
Pu-242	3.99E-02	1.85E-05	4.71E-01	2.65E-01	1.52E-03	1.21E-01	1.08E+00	1.11E-02	7.07E-03	5.20E-01	2.52E+00
Pu-243			1.12E-10	4.91E-11			3.92E-05			2.78E-08	3.92E-05
Pu-244	6.66E-17		1.73E-06	2.85E-17		2.42E-11	3.64E-06			7.24E-13	5.37E-06
Ra-223	1.81E-01	1.96E-11	1.28E-01	3.63E-06	1.64E-07	6.88E-07	6.21E-04	3.00E-08	1.79E-08	1.21E-04	3.09E-01
Ra-224	1.86E+00	8.27E-03	1.68E-03	7.51E-01	4.71E-16	1.02E-01	5.49E-02	3.96E-17	2.74E-16	5.06E-15	2.78E+00
Ra-225	4.05E-03	4.49E-05	8.37E-04	1.20E-03	3.97E-14	1.82E-10	1.88E-03	6.35E-10	2.48E-15	1.96E-05	8.03E-03
Ra-226	2.47E-08	9.39E-12	3.16E+00	1.98E-07	2.20E-10	8.56E-04	2.61E-01	5.95E-09	1.25E-09	7.94E-08	3.42E+00
Ra-228	1.57E-02	1.86E-15	8.12E-04	1.18E-15	8.45E-16	3.36E+00	1.26E-05	9.37E-17	5.27E-16	7.24E-15	3.38E+00
Rb-87						5.96E-11	7.57E-08				7.57E-08

Table 3-9. Total RH Radionuclide Activity (Ci) on a Site Basis Decay-Corrected Through CY 2022

Continued

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Radionuclide	ANL	BAPL	Hanford (RL)	INL	LANL	MFC	ORNL	SNL	SPRU	SRS	Grand Total
Re-188	1.07E-09										1.07E-09
Rh-102	4.67E-03										4.67E-03
Rh-103m	6.01E-12					5.11E-05	4.46E-01				4.46E-01
Rh-106	3.05E+00		8.96E-03		7.62E-02	6.75E+01	5.71E+00			5.02E-07	7.64E+01
Rn-219	1.81E-01	1.96E-11	1.28E-01	3.63E-06	1.64E-07	6.88E-07	6.21E-04	3.00E-08	1.79E-08	1.21E-04	3.09E-01
Rn-220	1.86E+00	8.27E-03	1.68E-03	7.51E-01	4.71E-16	1.02E-01	5.49E-02	3.96E-17	2.74E-16	5.06E-15	2.78E+00
Rn-222	2.47E-08	9.39E-12	3.16E+00	1.98E-07	2.20E-10	8.55E-04	2.61E-01	5.95E-09	1.25E-09	7.94E-08	3.42E+00
Ru-103	6.02E-12					5.12E-05	4.46E-01				4.46E-01
Ru-106	3.05E+00		8.96E-03		7.62E-02	6.75E+01	5.71E+00			5.02E-07	7.64E+01
S-35	1.17E-07										1.17E-07
Sb-124	1.04E-08					2.24E-04					2,24E-04
Sb-125	1.40E+01	1.06E-03	2.01E+01		6.44E-02	6.03E+00	1.27E+00				4.14E+01
Sb-126	8.63E-07		1.92E-04		7.90E-03	1.93E-04	4.51E-08				8.28E-03
Sb-126m	6.17E-06		1.37E-03		5.64E-02	1.30E-03	2.33E-03				6.14E-02
Sc-46	5.21E-07										5.21E-07
Se-75	1.67E-05						2.92E-03				2.93E-03
Se-79			1.24E-01			2.72E-04				1.07E-02	1.35E-01
Sm-145	1.26E-02										1.26E-02
Sm-146	4.29E-09			-		5.60E-12					4.29E-09
Sm-147	9.95E-10	2.52E-12	3.04E-09	-	8.81E-15	5.79E-11	1.76E-08			3.21E-11	2.17E-08
Sm-148	7.76E-20	5.37E-30	3.52E-29	-		3.97E-33	1.46E-31			4.02E-34	7.76E-20
Sm-151	1.36E+00	1.52E-01	4.01E+01	-	2.17E-02	1.79E+00	1.15E+00			1.68E-01	4.48E+01
Sn-113	2.25E-05			-							2.25E-05
Sn-119m	2.67E-02		5.72E-11	-		2.56E-06					2.67E-02
Sn-121	2.91E-01		2.39E-04		6.92E-01	2.03E-04					9.83E-01
Sn-121m	3.75E-01		3.08E-04		8.91E-01	2.62E-04					1,27E+00
Sn-123	3.47E-04					2.53E-05	1.30E-09				3.72E-04
Sn-126	6.17E-06		1.37E-03		5.64E-02	1.30E-03	2.33E-03				6.14E-02
Sr-85	9.33E-09										9.33E-09
Sr-89	3.85E-09					2.59E-05	7.96E+00				7.96E+00
Sr-90	9.00E+02	4.80E+01	9.54E+04	1.06E+04	9.10E+02	2.90E+03	5.04E+03	2.23E+02	2.60E+00	1.00E+01	1.16E+05
Ta-182	4.16E-02					5.96E-05					4.16E-02
Tb-157	3.00E-02										3.00E-02
Tb-160	2.13E-08										2.13E-08
Tc-97	9.97E-09					1.74E-08					2.74E-08
Tc-97m	1.44E-06										1.44E-06
Tc-98						2.79E-10					2.79E-10
Tc-99	4.36E-03	1.33E-02	5.23E+00			4.03E+01	1.02E-01		4.48E-03	1.12E-03	4.56E+01
Te-121	2.27E-04		5.23E+00								2.27E-04
Te-121m	2.28E-04										2.28E-04
Te-123	5.25E-15										5.25E-15
Te-123m	4.20E-05										4.20E-05
Te-125m	3.41E+00	2.58E-04	4.90E+00		1.57E-02	7.02E-01	2.65E-01			1.38E-22	9.30E+00
Te-127	1.82E-04					2.55E-05	1.08E-11				2.08E-04
Te-127m	1.86E-04					2.60E-05	1.10E-11				2.12E-04
Te-129	2.71E-15					2.00E 03					2.71E-15
Te-129m	4.22E-15										4.22E-15
		1	1		1	1	1	1	1	1	

Table 3-9. Total RH Radionuclide Activity (Ci) on a Site Basis Decay-Corrected Through CY 2022

Continued

Radionuclide	ANL	BAPL	Hanford (RL)	INL	LANL	MFC	ORNL	SNL	SPRU	SRS	Grand Total
Th-227	1.78E-01	1.94E-11	1.26E-01	3.58E-06	1.61E-07	6.79E-07	7.30E-04	2.96E-08	1.76E-08	1.19E-04	3.05E-01
Th-228	1.86E+00	8.25E-03	1.68E-03	7.51E-01	4.71E-16	1.19E-01	5.55E-02	3.96E-17	2.74E-16	5.06E-15	2.79E+00
Th-229	4.05E-03	4.49E-05	8.37E-04	1.20E-03	3.97E-14	2.34E-10	2.27E-03	6.39E-10	2.48E-15	1.96E-05	8.41E-03
Th-230	1.47E-05	1.09E-08	2.21E-04	1.75E-04	1.28E-07	3.43E-04	1.35E-05	3.99E-06	8.26E-07	2.58E-05	7.99E-04
Th-231	6.66E-03	3.79E-06	5.34E-02	2.70E-01	8.25E-03	3.67E-03	2.29E-03	4.09E-03	1.17E-03	1.47E+00	1.82E+00
Th-232	5.90E-16	9.02E-15	1.31E-03	5.94E-15	2.39E-15	1.39E-13	1.05E-03	4.06E-16	1.62E-15	1.53E-14	2.36E-03
Th-234	4.36E-02	1.82E-08	1.13E+00	1.53E+00	4.07E-05	2.18E-03	3.62E-02	1.15E-03	1.59E-02	7.39E-02	2.84E+00
Tl-206	8.18E-07	4.94E-19	1.72E-06	1.64E-14	2.26E-17	2.30E-12	7.01E-10	5.38E-16	1.13E-16	1.50E-14	2.54E-06
T1-207	1.80E-01	1.96E-11	1.28E-01	3.62E-06	1.63E-07	6.86E-07	6.19E-04	2.99E-08	1.78E-08	1.20E-04	3.08E-01
T1-208	6.69E-01	2.97E-03	6.05E-04	2.70E-01	1.69E-16	3.68E-02	1.97E-02	1.42E-17	9.85E-17	1.82E-15	9.99E-01
T1-209	8.50E-05	9.42E-07	1.76E-05	2.51E-05	8.33E-16	3.27E-12	3.05E-05	1.33E-11	5.20E-17	4.12E-07	1.59E-04
Tm-170	1.12E-05										1.12E-05
Tm-171	8.62E-02										8.62E-02
U-232	1.15E+00	8.08E-03	9.45E-04	7.30E-01		8.68E-07	1.61E-01				2.05E+00
U-233	2.84E-05	9.86E-03	7.74E-01	4.00E+00	1.59E-10	1.33E-05	7.70E+00	2.12E-06	1.21E-11	1.32E-02	1.25E+01
U-234	2.40E-02	3.04E-04	1.61E+00	4.58E+00	1.75E-03	1.78E-01	2.23E-01	1.27E-01	1.28E-02	2.60E-01	7.02E+00
U-235	6.66E-03	3.79E-06	5.34E-02	2.70E-01	8.25E-03	3.67E-03	2.29E-03	4.09E-03	1.17E-03	1.47E+00	1.82E+00
U-236	5.98E-06	4.57E-05	1.72E-01	4.74E-05	6.35E-06	2.80E-03	1.12E-03	2.39E-06	4.70E-06	2.86E-05	1.76E-01
U-237	1.39E-02	3.31E-06	2.68E-01	5.88E-02	1.45E-03	4.26E-03	1.36E-01	6.53E-03	3.50E-06	9.42E-02	5.82E-01
U-238	4.36E-02	1.82E-08	1.13E+00	1.53E+00	4.07E-05	3.14E-03	4.68E-02	1.40E-03	1.59E-02	7.39E-02	2.85E+00
U-240	6.65E-17		1.73E-06	2.85E-17		2.42E-11	3.64E-06			7.23E-13	5.37E-06
V-49	1.55E-01										1.55E-01
W-181	2.11E-06										2.11E-06
W-185	1.53E-08										1.53E-08
W-188	1.06E-09										1.06E-09
Xe-127	1.30E-14										1.30E-14
Xe-131m							2.19E-03				2.19E-03
Y-89m	3.58E-13					2.41E-09	7.40E-04				7.40E-04
Y-90	9.00E+02	4.80E+01	9.55E+04	1.06E+04	9.10E+02	2.91E+03	5.04E+03	2.23E+02	2.60E+00	1.00E+01	1.16E+05
Y-91	1.22E-07					7.61E-04					7.62E-04
Zn-65	1.00E-03		2.03E-05			1.01E+00	2.76E-03				1.01E+00
Zr-93	9.09E-06	3.11E-03	8.80E-03			1.15E-03	6.35E-03				1.94E-02
Zr-95	8.60E-07		1.63E-16			3.69E-02	1.85E+00				1.89E+00
Grand Total	6.07E+03	2.07E+02	5.10E+05	5.06E+04	4.90E+03	1.29E+04	3.34E+04	1.40E+03	4.39E+01	8.33E+03	6.28E+05

Data Source: CID Data Version D.22.01.33 (LANL-CO 2023). Note: This table only contains data for WIPP-bound waste streams at the TRU waste generator sites. Site acronyms used in this table are identified in the Acronyms and Abbreviations section of this report.

Table 3-10. Total Activity by Site Decay-Corrected Through CY 2022

TRU Waste Generator Site	CH Activity (Ci)	RH Activity (Ci)	Total Activity (Ci)
Argonne National Laboratory	1.35E+02	6.07E+03	6.20E+03
Bettis Atomic Power Laboratory		2.07E+02	2.07E+02
Hanford (Richland) Site	3.51E+05	5.10E+05	8.61E+05
Idaho National Laboratory	7.16E+04	5.06E+04	1.22E+05
Knolls Atomic Power Laboratory - Schenectady	8.98E-01		8.98E-01
Lawrence Berkeley National Laboratory	1.37E-02		1.37E-02
Lawrence Livermore National Laboratory	5.25E+03		5.25E+03
Los Alamos National Laboratory	8.68E+05	4.90E+03	8.73E+05
Material and Fuels Complex	6.38E+01	1.29E+04	1.30E+04
Nevada National Security Site	3.22E+02		3.22E+02
Nuclear Radiation Development Site	3.29E+01		3.29E+01
Oak Ridge National Laboratory	2.32E+04	3.34E+04	5.66E+04
Sandia National Laboratories	2.11E+01	1.40E+03	1.42E+03
Savannah River Site	1.94E+06	8.33E+03	1.94E+06
Separations Process Research Unit	5.93E+00	4.39E+01	4.98E+01
Grand Total	3.26E+06	6.28E+05	3.88E+06

Data Source: CID Data Version D.22.01.33 (LANL-CO 2023). 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 ATWIR-2022 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 $\approx 96,500$ Ci. This decrease, when combined with an increase of $\approx 51,300$ Ci that were emplaced at the WIPP facility during CY 2022, results in an overall decrease of $\approx 45,200$ Ci. SRS shows the greatest anticipated site decrease ($\approx 387,000$ Ci), which is primarily attributed to waste stream SR-KAC-PuOx with a reduction of $\approx 379,000$ Ci stemming from an adjustment in projected inventory generation through 2033. The decrease at SRS is offset by an increase at LANL ($\approx 299,000$ Ci), which is mostly due to the addition of waste projected to be generated from waste stream LA-MHD01.001 in order to meet programmatic planning needs.

Table 3-11. CH/RH Activity Changes Decay-Corrected Through CY 2033

TRU Waste Generator Site	ATWIR-2022 Total (Ci)	ATWIR-2023 Total (Ci)	Net Change (Ci)
Hanford (Richland) Site	6.44E+05	6.46E+05	+2.24E+03
Idaho National Laboratory	1.02E+05	1.02E+05	-2.33E+02
Los Alamos National Laboratory	4.17E+05	7.16E+05	+2.99E+05
Oak Ridge National Laboratory	4.51E+04	4.19E+04	-3.24E+03
Savannah River Site	1.89E+06	1.51E+06	-3.87E+05
Small-Quantity Sites	2.72E+04	2.01E+04	-7.15E+03
Anticipated Total	3.13E+06	3.03E+06	-9.65E+04
WIPP (Emplaced)	1.84E+06	1.89E+06	+5.13E+04
WCS (Temporary Storage)	4.11E+03	4.11E+03	
Emplaced/Temporary Storage Total	1.85E+06	1.90E+06	+5.13E+04
Grand Total	4.98E+06	4.93E+06	-4.52E+04

Data Source: CID Data Versions D.21.00.33 (LANL-CO 2022a) and D.22.01.33 (LANL-CO 2023). 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 numeric 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 facility 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 WAP) before it can be disposed of at the WIPP facility.

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 as either WIPP-bound or potential. The potential TRU waste streams identified in Table 4-1 and Table 4-2 collectively represent

 \approx 9,520 m³, or 18 percent, of the final form TRU waste anticipated 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 facility 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 facility. Examples include limits on
 curies and dose rates on RH canisters, limits for total emplacement curies on RH-TRU
 waste, and 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 facility.
- 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 for reasons other than direction from the DOE as of the data cutoff date for this report.

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	СН	9.63E+00	Incomplete Data
BL-Parks-A	RH	6.30E-01	Incomplete Data
IN-DD-001	СН	4.00E+03	Incomplete Data
IN-ID-TRU-RHNH	RH	2.52E+00	Incomplete Data
NT-W021	СН	1.50E+01	Regulatory Restrictions

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
OR-GENR-RH-HET	RH	6.30E-01	TRU Waste Determination
OR-TBD-CH-HET	СН	9.87E+00	TRU Waste Determination
OR-TBD-RH-HET	RH	5.04E+00	TRU Waste Determination
OR-Y12-CH-HET	СН	6.30E-01	TRU Waste Determination
RL221T-01	СН	8.82E+00	Incomplete Data
RL300-11	RH	7.56E+00	Regulatory Restrictions
RLALPHA-08	RH	1.08E+03	Incomplete Data
RLCH2-08	RH	7.04E+00	TRU Waste Determination
RLDD-01	СН	5.52E+02	Incomplete Data
RLDD-08	RH	6.05E+01	Incomplete Data
RLN622FD-01	СН	4.20E-01	Incomplete Data
RLPFP-02	СН	8.40E-01	Incomplete Data
RLPRC-01	СН	1.88E+00	Defense Determination
Grand Total		5.76E+03	

¹See Figure 1-1 for site designators. Data Source: CID Data Version D.22.01.33 (LANL-CO 2023).

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 (m³)
IN-SBW-01A	RH	1.34E+03
IN-SBW-01B	RH	8.90E+01
RP-TFC001	СН	4.47E+02
RP-W754	СН	3.29E+02
RP-W755	СН	8.09E+02
SR-KAC-HET-2	СН	2.14E+01
SR-KAC-PuOx-2	СН	1.19E+02
WV-M010a	СН	2.98E+01
WV-T004a	СН	2.31E+00
WV-T004b	RH	3.78E+00
WV-T006a	СН	2.68E+02
WV-T006b	RH	2.38E+02

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

Waste Stream ID ¹	Handling	Final Form Anticipated Volume (m³)
WV-T017b	RH	7.56E+00
WV-W024a	СН	1.74E+01
WV-W024b	RH	3.21E+01
WV-W050a	СН	3.99E+00
WV-W050b	RH	6.93E+00
Grand Total		3.76E+03

¹See Figure 1-1 for site designators. Data Source: CID Data Version D.22.01.33 (LANL-CO 2023).

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, one potential waste stream from INL was re-designated as WIPP-bound during CY 2022.

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

ATWIR-2022 Potential Waste Stream ID ¹	ATWIR-2023 WIPP-bound Waste Stream ID	Reason	
IN-IW-609	IN-BN510.4	Added previously missing data	

¹See Figure 1-1 for site designators. Data Source: CID Data Version D.22.01.33 (LANL-CO 2023).

4.2 TRU Waste Projected Beyond CY 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 the final estimated year of generation. Table 4-4 identifies the portion of WIPP-bound and potential CH- and RH-TRU waste volume that is projected beyond the reporting term for this report (CY 2033). These volume totals are not included in any other tables throughout this report.

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

Waste Stream ID ¹	Handling	End Generation Year	Final Form Volume Projected Beyond CY 2033 (m ³)
	WIPP-I	oound	
AE-T001	СН	2050	5.46E+00
AE-T009	RH	2050	3.52E+00
AW-N027.531	СН	2053	4.20E+00
AW-T031.1322	RH	2053	2.52E+01
AW-T033.1325	СН	2053	2.52E+01
AW-W020.13	RH	2053	1.26E+01
KA-T001	RH	2050	1.26E+01
KA-T002	RH	2050	6.30E-01
KA-W016	RH	2050	6.30E-01
LA-CIN01.001	СН	2050	6.59E+01
LA-MHD01-Pits	СН	2070	3.54E+03
LA-MHD01.001	СН	2050	5.09E+03
LA-MHD03.001	СН	2050	6.37E+02
LA-OS-00-01.001	СН	2050	8.16E+00
LB-T001	СН	2050	2.10E-01
LB-T002	СН	2050	2.10E-01
LL-M001	СН	2050	3.09E+02
LL-T004	СН	2050	1.66E+00
LL-W019	СН	2050	1.79E+01
OR-REDC-CH-HET	СН	2082	5.33E+02
OR-REDC-RH-HET	RH	2082	2.55E+02
OR-RF-RH-HET	RH	2082	1.85E+02
RL200-01	СН	2037	5.08E+02
RL200-02	СН	2037	2.64E+03
RL222S-01	СН	2060	1.70E+01
RL325-01	СН	2060	1.86E+02
RL325-03	СН	2050	9.66E+00
RL325-08	RH	2060	9.17E+01
RLWTP-08	RH	2050	4.79E+01
SR-CH-PP	СН	2083	2.27E+04
SR-KAC-HET-B	СН	2049	5.10E+01
SR-KAC-PuOx	СН	2049	2.65E+02
SR-RH-773A.01	RH	2036	2.94E+00
SR-W027-221H-HEPA	СН	2036	7.52E+00
SR-W027-221H-HET-C	СН	2036	1.26E+00
SR-W027-773A-HET	СН	2050	3.55E+01
1	W	/IPP-bound Total	3.73E+04

Table 4-4. Projected CH/RH-TRU Waste Volume Beyond CY 2033
Continued

Waste Stream ID ¹	Handling	End Generation Year	Final Form Volume Projected Beyond CY 2033 (m ³)		
Potential					
OR-TBD-RH-HET	RH	2082	6.87E+01		
RLDD-01	СН	2057	5.29E+03		
RLDD-02	СН	2040	3.03E+03		
RLDD-08	RH	2057	5.89E+02		
RLDD-10	RH	2045	3.33E+02		
SR-KAC-HET-2	СН	2049	1.53E+02		
SR-KAC-PuOx-2	СН	2049	1.06E+03		
WV-Z001	СН	2050	4.30E+03		
		Potential Total	1.48E+04		
		Grand Total	5.21E+04		

¹See Figure 1-1 for site designators. Data Source: CID Data Version D.22.01.33 (LANL-CO 2023).

As shown throughout this report, the estimated waste volumes for the following categories are reported as follows:

- Emplaced and Temporary Storage: ≈72,600 m³ (Table 3-3)
- WIPP-bound Stored and Projected Thru 2033: ≈42,800 m³ (Table 3-3)
- WIPP-bound Projected Beyond 2033: ≈37,300 m³ (Table 4-4)
- Potential Stored and Projected Thru 2033: ≈9,520 m³ (Table 4-1 and Table 4-2)
- Potential Projected Beyond 2033: ≈14,800 m³ (Table 4-4)

Under the WIPP LWA, the WIPP facility is authorized to dispose of 6.2 million cubic feet (175,564 m³) of TRU waste. The current estimated total volume of TRU waste already emplaced at the WIPP facility or in temporary storage, plus stored and projected WIPP-bound waste is approximately 153,000 m³.

The volume of stored and projected potential waste reported by TRU waste generator sites is approximately 24,300 m³. If all potential waste being reported were to become eligible for disposal at the WIPP facility, the total waste volume would be approximately 177,000 m³; however, based on historical trends, this volume is likely to be overestimated, and the actual total volume would be below the WIPP LWA volume capacity limit. Figure 4-1 is a graphical representation of the above data as compared to the LWA capacity limit.

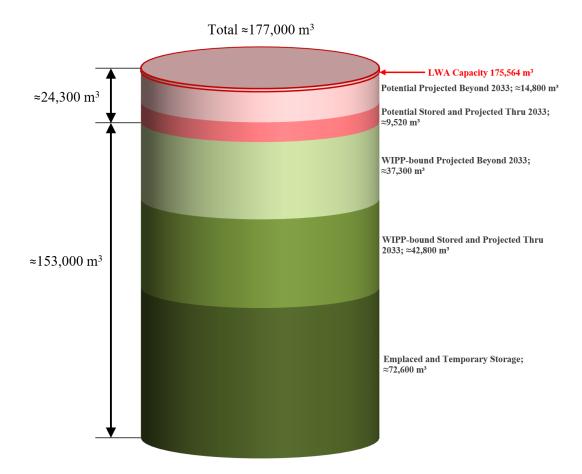


Figure 4-1. ATWIR-2023 Volume vs LWA Capacity Limit

5.0 **SUMMARY**

This report is an update to the inventory used in the ATWIR-2022 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, 2022.

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 the reduction of projected inventory at SRS; an increase of projected inventory at LANL; revisions to final form container types for multiple LANL waste streams; recalculation of mass values performed by INL and LANL with updated data; and the acquisition of new characterization data, processing information, and repackaging experience by multiple sites, resulting in more accurate TRU waste inventory estimates.

6.0 GLOSSARY

Acceptable Knowledge – Any information about the process used to generate waste, material inputs to the process, and the time 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 equivalent 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.

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 held in aboveground storage or disposed of in the WIPP facility. Emplaced inventory is tracked by the WDS, the official database of record for waste emplaced in the WIPP facility.

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

Hazardous Waste Facility Permit – Authorizes the management, storage, and disposal of CH-and RH-TRU mixed waste at the WIPP facility, 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 facility, 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 facility. Regardless of its designation in this report, TRU waste must meet all WIPP requirements before it can be disposed of in the WIPP facility. 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. 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 that require a QA program, including those implementing activities related to compliance certification, waste characterization and certification, repository PA, waste isolation, waste transportation, nuclear safety, environmental protection, and management and operation of the WIPP facility.

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 equivalent 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 facility) 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 facility 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 facility.

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 waste streams that appear, as of the data cutoff date, to have no significant technical or legal constraints limiting the waste from being eligible for disposal in the WIPP facility after all waste characterization and certification criteria have been satisfied. WIPP-bound inventory will be included in PA.

7.0 <u>REFERENCES</u>

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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, 2022.

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
- 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

Isotope Am-241

Am-243

Cm-244

Cs-137

Np-237

Pu-238

Pu-239

Pu-240

Pu-241

Pu-242

Pu-244

Sr-90

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

U-238

0.00E+00

1.83E+03

2.80E+01

6.45E+03

0.00E+00

Waste Stream ID: AE-T001

Appendix A

Waste Profile Report

Site	Argonne National Laboratory	Summary Category S500	0 Defense Determin	nation Defense-	-Related	Handling CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	te 12/31/2022
Stream Name	ANL-E Contact-Handled Mixed Heterogeneous Debris				Activities Decay	red to CY 2022

Final Form Volumes						
Container Type Stored Proj. Total						
55-gal Drum Dir Ld w/ Liner	39.7	10.1	49.8			
Final Form Total	39.7	10.1	49.8			

Total Mass Naterial Parameter (kg)

Waste Material Parameters

Material Parameter	(kg)
Iron-based Metal/Alloys	2.16E+03
Aluminum-based Metal/Alloys	5.18E+01
Other Metal/Alloys	1.40E+02
Other Inorganic Materials	3.47E+02
Cellulose	2.80E+02
Rubber	3.52E+02
Plastic	1.77E+03
Cement	0.00E+00
Solidified Inorganic Material	6.22E+01
Solidified Organic Material	1.56E+01
Soil	0.00E+00
Vitrified	0.00E+00

Final Form Radionuclides Haz. W Total D004, I Activity D007, I

(Ci)

2.75E+01

3.89E+00

4.23E+01

3.98E+00

1.60E-02

4.37E+00

7.51E+00

4.01E+00

2.64E+01

3.13E-02

9.01E-06

3.30E+00

2.59E-05

4.91E-04

2.02E-04

6.99E-03

1.21E-01

9.21E-05

4.63E-06

3.57E-03

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 waste debris consists primarily of heterogeneous organic and inorganic laboratory debris (more than 50% per container) and lesser amounts of homogeneous organic and inorganic materials (less than 50% per container) generated during the neutralization and solidification of aqueous and inorganic liquids originating from Argonne laboratory and maintenance operations. 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.

Packaging Material, Cellulose

Packaging Material, Plastic

Packaging Material, Rubber

Packaging Material, Steel

Packaging Material, Lead

Waste Stream ID: AE-T009

Appendix A

Waste Profile Report

Site	Argonne National Laboratory	Summary Category S5000	Defense Determina	tion Defense-	Related	landling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	leterogeneous Debris	Waste	Inventory Dat	e 12/31,	/2022
Stream Name	RH TRU				Activities Decay	ed to CY	2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes						
Container Type	Stored	Proj.	Total			
RH SCA-30G1 w/ Liner	22.3	10.8	33.1			
RH SCA-55G1 w/ Liner	1.1	0.0	1.1			
Final Form Total	23.4	10.8	34.2			

Waste Material Parameters				
Total Mass Material Parameter (kg)				
Iron-based Metal/Alloys	2.65E+03			
Aluminum-based Metal/Alloys	1.27E+03			
Other Metal/Alloys	1.17E+03			
Other Inorganic Materials	1.67E+03			
Cellulose	2.13E+03			
Rubber	5.78E+02			
Plastic	1.03E+03			
Cement	0.00E+00			
Solidified Inorganic Material	1.05E+01			
Solidified Organic Material	0.00E+00			
Soil	0.00E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	2.91E+03			
Packaging Material, Rubber	3.60E+01			
Packaging Material, Steel	1.30E+05			
Packaging Material, Lead	1.30E+05			

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	7.52E+01		
Am-243	1.58E+00		
Cm-244	4.30E+01		
Cs-137	1.27E+03		
Np-237	7.95E-04		
Pu-238	1.01E+02		
Pu-239	8.45E+01		
Pu-240	5.05E+01		
Pu-241	5.81E+02		
Pu-242	3.99E-02		
Pu-244	6.66E-17		
Sr-90	9.00E+02		
Th-229	4.05E-03		
Th-230	1.47E-05		
Th-232	5.90E-16		
U-233	2.84E-05		
U-234	2.40E-02		
U-235	6.66E-03		
U-236	5.98E-06		

4.36E-02

U-238

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

TRUCON Code(s) 125/225

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.

Waste Stream ID: AW-N027.531

Appendix A

Waste Profile Report

Site	Material and Fuels Complex	Summary Category S500	0 Defense Determin	ation Defense-	-Related I	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Dat	e 12/31/2022
Stream Name	MFC CH-MTRU Due to RCRA Metals				Activities Decay	ed to CY 2022

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

Waste Material Parameters			
	Total Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	0.00E+00		
Aluminum-based Metal/Alloys	0.00E+00		
Other Metal/Alloys	1.33E+02		
Other Inorganic Materials	1.59E+01		
Cellulose	4.91E+01		
Rubber	0.00E+00		
Plastic	3.98E+01		
Cement	0.00E+00		
Solidified Inorganic Material	8.75E+01		
Solidified Organic Material	0.00E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	0.00E+00		
Packaging Material, Rubber	1.30E+00		
Packaging Material, Steel	2.99E+02		
Packaging Material, Lead	0.00E+00		

Final Form Radionuclides				
	Total			
	Activity			
Isotope	(Ci)			
Am-241	2.38E+01			
Am-243	2.36E-11			
Cs-137	2.02E-04			
Np-237	1.02E-03			
Pu-239	7.53E-01			
Sr-90	2.16E-04			
Th-229	4.88E-16			
Th-230	2.16E-18			
U-233	1.55E-10			
U-234	6.50E-12			
U-235	8.58E-06			
U-238	6.05E-05			

Haz. Waste No(s). D006, D007, D008, D011, 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. It consists of various combinations of miscellaneous discarded equipment and process material items.

Waste Stream ID: AW-T031.1322

Appendix A

Waste Profile Report

Site	Material and Fuels Complex	Summary Category S5000 Defen	nse Determination Defense-	Related Ha	andling RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Heteroge	geneous Debris Waste	Inventory Date	12/31/2022
Stream Name	RH TRU Hot Cell Waste			Activities Decayed	d to CY 2022

Waste Volume Det	ail	(m ³
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	13.9	14.5	
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	3.8	0.0	3.8	
Final Form Total	4.4	13.9	18.3	

	Total Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	8.75E+02
Aluminum-based Metal/Alloys	9.92E+02
Other Metal/Alloys	7.79E+02
Other Inorganic Materials	2.84E+01
Cellulose	5.59E+02
Rubber	0.00E+00
Plastic	3.83E+02
Cement	0.00E+00
Solidified Inorganic Material	0.00E+00
Solidified Organic Material	0.00E+00
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	6.88E+02
Packaging Material, Rubber	1.03E+01
Packaging Material, Steel	1.68E+04
Packaging Material, Lead	0.00E+00

	Total		
	Activity		
Isotope	(Ci)		
Am-241	4.47E+01		
Am-243	6.05E-09		
Cm-244	1.69E-06		
Cs-137	7.43E+02		
Np-237	5.41E-02		
Pu-238	1.05E+00		
Pu-239	1.43E+01		
Pu-240	6.42E-01		
Pu-241	1.21E+01		
Pu-242	5.41E-03		
Sr-90	1.17E+03		
Th-229	1.25E-10		
Th-230	1.12E-06		
Th-232	1.29E-13		
U-233	8.26E-07		
U-234	4.08E-02		
U-235	3.96E-04		
U-236	8.75E-04		
U-238	2.40E-04		

No Hazardous Waste Numbers Provided

TRUCON Code(s)

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).

Waste Stream ID: AW-T033.1325

Appendix A

Waste Profile Report

Site	Material and Fuels Complex	Summary Category S50	00 Defense Determin	nation Defense	-Related	Handling	СН
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	te 12/31,	/2022
Stream Name	MFC CH-TRU Waste				Activities Decay	ed to CY	2022

Final Form Volumes						
Container Type	Stored	Proj.	Total			
55-gal Drum Dir Ld w/o Liner	0.0	13.9	13.9			
Final Form Total 0.0 13.9 13.						

Wasta Material Parameters

Waste Material Paramet	ters	Final Form	Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
ron-based Metal/Alloys	3.18E+02	Am-241	2.67E+01
Aluminum-based Metal/Alloys	9.86E+01	Am-243	5.96E-03
Other Metal/Alloys	8.94E+01	Cm-244	7.70E-01
Other Inorganic Materials	4.12E+02	Cs-137	8.68E-01
Cellulose	7.63E+02	Np-237	4.17E-02
Rubber	2.01E+01	Pu-238	2.84E+00
Plastic	7.84E+02	Pu-239	4.83E+00
Cement	0.00E+00	Pu-240	4.18E-01
Solidified Inorganic Material	2.31E+02	Pu-242	1.01E-04
Solidified Organic Material	0.00E+00	Sr-90	8.43E-01
Soil	0.00E+00	Th-229	2.01E-14
Vitrified	0.00E+00	Th-230	7.11E-10
Packaging Material, Cellulose	0.00E+00	Th-232	7.85E-18
Packaging Material, Plastic	0.00E+00	U-233	6.38E-09
Packaging Material, Rubber	7.79E+00	U-234	7.74E-04
Packaging Material, Steel	1.80E+03	U-235	2.79E-05
Packaging Material, Lead	0.00E+00	U-236	1.59E-06
		U-238	1.13E-03

No Hazardous **Waste Numbers Provided**

TRUCON Code(s) 125/225

Waste Stream Description

Miscellaneous process material debris waste.

Waste Stream ID: AW-W020.13

Appendix A

Waste Profile Report

Site	Material and Fuels Complex	Summary Category S5000 Defense Determine	nation Defense	-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Heterogeneous Debi	ris Waste	Inventory D	ate 12/31/	/2022
Stream Name	RH MTRU Hot Cell Waste			Activities Deca	ayed to CY	2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes					
Container Type	Stored	Proj.	Total		
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	6.9	7.6		
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	1.9	0.0	1.9		
Final Form Total 2.5 6.9					

Waste Material Parameters				
Material Parameter	Total Mass (kg)			
Iron-based Metal/Alloys	1.03E+01			
Aluminum-based Metal/Alloys	4.95E+02			
Other Metal/Alloys	1.88E+03			
Other Inorganic Materials	8.52E+02			
Cellulose	7.48E+01			
Rubber	0.00E+00			
Plastic	1.04E+02			
Cement	0.00E+00			
Solidified Inorganic Material	3.42E+01			
Solidified Organic Material	0.00E+00			
Soil	0.00E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	3.58E+02			
Packaging Material, Rubber	5.31E+00			
Packaging Material, Steel	8.72E+03			
Packaging Material, Lead	0.00E+00			

Final Form Radionuclides				
	Total			
	Activity			
Isotope	(Ci)			
Am-241	5.31E+01			
Am-243	5.03E-01			
Cm-244	1.74E+00			
Cs-137	2.41E+03			
Np-237	3.63E-03			
Pu-238	1.89E+01			
Pu-239	2.94E+01			
Pu-240	1.06E+01			
Pu-241	1.63E+02			
Pu-242	1.16E-01			
Pu-244	2.42E-11			
Sr-90	1.73E+03			
Th-229	1.10E-10			
Th-230	3.42E-04			
Th-232	9.52E-15			
U-233	1.25E-05			
U-234	1.37E-01			
U-235	3.28E-03			
U-236	1.93E-03			

2.90E-03

U-238

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

TRUCON Code(s)

Waste Stream Description

This waste stream consists of miscellaneous FCF, HFEF and AL generated debris.

No Hazardous Waste Numbers Provided

TRUCON Code(s)

Waste Stream ID: BT-T001

Appendix A

Waste Profile Report

Site	Bettis Atomic Power Laboratory	Summary Category S500	0 Defense Determin	ation Defense-	-Related I	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Dat	e 12/31/2	2022
Stream Name	Irradiated TRU material waste				Activities Decay	ed to CY 2	2022

|--|

Final Form Volumes				
Container Type Stored Proj. Tot				
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 Paramet	ers	Final Form	Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	0.00E+00	Am-241	3.02E-02
Aluminum-based Metal/Alloys	0.00E+00	Am-243	1.13E-04
Other Metal/Alloys	6.71E+02	Cs-137	4.88E+01
Other Inorganic Materials	0.00E+00	Np-237	1.61E-04
Cellulose	1.12E+02	Pu-238	1.21E+00
Rubber	0.00E+00	Pu-239	1.03E-03
Plastic	3.36E+02	Pu-241	1.38E-01
Cement	0.00E+00	Pu-242	1.85E-05
Solidified Inorganic Material	0.00E+00	Sr-90	4.80E+01
Solidified Organic Material	0.00E+00	Th-229	4.49E-05
Soil	0.00E+00	Th-230	1.09E-08
Vitrified	0.00E+00	Th-232	9.02E-15
Packaging Material, Cellulose	0.00E+00	U-233	9.86E-03
Packaging Material, Plastic	6.52E+01	U-234	3.04E-04
Packaging Material, Rubber	4.25E+00	U-235	3.79E-06
Packaging Material, Steel	6.97E+03	U-236	4.57E-05
Packaging Material, Lead	0.00E+00	U-238	1.82E-08

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.

Final Form Radionuclides

Isotope Am-241

Cm-244

Cs-137

Np-237

Pu-238

Pu-239

Pu-240

Pu-241

Pu-242

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

U-238

Sr-90

Total Activity (Ci)

4.83E+02

8.22E+00

1.91E+03

4.67E-04

9.21E+01

4.24E+02

2.28E+02

1.77E+03

1.38E-01

1.58E+03

3.20E-07

4.16E-05

1.50E-15

1.21E-03

1.51E+00

5.24E-02

2.03E-05

2.62E-02

Waste Stream ID: IN-AE-AGHC-02

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S500	0 Defense Determin	ation Defense	-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Dat	te 12/31/	/2022
Stream Name	MFC Retrievable ANL-E RH TRU Containers - Stage 2				Activities Decay	ed to CY	2022

Waste Volume Detail (m 3)	Waste	Volume	Detail	(m ³)
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Final Form Volumes					
Container Type	Stored	Proj.	Total		
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	104.6	0.0	104.6		
Final Form Total	104.6	0.0	104.6		

Waste Material Parameters				
	Total Mass			
Material Parameter	(kg)			
Iron-based Metal/Alloys	8.12E+03			
Aluminum-based Metal/Alloys	6.73E+02			
Other Metal/Alloys	5.67E+02			
Other Inorganic Materials	2.84E+02			
Cellulose	3.72E+02			
Rubber	1.72E+02			
Plastic	8.66E+02			
Cement	0.00E+00			
Solidified Inorganic Material	0.00E+00			
Solidified Organic Material	1.26E+00			
Soil	0.00E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	9.01E+02			
Packaging Material, Rubber	5.88E+01			
Packaging Material, Steel	9.64E+04			
Packaging Material, Lead	0.00E+00			

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.

Annual Transuranic Waste Inventory Report - 2023

Waste Stream ID: IN-AW-T031.1322

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S50	00 Defense Determi	nation Defense	-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Grou	Heterogeneous Deb	ris Waste	Inventory Da	ate 12/31,	/2022
Stream Name	RH-TRU Debris Waste From Materials and Fuels Complex Hot Fuel Examinat	ion Facility at the INL.			Activities Deca	yed to CY	2022

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

1.3

0.0

1.3

Waste Material Parame	ters	Final Forr	n Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	0.00E+00	Am-241	8.37E+00
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	2.47E+02
Other Metal/Alloys	2.29E+02	Np-237	1.05E-05
Other Inorganic Materials	0.00E+00	Pu-238	5.89E+00
Cellulose	1.50E+01	Pu-239	4.33E+00
Rubber	0.00E+00	Pu-240	2.46E+00
Plastic	6.10E+01	Pu-241	9.25E+01
Cement	0.00E+00	Sr-90	4.03E+01
Solidified Inorganic Material	0.00E+00	Th-229	1.02E-14
Solidified Organic Material	0.00E+00	Th-230	1.13E-06
Soil	0.00E+00	Th-232	2.87E-17
Vitrified	0.00E+00	U-233	8.77E-11
Packaging Material, Cellulose	0.00E+00	U-234	3.08E-02
Packaging Material, Plastic	1.09E+01	U-235	6.16E-04
Packaging Material, Rubber	7.08E-01	U-236	2.91E-07
Packaging Material, Steel	1.16E+03	U-238	3.49E-04
Packaging Material, Lead	0.00E+00		·

Haz. Waste No(s).

D005, D006, D007,
D008

TRUCON Code(s)

Waste Stream Description

Final Form Total

MFC analytical laboratory and experiments in HFEF

Waste Stream ID: IN-BN004

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S3000 Defense Determination D	efense-Related	Handling CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group Solidified Inorganics	Inventory Da	ate 12/31/2022
Stream Name	Special Setups Waste		Activities Deca	yed to CY 2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes					
Container Type	Stored	Proj.	Total		
TDOP w/ 10 - 55-gal Drums w/ Liners	4.2	0.0	4.2		
TDOP w/ 6 - 85-gal Drums w/o Liners	42.2	0.0	42.2		
Final Form Total	46.4	0.0	46.4		

Waste Material Parameters				
	Total Mass			
Material Parameter	(kg)			
Iron-based Metal/Alloys	8.14E+01			
Aluminum-based Metal/Alloys	1.08E+00			
Other Metal/Alloys	1.14E-01			
Other Inorganic Materials	0.00E+00			
Cellulose	8.23E+00			
Rubber	0.00E+00			
Plastic	1.30E+02			
Cement	7.41E+02			
Solidified Inorganic Material	3.58E+04			
Solidified Organic Material	0.00E+00			
Soil	9.08E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	1.54E+02			
Packaging Material, Rubber	3.74E+01			
Packaging Material, Steel	2.39E+04			
Packaging Material, Lead	0.00E+00			

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	6.38E+01		
Am-243	9.52E-11		
Cs-137	7.93E-07		
Np-237	2.68E-03		
Pu-238	4.71E+00		
Pu-239	1.15E+02		
Pu-240	2.57E+01		
Pu-241	1.27E+02		
Pu-242	2.66E-03		
Sr-90	8.69E-07		
Th-229	2.03E-12		
Th-230	1.01E-08		
Th-232	7.51E-17		
U-233	2.32E-08		
U-234	5.62E-04		
U-235	1.57E-04		
U-236	1.52E-06		
U-238	8.25E-13		

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.

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 D	ate 12/31/2022
Stream Name	Solidified Plutonium Recovery Incinerator Waste		Activities Deca	ayed to CY 2022

Final Form Volumes				
Container Type	Stored	Proj.	Total	
SWB w/ 3 - 85-gal Drums w/o Liners	2.9	0.0	2.9	
SWB w/ 4 - 55-gal Drums w/ Liners	16.8	0.0	16.8	
Final Form Total	19.7	0.0	19.7	

Waste Material Parameters		Final Form	Radionuclides
	Total		Total
Material Parameter	Mass (kg)	Isotope	Activity (Ci)
Iron-based Metal/Alloys	3.50E+02	Am-241	2.93E+01
Aluminum-based Metal/Alloys	3.70E+00	Cs-137	1.26E-07
Other Metal/Alloys	3.50E+01	Np-237	3.47E-04
Other Inorganic Materials	0.00E+00	Pu-238	5.83E+00
Cellulose	4.60E-01	Pu-239	1.55E+02
Rubber	6.50E-01	Pu-240	3.47E+01
Plastic	4.80E+02	Pu-241	2.42E+02
Cement	7.00E+01	Pu-242	2.67E-03
Solidified Inorganic Material	6.90E+03	Sr-90	1.37E-07
Solidified Organic Material	0.00E+00	Th-229	5.66E-13
Soil	0.00E+00	Th-230	8.04E-10
Vitrified	0.00E+00	Th-232	2.28E-16
Packaging Material, Cellulose	0.00E+00	U-233	4.35E-09
Packaging Material, Plastic	6.16E+02	U-234	5.40E-05
Packaging Material, Rubber	1.89E+01	U-235	1.77E-06
Packaging Material, Steel	9.18E+03	U-236	3.08E-06
Packaging Material, Lead	0.00E+00	U-238	1.24E-12

Haz. Waste No(s).

1102: 440366 140(3):
D004, D005, D006,
D007, D008, D009,
D010, D011, D022,
F001, F002, F005,
F006, F007, F009

TRUCON Code(s)

111/211, 114/214, 127/227

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.

Annual Transuranic Waste Inventory Report - 2023

Waste Stream ID: IN-BN-501

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S4000 Defense Determinatio	n Defense-Re	elated	Handling CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group Contaminated Soil/Debris	s Waste	Inventory Dat	te 12/31/2022
Stream Name	AMWTP PCB Soil			Activities Decay	red to CY 2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes						
Container Type Stored Proj. Tota						
55-gal Drum Dir Ld w/ Liner	1.3	0.0	1.3			
Final Form Total 1.3 0.0 1						

Waste Material Parameters

Waste Material Parameters		Final Form	Radionuclides
	Total		Total
	Mass		Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	1.40E+00	Am-241	5.89E-02
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	5.35E-07
Other Metal/Alloys	0.00E+00	Np-237	1.02E-06
Other Inorganic Materials	0.00E+00	Pu-238	1.08E-02
Cellulose	5.40E+01	Pu-239	1.92E-01
Rubber	1.80E+00	Pu-240	3.50E-02
Plastic	1.50E+01	Pu-241	1.23E-01
Cement	0.00E+00	Pu-242	3.35E-06
Solidified Inorganic Material	7.10E+01	Sr-90	5.87E-07
Solidified Organic Material	0.00E+00	Th-229	1.93E-16
Soil	6.10E+02	Th-230	1.41E-13
Vitrified	0.00E+00	Th-232	2.56E-20
Packaging Material, Cellulose	0.00E+00	U-233	4.40E-12
Packaging Material, Plastic	4.63E+01	U-234	3.07E-08
Packaging Material, Rubber	7.08E-01	U-235	1.89E-10
Packaging Material, Steel	1.63E+02	U-236	1.04E-09
Packaging Material, Lead	0.00E+00	U-238	5.19E-16

Haz Wasta No(s)

Tiaz. Waste NO(3).
D004, D005, D006,
D007, D008, D009,
D010, D011, D022,
D028, D029, F001,
F002, F005, F006,
F007, F009

No TRUCON **Codes Provided**

Waste Stream Description

Soils that are or may be PCB contaminated, generated during repackaging operations conducted at the sludge repackaging project at the RWMC.

Annual Transuranic Waste Inventory Report - 2023

Waste Stream ID: IN-BN510.4

Appendix A Waste Profile Report

Site	Idaho National Laboratory	Summary Category S500	0 Defense Determin	ation Defense	-Related	Handling	СН
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Da	te 12/31/	/2022
Stream Name	Supercompacted Debris Waste				Activities Deca	yed to CY	2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes					
Container Type Stored Proj. Total					
100-gal Drum Dir Ld w/o Liner	472.3	0.0	472.3		
SWB w/ 2 - 100-gal Drums w/ Liners	2079.4	0.0	2079.4		
Final Form Total	2551.7	0.0	2551.7		

Waste Material Parameters

	Total	
	Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	1.60E+06	Am-24:
Aluminum-based Metal/Alloys	2.99E+03	Am-243
Other Metal/Alloys	1.36E+04	Cm-244
Other Inorganic Materials	5.45E+04	Cs-137
Cellulose	2.35E+05	Np-237
Rubber	2.95E+04	Pu-238
Plastic	1.92E+05	Pu-239
Cement	0.00E+00	Pu-240
Solidified Inorganic Material	2.53E+04	Pu-241
Solidified Organic Material	2.72E+02	Pu-242
Soil	9.17E+02	Sr-90
Vitrified	0.00E+00	Th-229
Packaging Material, Cellulose	0.00E+00	Th-230
Packaging Material, Plastic	4.22E+04	Th-232
Packaging Material, Rubber	1.79E+03	U-233
Packaging Material, Steel	1.08E+06	U-234
Packaging Material, Lead	0.00E+00	U-235
·		U-236

Final Form	Radionuclides	Haz. Waste No(s).
	Total	D004, D005, D006,
	Activity	D007, D008, D009,
sotope	(Ci)	D010, D011, D022,
Am-241	4.62E+03	D027, D028, D029,
\m-243	4.47E-01	D030, D032, D033,
Cm-244	3.46E+00	D034, D037, D043,
Cs-137	3.66E+00	F001, F002, F004,
Np-237	1.61E-01	F005, F006, F007,
Pu-238	1.64E+04	F009, P030, P098, P099, P106, U003,
Pu-239	7.03E+03	U103, U108, U134,
² u-240	1.67E+03	U151
Pu-241	8.81E+03	0101
Pu-242	3.06E-01	
Sr-90	4.03E+00	TRUCON Code(s)
Th-229	4.29E-05	121/221
Th-230	2.07E-07	
Th-232	2.80E-03	
J-233	4.87E+00	

2.27E-01

5.96E-02

4.95E-06

2.24E+00

U-238

D005, D006, D008, D009, D011, D022,

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.

Data ver. **D.22.01.33**

Waste Stream ID: IN-BN-522 Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S4000	Defense Determinati	ion Defense-	Related	Handling	СН
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Contaminated Soil/Debr	ris Waste	Inventory Dat	e 12/31,	/2022
Stream Name	AMWTP Non-PCB Soil				Activities Decay	ed to CY	2022

Waste	Volume	Detail	(m ³)
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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

Waste Material Parame	Final F	
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	0.00E+00	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Np-237
Other Metal/Alloys	0.00E+00	Pu-238
Other Inorganic Materials	0.00E+00	Pu-239
Cellulose	0.00E+00	Pu-240
Rubber	0.00E+00	Pu-241
Plastic	4.54E-01	Pu-242
Cement	0.00E+00	Th-229
Solidified Inorganic Material	0.00E+00	Th-230
Solidified Organic Material	0.00E+00	Th-232
Soil	2.98E+02	U-233
Vitrified	0.00E+00	U-234
Packaging Material, Cellulose	0.00E+00	U-235
Packaging Material, Plastic	0.00E+00	U-236
Packaging Material, Rubber	2.36E-01	U-238
Packaging Material, Steel	5.44E+01	
Packaging Material, Lead	0.00E+00	

Final Form Radionuclides Haz. Waste No(s)

Total Activity (Ci)

9.53E-03

5.40E-07 1.07E-03

5.43E-02

1.15E-02

5.81E-02

1.10E-06

3.57E-15

5.15E-13

3.02E-19

1.36E-11

1.85E-08

3.21E-10

2.04E-09

1.03E-15

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

Non-PCB soil generated during retrieval, characterization, treatment, packaging and storage at the AMWTP.

Annual Transuranic Waste Inventory Report - 2023

Waste Stream ID: IN-BN538 Appendix A Waste Profile Report

Site	Idaho National Laboratory	Summary Category S5000 Defense Determi	nation Defense	-Related Ha	ndling	СН
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group Heterogeneous Debi	ris Waste	Inventory Date	12/31/2	2022
Stream Name	Oversized Debris Items from Supercompactor Facility			Activities Decayed	to CY 2	2022

Waste Volume Detail (m 3)				
Final Form Volumes				
Container Type	Stored	Proj.	Total	
SLB2 Dir Ld	288.2	0.0	288.2	
Final Form Total	288.2	0.0	288.2	

Waste Material Paramet	Final Form	Radionuclides	Haz. Waste No(s	
	Total Mass		Total Activity	D004, D005, D00 D007, D008, D00
Material Parameter	(kg)	Isotope	(Ci)	D010, D011, D02
Iron-based Metal/Alloys	5.61E+04	Am-241	8.82E+00	D027, D028, D02
Aluminum-based Metal/Alloys	0.00E+00	Np-237	7.39E-05	D030, D032, D03
Other Metal/Alloys	0.00E+00	Pu-238	1.17E+00	D034, D037, D04
Other Inorganic Materials	0.00E+00	Pu-239	3.92E+01	F001, F002, F004
Cellulose	5.54E+03	Pu-240	8.73E+00	F005, F006, F007
Rubber	0.00E+00	Pu-241	9.89E+01	F009, P030, P098
Plastic	9.00E+01	Pu-242	1.14E-03	U108, U134, U15
Cement	0.00E+00	Th-229	1.98E-13	0100, 0154, 01
Solidified Inorganic Material	0.00E+00	Th-230	1.39E-09	
Solidified Organic Material	0.00E+00	Th-232	1.02E-16	No TRUCON
Soil	0.00E+00	U-233	1.16E-09	Codes Provided
Vitrified	0.00E+00	U-234	4.43E-05	
Packaging Material, Cellulose	0.00E+00	U-235	1.01E-05	
Packaging Material, Plastic	0.00E+00	U-236	1.03E-06	
Packaging Material, Rubber	3.18E+01	U-238	7.07E-13	
Packaging Material, Steel	4.76E+04			-
Packaging Material, Lead	0.00E+00			

(s). 06, 09, 22, 29, 33, 43,)4,)7, 98, 03, 151

Waste Stream Description

Oversized debris waste items from boxed waste that are transferred from the treatment facility because they are too large or cannot be size reduced by compaction.

Final Form Radionuclides

Total

Activity (Ci)

3.82E-01

4.78E-07

1.02E+01

1.68E+00

3.81E-01

4.22E+00

4.98E-05

4.67E-16

2.17E-09

4.45E-18

4.01E-12

1.17E-04

6.63E-09

4.51E-08

3.09E-14

Waste Stream ID: IN-BN539 Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S5000	Defense Determin	nation Defense	-Related	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/2022
Stream Name	TRU Radioactive - Only Debris Waste				Activities Decay	red to CY 2022

Waste	Vo	lume	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 Paramet	Final	
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	4.60E+03	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Np-237
Other Metal/Alloys	0.00E+00	Pu-238
Other Inorganic Materials	0.00E+00	Pu-239
Cellulose	4.03E+03	Pu-240
Rubber	0.00E+00	Pu-241
Plastic	3.90E+01	Pu-242
Cement	0.00E+00	Th-229
Solidified Inorganic Material	0.00E+00	Th-230
Solidified Organic Material	0.00E+00	Th-232
Soil	0.00E+00	U-233
Vitrified	0.00E+00	U-234
Packaging Material, Cellulose	0.00E+00	U-235
Packaging Material, Plastic	0.00E+00	U-236
Packaging Material, Rubber	5.71E+00	U-238
Packaging Material, Steel	8.54E+03	
Packaging Material, Lead	0.00E+00	

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.

Annual Transuranic Waste Inventory Report - 2023 Waste Stream ID: IN-BN-599

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S3000 Defense Determinati	ion Defense-	Related	Handling CH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group Solidified Inorganics		Inventory D	ate 12/31/2022
Stream Name	Lab Non-PCB Homogeneous Solids Waste (Not P/U Listed)		_	Activities Deca	ayed to CY 2022

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

Waste Material Parameters		Final Form	Final Form Radionuclides		
	Total		Total		
	Mass		Activity		
Material Parameter	(kg)	Isotope	(Ci)		
Iron-based Metal/Alloys	9.08E-01	Am-241	1.72E-01		
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	7.79E-05		
Other Metal/Alloys	0.00E+00	Np-237	5.49E-07		
Other Inorganic Materials	3.18E+01	Pu-238	1.19E-02		
Cellulose	4.54E-01	Pu-239	4.65E-01		
Rubber	0.00E+00	Pu-240	1.03E-01		
Plastic	1.14E+00	Pu-241	4.66E-01		
Cement	0.00E+00	Pu-242	1.35E-05		
Solidified Inorganic Material	0.00E+00	Sr-90	8.40E-05		
Solidified Organic Material	1.98E+02	Th-229	3.43E-15		
Soil	0.00E+00	Th-230	1.63E-11		
Vitrified	0.00E+00	Th-232	7.54E-18		
Packaging Material, Cellulose	0.00E+00	U-233	1.17E-11		
Packaging Material, Plastic	0.00E+00	U-234	3.50E-07		
Packaging Material, Rubber	3.54E-01	U-235	4.58E-09		
Packaging Material, Steel	8.16E+01	U-236	3.06E-08		
Packaging Material, Lead	0.00E+00	U-238	2.09E-14		

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D018,
D019, D021, D022,
D026, D027, D028,
D029, D030, D032,
D033, D034, D035,
D036, D037, D038,
D039, D040, D043,
F001, F002, F004,
F005, F006, F007,
F009

No TRUCON **Codes Provided**

Waste Stream Description

This waste is comprised of analytical generated liquids that have been absorbed and that are not PCB contaminated.

Waste Stream ID: IN-BN600

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S5000 Defense Determine	nation Defense	-Related H	landling	СН
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group Heterogeneous Debris Waste		Inventory Date	e 12/31/2	2022
Stream Name	AMWTP WMF-676 PCB Contaminated Debris			Activities Decaye	ed to CY	2022

Waste Volume Detail (m 3)

Final Form Volumes					
Container Type	Stored	Proj.	Total		
100-gal Drum Dir Ld w/o Liner	1.5	0.0	1.5		
55-gal Drum Dir Ld w/ Liner	16.2	0.0	16.2		
55-gal Drum Dir Ld w/o Liner	13.0	0.0	13.0		
SLB2 Dir Ld	835.1	0.0	835.1		
SWB Dir Ld w/o Liner	5.6	0.0	5.6		
SWB w/ 3 - 85-gal Drums w/o Liners	59.5	0.0	59.5		
Final Form Total	930.9	0.0	930.9		

Waste Material Parameters			
	Total Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	7.09E+04		
Aluminum-based Metal/Alloys	4.53E+01		
Other Metal/Alloys	2.57E+03		
Other Inorganic Materials	2.40E+03		
Cellulose	4.63E+03		
Rubber	1.19E+02		
Plastic	5.43E+03		
Cement	0.00E+00		
Solidified Inorganic Material	9.50E+02		
Solidified Organic Material	6.66E+01		
Soil	1.20E+02		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	5.94E+02		
Packaging Material, Rubber	1.55E+02		
Packaging Material, Steel	1.67E+05		
Packaging Material, Lead	0.00E+00		

Final Form Radionuclides				
	Total			
	Activity			
Isotope	(Ci)			
Am-241	2.96E+01			
Am-243	7.53E-05			
Cs-137	7.67E-02			
Np-237	5.90E-04			
Pu-238	3.13E+00			
Pu-239	7.20E+01			
Pu-240	1.60E+01			
Pu-241	1.17E+02			
Pu-242	1.72E-03			
Sr-90	8.44E-02			
Th-229	1.07E-07			
Th-230	1.10E-09			
Th-232	4.18E-06			
U-233	1.22E-02			
U-234	1.20E-03			
U-235	1.76E-04			
U-236	4.75E-08			
U-238	6.95E-03			

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, P030, P098, P099, P106, U003, U103, U108, U134

No TRUCON Codes Provided

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).

Annual Transuranic Waste Inventory Report - 2023 Waste Stream ID: IN-BN-602

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S3000 Defense Determina	ation Defense-	-Related	Handling	СН
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group Solidified Inorganics		Inventory Da	ate 12/31/2	2022
Stream Name	P/U-listed Lab Non-PCB Homogeneous Solids Waste			Activities Deca	yed to CY	2022

Waste Volume	Detail ((m 3)
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Final Form Volum	ies		
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

waste material raranie	ters	Fillal
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	0.00E+00	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Cs-137
Other Metal/Alloys	0.00E+00	Np-237
Other Inorganic Materials	3.63E+00	Pu-238
Cellulose	0.00E+00	Pu-239
Rubber	0.00E+00	Pu-240
Plastic	1.40E+01	Pu-241
Cement	0.00E+00	Pu-242
Solidified Inorganic Material	0.00E+00	Sr-90
Solidified Organic Material	2.11E+02	Th-229
Soil	0.00E+00	Th-230
Vitrified	0.00E+00	Th-232
Packaging Material, Cellulose	0.00E+00	U-233
Packaging Material, Plastic	0.00E+00	U-234
Packaging Material, Rubber	2.36E-01	U-235
Packaging Material, Steel	5.44E+01	U-236
Packaging Material, Lead	0.00E+00	U-238

Haz, Waste No(s). **Final Form Radionuclides**

Total Activity (Ci) 1.31E+00 4.53E-06 4.72E-06 3.00E-03 1.17E-01 2.60E-02 1.16E-01 3.41E-06 4.90E-06 3.62E-14 5.00E-12

2.30E-18

1.12E-10 9.74E-08 1.27E-09 8.48E-09 5.82E-15

naz. waste wo(s).
D004, D005, D006,
D007, D008, D009,
D010, D011, D018,
D019, D021, D022,
D026, D027, D028,
D029, D030, D032,
D033, D034, D035,
D036, D037, D038,
D039, D040, D043,
F001, F002, F004,
F005, F006, F007,
F009, U151

No TRUCON **Codes Provided**

Waste Stream Description

P/U-listed secondary waste comprised of analytical generated liquids that have been absorbed and that are not PCB contaminated.

Annual Transuranic Waste Inventory Report - 2023 Waste Stream ID: IN-BN650

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S3000 Defense Determin	nation Defense	-Related	Handling	СН
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group Solidified Inorganics		Inventory Da	te 12/31/	/2022
Stream Name	AMWTP Sludge Repackaging Project (SRP) Combined Sludge Waste			Activities Decay	ed to CY	2022

Waste Volume I	Detail ((m 3)
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Final Form Volumes					
Container Type	Stored	Proj.	Total		
55-gal Drum Dir Ld w/ Liner	1158.8	0.0	1158.8		
TDOP w/ 10 - 55-gal Drums w/ Liners	739.2	0.0	739.2		
TDOP w/ 6 - 85-gal Drums w/ Liners	205.4	0.0	205.4		
Final Form Total	2103.4	0.0	2103.4		

Waste Material Parameters

waste material rafaillett	:13	Fillali
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	8.03E+03	Am-241
Aluminum-based Metal/Alloys	1.78E+01	Am-243
Other Metal/Alloys	6.98E+02	Cm-244
Other Inorganic Materials	1.17E+03	Cs-137
Cellulose	1.62E+03	Np-237
Rubber	1.16E+03	Pu-238
Plastic	2.71E+04	Pu-239
Cement	0.00E+00	Pu-240
Solidified Inorganic Material	6.46E+05	Pu-241
Solidified Organic Material	1.58E+05	Pu-242
Soil	7.40E+03	Sr-90
Vitrified	0.00E+00	Th-229
Packaging Material, Cellulose	0.00E+00	Th-230
Packaging Material, Plastic	7.46E+04	Th-232
Packaging Material, Rubber	1.52E+03	U-233
Packaging Material, Steel	6.22E+05	U-234
Packaging Material, Lead	0.00E+00	U-235
		U-236

Final Form Radionuclides

Total Activity (Ci)

6.06E+03

4.48E-04

2.23E-01

2.52E-01

1.05E-01

1.32E+02

3.46E+03

7.84E+02

3.92E+03

9.43E-02

2.77E-01

4.87E-07

1.55E-07

3.17E-04

5.53E-02

1.68E-01

9.36E-03

2.32E-06

3.29E-01

U-238

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

No TRUCON **Codes Provided**

Waste Stream Description

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

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 Da	ate 12/31/2022
Stream Name	Solidified Acid/Caustic Waste		Activities Deca	yed to CY 2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes					
Container Type	Stored	Proj.	Total		
TDOP w/ 10 - 55-gal Drums w/ Liners	8.4	0.0	8.4		
TDOP w/ 6 - 85-gal Drums w/ Liners	9.6	0.0	9.6		
Final Form Total	18.0	0.0	18.0		

Waste Material Paramete	Final	
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	1.72E+00	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Cs-137
Other Metal/Alloys	7.93E-01	Np-237
Other Inorganic Materials	6.69E+00	Pu-238
Cellulose	5.91E+01	Pu-239
Rubber	2.94E+00	Pu-240
Plastic	4.36E+01	Pu-241
Cement	0.00E+00	Pu-242
Solidified Inorganic Material	7.25E+03	Sr-90
Solidified Organic Material	0.00E+00	Th-229
Soil	0.00E+00	Th-230
Vitrified	0.00E+00	Th-232
Packaging Material, Cellulose	0.00E+00	U-233
Packaging Material, Plastic	5.40E+02	U-234
Packaging Material, Rubber	1.56E+01	U-235
Packaging Material, Steel	9.12E+03	U-236
Packaging Material, Lead	0.00E+00	U-238

l Form Radionuclides		Haz. Waste No(s).
Total		D007, D008, D009,
	Activity	F001, F002
9	(Ci)	
1	1.89E+00	
	1.08E-06	TRUCON Code(s)

2.65E-11

5.17E-10 6.49E-05

(Ci)	
1.89E+00	
1.08E-06	TRUCON Code(s)
2.07E-04	111/211, 127/227
1.68E+02	
2.69E-01	
1.75E-01	
6.87E-01	
1.97E-04	
1.18E-06	
9.95E-17	
2.54E-11	
1.28E-21	
3.16E-11	
5.13E-05	

Waste Stream Description

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

Waste Stream ID: IN-BN836

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S3000 Defense Determination D	efense-Related	Handling CH
Source Cat.	Pollution Control or Waste Treatment Process	Waste Matrix Code Group Solidified Inorganics	Inventory Da	ate 12/31/2022
Stream Name	Cemented Sludge		Activities Deca	ayed to CY 2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
SWB w/ 3 - 85-gal Drums w/ Liners	4.8	0.0	4.8	
SWB w/ 4 - 55-gal Drums w/ Liners	6.7	0.0	6.7	
Final Form Total	11.5	0.0	11.5	

Waste Material Parameters		Final Form	Radionuclides	Haz. Waste No(s).
	Total Mass		Total Activity	D004, D005, D006, D007, D008, D009,
Material Parameter	(kg)	Isotope	(Ci)	D010, D011, F001,
Iron-based Metal/Alloys	4.54E-01	Am-241	3.64E-02	F002, F005
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	1.46E-07	
Other Metal/Alloys	0.00E+00	Np-237	8.54E-06	
Other Inorganic Materials	0.00E+00	Pu-238	2.20E+00	TRUCON Code(s)
Cellulose	0.00E+00	Pu-239	3.44E-03	111/211, 127/227
Rubber	0.00E+00	Pu-240	2.35E-03	
Plastic	1.36E+00	Pu-241	2.44E-03	
Cement	4.54E-01	Pu-242	2.70E-06	
Solidified Inorganic Material	1.08E+04	Sr-90	1.61E-07	
Solidified Organic Material	0.00E+00	Th-229	6.53E-15	
Soil	0.00E+00	Th-230	1.42E-10	
Vitrified	0.00E+00	Th-232	6.86E-21	
Packaging Material, Cellulose	0.00E+00	U-233	7.42E-11	
Packaging Material, Plastic	3.62E+02	U-234	1.40E-05	
Packaging Material, Rubber	1.03E+01	U-235	6.78E-12	
Packaging Material, Steel	5.19E+03	U-236	1.39E-10	
Packaging Material, Lead	0.00E+00	U-238	8.37E-16	

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.

Final Form Radionuclides

Total Activity (Ci)

1.12E+02

3.77E-07 1.46E-03

5.11E-01

4.44E+00

1.39E+00

1.03E+01

7.58E-04

4.13E-07

1.08E-12

3.34E-09

4.05E-18

1.24E-08

1.83E-04

3.99E-05

8.20E-08

8.00E-04

Waste Stream ID: IN-BNINW216

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S3000 Defense Determination	n Defense-Related	Handling CH
Source Cat.	Pollution Control or Waste Treatment Process	Waste Matrix Code Group Solidified Inorganics	Inventory Da	ate 12/31/2022
Stream Name	First/Second Stage Sludge		Activities Deca	yed to CY 2022

Waste '	Volume	Detail ((m ³)
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Final Form Volumes			
Container Type	Stored	Proj.	Total
TDOP w/ 10 - 55-gal Drums w/ Liners	2.1	0.0	2.1
TDOP w/ 6 - 85-gal Drums w/ Liners	5.8	0.0	5.8
Final Form Total 7.9 0.0			7.9

Waste Material Parameters		
Total Mass		
(kg)	Isotope	
3.50E+01	Am-241	
0.00E+00	Cs-137	
2.27E+01	Np-237	
0.00E+00	Pu-238	
6.47E+00	Pu-239	
0.00E+00	Pu-240	
1.44E+01	Pu-241	
5.98E+01	Pu-242	
4.89E+03	Sr-90	
0.00E+00	Th-229	
0.00E+00	Th-230	
0.00E+00	Th-232	
0.00E+00	U-233	
2.16E+02	U-234	
6.56E+00	U-235	
4.01E+03	U-236	
0.00E+00	U-238	
	Total Mass (kg) 3.50E+01 0.00E+00 2.27E+01 0.00E+00 6.47E+00 0.00E+00 1.44E+01 5.98E+01 4.89E+03 0.00E+00 0.00E+00 0.00E+00 0.00E+00 2.16E+02 6.56E+00 4.01E+03	

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, 127/227

Waste Stream Description

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

Waste Stream ID: IN-BNINW218

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S3000 Defense Determination Def	ense-Related H	landling CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group Solidified Inorganics	Inventory Date	12/31/2022
Stream Name	Building 374 Sludge		Activities Decaye	ed to CY 2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes			
Container Type	Stored	Proj.	Total
TDOP w/ 10 - 55-gal Drums w/ Liners	16.8	0.0	16.8
TDOP w/ 6 - 85-gal Drums w/ Liners	1.9	0.0	1.9
Final Form Total	18.7	0.0	18.7

Waste Material Parameters		
	Total Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	1.10E+02	
Aluminum-based Metal/Alloys	0.00E+00	
Other Metal/Alloys	0.00E+00	
Other Inorganic Materials	0.00E+00	
Cellulose	2.30E-01	
Rubber	1.05E+00	
Plastic	2.36E+01	
Cement	1.04E+02	
Solidified Inorganic Material	1.52E+04	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	6.63E+02	
Packaging Material, Rubber	1.75E+01	
Packaging Material, Steel	9.31E+03	
Packaging Material, Lead	0.00E+00	

Final Form Radionuclides Total		
	Activity	
Isotope	(Ci)	
Am-241	1.47E+00	
Np-237	1.06E-05	
Pu-238	6.47E-01	
Pu-239	1.24E+00	
Pu-240	2.66E-01	
Pu-241	1.55E+00	
Pu-242	3.55E-05	
Th-229	5.07E-18	
Th-230	5.03E-08	
Th-232	1.33E-06	
U-233	1.61E-12	
U-234	5.47E-02	
U-235	4.01E-03	
U-236	7.87E-10	
U-238	2.85E-01	

Haz. Waste No(s).
D006, D007, D008,
D009, D010, D011,
D032, F001, F002,
F005, F006, F007,
F009

TRUCON Code(s)

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.

Waste Stream ID: IN-BN-RF003

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S3000 Defense Determination Def	fense-Related	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Solidified Organics	Inventory Da	ate 12/31/2022
Stream Name	Rocky Flats Building 774 Organic Setups (IN-BN-RF003)		Activities Deca	yed to CY 2022

Waste Volume Det	ail	(m ³
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Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB w/ 3 - 85-gal Drums w/o Liners	1.0	0.0	1.0
TDOP w/ 6 - 85-gal Drums w/ Liners	1.9	0.0	1.9
Final Form Total	2.9	0.0	2.9

	Total	
	Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	2.72E+00	
Aluminum-based Metal/Alloys	0.00E+00	
Other Metal/Alloys	1.36E+01	
Other Inorganic Materials	1.14E+00	
Cellulose	0.00E+00	
Rubber	0.00E+00	
Plastic	3.63E+00	
Cement	0.00E+00	
Solidified Inorganic Material	1.14E+00	
Solidified Organic Material	1.37E+03	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	

4.63E+01

2.24E+00

1.39E+03 0.00E+00

Packaging Material, Plastic

Packaging Material, Rubber

Packaging Material, Steel

Packaging Material, Lead

Waste Material Parameters

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	3.37E+01	
Np-237	3.46E-04	
Pu-238	6.84E-03	
Pu-239	2.52E-01	
Pu-240	5.60E-02	
Pu-241	3.62E-01	
Pu-242	7.33E-06	
Th-229	2.54E-13	
Th-230	4.01E-10	
Th-232	2.54E-07	
U-233	2.92E-09	
U-234	2.18E-05	
U-235	7.06E-06	
U-236	3.31E-09	
U-238	2.27E-15	

Haz. Waste No(s).
D008, D022, D026,
D027, D028, D029,
D030, D032, D034,
D036, D037, F001,
F002, F005

TRUCON Code(s) 111/211

Waste Stream Description

This waste, generated at Rocky Flats, consists of various organic liquid waste that were immobilized in Building 774.

Waste Stream ID: IN-BN-RF290

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S3000 Defense Determination	n Defense-Related	Handling CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group Solidified Inorganics	Inventory Da	ate 12/31/2022
Stream Name	Filtered Sludge		Activities Deca	ayed to CY 2022

Waste Vo	lume Detail	(m ³)
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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		Final Form Radionuclide		
	Total Mass		Total Activity	
Material Parameter	(kg)	Isotope	(Ci)	
Iron-based Metal/Alloys	4.54E+00	Am-241	8.07E-02	
Aluminum-based Metal/Alloys	0.00E+00	Np-237	1.31E-06	
Other Metal/Alloys	0.00E+00	Pu-238	1.22E-02	
Other Inorganic Materials	5.72E-01	Pu-239	3.06E-01	
Cellulose	0.00E+00	Pu-240	7.00E-02	
Rubber	0.00E+00	Pu-241	1.94E-01	
Plastic	5.90E+00	Pu-242	5.73E-06	
Cement	0.00E+00	Th-229	5.73E-15	
Solidified Inorganic Material	3.41E+01	Th-230	4.06E-12	
Solidified Organic Material	0.00E+00	Th-232	1.28E-18	
Soil	0.00E+00	U-233	2.65E-11	
Vitrified	0.00E+00	U-234	1.76E-07	
Packaging Material, Cellulose	0.00E+00	U-235	1.51E-09	
Packaging Material, Plastic	7.71E+00	U-236	1.04E-08	
Packaging Material, Rubber	1.18E-01	U-238	4.44E-15	
Packaging Material, Steel	2.72E+01			
Packaging Material, Lead	0.00E+00			

Haz. Waste No(s).

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

No TRUCON **Codes Provided**

Waste Stream Description

The sludge, generated at Rocky Flats, is from the incinerator off-gas system or from filter plenums during a filter change and may also be from Nash pumps.

Waste Stream ID: IN-BN-RF311

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S3000 Defense Determination	n Defense-Related	Handling CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group Solidified Inorganics	Inve	ntory Date 12/31/2022
Stream Name	RF Miscellaneous Heels		Activiti	ies Decayed to CY 2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
55-gal Drum Dir Ld w/ Liner	0.4	0.0	0.4	
SWB w/ 3 - 85-gal Drums w/o Liners	1.0	0.0	1.0	
Final Form Total	1.4	0.0	1.4	

Waste Material Paramet	Final Form	Radionuclides	
	Total		Total
	Mass		Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	1.26E+00	Am-241	3.25E+00
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	6.30E-07
Other Metal/Alloys	0.00E+00	Np-237	4.62E-05
Other Inorganic Materials	1.63E+02	Pu-238	2.07E+00
Cellulose	0.00E+00	Pu-239	1.48E+01
Rubber	0.00E+00	Pu-240	3.50E+00
Plastic	2.45E+01	Pu-241	1.01E+01
Cement	0.00E+00	Pu-242	2.75E-04
Solidified Inorganic Material	3.81E-01	Sr-90	6.75E-07
Solidified Organic Material	0.00E+00	Th-229	1.91E-12
Soil	0.00E+00	Th-230	8.51E-09
Vitrified	0.00E+00	Th-232	7.39E-16
Packaging Material, Cellulose	0.00E+00	U-233	2.76E-09
Packaging Material, Plastic	1.54E+01	U-234	1.06E-04
Packaging Material, Rubber	9.53E-01	U-235	2.48E-07
Packaging Material, Steel	4.54E+02	U-236	1.76E-06
Packaging Material, Lead	0.00E+00	U-238	7.25E-13

Haz. Waste No(s). D007, F002

No TRUCON **Codes Provided**

Waste Stream Description

This waste stream generated at Rocky Flats, includes insoluble process residues (heels).

Waste Stream ID: IN-BN-RF420

Appendix AWaste 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 12/31/2022

Stream Name Miscellaneous Incinerator Ash and Soot Activities Decayed to CY 2022

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/ 3 - 85-gal Drums w/ Liners	1.0	0.0	1.0	
Final Form Total	1.2	0.0	1.2	

Waste Material Parameters			
	Total Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	1.88E+01		
Aluminum-based Metal/Alloys	0.00E+00		
Other Metal/Alloys	2.50E+00		
Other Inorganic Materials	3.15E+01		
Cellulose	0.00E+00		
Rubber	0.00E+00		
Plastic	1.19E+01		
Cement	0.00E+00		
Solidified Inorganic Material	1.44E+02		
Solidified Organic Material	0.00E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	3.08E+01		
Packaging Material, Rubber	8.35E-01		
Packaging Material, Steel	4.27E+02		
Packaging Material, Lead	0.00E+00		

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	5.49E-01	
Np-237	9.68E-06	
Pu-238	1.15E-01	
Pu-239	2.56E+00	
Pu-240	5.21E-01	
Pu-241	2.11E+00	
Pu-242	4.09E-05	
Th-229	3.82E-13	
Th-230	4.14E-10	
Th-232	9.75E-17	
U-233	5.75E-10	
U-234	5.52E-06	
U-235	4.03E-08	
U-236	2.47E-07	
U-238	1.02E-13	

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

No TRUCON Codes Provided

Waste Stream Description

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.

Waste Stream ID: IN-BN-RF432

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S3000 Defense Determination	n Defense-Related	Handling CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group Solidified Organics	Inventory D	ate 12/31/2022
Stream Name	RF Leached Cemented Resins		Activities Deca	ayed to CY 2022

Waste \	∕olume	Detail ((m ³)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
SWB w/ 3 - 85-gal Drums w/ Liners	1.9	0.0	1.9	
SWB w/ 4 - 55-gal Drums w/ Liners	4.2	0.0	4.2	
Final Form Total	6.1	0.0	6.1	

Waste Material Paramete	Final	
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	2.14E+01	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Np-237
Other Metal/Alloys	3.19E+02	Pu-238
Other Inorganic Materials	0.00E+00	Pu-239
Cellulose	1.59E+00	Pu-240
Rubber	0.00E+00	Pu-241
Plastic	8.35E+01	Pu-242
Cement	3.06E+01	Th-229
Solidified Inorganic Material	4.86E+00	Th-230
Solidified Organic Material	1.26E+03	Th-232
Soil	0.00E+00	U-233
Vitrified	0.00E+00	U-234
Packaging Material, Cellulose	0.00E+00	U-235
Packaging Material, Plastic	2.00E+02	U-236
Packaging Material, Rubber	5.61E+00	U-238
Packaging Material, Steel	2.80E+03	
Packaging Material, Lead	0.00E+00	

Final Form	n Radionuclides	Haz. Waste No(s).
	Total	D007, D008, D022,
	Activity	D028, D029, F001,
Isotope	(Ci)	F002, F003, F005
Am-241	7.62E+01	
Np-237	9.31E-04	

8.67E-01

2.96E+01

6.67E+00

2.88E+01

5.68E-04

1.52E-12

1.03E-10

4.39E-17

1.17E-08

7.43E-06

8.75E-08

5.93E-07

2.64E-13

No TRUCON **Codes Provided**

Waste Stream Description

Spent anion and cation exchange resins

Waste Stream ID: IN-BN-RF801 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 D	Date 12/31/2022
Stream Name	Building 774 Solidified Organics		Activities Dec	ayed to CY 2022

Waste Volume Detail (m ³)			
Final Form Vo	lumes		•
Container Type	Stored	Proj.	Total
SWB w/ 3 - 85-gal Drums w/o Liners	1.0	0.0	1.0
	_		

 TDOP w/ 10 - 55-gal Drums w/ Liners
 2.1
 0.0
 2.1

 Final Form Total
 3.1
 0.0
 3.1

Waste Material Paramet	ters	Final Forr	n Radionuclides	_
	Total Mass		Total Activity	
Material Parameter	(kg)	Isotope	(Ci)	
Iron-based Metal/Alloys	2.61E-01	Am-241	4.63E-01	
Aluminum-based Metal/Alloys	0.00E+00	Am-243	9.21E-13	
Other Metal/Alloys	0.00E+00	Np-237	1.02E-05	
Other Inorganic Materials	0.00E+00	Pu-238	1.04E-01	_
Cellulose	1.09E-01	Pu-239	2.57E+00	L
Rubber	0.00E+00	Pu-240	5.82E-01	
Plastic	5.03E+00	Pu-241	4.80E+00	
Cement	3.81E-01	Pu-242	5.00E-05	
Solidified Inorganic Material	0.00E+00	Th-229	1.71E-14	
Solidified Organic Material	1.60E+03	Th-230	5.87E-11	
Soil	0.00E+00	Th-232	3.83E-18	
Vitrified	0.00E+00	U-233	1.30E-10	
Packaging Material, Cellulose	0.00E+00	U-234	2.57E-06	
Packaging Material, Plastic	7.71E+01	U-235	5.50E-07	
Packaging Material, Rubber	2.72E+00	U-236	5.17E-08	
Packaging Material, Steel	1.44E+03	U-238	2.33E-14	
Packaging Material, Lead	0.00E+00		·	

Haz. Waste No(s).

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

TRUCON Code(s) 111/211

Waste Stream Description

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

Final Form Padionuclidos

Annual Transuranic Waste Inventory Report - 2023 Waste Stream ID: IN-BN-SRP-RF123

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S3000 Defense Determin	nation Defense	-Related I	Handling	СН
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group Solidified Inorganics		Inventory Dat	e 12/31,	/2022
Stream Name	Sludge Repackage Project Processed Rocky Flats First/Second Stage Sludge,	Building 774 Organic Setup		Activities Decay	ed to CY	2022

Waste Volume	Detail ((m ³)
--------------	----------	-------

Final Form Volumes				
Container Type	Stored	Proj.	Total	
55-gal Drum Dir Ld w/ Liner	350.7	0.0	350.7	
TDOP w/ 10 - 55-gal Drums w/ Liners	224.7	0.0	224.7	
TDOP w/ 6 - 85-gal Drums w/ Liners	42.2	0.0	42.2	
Final Form Total	617.6	0.0	617.6	

Wasta Material Parameters

Waste Material Paramet	Final Form	Radionuclides	
	Total Mass		Total Activity
Naterial Parameter	(kg)	Isotope	(Ci)
on-based Metal/Alloys	1.42E+02	Am-241	3.49E+03
luminum-based Metal/Alloys	4.59E+00	Cs-137	1.38E-05
ther Metal/Alloys	2.99E+02	Np-237	5.33E-02
ther Inorganic Materials	2.07E+02	Pu-238	1.33E+01
ellulose	4.33E+02	Pu-239	3.29E+02
ubber	4.11E+02	Pu-240	7.67E+01
lastic	6.77E+03	Pu-241	6.11E+02
ement	0.00E+00	Pu-242	1.69E-02
olidified Inorganic Material	2.09E+05	Sr-90	1.52E-05
olidified Organic Material	1.05E+05	Th-229	1.53E-07
oil	4.64E+01	Th-230	9.15E-07
itrified	0.00E+00	Th-232	2.24E-16
ackaging Material, Cellulose	0.00E+00	U-233	8.72E-04
ackaging Material, Plastic	2.21E+04	U-234	4.98E-02
ackaging Material, Rubber	4.45E+02	U-235	1.58E-03
ackaging Material, Steel	1.79E+05	U-236	4.54E-06
ackaging Material, Lead	0.00E+00	U-238	4.48E-02

Lion Mosto No/s\

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, 127/227

Waste Stream Description

This waste stream consists of sludge waste initially generated at the Rocky Flats Environmental Technology Site (formerly Rocky Flats Plant) and transferred to the Idaho National Laboratory (INL) then served as feedstock to the newly generated process from treatment and repackaging operations conducted by the SRP at the INL Site Radioactive Waste Management Complex (RWMC). These wastes were originally generated from waste treatment operations at Rocky Flats, then transferred to the RWMC at INL for storage.

Annual Transuranic Waste Inventory Report - 2023 Waste Stream ID: IN-IC-603

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S3000 Defense Determination	on Defense-Related	Handling CH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group Solidified Organics	Inventory I	Date 12/31/2022
Stream Name	Laboratory Homogeneous Solids Waste		Activities De	cayed to CY 2022

Waste Volume Detail (m 3)	Waste	Volume	Detail	(m ³)
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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	2.9	0.0	2.9
SWB w/ 3 - 85-gal Drums w/o Liners	1.0	0.0	1.0
Final Form Total	4.5	0.0	4.5

Wasta Material Parameters

Waste Material Paramet	Final Form Radionuclide		
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	4.25E+00	Am-241	3.08E-01
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	6.03E-06
Other Metal/Alloys	5.88E+01	Np-237	3.79E-06
Other Inorganic Materials	9.81E+01	Pu-238	2.14E-02
Cellulose	2.27E+00	Pu-239	6.78E-01
Rubber	0.00E+00	Pu-240	1.68E-01
Plastic	4.32E+01	Pu-241	7.78E-01
Cement	0.00E+00	Pu-242	1.60E-05
Solidified Inorganic Material	0.00E+00	Sr-90	6.59E-06
Solidified Organic Material	5.57E+02	Th-229	1.05E-14
Soil	0.00E+00	Th-230	4.53E-12
Vitrified	0.00E+00	Th-232	1.97E-18
Packaging Material, Cellulose	0.00E+00	U-233	6.09E-11
Packaging Material, Plastic	2.31E+01	U-234	2.45E-07
Packaging Material, Rubber	2.72E+00	U-235	2.67E-09
Packaging Material, Steel	8.62E+02	U-236	1.99E-08
Packaging Material, Lead	0.00E+00	U-238	9.90E-15

Haz Wasto No(s)

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
•

No TRUCON **Codes Provided**

Waste Stream Description

This waste was generated during analysis of TRU waste samples at INTEC and may contain sample residues and returned unused sample material.

Annual Transuranic Waste Inventory Report - 2023 Waste Stream ID: IN-ID-ANLE-BIN

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S5000 Defense Determ	ination Defense	-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Heterogeneous Deb	ris Waste	Inventory Da	te 12/31/	/2022
Stream Name	RH TRU Debris Waste from ANL-E stored at INL			Activities Deca	yed to CY	2022

Waste Volume Detail (m 3)	Waste	Volume	Detail	(m ³)
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Final Form Volumes					
Container Type		Stored	Proj.	Total	
RH SCA-55G1 w/o Liner		0.4	0.0	0.4	
Final Form Total		0.4	0.0	0.4	

Wasta Material Parameters

Waste Material Paramet	ers	Final Form Radionuclides		
	Total Mass		Total Activity	
Material Parameter	(kg)	Isotope	(Ci)	
Iron-based Metal/Alloys	3.00E+02	Am-241	5.81E-02	
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	5.36E-02	
Other Metal/Alloys	2.78E+01	Np-237	1.13E-07	
Other Inorganic Materials	1.31E+01	Pu-238	7.13E-03	
Cellulose	7.10E+00	Pu-239	2.21E-02	
Rubber	0.00E+00	Pu-240	1.30E-02	
Plastic	1.28E+01	Pu-241	5.36E-02	
Cement	0.00E+00	Pu-242	4.21E-04	
Solidified Inorganic Material	0.00E+00	Sr-90	4.75E-02	
Solidified Organic Material	0.00E+00	Th-229	2.72E-07	
Soil	0.00E+00	Th-230	4.25E-09	
Vitrified	0.00E+00	Th-232	3.43E-19	
Packaging Material, Cellulose	0.00E+00	U-233	5.15E-04	
Packaging Material, Plastic	0.00E+00	U-234	7.70E-05	
Packaging Material, Rubber	1.84E-01	U-235	2.44E-06	
Packaging Material, Steel	2.60E+03	U-236	2.32E-09	
Packaging Material, Lead	1.87E+00	U-238	4.40E-07	

Haz. Waste No(s).

Tiuz. Waste 140(3).
D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D027, D028, D029,
D030, D037, F002,
F004, F005

TRUCON Code(s)

121/221, 125/225

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.

Cs-137

Np-237

Pu-238

Pu-239

Pu-240

Pu-242

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

U-238

0.00E+00

0.00E+00

0.00E+00

2.76E-01

3.90E+03

2.80E+00

Sr-90

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

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S3000 Defense Determination Defen	nse-Related Handling RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Solidified Inorganics	Inventory Date 12/31/2022
Stream Name	RH Laboratory Waste from INL		Activities Decayed to CY 2022

Vitrified

Packaging Material, Cellulose

Packaging Material, Plastic

Packaging Material, Rubber

Packaging Material, Steel

Packaging Material, Lead

Waste	Vo	lume	Detail	(m ³)

Final Form Volumes					
Container Type	Stored	Proj.	Total		
RH SCA-55G1 w/o Liner	0.6	0.0	0.6		
Final Form Total	0.6	0.0	0.6		

Total Mass

Waste Material Parameters

	iviass
Material Parameter	(kg)
Iron-based Metal/Alloys	3.72E+01
Aluminum-based Metal/Alloys	0.00E+00
Other Metal/Alloys	0.00E+00
Other Inorganic Materials	0.00E+00
Cellulose	3.27E+00
Rubber	1.36E-01
Plastic	9.97E+00
Cement	0.00E+00
Solidified Inorganic Material	7.20E+00
Solidified Organic Material	0.00E+00
Soil	0.00E+00

Final Form Radionuclides Total Activity Isotope (Ci) Am-241 3.31E+00

1.91E-01

8.63E-06

3.12E-01

1.76E+01

3.70E+00

4.06E-02

4.95E-02

2.91E-10

3.33E-09

1.73E-16

4.14E-07

4.89E-05

8.22E-07

8.76E-07

1.40E-08

Haz. Waste No(s).
D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D022, F002, F004,
F005

TRUCON Code(s)

127/227	
	Ī

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.

Waste Stream ID: IN-ID-Bettis-Pu8Li14B

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S500	Defense Determin	nation Defense-	Related	Handling	RH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/20	.022
Stream Name	Bettis Atomic Power Laboratory Sealed Source				Activities Decay	ed to CY 2	2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes					
Container Type Stored Proj. Tota					
RH SCA-55G1 w/o Liner	0.2	0.0	0.2		
Final Form Total	0.2	0.0	0.2		

Waste Material Paramet	Final Form	Radionuclides	
	Total		Total
	Mass		Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	2.52E+00	Am-241	3.81E-01
Aluminum-based Metal/Alloys	3.30E-01	Cs-137	1.10E-04
Other Metal/Alloys	1.50E-01	Np-237	7.32E-07
Other Inorganic Materials	0.00E+00	Pu-238	1.58E+02
Cellulose	0.00E+00	Pu-239	1.71E-01
Rubber	0.00E+00	Pu-240	1.02E-01
Plastic	0.00E+00	Pu-241	1.10E+00
Cement	0.00E+00	Pu-242	1.56E-04
Solidified Inorganic Material	0.00E+00	Sr-90	9.23E-05
Solidified Organic Material	0.00E+00	Th-229	1.64E-15
Soil	0.00E+00	Th-230	1.44E-06
Vitrified	0.00E+00	Th-232	2.68E-18
Packaging Material, Cellulose	0.00E+00	U-233	9.36E-12
Packaging Material, Plastic	0.00E+00	U-234	2.74E-02
Packaging Material, Rubber	9.20E-02	U-235	8.42E-09
Packaging Material, Steel	1.30E+03	U-236	1.81E-08
Packaging Material, Lead	9.34E-01	U-238	9.73E-10

No Hazardous **Waste Numbers Provided**

TRUCON Code(s) 120/220

Waste Stream Description

Plutonium-lithium alpha-n neutron source

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 Da	ate 12/31/2022
Stream Name	Solidified Waste Sludge from Bettis Atomic Power Lab.		Activities Deca	yed to CY 2022

Waste	Volume	Detail	(m 3)
vvaste	volulle	Detail	1111 <i>1</i>

Final Form Volumes				
Container Type	Stored	Proj.	Total	
RH SCA-55G1 w/o Liner	0.2	0.0	0.2	
RH SCA-55G2 w/o Liner	0.6	0.0	0.6	
Final Form Total	0.8	0.0	0.8	

Waste Material Parameters		Final Form	Radionuclides
	Total		Total
	Mass		Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	2.08E+02	Am-241	1.51E-02
Aluminum-based Metal/Alloys	3.20E+01	Cs-137	1.04E+01
Other Metal/Alloys	0.00E+00	Np-237	3.93E-08
Other Inorganic Materials	1.00E+00	Pu-238	3.49E-01
Cellulose	4.42E+00	Pu-239	1.98E-01
Rubber	1.87E+00	Pu-240	4.18E-03
Plastic	9.16E+00	Pu-242	7.19E-04
Cement	6.68E+01	Sr-90	1.69E+01
Solidified Inorganic Material	0.00E+00	Th-229	1.64E-06
Solidified Organic Material	0.00E+00	Th-230	1.49E-07
Soil	0.00E+00	Th-232	1.96E-19
Vitrified	0.00E+00	U-233	2.33E-03
Packaging Material, Cellulose	0.00E+00	U-234	2.03E-03
Packaging Material, Plastic	0.00E+00	U-235	4.57E-05
Packaging Material, Rubber	4.10E-01	U-236	9.91E-10
Packaging Material, Steel	4.58E+03	U-238	3.16E-05
Packaging Material, Lead	4.79E+03		

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

TRUCON Code(s) 127/227

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.

Waste Stream ID: IN-ID-EBR-S5000

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S500	00 Defense Determin	nation Defense-	-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Uncategorized Metal	Waste	Inventory Dat	e 12/31/	/2022
Stream Name	RH-TRU Debris Waste From Experimental Breeder Reactor				Activities Decay	ed to CY	2022

Waste Volume D	etail (m ³	١
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Final Form Volumes				
Container Type Stored Proj.				
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		Final Form	Radionuclides
	Total		Total
	Mass		Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	5.01E+02	Am-241	5.59E-06
Aluminum-based Metal/Alloys	6.01E+01	Cs-137	1.14E+02
Other Metal/Alloys	3.57E+03	Np-237	1.44E-11
Other Inorganic Materials	0.00E+00	Pu-238	7.33E-04
Cellulose	1.99E+00	Pu-239	1.47E+01
Rubber	1.99E+00	Pu-240	5.34E-03
Plastic	4.48E+01	Pu-241	1.26E-05
Cement	0.00E+00	Pu-242	2.60E-13
Solidified Inorganic Material	0.00E+00	Sr-90	1.04E+01
Solidified Organic Material	0.00E+00	Th-229	5.64E-11
Soil	9.96E-02	Th-230	1.46E-08
Vitrified	0.00E+00	Th-232	2.50E-19
Packaging Material, Cellulose	0.00E+00	U-233	8.02E-08
Packaging Material, Plastic	3.80E+01	U-234	2.12E-04
Packaging Material, Rubber	2.48E+00	U-235	5.81E-02
Packaging Material, Steel	4.07E+03	U-236	1.27E-09
Packaging Material, Lead	0.00E+00	U-238	1.25E+00

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

Final Form Radionuclides

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

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S3000	Defense Determin	ation Defense	-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code G	Group S	olidified Organics		Inventory D	ate 12/31	/2022
Stream Name	Sodium contaminated RH TRU Waste from Materials and Fuels Complex at I	NL.				Activities Dec	ayed to CY	2022

Waste Volume Detail (m	i 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		

	Total
	Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	3.76E+02
Aluminum-based Metal/Alloys	5.53E+00
Other Metal/Alloys	1.03E+02
Other Inorganic Materials	9.95E+00
Cellulose	5.53E+00
Rubber	3.32E+00
Plastic	5.53E+00
Cement	0.00E+00

Solidified Inorganic Material Solidified Organic Material

Packaging Material, Cellulose Packaging Material, Plastic

Packaging Material, Rubber Packaging Material, Steel

Packaging Material, Lead

Soil Vitrified 0.00E+00

5.97E+02 0.00E+00

0.00E+00 0.00E+00

3.26E+01 2.12E+00

3.49E+03

0.00E+00

U-236

U-238

Waste Material Parameters

Tillal I Ollii	Radionaciaes
	Total
	Activity
Isotope	(Ci)
Am-241	1.42E+01
Cm-244	4.53E-02
Cs-137	4.84E+01
Np-237	1.36E-05
Pu-238	7.07E+00
Pu-239	1.32E+01
Pu-240	9.51E+00
Pu-241	1.09E+02
Pu-242	6.10E-03
Sr-90	4.86E+01
Th-229	1.96E-10
Th-230	5.30E-07
Th-232	6.25E-17
U-233	7.43E-07
U-234	1.93E-02
U-235	5.34E-05

8.44E-07

7.11E-03

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

Annual Transuranic Waste Inventory Report - 2023 Waste Stream ID: IN-ID-HFEF-S5000-RP

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S5	Defense Determi	nation Defense	-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Grou	p Heterogeneous Deb	ris Waste	Inventory Da	ite 12/31,	/2022
Stream Name	Sodium contaminated RH TRU Waste from Materials and Fuels Complex at I	NL.			Activities Deca	yed to CY	2022

Waste	Volume	Detail	(m 3)
vvaste	volulle	Detail	1111 <i>1</i>

Final Form Volumes					
Container Type	Stored	Proj.	Total		
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	6.9	0.0	6.9		
RH SCA-55G1 w/o Liner	8.2	0.0	8.2		
RH SCA-55G2 w/o Liner	5.3	0.0	5.3		
Final Form Total	20.4	0.0	20.4		

Waste Material Parameters				
Total				
	Mass			
Material Parameter	(kg)			
Iron-based Metal/Alloys	4.02E+03			
Aluminum-based Metal/Alloys	6.37E+01			
Other Metal/Alloys	1.08E+03			
Other Inorganic Materials	1.27E+02			
Cellulose	6.37E+01			
Rubber	6.37E+01			
Plastic	6.37E+01			
Cement	0.00E+00			
Solidified Inorganic Material	0.00E+00			
Solidified Organic Material	9.56E+02			
Soil	0.00E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	5.97E+01			
Packaging Material, Rubber	1.01E+01			
Packaging Material, Steel	8.44E+04			
Packaging Material, Lead	3.99E+04			

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	4.60E+01		
Cm-244	1.24E-01		
Cs-137	1.10E+02		
Np-237	4.42E-05		
Pu-238	2.51E+01		
Pu-239	8.69E+01		
Pu-240	4.16E+01		
Pu-241	2.77E+02		
Pu-242	1.46E-02		
Sr-90	1.47E+02		
Th-229	6.10E-10		
Th-230	4.14E-06		
Th-232	2.73E-16		
U-233	2.31E-06		
U-234	1.50E-01		
U-235	5.75E-03		
U-236	3.69E-06		
U-238	4.48E-03		

Haz. Waste No(s). D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D038,

TRUCON Code(s)

F002, F005

122/222, 125/225, 321, 322, 325

Waste Stream Description

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

Annual Transuranic Waste Inventory Report - 2023 Waste Stream ID: IN-ID-INL-152M

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S500	Defense Determin	nation Defense	-Related	Handling RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Da	te 12/31/2022
Stream Name	RH-TRU Debris Waste From Materials and Fuels Complex Hot Fuel Examinat	on Facility at the INL.			Activities Deca	yed to CY 2022

Waste \	∕olume	Detail ((m ³)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	13.9	0.0	13.9	
RH SCA-55G1 w/o Liner	3.4	0.0	3.4	
RH SCA-55G2 w/o Liner	1.5	0.0	1.5	
Final Form Total	18.7	0.0	18.7	

Wasta Material Parameters

Waste Material Parameters		Final Form	Radionuclides
Naterial Parameter	Total Mass (kg)	Isotope	Total Activity (Ci)
on-based Metal/Alloys	2.71E+03	Am-241	5.34E-01
luminum-based Metal/Alloys	1.98E+01	Cs-137	7.08E+02
other Metal/Alloys	5.92E+01	Np-237	1.39E-06
ther Inorganic Materials	2.37E+02	Pu-238	3.25E-01
ellulose	2.57E+02	Pu-239	6.51E+01
ubber	1.98E+02	Pu-240	5.28E+01
lastic	5.15E+02	Pu-241	2.62E-02
ement	0.00E+00	Pu-242	7.82E-03
olidified Inorganic Material	8.15E+00	Sr-90	3.12E+02
olidified Organic Material	1.98E+01	Th-229	9.10E-05
oil	0.00E+00	Th-230	7.45E-05
itrified	0.00E+00	Th-232	2.47E-15
ackaging Material, Cellulose	0.00E+00	U-233	1.29E-01
ackaging Material, Plastic	1.19E+02	U-234	1.01E+00
ackaging Material, Rubber	1.00E+01	U-235	1.07E-01
ackaging Material, Steel	4.12E+04	U-236	1.25E-05
ackaging Material, Lead	1.12E+04	U-238	2.21E-01
<u> </u>			

Haz Wasto No(s)

Haz. waste No(s).
D004, D005, D006,
D007, D008, D009,
D010, D011, D018,
D019, D022, D038,
F002, F005

TRUCON Code(s)

121/221, 122/222,
125/225, 321, 322,
325

Waste Stream Description

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

Waste Stream ID: IN-ID-MFC-SOLID

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S500	Defense Determin	nation Defense	-Related	Handling	RH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31,	/2022
Stream Name	RH-TRU Waste From Materials and Fuels Complex at the INL.				Activities Decay	ed to CY	2022

Waste Volu	Detail (m ³)
------------	--------------------------

Final Form Volumes				
Container Type	Stored	Proj.	Total	
RH SCA-55G1 w/o Liner	0.2	0.0	0.2	
RH SCA-55G2 w/o Liner	0.8	0.0	0.8	
Final Form Total	1.1	0.0	1.1	

Waste Material Parameters		
	Total Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	2.29E+01	
Aluminum-based Metal/Alloys	1.45E+00	
Other Metal/Alloys	0.00E+00	
Other Inorganic Materials	2.03E+00	
Cellulose	5.80E-01	
Rubber	0.00E+00	
Plastic	2.03E+00	
Cement	0.00E+00	
Solidified Inorganic Material	0.00E+00	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	0.00E+00	
Packaging Material, Rubber	5.16E-01	
Packaging Material, Steel	5.68E+03	
Packaging Material, Lead	6.38E+03	

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	9.67E-02		
Cs-137	1.43E+01		
Np-237	1.89E-07		
Pu-238	2.89E-02		
Pu-239	1.71E-01		
Pu-240	4.40E-02		
Pu-242	8.19E-04		
Sr-90	1.58E+01		
Th-229	7.32E-09		
Th-230	9.77E-07		
Th-232	1.16E-18		
U-233	1.39E-05		
U-234	1.77E-02		
U-235	1.00E-03		
U-236	7.82E-09		
U-238	1.35E-04		

Haz. Waste No(s). D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D038, F002, F005

TRUCON Code(s) 121/221, 125/225

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.

Waste Stream ID: IN-ID-MISC-RH

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S500	0 Defense Determi	nation Defense	-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debi	ris Waste	Inventory Da	ate 12/31,	./2022
Stream Name	Analytical Laboratory waste from MFC (formerly know as ANL-W)				Activities Deca	yed to CY	2022

Waste Volume Detail (I	n ³)
------------------------	------

Final Form Volumes					
Container Type Stored Proj.					
RH SCA-55G1 w/o Liner	0.2	0.0	0.2		
Final Form Total	0.2	0.0	0.2		

Total Mass Material Parameter (kg) Iron-based Metal/Alloys 1.00E+02 Aluminum-based Metal/Alloys 3.04E+01 Other Metal/Alloys 0.00E+00 3.80E+00 Other Inorganic Materials 8.80E-01 Cellulose Rubber 1.90E+00 Plastic 4.28E+01 Cement 0.00E+00 Solidified Inorganic Material 0.00E+00 Solidified Organic Material 3.04E+01 0.00E+00 Soil Vitrified 0.00E+00 0.00E+00 Packaging Material, Cellulose

0.00E+00

9.20E-02

1.30E+03

9.34E-01

Packaging Material, Plastic

Packaging Material, Rubber

Packaging Material, Steel

Packaging Material, Lead

Waste Material Parameters

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	4.14E-02		
Cs-137	1.08E-01		
Np-237	8.08E-08		
Pu-238	2.58E-03		
Pu-239	2.40E-02		
Pu-240	3.43E-03		
Pu-242	2.21E-03		
Sr-90	3.24E-01		
Th-229	7.14E-08		
Th-230	7.47E-09		
Th-232	9.01E-20		
U-233	1.35E-04		
U-234	1.35E-04		
U-235	7.50E-06		
U-236	6.08E-10		
U-238	5.34E-07		

Haz. Waste No(s). D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D038, F002, F005

TRUCON Code(s) 121/221, 125/225

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.

Annual Transuranic Waste Inventory Report - 2023

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

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S5000 Defense Determi	nation Defense	-Related	Handling RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Heterogeneous Deb	ris Waste	Inventory D	ate 12/31/2022
Stream Name	Rocky Flats Generated Suspect RH TRU waste received from AMWTP			Activities Deca	ayed to CY 2022

Waste Volume Detail (m ³)			
Final Form Volum	es		
Container Type	Stored	Proj.	Total
RH SCA-55G1 w/o Liner	1.1	0.0	1.1

1.1

0.0

1.1

Waste Material Paramete	ers	Final Form	Radionuclide
	Total		Total
	Mass		Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	1.20E+02	Am-241	1.01E+02
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	7.30E-02
Other Metal/Alloys	0.00E+00	Np-237	2.62E-04
Other Inorganic Materials	2.77E+01	Pu-238	3.14E-02
Cellulose	4.86E+01	Pu-239	1.62E+00
Rubber	4.40E-01	Pu-240	3.56E-01
Plastic	9.64E+00	Pu-242	7.03E-04
Cement	1.47E+02	Sr-90	4.43E-03
Solidified Inorganic Material	0.00E+00	Th-229	2.16E-07
Solidified Organic Material	0.00E+00	Th-230	1.27E-07
Soil	0.00E+00	Th-232	1.66E-17
Vitrified	0.00E+00	U-233	3.07E-04
Packaging Material, Cellulose	0.00E+00	U-234	1.73E-03
Packaging Material, Plastic	0.00E+00	U-235	5.70E-04
Packaging Material, Rubber	4.60E-01	U-236	8.43E-08
Packaging Material, Steel	6.50E+03	U-238	4.23E-04
Packaging Material, Lead	4.67E+00		

D028, D029, F001, F002, F005, F006, F007, F009 TRUCON Code(s) 121/221, 122/222

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

Waste Stream Description

Final Form Total

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.

Waste Stream ID: IN-ID-Sample Fuel

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S5000 Defense Determ	ination Defense	-Related F	landling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Heterogeneous Del	oris Waste	Inventory Date	12/31/	/2022
Stream Name	RH TRU Waste from INL.			Activities Decaye	ed to CY	2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
RH SCA-55G1 w/o Liner	1.3	0.0	1.3	
RH SCA-55G2 w/o Liner	1.3	0.0	1.3	
Final Form Total	2.5	0.0	2.5	

Waste Material Parameters		Final Form	Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	5.17E+02	Am-241	9.54E+00
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	1.08E+01
Other Metal/Alloys	2.52E+02	Np-237	2.46E-05
Other Inorganic Materials	2.72E+01	Pu-238	9.25E-01
Cellulose	2.10E+00	Pu-239	3.26E+01
Rubber	2.10E+00	Pu-240	1.09E+01
Plastic	3.57E+01	Pu-241	1.63E+01
Cement	0.00E+00	Pu-242	2.31E-02
Solidified Inorganic Material	9.69E+01	Sr-90	2.18E+01
Solidified Organic Material	0.00E+00	Th-229	1.32E-04
Soil	0.00E+00	Th-230	1.65E-06
Vitrified	0.00E+00	Th-232	5.10E-16
Packaging Material, Cellulose	0.00E+00	U-233	1.88E-01
Packaging Material, Plastic	0.00E+00	U-234	2.25E-02
Packaging Material, Rubber	1.19E+00	U-235	8.86E-04
Packaging Material, Steel	1.44E+04	U-236	2.59E-06
Packaging Material, Lead	9.58E+03	U-238	1.35E-02

Haz. Waste No(s).

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

TRUCON Code(s)

121/221, 122/222, 125/225

Waste Stream Description

This waste consists 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

Waste Stream ID: IN-ID-SDA-Debris

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S5000 Defense Determine	nation Defense	-Related	Handling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Heterogeneous Debi	ris Waste	Inventory Da	ate 12/31/2	2022
Stream Name	ICP Retrieved Debris Waste (Filters/Graphite)			Activities Deca	yed to CY	2022

Waste Volume Detail (m 3)	Waste	Volume	Detail	(m ³)
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Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	574.8	0.0	574.8
Final Form Total	574.8	0.0	574.8

waste	Material	Paramete	rs

	Total		Total
	Mass		Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	5.12E+02	Am-241	3.55E+02
Aluminum-based Metal/Alloys	1.50E+01	Cs-137	3.06E-03
Other Metal/Alloys	1.10E+01	Np-237	6.30E-03
Other Inorganic Materials	1.06E+05	Pu-238	1.49E+01
Cellulose	5.60E+04	Pu-239	5.13E+02
Rubber	1.36E+02	Pu-240	1.13E+02
Plastic	1.73E+03	Pu-241	4.91E+02
Cement	1.74E+02	Pu-242	1.36E-02
Solidified Inorganic Material	5.64E+04	Sr-90	3.36E-03
Solidified Organic Material	3.00E+00	Th-229	1.78E-07
Soil	2.20E+04	Th-230	3.25E-07
Vitrified	0.00E+00	Th-232	8.26E-19
Packaging Material, Cellulose	0.00E+00	U-233	2.02E-02
Packaging Material, Plastic	2.11E+04	U-234	3.54E-01
Packaging Material, Rubber	3.23E+02	U-235	1.20E-02
Packaging Material, Steel	7.44E+04	U-236	3.35E-07
Packaging Material, Lead	0.00E+00	U-238	1.83E-01

Final Form Radionuclides Haz. Waste No(s).

naz. waste wo(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

Waste Stream ID: IN-ID-SDA-Sludge

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S3000 Defense Determin	ation Defense	Related	Handling CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Solidified Inorganics		Inventory Da	ate 12/31/2022
Stream Name	ICP Retrieved Sludge Waste (Inorganic/Organic Sludge/Roaster Oxide)			Activities Deca	yed to CY 2022

Waste	Volume	Detail	(m ³)

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	2783.6	0.0	2783.6
Final Form Total	2783.6	0.0	2783.6

Waste Material Paramet	Final Form	Radionuclides		
	Total		Total	
	Mass		Activity	
Material Parameter	(kg)	Isotope	(Ci)	
Iron-based Metal/Alloys	2.98E+03	Am-241	5.15E+03	
Aluminum-based Metal/Alloys	9.00E+00	Cs-137	3.28E-01	
Other Metal/Alloys	5.07E+02	Np-237	9.44E-02	
Other Inorganic Materials	1.43E+04	Pu-238	7.13E+01	
Cellulose	6.42E+03	Pu-239	1.69E+03	
Rubber	1.11E+03	Pu-240	3.73E+02	
Plastic	1.15E+03	Pu-241	2.73E+03	
Cement	4.06E+02	Pu-242	7.41E-02	
Solidified Inorganic Material	1.44E+06	Sr-90	3.61E-01	
Solidified Organic Material	1.64E+04	Th-229	2.23E-07	
Soil	8.95E+04	Th-230	1.15E-06	
Vitrified	0.00E+00	Th-232	2.72E-18	
Packaging Material, Cellulose	0.00E+00	U-233	2.54E-02	
Packaging Material, Plastic	1.02E+05	U-234	1.25E+00	
Packaging Material, Rubber	1.56E+03	U-235	5.81E-02	
Packaging Material, Steel	3.61E+05	U-236	1.10E-06	
Packaging Material, Lead	0.00E+00	U-238	3.28E+00	

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

Waste Stream ID: IN-ID-SDA-Soil

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S4000 Defense Determination	efense-Related Handling CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Contaminated Soil/Debris Wa	ste Inventory Date 12/31/2022
Stream Name	ICP Retrieved Soils		Activities Decayed to CY 2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	463.1	0.0	463.1
Final Form Total	463.1	0.0	463.1

	Total
	Mass
Material Parameter	(kg)
ron-based Metal/Alloys	1.04E+0

Packaging Material, Cellulose

Packaging Material, Plastic

Packaging Material, Rubber

Packaging Material, Steel

Packaging Material, Lead

Waste Material Parameters

Material Parameter	(kg)
Iron-based Metal/Alloys	1.04E+02
Aluminum-based Metal/Alloys	1.00E+00
Other Metal/Alloys	2.12E+03
Other Inorganic Materials	4.45E+03
Cellulose	8.99E+03
Rubber	1.03E+02
Plastic	1.26E+03
Cement	8.86E+01
Solidified Inorganic Material	5.14E+04
Solidified Organic Material	4.28E+02
Soil	1.92E+05
Vitrified	0.00E+00

Final Form Radionuclides Haz. Waste No(s). Total Activity (Ci) Isotope Am-241 2.98E+02 Cs-137 2.76E-02 Np-237 5.39E-03 Pu-238 6.68E+00 Pu-239 1.99E+02 Pu-240 4.30E+01 Pu-241 2.37E+02

6.55E-03

3.03E-02

4.20E-08

1.71E-07

3.14E-19

4.77E-03

1.86E-01

7.34E-03

1.27E-07

2.98E-01

Pu-242

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

U-238

0.00E+00

1.70E+04

2.60E+02

6.00E+04

0.00E+00

Sr-90

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

Waste Stream ID: IN-ID-Source Material

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S5000 Defense Determine	nation Defense	-Related H	landling	RH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group Heterogeneous Debi	ris Waste	Inventory Date	12/31/	/2022
Stream Name	Miscellaneous Source Material			Activities Decaye	ed to CY	2022

Waste '	Volume	Detail	(m ³)

Final Form V	olumes			
Container Type	Stor	ed	Proj.	Total
RH SCA-55G1 w/o Liner		0.2	0.0	0.2
Final Form Total		0.2	0.0	0.2

Waste Material Parameters	
	Total
	Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	4.50E+01
Aluminum-based Metal/Alloys	0.00E+00
Other Metal/Alloys	1.00E+00
Other Inorganic Materials	1.00E+01
Cellulose	0.00E+00
Rubber	0.00E+00
Plastic	5.00E+00
Cement	0.00E+00
Solidified Inorganic Material	1.90E+01
Solidified Organic Material	0.00E+00
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	0.00E+00
Packaging Material, Rubber	9.20E-02
Packaging Material, Steel	1.30E+03
Packaging Material, Lead	9.34E-01

Final Form Radionuclides	
	Total
	Activity
Isotope	(Ci)
Am-241	1.75E+01
Cs-137	1.45E-04
Np-237	3.42E-05
Pu-238	3.65E-02
Pu-239	1.20E+00
Pu-240	3.07E-01
Pu-241	5.69E-01
Pu-242	2.97E-05
Sr-90	1.23E-04
Th-229	7.75E-14
Th-230	3.00E-10
Th-232	8.07E-18
U-233	4.40E-10
U-234	5.75E-06
U-235	5.44E-08
U-236	5.45E-08
U-238	1.18E-09

No Hazardous Waste Numbers Provided

TRUCON Code(s) 120/220

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

Isotope Am-241

Cm-244

Np-237

Pu-240

Pu-241

Th-229

Th-232

U-233

U-236

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

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S5000 Defense Determination Defens	e-Related Handling RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Heterogeneous Debris Waste	Inventory Date 12/31/2022
Stream Name	RH-TRU Debris from TRA at the INL		Activities Decayed to CY 2022

Waste Volume Detail (m 3)	Waste	Volume	Detail	(m ³)
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Final Form Volum	ies		
Container Type	Stored	Proj.	Total
RH SCA-55G1 w/o Liner	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Parameters

	Total
Material Parameter	Mass (kg)
Iron-based Metal/Alloys	2.00E+01
Aluminum-based Metal/Alloys	3.00E+00
Other Metal/Alloys	1.50E+01
Other Inorganic Materials	0.00E+00
Cellulose	0.00E+00
Rubber	0.00E+00
Plastic	2.00E+00
Cement	0.00E+00
Solidified Inorganic Material	0.00E+00
Solidified Organic Material	0.00E+00
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	0.00E+00
Packaging Material, Rubber	9.20E-02
Packaging Material, Steel	1.30E+03
Packaging Material, Lead	9.34E-01

Final Form Radionuclides Total

Activity (Ci)

1.44E-04

1.72E+02

1.29E-10

3.33E+00

2.12E-02

1.62E-19

1.50E-16

1.13E-15

7.69E-07

Haz. Waste No(s).
D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D022, F002, F004,
F005

TRUCON	Code(S
122/	ำาา	

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

Waste Stream ID: IN-IW-603

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S3000 Defense Determination	Defense-Related	Handling CH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group Solidified Organics	Inventory D	ate 12/31/2022
Stream Name	Laboratory Homogeneous Solids Waste		Activities Dec	ayed to CY 2022

Waste	Volume	Detail	(m 3)
vvaste	volulle	Detail	1111 <i>1</i>

Final Form Volumes				
Container Type	Stored	Proj.	Total	
SWB w/ 4 - 55-gal Drums w/ Liners	0.8	0.0	0.8	
Final Form Total	0.8	0.0	0.8	

Waste Material Parameters

waste Material Parameters		Final Forr
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	0.00E+00	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Cs-137
Other Metal/Alloys	0.00E+00	Np-237
Other Inorganic Materials	1.36E+01	Pu-238
Cellulose	0.00E+00	Pu-239
Rubber	0.00E+00	Pu-240
Plastic	9.19E+00	Pu-241
Cement	0.00E+00	Pu-242
Solidified Inorganic Material	0.00E+00	Sr-90
Solidified Organic Material	1.14E+02	Th-229
Soil	0.00E+00	Th-230
Vitrified	0.00E+00	Th-232
Packaging Material, Cellulose	0.00E+00	U-233
Packaging Material, Plastic	3.08E+01	U-234
Packaging Material, Rubber	8.35E-01	U-235
Packaging Material, Steel	3.99E+02	U-236
Packaging Material, Lead	0.00E+00	U-238

Final Form Radionuclides Haz. Waste No(s).

Total Activity (Ci)
3.68E-02
5.52E-06
3.44E-07
6.35E-04
2.43E-02
5.42E-03
2.66E-02
7.11E-07
6.02E-06
2.00E-15
3.06E-13

1.43E-19

7.90E-12 1.10E-08 1.44E-10 9.63E-10 6.62E-16

No TRUCON Codes Provided

Waste Stream Description

This waste was generated during analysis of TRU waste samples and may contain sample residues and returned unused sample material.

Annual Transuranic Waste Inventory Report - 2023 Waste Stream ID: IN-IW-608

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S5000 Defense Determi	nation Defense	-Related	Handling CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group Heterogeneous Deb	ris Waste	Inventory D	ate 12/31/2022
Stream Name	Heterogeneous Debris from Large Item Repackaging			Activities Deca	ayed to CY 2022

Waste Volume D	Detail (m ³)
----------------	------------------------	---

Final Form Volumes				
Container Type Stored Proj.				
SLB2 Dir Ld	51.7	0.0	51.7	
SWB Dir Ld w/o Liner	39.5	0.0	39.5	
Final Form Total	91.2	0.0	91.2	

Wasta Material Parameters

Waste Material Parameters		Final Form Radionuclides		
	Total Mass		Total Activity	
Material Parameter	(kg)	Isotope	(Ci)	
Iron-based Metal/Alloys	1.75E+04	Am-241	5.87E+00	
Aluminum-based Metal/Alloys	1.61E+01	Am-243	2.42E-05	
Other Metal/Alloys	5.85E+01	Np-237	6.80E-05	
Other Inorganic Materials	1.55E+02	Pu-238	6.05E+01	
Cellulose	1.12E+03	Pu-239	1.56E+01	
Rubber	1.53E+01	Pu-240	3.52E+00	
Plastic	1.05E+03	Pu-241	4.22E+01	
Cement	0.00E+00	Pu-242	4.59E-04	
Solidified Inorganic Material	4.65E+01	Th-229	5.01E-14	
Solidified Organic Material	0.00E+00	Th-230	3.17E-09	
Soil	0.00E+00	Th-232	1.03E-17	
Vitrified	0.00E+00	U-233	5.75E-10	
Packaging Material, Cellulose	0.00E+00	U-234	3.44E-04	
Packaging Material, Plastic	0.00E+00	U-235	3.07E-08	
Packaging Material, Rubber	1.33E+01	U-236	2.08E-07	
Packaging Material, Steel	1.46E+04	U-238	1.42E-13	
Packaging Material, Lead	0.00E+00			

Haz Wasta No(s)

naz. waste no(s).
D004, D008, D009,
D010, D011, D030,
D032, D033, D034,
D037, D043, F001,
F002, F003, F004,
F005, F006, F007,
F009, P030, P098,
P099, P106, U003,
U103, U108, U134,
U151

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.

Waste Stream ID: IN-MD-811

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S3000 Defense Determination Defe	ense-Related Handling CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group Solidified Inorganics	Inventory Date 12/31/2022
Stream Name	Evaporator and Dissolver Sludge		Activities Decayed to CY 2022

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	0.2	0.0	0.2	
Final Form Total	0.4	0.0	0.4	

Waste Material Parameters				
	Total Mass			
Material Parameter	(kg)			
	2.44E+00			
Iron-based Metal/Alloys				
Aluminum-based Metal/Alloys	2.90E+00			
Other Metal/Alloys	0.00E+00			
Other Inorganic Materials	1.42E+00			
Cellulose	8.72E-01			
Rubber	5.18E+00			
Plastic	0.00E+00			
Cement	0.00E+00			
Solidified Inorganic Material	9.10E+01			
Solidified Organic Material	0.00E+00			
Soil	0.00E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	7.71E+00			
Packaging Material, Rubber	2.36E-01			
Packaging Material, Steel	5.44E+01			
Packaging Material, Lead	0.00E+00			

	Total Activity
Isotope	(Ci)
Am-241	8.40E-02
Np-237	2.68E-06
Pu-238	2.63E+01
Pu-239	7.19E-02
Pu-240	3.55E-02
Pu-241	3.79E-01
Pu-242	3.40E-05
Th-229	1.17E-13
Th-230	9.54E-08
Th-232	6.64E-18
U-233	1.71E-10
U-234	1.27E-03
U-235	1.13E-09
U-236	1.68E-08
U-238	2.99E-05

Haz. Waste No(s).

No TRUCON
Codes Provided

Waste Stream Description

Waste consists of dry evaporator and dissolver sludge from various processing and recovery operations. The consistency of the sludge or insoluble residue ranges from a powder to sand-like particles.

Waste Stream ID: IN-MO-545

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S5000 Defense Determin	nation Defense-	-Related H a	andling RH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group Heterogeneous Debr	ris Waste	Inventory Date	12/31/2022
Stream Name	Monsanto			Activities Decayed	d to CY 2022

Waste Volume	Detail ((m ³)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
RH Can NS15 w/o Liner	0.4	0.0	0.4	
Final Form Total	0.4	0.0	0.4	

Wasta Material Parameters

Waste Material Parameters		Final Form	Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	4.50E+01	Am-241	7.21E+01
Aluminum-based Metal/Alloys	1.39E+00	Am-243	9.24E-15
Other Metal/Alloys	3.00E+00	Np-237	9.38E-05
Other Inorganic Materials	2.00E+00	Pu-238	1.19E+02
Cellulose	0.00E+00	Pu-239	9.84E-02
Rubber	0.00E+00	Pu-240	5.44E-03
Plastic	0.00E+00	Pu-241	3.70E-02
Cement	0.00E+00	Pu-242	3.04E-05
Solidified Inorganic Material	0.00E+00	Pu-244	2.85E-17
Solidified Organic Material	0.00E+00	Th-229	9.34E-14
Soil	0.00E+00	Th-230	2.51E-08
Vitrified	0.00E+00	Th-232	6.36E-20
Packaging Material, Cellulose	0.00E+00	U-233	7.96E-10
Packaging Material, Plastic	8.40E+02	U-234	1.36E-03
Packaging Material, Rubber	0.00E+00	U-235	3.88E-10
Packaging Material, Steel	1.05E+03	U-236	6.44E-10
Packaging Material, Lead	0.00E+00	U-238	1.89E-14

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

TRUCON Code(s) 320

Waste Stream Description

Neutron sources from Monsanto

Waste Stream ID: IN-NRF-OMC

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S5000 Defe	ense Determination Defen	se-Related H	landling	RH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group Heterog	geneous Debris Waste	Inventory Date	12/31/2	2022
Stream Name	Organic Material Can waste			Activities Decaye	ed to CY 2	2022

Waste	Vo	lume	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 Parame	Final Form	Radionuclides	
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	1.00E+01	Am-241	1.51E-04
Aluminum-based Metal/Alloys	1.00E+01	Cm-244	1.25E-05
Other Metal/Alloys	0.00E+00	Cs-137	5.88E-01
Other Inorganic Materials	0.00E+00	Np-237	1.42E-10
Cellulose	5.00E+00	Pu-238	1.89E-02
Rubber	0.00E+00	Pu-239	3.79E-05
Plastic	0.00E+00	Pu-240	1.52E-05
Cement	0.00E+00	Pu-241	1.81E-03
Solidified Inorganic Material	0.00E+00	Sr-90	5.56E-01
Solidified Organic Material	0.00E+00	Th-229	8.06E-20
Soil	0.00E+00	Th-230	9.10E-10
Vitrified	0.00E+00	Th-232	6.87E-16
Packaging Material, Cellulose	0.00E+00	U-233	9.21E-16
Packaging Material, Plastic	2.17E+01	U-234	3.31E-05
Packaging Material, Rubber	1.42E+00	U-235	1.12E-13
Packaging Material, Steel	2.32E+03	U-236	4.64E-06
Packaging Material, Lead	0.00E+00	·	

Haz. Waste No(s).
D006

TRUCON Code(s) 322

Waste Stream Description

Fuel Examination waste from NRF

Annual Transuranic Waste Inventory Report - 2023 Waste Stream ID: IN-NRF-SPC-103

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S5000 Defense Determi	nation Defense	-Related Ha	ndling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Heterogeneous Deb	ris Waste	Inventory Date	12/31/2	2022
Stream Name	RH-TRU Debris Waste from the Naval Nuclear Propulsion Program (NNPP)			Activities Decayed	to CY 2	2022

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	46.6	0.0	46.6					
Final Form Total	46.6	0.0	46.6					

Waste Material Parame	Final Form Radionuclides		Haz. Waste No(s).	
	Total		Total	D004, D005, D006,
	Mass		Activity	D007, D008, D010,
Material Parameter	(kg)	Isotope	(Ci)	D011
Iron-based Metal/Alloys	9.31E+03	Am-241	9.94E+01	
Aluminum-based Metal/Alloys	1.36E+03	Cm-244	1.08E+00	
Other Metal/Alloys	8.91E+00	Cs-137	9.16E+03	TRUCON Code(s)
Other Inorganic Materials	3.18E+02	Np-237	9.63E-05	322
Cellulose	1.85E+02	Pu-238	4.17E+02	
Rubber	7.34E+00	Pu-239	8.52E+00	
Plastic	2.35E+02	Pu-240	8.55E+00	
Cement	0.00E+00	Pu-241	1.93E+02	
Solidified Inorganic Material	0.00E+00	Pu-242	2.93E-02	
Solidified Organic Material	0.00E+00	Sr-90	8.40E+03	
Soil	0.00E+00	Th-229	9.70E-04	
Vitrified	0.00E+00	Th-230	4.91E-05	
Packaging Material, Cellulose	0.00E+00	Th-232	5.62E-17	
Packaging Material, Plastic	4.02E+02	U-233	3.68E+00	
Packaging Material, Rubber	2.62E+01	U-234	1.78E+00	
Packaging Material, Steel	4.30E+04	U-235	4.33E-02	
Packaging Material, Lead	0.00E+00	U-236	7.59E-07	
·	·	U-238	6.12E-03	

Waste Stream Description

Waste stream includes debris waste generated during analysis of post-irradiated nuclear fuel from Naval Reactors programs using destructive examination methods.

Waste Stream ID: IN-RF-806

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S3000 Defense Determination Defe	nse-Related Handling CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group Solidified Inorganics	Inventory Date 12/31/2022
Stream Name	Solidified Process Solids		Activities Decayed to CY 2022

Waste Volume I	Detail ((m 3)
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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			
	Total Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	0.00E+00		
Aluminum-based Metal/Alloys	0.00E+00		
Other Metal/Alloys	0.00E+00		
Other Inorganic Materials	0.00E+00		
Cellulose	0.00E+00		
Rubber	0.00E+00		
Plastic	2.27E+00		
Cement	3.48E+01		
Solidified Inorganic Material	0.00E+00		
Solidified Organic Material	0.00E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	7.71E+00		
Packaging Material, Rubber	1.18E-01		
Packaging Material, Steel	2.72E+01		
Packaging Material, Lead	0.00E+00		

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	3.23E-01		
Np-237	3.60E-06		
Pu-238	3.63E-02		
Pu-239	2.17E+00		
Pu-240	5.30E-01		
Pu-241	1.62E+00		
Pu-242	3.67E-05		
Th-229	3.69E-14		
Th-230	3.15E-11		
Th-232	2.48E-17		
U-233	1.10E-10		
U-234	8.46E-07		
U-235	1.71E-08		
U-236	1.25E-07		
U-238	4.56E-14		

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

Various sludges, particulates (for example, ash, or resins), and dissolution heels immobilized into solid monoliths.

Total Activity (Ci) 3.47E-02 1.69E+00

7.09E-07 2.03E-01 1.98E-04 1.36E-04 8.41E-05 1.58E-07 1.92E+00 2.03E-15 4.31E-11 1.59E-21 1.16E-11 2.33E-06 7.80E-13 1.61E-11 9.81E-17

Waste Stream ID: IN-RF-SOURCE-RH

Appendix A

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S500	00 Defense Determin	nation Defense-	-Related	Handling	RH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/2	2022
Stream Name	Rocky Flats Source				Activities Decay	ed to CY 2	2022

Waste	Volume	Detail	(m ³)
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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		Final For
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	0.00E+00	Am-241
Aluminum-based Metal/Alloys	3.00E+00	Cs-137
Other Metal/Alloys	0.00E+00	Np-237
Other Inorganic Materials	0.00E+00	Pu-238
Cellulose	0.00E+00	Pu-239
Rubber	0.00E+00	Pu-240
Plastic	0.00E+00	Pu-241
Cement	0.00E+00	Pu-242
Solidified Inorganic Material	0.00E+00	Sr-90
Solidified Organic Material	0.00E+00	Th-229
Soil	0.00E+00	Th-230
Vitrified	0.00E+00	Th-232
Packaging Material, Cellulose	0.00E+00	U-233
Packaging Material, Plastic	5.43E+00	U-234
Packaging Material, Rubber	3.54E-01	U-235
Packaging Material, Steel	5.81E+02	U-236
Packaging Material, Lead	0.00E+00	U-238

orm Radionuclides		No Hazardous
	Total	Waste Numbers
	Activity	Provided
	(Ci)	
	3.47E-02	
	1 60F±00	TRUCON Code(s)

320

Waste Stream	Description
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Source originating from Rocky Flats

Final Form Radionuclides

Isotope Am-241

Np-237

Pu-238

Pu-239

Th-229

Th-230

Th-232

U-233

U-234

U-235

0.00E+00

0.00E+00

0.00E+00 1.34E+02

2.31E+01 3.54E-01

2.00E+02

0.00E+00

Total

Activity (Ci)

9.11E-02

6.35E-04

6.89E-01

8.07E-02

1.05E-04

1.32E-08

2.51E-09

3.41E-02

7.84E-05

7.88E-08

Waste Stream ID: KA-T003

Appendix A

Waste Profile Report

Site	Knolls Atomic Power Laboratory - Schenectady	Summary Category S5000 Defense Determi	nation Defense	-Related H	landling	СН
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group Heterogeneous Deb	ris Waste	Inventory Date	e 12/31/	/2022
Stream Name	Transuranic Debris			Activities Decaye	ed to CY	2022

Waste	Volume	Detail ((m ³)
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Final Form Volumes				
Container Type Stored Proj. Tota				
55-gal POC - 6" w/ Liner	0.0	0.0	0.0	
Final Form Total	0.0	0.0	0.0	

Total Mass Naterial Parameter (kg)

Solidified Organic Material

Packaging Material, Cellulose Packaging Material, Plastic

Packaging Material, Rubber Packaging Material, Steel

Packaging Material, Lead

Soil Vitrified **Waste Material Parameters**

	iviass
Material Parameter	(kg)
Iron-based Metal/Alloys	9.70E+00
Aluminum-based Metal/Alloys	6.00E-02
Other Metal/Alloys	1.00E-02
Other Inorganic Materials	2.30E-01
Cellulose	7.99E+00
Rubber	7.20E-01
Plastic	6.41E+00
Cement	0.00E+00
Solidified Inorganic Material	0.00E+00
Calidifical Oversia Material	0.005.00

No Hazardous Waste Numbers Provided

TRUCON Code(s) 125/225

Waste Stream Descr	iption
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This transuranic waste has not yet been generated. It consists of organic and inorganic particulate and debris.

Waste Stream ID: LA-CIN01.001

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S3000 Defense Determinatio	n Defense-Related Handlin	ng CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Solidified Inorganics	Inventory Date 12/	31/2022
Stream Name	Cemented TRU Waste		Activities Decayed to C	Y 2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	88.4	72.5	160.9
55-gal POC - 12" w/ Liner	0.1	0.0	0.1
SWB Dir Ld w/ Liner	193.6	0.0	193.6
SWB w/ 4 - 55-gal Drums w/ Liners	3.4	0.0	3.4
Final Form Total	285.5	72.5	358.0

Waste Material Parameters			
	Total		
	Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	1.64E+04		
Aluminum-based Metal/Alloys	8.78E-01		
Other Metal/Alloys	4.53E+03		
Other Inorganic Materials	7.98E+02		
Cellulose	5.10E+01		
Rubber	1.50E+02		
Plastic	3.07E+03		
Cement	1.37E+05		
Solidified Inorganic Material	0.00E+00		
Solidified Organic Material	0.00E+00		
Soil	1.81E+02		
Vitrified	0.00E+00		
Packaging Material, Cellulose	5.62E+01		
Packaging Material, Plastic	6.28E+03		
Packaging Material, Rubber	1.31E+02		
Packaging Material, Steel	5.25E+04		
Packaging Material, Lead	0.00E+00		

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	1.59E+04	
Am-243	5.12E-01	
Cs-137	3.10E-04	
Np-237	1.34E-01	
Pu-238	2.64E+03	
Pu-239	2.52E+03	
Pu-240	7.29E+02	
Pu-241	1.70E+04	
Pu-242	1.01E+00	
Pu-244	2.50E-07	
Sr-90	2.73E-04	
Th-229	5.18E-07	
Th-230	3.52E-07	
Th-232	3.55E-16	
U-233	5.89E-02	
U-234	3.83E-01	
U-235	3.58E-03	
U-236	7.31E-05	
U-238	1.22E-01	

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.

Waste Stream ID: LA-CIN02.001

Appendix AWaste Profile Report

Los Alamos National Laboratory

Summary Category

Sand Defense Determination

Defense-Related

Handling CH

Waste Matrix Code Group

Solidified Inorganics

Inventory Date

12/31/2022

Activities Decayed to CY

2022

Waste Vol	lume Detail ((m ³)	
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Site

Source Cat.

Stream Name

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	16.0	0.0	16.0
SWB Dir Ld w/ Liner	107.2	0.0	107.2
Final Form Total	123.1	0.0	123.1

Waste Material Parameters		
	Total Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	8.35E+03	
Aluminum-based Metal/Alloys	0.00E+00	
Other Metal/Alloys	0.00E+00	
Other Inorganic Materials	1.68E+00	
Cellulose	6.31E+01	
Rubber	3.60E+00	
Plastic	5.91E+02	
Cement	6.21E+04	
Solidified Inorganic Material	0.00E+00	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	7.15E+02	
Packaging Material, Rubber	2.97E+01	
Packaging Material, Steel	1.86E+04	

0.00E+00

Final Form Radionuclides			
Total			
	Activity		
Isotope	(Ci)		
Am-241	2.94E+02		
Am-243	2.08E-02		
Cs-137	1.55E-04		
Np-237	2.23E-02		
Pu-238	2.82E+01		
Pu-239	3.70E+02		
Pu-240	5.70E+01		
Pu-241	3.76E+02		
Pu-242	1.19E-02		
Sr-90	1.28E-04		
Th-229	1.07E-14		
Th-230	4.31E-08		
Th-232	2.50E-05		
U-233	3.40E-09		
U-234	4.69E-02		
U-235	1.71E-03		
U-236	1.69E-07		
U-238	1.40E-04		

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.

Packaging Material, Lead

Annual Transuranic Waste Inventory Report - 2023

Waste Stream ID: LA-CIN03.001

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S3000 Defense Determination Defense	e-Related Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Solidified Inorganics	Inventory Date 12/31/2022
Stream Name	Cemented TRU Waste		Activities Decayed to CY 2022

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

Waste Material Parameters		Final Form	Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	1.85E+00	Am-241	1.04E-01
Aluminum-based Metal/Alloys	0.00E+00	Am-243	4.22E-05
Other Metal/Alloys	0.00E+00	Cs-137	2.57E-04
Other Inorganic Materials	0.00E+00	Np-237	2.82E-05
Cellulose	0.00E+00	Pu-238	1.30E+00
Rubber	0.00E+00	Pu-239	4.09E-01
Plastic	1.48E+01	Pu-240	6.99E-02
Cement	1.37E+03	Pu-241	1.11E+00
Solidified Inorganic Material	0.00E+00	Pu-242	5.59E-05
Solidified Organic Material	0.00E+00	Sr-90	2.57E-04
Soil	0.00E+00	Th-229	5.96E-07
Vitrified	0.00E+00	Th-230	4.60E-10
Packaging Material, Cellulose	0.00E+00	Th-232	5.11E-22
Packaging Material, Plastic	5.40E+01	U-233	4.31E-12
Packaging Material, Rubber	8.26E-01	U-234	5.00E-04
Packaging Material, Steel	1.90E+02	U-235	1.24E-05
Packaging Material, Lead	0.00E+00	U-236	2.07E-10
		U-238	7.11E-04

Haz Wasta No(s)

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.

Annual Transuranic Waste Inventory Report - 2023

Waste Stream ID: LA-CIN04.001

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S3000 Defense Determination Defe	nse-Related H	landling CH
Source Cat.	Spill Clean-ups/Emergency Response Actions	Waste Matrix Code Group Solidified Inorganics	Inventory Date	12/31/2022
Stream Name	Cemented TRU Waste		Activities Decaye	ed to CY 2022

Waste	Volume	Detail	(m ³)
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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	1485.2	0.0	1485.2	
Final Form Total	1485.6	0.0	1485.6	

Waste	Material	Parameters

Waste Material Parameters		Final Forn	n Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	3.63E+04	Am-241	1.04E+04
Aluminum-based Metal/Alloys	0.00E+00	Am-243	4.40E-06
Other Metal/Alloys	0.00E+00	Cs-137	1.96E-01
Other Inorganic Materials	0.00E+00	Np-237	6.77E-03
Cellulose	0.00E+00	Pu-238	3.14E+01
Rubber	0.00E+00	Pu-239	6.13E+01
Plastic	9.98E+02	Pu-240	3.72E-01
Cement	8.70E+05	Pu-241	5.18E+00
Solidified Inorganic Material	0.00E+00	Pu-242	2.15E-05
Solidified Organic Material	0.00E+00	Sr-90	1.38E-01
Soil	0.00E+00	Th-229	1.73E-12
Vitrified	0.00E+00	Th-230	1.08E-07
Packaging Material, Cellulose	0.00E+00	Th-232	8.18E-15
Packaging Material, Plastic	1.81E+03	U-233	2.95E-08
Packaging Material, Rubber	2.87E+02	U-234	5.95E-03
Packaging Material, Steel	2.29E+05	U-235	2.14E-02
Packaging Material, Lead	0.00E+00	U-236	8.29E-05
		U-238	1.08E-02

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, 127/227

Waste Stream Description

Cemented TRU waste stored in corrugated metal pipes.

Waste Stream ID: LA-LA225D Appendix A
Waste Profile Report

Summary Category S3000 Defense Determination Defense-Related Handling CH
Waste Matrix Code Group Solidified Inorganics Inventory Date 12/31/2022

Stream Name Cemented TRU Waste

Los Alamos National Laboratory

Waste Volume Detail (m³)

Site

Source Cat.

Final Form Volumes						
Container Type Stored Proj. Total						
55-gal Drum Dir Ld w/ Liner	4.4	0.0	4.4			
SWB Dir Ld w/ Liner	1.9	0.0	1.9			
Final Form Total	6.3	0.0	6.3			

Facility/Equipment Operation and Maintenance Waste

Waste Material Parameters			
Total Mass			
Material Parameter	(kg)		
Iron-based Metal/Alloys	1.76E+01		
Aluminum-based Metal/Alloys	0.00E+00		
Other Metal/Alloys	0.00E+00		
Other Inorganic Materials	0.00E+00		
Cellulose	0.00E+00		
Rubber	0.00E+00		
Plastic	3.12E+00		
Cement	4.91E+02		
Solidified Inorganic Material	0.00E+00		
Solidified Organic Material	0.00E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	1.64E+02		
Packaging Material, Rubber	2.84E+00		
Packaging Material, Steel	8.61E+02		
Packaging Material, Lead	0.00E+00		

Final Form Radionuclides				
	Total			
	Activity			
Isotope	(Ci)			
Am-241	4.10E-01			
Am-243	3.53E-04			
Cs-137	2.66E-05			
Np-237	3.61E-05			
Pu-238	3.03E-01			
Pu-239	8.75E-01			
Pu-240	1.69E-01			
Pu-241	1.06E+00			
Pu-242	1.18E-05			
Sr-90	2.63E-05			
Th-229	1.80E-06			
Th-230	5.60E-09			
Th-232	3.74E-17			
U-233	1.22E-09			
U-234	7.96E-05			
U-235	6.60E-07			
U-236	1.15E-07			
U-238	5.10E-09			
<u> </u>				

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

Activities Decayed to CY 2022

TRUCON Code(s) 125/225

Waste Stream Description

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

Final Form Radionuclides

Total Activity (Ci)

1.69E+00

4.31E-06

7.78E-01

2.34E+01

1.94E+00

2.67E+01

1.14E-02

1.96E-14

6.60E-09

9.09E-17

7.81E-11

9.87E-05

4.80E-07

4.61E-07

1.41E-11

Waste Stream ID: LA-LANHD01

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S500	0 Defense Determin	nation Defense	-Related I	landling	СН
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/	/2022
Stream Name	TRU METAL WASTE				Activities Decay	ed to CY	2022

Waste Volume I	Detail ((m 3)
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Final Form Volumes						
Container Type Stored Proj. Tota						
SLB2 Dir Ld	14.8	0.0	14.8			
SWB Dir Ld w/ Liner	15.0	0.0	15.0			
Final Form Total	29.8	0.0	29.8			

Waste Material Parame	Final	
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	1.01E+04	Am-241
Aluminum-based Metal/Alloys	4.08E+01	Np-237
Other Metal/Alloys	1.21E+03	Pu-238
Other Inorganic Materials	6.55E+03	Pu-239
Cellulose	8.36E+02	Pu-240
Rubber	1.25E+03	Pu-241
Plastic	3.87E+03	Pu-242
Cement	0.00E+00	Th-229
Solidified Inorganic Material	1.61E+02	Th-230
Solidified Organic Material	0.00E+00	Th-232
Soil	0.00E+00	U-233
Vitrified	0.00E+00	U-234
Packaging Material, Cellulose	0.00E+00	U-235
Packaging Material, Plastic	1.82E+01	U-236
Packaging Material, Rubber	4.54E+00	U-238
Packaging Material, Steel	4.76E+03	
Packaging Material, Lead	0.00E+00	

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) 117/217

Waste Stream Description

ALL OTHER NON-COMBUSTIBLE WASTE

Waste Stream ID: LA-MHD01.001

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S5000	Defense Determina	tion Defense-	Related I	landling CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group H	leterogeneous Debris	Waste	Inventory Dat	e 12/31/2022
Stream Name	Heterogeneous Debris Waste				Activities Decay	ed to CY 2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	218.6	791.1	1009.7
55-gal POC - 12" w/ Liner	11.7	0.0	11.7
SLB2 Dir Ld	0.0	473.0	473.0
SWB Dir Ld w/ Liner	109.0	2840.7	2949.7
SWB w/ 4 - 55-gal Drums w/ Liners	10.1	319.2	329.3
Final Form Total	349.4	4423.9	4773.3

	Total Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	6.41E+05
Aluminum-based Metal/Alloys	1.05E+04
Other Metal/Alloys	4.35E+04
Other Inorganic Materials	4.41E+04
Cellulose	9.63E+04
Rubber	4.21E+04
Plastic	8.91E+04
Cement	0.00E+00
Solidified Inorganic Material	1.24E+05
Solidified Organic Material	1.33E+02
Soil	4.48E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	6.72E+03
Packaging Material, Plastic	5.45E+04
Packaging Material, Rubber	1.54E+03

8.47E+05

0.00E+00

Waste Material Parameters

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	8.91E+03	
Am-243	2.36E-01	
Cm-244	4.03E-01	
Cs-137	8.95E-04	
Np-237	1.16E-01	
Pu-238	2.72E+05	
Pu-239	3.49E+04	
Pu-240	8.91E+03	
Pu-241	1.42E+05	
Pu-242	1.88E+00	
Pu-244	8.07E-07	
Sr-90	8.95E-04	
Th-229	1.25E-06	
Th-230	2.86E-05	
Th-232	2.56E-15	
U-233	1.42E-01	
U-234	3.11E+01	
U-235	2.20E-03	
U-236	5.31E-04	
U-238	4.60E-02	

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.

Packaging Material, Steel

Packaging Material, Lead

Isotope Am-241 Am-243 Cm-244 Cs-137 Np-237 Pu-238 Pu-239 Pu-240 Pu-241

Pu-242

Pu-244

Sr-90

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

U-238

Waste Stream ID: LA-MHD01-Pits

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S500	Defense Determin	nation Defense-	-Related	Handling CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/2022
Stream Name	Heterogeneous Debris				Activities Decay	red to CY 2022

Waste Volume I	Detail ((m 3)
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Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.0	891.0	891.0
55-gal POC - 12" w/ Liner	0.0	592.1	592.1
Final Form Total	0.0	1483 2	1483 2

Waste I	Material	Parameters

	Total
	Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	4.07E+04
Aluminum-based Metal/Alloys	1.65E+02
Other Metal/Alloys	4.88E+03
Other Inorganic Materials	2.64E+04
Cellulose	3.37E+03
Rubber	5.05E+03
Plastic	1.56E+04
Cement	0.00E+00
Solidified Inorganic Material	6.49E+02
Solidified Organic Material	0.00E+00
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	3.41E+05
Packaging Material, Plastic	1.26E+05
Packaging Material, Rubber	1.93E+03
Packaging Material, Steel	1.45E+06
Packaging Material, Lead	0.00E+00

Final Forn

1.08E+00

2.11E-05

1.00E-02

5.11E-14

7.33E-06

2.84E-14

1.63E-08

7.99E+00

1.82E-03

5.76E-03

3.19E-01

m	Radionuclides	Haz. Waste No(s).
	Total	D004, D005, D006,
	Activity	D007, D008, D009,
	(Ci)	D010, D011, D018,
	5.37E+03	D019, D021, D022,
	3.34E-01	D035, D038, D039,
	3.13E+01	D040, F001, F002,
	9.39E-03	F003, F005
	1.06E-01	
	6.32E+04	TRUCON Code/s/
	2.34E+04	TRUCON Code(s)
	6.09E+03	112/212, 115/215,
	1.03E+05	116/216, 117/217

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 during pit production

Waste Stream ID: LA-MHD03.001

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S5000 Defense Determi	nation Defense	-Related I	landling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Heterogeneous Deb	ris Waste	Inventory Date	e 12/31/	/2022
Stream Name	Heterogeneous Debris Waste			Activities Decay	ed to CY	2022

Waste Volume Detail (m 3)	Waste	Volume	Detail	(m ³)
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Final Form Volumes				
Container Type		Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner		84.4	83.2	167.6
55-gal POC - 12" w/ Liner		0.0	0.0	0.0
SLB2 Dir Ld		0.0	310.4	310.4
SWB Dir Ld w/ Liner		16.9	0.0	16.9
Final Form Total	Ī	101.4	393.5	494.9

Waste Material Paramet	ers
	Total Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	4.27E+04
Aluminum-based Metal/Alloys	7.25E+02
Other Metal/Alloys	1.80E+03
Other Inorganic Materials	4.68E+03
Cellulose	1.42E+04
Rubber	8.01E+02
Plastic	7.07E+03
Cement	0.00E+00
Solidified Inorganic Material	1.10E+04
Solidified Organic Material	9.04E+00
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	2.81E+01
Packaging Material, Plastic	6.18E+03
Packaging Material, Rubber	1.32E+02
Packaging Material, Steel	7.57E+04
Packaging Material, Lead	0.00E+00

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	1.82E+02		
Am-243	1.47E-01		
Cm-244	7.89E+02		
Cs-137	9.34E-01		
Np-237	2.41E-01		
Pu-238	1.07E+03		
Pu-239	9.16E+02		
Pu-240	2.11E+02		
Pu-241	3.15E+03		
Pu-242	1.52E-02		
Sr-90	4.49E-01		
Th-229	9.05E-05		
Th-230	2.06E-07		
Th-232	2.07E-04		
U-233	7.47E-02		
U-234	2.24E-01		
U-235	4.16E-03		
U-236	2.90E-04		
U-238	1.84E-04		

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.

A-LA-9

Annual Transuranic Waste Inventory Report - 2023 Waste Stream ID: LA-MHD04.001

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S500	0 Defense Determin	ation Defense-	-Related I	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Dat	e 12/31/2022
Stream Name	Heterogeneous Debris Waste				Activities Decay	ed to CY 2022

Waste Volume I	Detail ((m 3)
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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	1.9	0.0	1.9
TDOP Dir Ld	18.0	0.0	18.0
Final Form Total	20.5	0.0	20.5

	Total
	Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	2.21E+03
Aluminum-based Metal/Alloys	7.91E+01
Other Metal/Alloys	3.53E+01
Other Inorganic Materials	1.39E+01
Cellulose	5.48E+02
Rubber	8.79E+01
Plastic	2.33E+02
Cement	0.00E+00
Solidified Inorganic Material	1.35E+02
Solidified Organic Material	0.00E+00
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	2.54E+01
Packaging Material, Rubber	3.98E+00

3.46E+03

0.00E+00

Waste Material Parameters

Final Forr	Radionuclides		
	Total		
	Activity		
Isotope	(Ci)		
Am-241	4.60E-01		
Am-243	3.31E-05		
Cs-137	1.32E-06		
Np-237	1.50E-05		
Pu-238	1.62E+01		
Pu-239	2.94E+00		
Pu-240	5.98E-01		
Pu-241	2.05E+00		
Pu-242	9.98E-05		
Sr-90	1.31E-06		
Th-229	1.72E-13		
Th-230	1.24E-07		
Th-232	2.79E-17		
U-233	4.95E-10		
U-234	1.87E-03		
U-235	3.23E-08		
U-236	1.42E-07		
U-238	1.24E-13		

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, 125/225

Waste Stream Description

Mixed heterogeneous combustible and non-combustible debris generated at TA-21 DP West Facility during plutonium processing and associated operations.

Packaging Material, Steel

Packaging Material, Lead

Waste Stream ID: LA-MHD05-ITRI.001

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S500	0 Defense Determin	ation Defense-	-Related I	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Dat	e 12/31/2022
Stream Name	Heterogeneous Debris Waste				Activities Decay	ed to CY 2022

Waste	Vo	lume	Detai	I (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						
	Total Mass					
Material Parameter	(kg)					
Iron-based Metal/Alloys	3.39E+02	[[
Aluminum-based Metal/Alloys	0.00E+00					
Other Metal/Alloys	8.32E+01					
Other Inorganic Materials	7.86E+01	[
Cellulose	2.13E+01	Ī				
Rubber	2.05E+01	Į				
Plastic	9.05E+01	Ī				
Cement	0.00E+00	Ī				
Solidified Inorganic Material	3.25E+01	Ī				
Solidified Organic Material	0.00E+00	Ī				
Soil	0.00E+00	[
Vitrified	0.00E+00	F				
Packaging Material, Cellulose	0.00E+00	F				
Packaging Material, Plastic	1.03E+02	F				
Packaging Material, Rubber	1.90E+00	Ī				
Packaging Material, Steel	6.44E+02	Ī				
Packaging Material, Lead	0.00E+00	l				

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	1.89E+01		
Am-243	7.77E-02		
Cm-244	3.50E+00		
Cs-137	5.45E-07		
Np-237	1.31E-04		
Pu-238	3.63E-02		
Pu-239	7.75E-01		
Pu-240	1.51E-01		
Pu-241	1.34E+00		
Pu-242	8.72E-06		
Sr-90	5.44E-07		
Th-229	9.39E-14		
Th-230	1.90E-12		
Th-232	4.39E-19		
U-233	1.08E-09		
U-234	2.07E-07		
U-235	1.53E-09		
U-236	8.90E-09		
U-238	2.71E-15		

Haz. Waste No(s). D005, D006, D007, D008, D009, D011, D019, 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.

Annual Transuranic Waste Inventory Report - 2023

Waste Stream ID: LA-MHD08.001

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S5000 Defense Determin	nation Defense-	-Related	Handling CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Heterogeneous Debr	is Waste	Inventory Da	ate 12/31/2022
Stream Name	Heterogeneous Debris Waste			Activities Deca	yed to CY 2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes					
Container Type	Stored	Proj.	Total		
55-gal POC - 12" w/ Liner	0.0	0.0	0.0		
SWB Dir Ld w/ Liner	1.9	0.0	1.9		
Final Form Total	1.9	0.0	1.9		

Waste Material Parameters

Waste Material Parame	ters	Final Forn	n Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	7.19E+00	Am-241	1.98E-02
Aluminum-based Metal/Alloys	0.00E+00	Am-243	2.46E-02
Other Metal/Alloys	6.90E+00	Cs-137	8.77E-05
Other Inorganic Materials	4.78E-01	Np-237	5.67E-05
Cellulose	1.02E+00	Pu-238	3.41E-02
Rubber	1.09E+00	Pu-239	1.17E-04
Plastic	2.39E+00	Pu-240	2.06E-03
Cement	0.00E+00	Pu-241	1.14E-01
Solidified Inorganic Material	1.40E+00	Pu-242	4.98E-04
Solidified Organic Material	0.00E+00	Sr-90	8.66E-05
Soil	0.00E+00	Th-229	6.85E-13
Vitrified	0.00E+00	Th-230	2.57E-10
Packaging Material, Cellulose	2.81E+01	Th-232	9.62E-20
Packaging Material, Plastic	9.98E+00	U-233	1.95E-09
Packaging Material, Rubber	4.81E-01	U-234	3.88E-06
Packaging Material, Steel	4.00E+02	U-235	8.98E-13
Packaging Material, Lead	0.00E+00	U-236	4.87E-10
		U-238	6.18E-13

Haz Wasto No(s)

naz. 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.

Waste Stream ID: LA-MHD09.001

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S500	0 Defense Determin	ation Defense-	-Related I	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Dat	e 12/31/2022
Stream Name	Heterogeneous Debris Waste				Activities Decay	ed to CY 2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
55-gal Drum Dir Ld w/ Liner	1.7	0.0	1.7	
SWB Dir Ld w/ Liner	13.2	0.0	13.2	
Final Form Total	14.8	0.0	14.8	

waste Material Parameters		:12	
			1

Waste Material Parameters		Final Form	Final Form Radionuclides	
	Total	Total		
	Mass		Activity	
Material Parameter	(kg)	Isotope	(Ci)	
Iron-based Metal/Alloys	5.85E+03	Am-241	7.43E-01	
Aluminum-based Metal/Alloys	1.55E+01	Am-243	2.33E-05	
Other Metal/Alloys	1.12E+02	Cs-137	3.26E-06	
Other Inorganic Materials	2.95E+01	Np-237	5.32E-05	
Cellulose	4.01E+02	Pu-238	3.07E+00	
Rubber	6.22E+01	Pu-239	6.94E-01	
Plastic	4.07E+02	Pu-240	1.80E-01	
Cement	0.00E+00	Pu-241	1.87E+00	
Solidified Inorganic Material	2.95E+02	Pu-242	1.72E-04	
Solidified Organic Material	0.00E+00	Sr-90	3.25E-06	
Soil	0.00E+00	Th-229	1.02E-14	
Vitrified	0.00E+00	Th-230	3.96E-09	
Packaging Material, Cellulose	0.00E+00	Th-232	8.34E-18	
Packaging Material, Plastic	7.76E+01	U-233	2.31E-10	
Packaging Material, Rubber	3.48E+00	U-234	4.35E-04	
Packaging Material, Steel	2.25E+03	U-235	1.24E-06	
Packaging Material, Lead	0.00E+00	U-236	1.72E-07	
		U-238	1.14E-08	

Haz Wasta No(s)

naz. waste wo(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.

Waste Stream ID: LA-MIN02-V.001

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S3000 Defense Determination Defens	e-Related Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Solidified Inorganics	Inventory Date 12/31/2022
Stream Name	Absorbed Waste		Activities Decayed to CY 2022

Waste Volume I	Detail ((m 3)
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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	5.6	0.0	5.6	
Final Form Total	8.8	0.0	8.8	

Waste Material Parameters			
	Total		
	Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	4.11E+01		
Aluminum-based Metal/Alloys	0.00E+00		
Other Metal/Alloys	8.41E+01		
Other Inorganic Materials	5.18E-01		
Cellulose	1.88E+01		
Rubber	7.17E+00		
Plastic	5.87E+01		
Cement	0.00E+00		
Solidified Inorganic Material	1.12E+03		
Solidified Organic Material	9.74E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	1.22E+02		
Packaging Material, Rubber	2.86E+00		
Packaging Material, Steel	1.28E+03		
Packaging Material, Lead	0.00E+00		

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	2.20E+01	
Am-243	7.81E-03	
Cs-137	8.85E-07	
Np-237	4.47E-04	
Pu-238	4.72E+01	
Pu-239	3.70E+01	
Pu-240	9.13E+00	
Pu-241	6.52E+01	
Pu-242	6.33E-04	
Sr-90	8.81E-07	
Th-229	7.45E-13	
Th-230	2.55E-07	
Th-232	6.00E-17	
U-233	5.69E-09	
U-234	9.44E-03	
U-235	4.20E-05	
U-236	8.11E-07	
U-238	1.05E-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, 124/224, 125/225, 126/226, 129/229

Waste Stream Description

Inorganic particulate waste generated in TA-55.

Annual Transuranic Waste Inventory Report - 2023

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 12/31/2022
Stream Name	Homogeneous Inorganic Solids		Activities Dec	cayed to CY 2022

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	55.4	0.0	55.4
SWB Dir Ld w/ Liner	9.4	0.0	9.4
Final Form Total 64.8 0.0 64			

Waste Material Parameters

Waste Material Parameters		Final Form	Final Form Radionuclides		
	Total Mass		Total Activity		
Material Parameter	(kg)	Isotope	(Ci)		
ron-based Metal/Alloys	4.07E+02	Am-241	3.10E+01		
Aluminum-based Metal/Alloys	3.30E+01	Am-243	1.11E-03		
Other Metal/Alloys	9.61E+00	Cs-137	2.76E-03		
Other Inorganic Materials	3.57E+01	Np-237	2.77E-04		
Cellulose	1.20E+02	Pu-238	8.10E+00		
Rubber	1.87E+01	Pu-239	1.51E+01		
Plastic	9.18E+02	Pu-240	1.90E+00		
Cement	0.00E+00	Pu-241	1.86E+01		
Solidified Inorganic Material	4.52E+04	Pu-242	4.35E-04		
Solidified Organic Material	0.00E+00	Sr-90	2.41E-03		
Soil	0.00E+00	Th-229	1.29E-06		
Vitrified	0.00E+00	Th-230	2.53E-09		
Packaging Material, Cellulose	0.00E+00	Th-232	1.54E-06		
Packaging Material, Plastic	2.05E+03	U-233	4.22E-11		
Packaging Material, Rubber	3.30E+01	U-234	2.75E-03		
Packaging Material, Steel	8.63E+03	U-235	1.02E-04		
Packaging Material, Lead	0.00E+00	U-236	5.61E-09		
		U-238	7.79E-05		

Haz Wasta Na(s)

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, 125/225

Waste Stream Description

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

Annual Transuranic Waste Inventory Report - 2023 Waste Stream ID: LA-MIN04-S.001

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S3000 Defense Determination Defe	ense-Related	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Salt Waste	Inventory D	ate 12/31/2022
Stream Name	Salt Waste		Activities Dec	ayed to CY 2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
55-gal Drum Dir Ld w/ Liner	0.6	0.0	0.6	
55-gal POC - 12" w/ Liner	0.1	0.0	0.1	
SWB w/ 4 - 55-gal Drums w/ Liners	0.8	0.0	0.8	
Final Form Total	1.6	0.0	1.6	

	Total
	Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	8.19E+00
Aluminum-based Metal/Alloys	0.00E+00
Other Metal/Alloys	1.41E+01
Other Inorganic Materials	7.34E+00
Cellulose	2.02E-01
Rubber	2.02E-01
Plastic	8.37E+00
Cement	0.00E+00
Solidified Inorganic Material	1.42E+02
Solidified Organic Material	0.00E+00
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	5.62E+01
Packaging Material, Plastic	6.93E+01
Packaging Material, Rubber	1.42E+00

7.01E+02

0.00E+00

Waste Material Parameters

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	2.25E+01	
Am-243	2.37E-02	
Cs-137	1.38E-05	
Np-237	1.96E-04	
Pu-238	1.54E+00	
Pu-239	5.06E+01	
Pu-240	1.26E+01	
Pu-241	1.02E+02	
Pu-242	8.97E-04	
Sr-90	1.37E-05	
Th-229	1.43E-13	
Th-230	8.07E-11	
Th-232	3.69E-17	
U-233	1.64E-09	
U-234	8.76E-06	
U-235	5.23E-07	
U-236	7.47E-07	
U-238	2.78E-13	

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

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

Packaging Material, Steel

Packaging Material, Lead

Isotope Am-241

Am-243

Cs-137

Np-237

Pu-238

Pu-239

Pu-240

Pu-241

Pu-242

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

U-238

Sr-90

Waste Stream ID: LA-MIN05-V.001

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S3000 Defense Determine	nation Defense-Related	Handling CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Solidified Inorganics	Inventory	Date 12/31/2022
Stream Name	Absorbed TRU Waste		Activities Do	ecayed to CY 2022

Waste Vo	lume De	tail (m ³)
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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

	Total
Matarial Dayamatar	Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	1.77E+01
Aluminum-based Metal/Alloys	2.90E+00
Other Metal/Alloys	0.00E+00
Other Inorganic Materials	2.54E+00
Cellulose	9.76E+00
Rubber	1.45E+00
Plastic	1.86E+01
Cement	0.00E+00
Solidified Inorganic Material	2.24E+02
Solidified Organic Material	1.08E+02
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	4.63E+01
Packaging Material, Rubber	7.08E-01
Packaging Material, Steel	1.63E+02
Packaging Material, Lead	0.00E+00

Final Form Radionuclides Haz Total D000 Activity D000

(Ci)

8.15E-01

1.48E-05

9.88E-06

6.06E-03

2.99E-01

7.20E+00

1.64E+00

2.01E+01

9.95E-05

1.01E-05

4.05E-07

4.38E-09

1.20E-18

4.60E-03

4.77E-04

1.19E-05

4.85E-08

1.54E-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

Annual Transuranic Waste Inventory Report - 2023

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 D	Date 12/31/2022
Stream Name	Treated Legacy Nitrate Salt Waste		Activities Dec	cayed to CY 2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3	6 0.0	3.6
55-gal POC - 12" w/ Liner	0.	0.0	0.0
Final Form Total	3.	6 0.0	3.6

Waste	Material	Parameters

Waste Material Parameters		Final Forn	n Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	7.02E-01	Am-241	4.27E+01
Aluminum-based Metal/Alloys	0.00E+00	Am-243	3.87E-03
Other Metal/Alloys	2.96E-01	Cs-137	3.14E-06
Other Inorganic Materials	0.00E+00	Np-237	4.87E-04
Cellulose	2.96E-02	Pu-238	4.04E-01
Rubber	0.00E+00	Pu-239	1.22E+01
Plastic	2.46E+00	Pu-240	2.60E+00
Cement	0.00E+00	Pu-241	2.44E+01
Solidified Inorganic Material	2.51E+03	Pu-242	2.60E-04
Solidified Organic Material	0.00E+00	Sr-90	3.13E-06
Soil	0.00E+00	Th-229	9.15E-14
Vitrified	0.00E+00	Th-230	1.58E-09
Packaging Material, Cellulose	2.81E+01	Th-232	1.90E-18
Packaging Material, Plastic	1.39E+02	U-233	2.09E-09
Packaging Material, Rubber	2.12E+00	U-234	1.73E-04
Packaging Material, Steel	5.72E+02	U-235	1.76E-06
Packaging Material, Lead	0.00E+00	U-236	7.70E-08
		U-238	1.66E-04

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, 126/226

Waste Stream Description

Inorganic homogeneous solids generated in TA-55 and treated at TA-50

Waste Stream ID: LA-MSG04.001

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S400	Defense Determin	ation Defense-	-Related I	landling	СН
Source Cat.	Spill Clean-ups/Emergency Response Actions	Waste Matrix Code Group	Contaminated Soil/De	ebris Waste	Inventory Date	e 12/31/	/2022
Stream Name	Contaminated Soil				Activities Decay	ed to CY	2022

Waste	Volume	Detail	(m ³)
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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	20.7	0.0	20.7
Final Form Total 28.7 0.0 28			

Waste Material Parameters		
	Total	
	Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	5.59E+01	
Aluminum-based Metal/Alloys	0.00E+00	
Other Metal/Alloys	4.48E+00	
Other Inorganic Materials	3.36E+00	
Cellulose	6.71E-01	
Rubber	0.00E+00	
Plastic	8.42E+01	
Cement	0.00E+00	
Solidified Inorganic Material	2.24E+01	
Solidified Organic Material	0.00E+00	
Soil	1.29E+04	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	3.18E+02	
Packaging Material, Rubber	8.48E+00	
Packaging Material, Steel	4.22E+03	
Packaging Material, Lead	0.00E+00	

Final Form Radionuclides			
Total			
	Activity		
Isotope	(Ci)		
Pu-239	1.33E+00		
U-235	5.78E-08		

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

TRUCON Code(s) 111/211, 127/227

Waste Stream Description

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

Waste Stream ID: LA-OS-00-01.001

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S500	Defense Determin	nation Defense	-Related I	Handling CH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Uncategorized Metal	Waste	Inventory Dat	e 12/31/2022
Stream Name	Defense Sealed Sources				Activities Decay	ed to CY 2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes					
Container Type	Stored	Pro	j.	Total	
55-gal POC - 12" w/ Liner	0.	.6	0.0	0.6	
55-gal POC - 6" w/ Liner	0.	.0	5.3	5.3	
55-gal S100 POC - 6" w/ Liner	0.	.0	0.0	0.0	
55-gal S300 POC - 12" w/ Liner	0.	.0	0.0	0.0	
Final Form Total	0.	.7	5.3	6.0	

Waste Material Parameters		Final Forn	n Radionuclides	No Hazardous
	Total		Total	Waste Numbers
	Mass		Activity	Provided
Material Parameter	(kg)	Isotope	(Ci)	
Iron-based Metal/Alloys	3.99E+03	Am-241	3.56E+03	
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	4.53E+00	TRUCON Code(s)
Other Metal/Alloys	7.04E+02	Np-237	1.15E-04	120/220
Other Inorganic Materials	0.00E+00	Pu-238	3.46E+02	
Cellulose	0.00E+00	Pu-239	8.95E+02	
Rubber	0.00E+00	Pu-240	2.36E+02	
Plastic	0.00E+00	Pu-241	4.26E+02	
Cement	0.00E+00	Pu-242	1.86E-02	
Solidified Inorganic Material	0.00E+00	Sr-90	1.84E-04	
Solidified Organic Material	0.00E+00	Th-229	1.88E-11	
Soil	0.00E+00	Th-230	3.59E-08	
Vitrified	0.00E+00	Th-232	1.72E-18	
Packaging Material, Cellulose	2.07E+04	U-233	2.14E-06	
Packaging Material, Plastic	7.31E+03	U-234	3.91E-02	
Packaging Material, Rubber	5.76E+01	U-235	1.11E-07	
Packaging Material, Steel	3.35E+04	U-236	6.98E-07	
Packaging Material, Lead	0.00E+00	U-238	1.80E-09	

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.

Waste Stream ID: LA-OS-00-04

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S5000 Defense Determin	nation Defense	-Related	Handling CH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group Uncategorized Meta	l Waste	Inventory Da	ate 12/31/2022
Stream Name	Mixed Waste Sealed Sources			Activities Deca	yed to CY 2022

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					
Total					
	Mass				
Material Parameter	(kg)				
Iron-based Metal/Alloys	6.12E+00				
Aluminum-based Metal/Alloys	0.00E+00				
Other Metal/Alloys	1.08E+00				
Other Inorganic Materials	0.00E+00				
Cellulose	0.00E+00				
Rubber	0.00E+00				
Plastic	0.00E+00				
Cement	0.00E+00				
Solidified Inorganic Material	0.00E+00				
Solidified Organic Material	0.00E+00				
Soil	0.00E+00				
Vitrified	0.00E+00				
Packaging Material, Cellulose	4.47E+01				
Packaging Material, Plastic	7.71E+00				
Packaging Material, Rubber	1.18E-01				
Packaging Material, Steel	6.67E+01				
Packaging Material, Lead	0.00E+00				

Final Form	Final Form Radionuclides			
	Total			
	Activity			
Isotope	(Ci)			
Am-241	2.09E-01			
Np-237	6.14E-07			
Pu-239	2.90E-05			
Pu-240	1.84E-05			
Pu-241	2.91E-05			
Th-229	1.76E-13			
Th-232	1.09E-21			
U-233	2.30E-10			
U-235	1.33E-12			
U-236	4.90E-12			

Haz. Waste No(s).			
D006, D008			
TDU00110 1 /)			
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.

Waste Stream ID: LA-TA-00-01

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S5000 Defense Determin	nation Defense	-Related	Handling	СН
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Heterogeneous Debris Waste		Inventory Da	ate 12/31/2	2022
Stream Name	TA-39 Heterogeneous Debris			Activities Deca	yed to CY 2	2022

Waste Volume Detail (m ³)			
Final Form Volum	ies		
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	8.4	0.0	8.4
SWB Dir Ld w/ Liner	73.3	0.0	73.3

81.7

0.0

81.7

Waste Material Parameters				
	Total Mass			
Material Parameter	(kg)			
Iron-based Metal/Alloys	8.52E+03			
Aluminum-based Metal/Alloys	1.52E+03			
Other Metal/Alloys	1.52E+03			
Other Inorganic Materials	4.71E+03			
Cellulose	1.67E+02			
Rubber	1.51E+02			
Plastic	1.51E+02			
Cement	0.00E+00			
Solidified Inorganic Material	0.00E+00			
Solidified Organic Material	0.00E+00			
Soil	0.00E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	3.97E+02			
Packaging Material, Rubber	1.89E+01			
Packaging Material, Steel	1.24E+04			
Packaging Material, Lead	0.00E+00			

	Total Activity
Isotope	(Ci)
Am-241	3.70E+00
Np-237	1.43E-02
Pu-238	7.34E+00
Pu-239	7.49E+00
Pu-240	2.82E-01
Pu-241	4.67E-01
Pu-242	1.64E-05
Th-229	5.74E-09
Th-230	2.57E-07
Th-232	4.37E-16
U-233	2.85E-06
U-234	1.15E-03
U-235	3.40E-07
U-236	3.85E-07
U-238	1.17E-13

Haz. Waste No(s).
D008

TRUCON Code(s) 115/215, 116/216,

115/215, 116/216, 117/217, 118/218, 119/219, 120/220, 123/223, 125/225, 154

Waste Stream Description

Final Form Total

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

Waste Stream ID: LA-TA-00-03

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S50	00 Defense Determin	nation Defense-	Related	Handling	RH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	te 12/31/2	2022
Stream Name	NON-PN EQUIPMENT				Activities Decay	ed to CY 2	2022

Rubber

Plastic

Cement

Soil Vitrified

Solidified Inorganic Material Solidified Organic Material

Packaging Material, Cellulose Packaging Material, Plastic

Packaging Material, Rubber

Packaging Material, Steel

Packaging Material, Lead

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		Final Form	Ra
Add did Day and did	Total Mass	la atau a	
Material Parameter	(kg)	Isotope	
Iron-based Metal/Alloys	6.53E-01	Pu-239	
Aluminum-based Metal/Alloys	0.00E+00	U-235	
Other Metal/Alloys	0.00E+00		
Other Inorganic Materials	0.00E+00		
Cellulose	0.00E+00		

0.00E+00

3.46E+01

0.00E+00 6.50E+03

0.00E+00 0.00E+00

0.00E+00 0.00E+00

0.00E+00

0.00E+00

1.50E+03 0.00E+00

Final Form Radionuclides			
Total			
	Activity		
Isotope	(Ci)		
Pu-239	1.24E+01		
U-235	5.13E-07		

D008 **No TRUCON Codes Provided**

Haz. Waste No(s).

Waste Stream	Description
--------------	-------------

LAMPRE REACTOR VESSEL SEALED IN CASK VESSEL

Waste Stream ID: LA-TA-03-14

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S5000	Defense Determina	tion Defense-	Related F	landling	СН
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group H	eterogeneous Debris	Waste	Inventory Date	e 12/31/	/2022
Stream Name	Debris and Metal				Activities Decaye	ed to CY	2022

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			
	Total		
	Mass		
Material Parameter	(kg)	<u> </u>	
Iron-based Metal/Alloys	5.32E+02		
Aluminum-based Metal/Alloys	0.00E+00		
Other Metal/Alloys	1.74E+02		
Other Inorganic Materials	8.44E+02		
Cellulose	6.80E+02		
Rubber	6.90E+01	_	
Plastic	2.00E+03		
Cement	0.00E+00		
Solidified Inorganic Material	0.00E+00		
Solidified Organic Material	0.00E+00		
Soil	1.34E+01		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	1.13E+01		
Packaging Material, Rubber	1.81E+00		

1.45E+03

0.00E+00

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Pu-238	7.07E+00	
Pu-239	1.74E-02	
Th-230	2.73E-07	
U-234	1.16E-03	
U-235	8.23E-10	

TRUCON Code(s)
115/215, 116/216,
117/217, 118/218,
119/219, 120/220,
123/223, 125/225,
154

Haz. Waste No(s).

Waste Stream Description

Metals and Miscellaneous Equipment Debris

Packaging Material, Steel

Packaging Material, Lead

Waste Stream ID: LA-TA-03-27

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S5000	Defense Determina	ation Defense	-Related	Handling RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris	s Waste	Inventory Da	te 12/31/202
Stream Name	Cell fuel cans and hot trash				Activities Decay	red to CY 202

Waste	Volume	Detail	(m ³)
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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 Parame	Fina	
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	1.81E+04	Am-24:
Aluminum-based Metal/Alloys	0.00E+00	Cs-137
Other Metal/Alloys	5.91E+03	Np-237
Other Inorganic Materials	2.87E+04	Pu-238
Cellulose	2.31E+04	Pu-239
Rubber	2.34E+03	Pu-240
Plastic	6.78E+04	Pu-241
Cement	0.00E+00	Pu-242
Solidified Inorganic Material	0.00E+00	Sr-90
Solidified Organic Material	0.00E+00	Th-229
Soil	4.54E+02	Th-230
Vitrified	0.00E+00	Th-232
Packaging Material, Cellulose	0.00E+00	U-233
Packaging Material, Plastic	0.00E+00	U-234
Packaging Material, Rubber	0.00E+00	U-235
Packaging Material, Steel	4.33E+04	U-236
Packaging Material, Lead	4.13E+02	U-238

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	3.51E+00	
Cs-137	1.31E+03	
Np-237	8.82E-06	
Pu-238	1.48E+00	
Pu-239	8.02E+01	
Pu-240	2.51E+00	
Pu-241	6.06E+01	
Pu-242	1.52E-03	
Sr-90	9.10E+02	
Th-229	3.97E-14	
Th-230	1.28E-07	
Th-232	2.39E-15	
U-233	1.59E-10	
U-234	1.75E-03	
U-235	8.25E-03	
U-236	6.35E-06	
U-238	4.07E-05	

No Hazardous Waste Numbers Provided

TRUCON Code(s)

Waste Stream Description

Combined combustible and noncombustible debris waste (RH-TRU) of the CMR facility

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 D	ate 12/31/2022
Stream Name	Cement paste from CMR building (mixed)		Activities Dec	ayed to CY 2022

waste volume Detail (m ³)	
	Final Form Volumes

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

	Total
	Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	0.00E+00
Aluminum-based Metal/Alloys	0.00E+00
Other Metal/Alloys	0.00E+00
Other Inorganic Materials	0.00E+00
Cellulose	0.00E+00
Rubber	0.00E+00
Plastic	3.18E+00
Cement	1.06E+03
Solidified Inorganic Material	0.00E+00
Solidified Organic Material	0.00E+00
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	3.85E+01
Packaging Material, Rubber	5.90E-01
Packaging Material, Steel	1.36E+02
Packaging Material, Lead	0.00E+00

Final Form Radionuclides Total Activity (Ci) Isotope Pu-238 6.03E+00 Th-230 2.44E-07 U-234 1.02E-03

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.

Waste Stream ID: LA-TA-03-29

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S50	Defense Determi	nation Defense	-Related	Handling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Grou	Heterogeneous Deb	ris Waste	Inventory Dat	te 12/31/	/2022
Stream Name	CMR soil waste				Activities Decay	ed to CY	2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	5.3	0.0	5.3
SWB Dir Ld w/ Liner	3.8	0.0	3.8
Final Form Total	9.0	0.0	9.0

Waste Material Parameters

Waste Material Paramet	ters	Final F
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	2.18E+02	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Am-243
Other Metal/Alloys	7.14E+01	Cs-137
Other Inorganic Materials	3.46E+02	Np-237
Cellulose	2.79E+02	Pu-238
Rubber	2.83E+01	Pu-239
Plastic	8.19E+02	Pu-240
Cement	0.00E+00	Pu-241
Solidified Inorganic Material	0.00E+00	Pu-242
Solidified Organic Material	0.00E+00	Pu-244
Soil	5.48E+00	Th-229
Vitrified	0.00E+00	Th-230
Packaging Material, Cellulose	0.00E+00	Th-232
Packaging Material, Plastic	1.97E+02	U-233
Packaging Material, Rubber	3.68E+00	U-234
Packaging Material, Steel	1.26E+03	U-235
Packaging Material, Lead	0.00E+00	U-236
		U-238

Final Form Radionuclides Haz. Waste No(s)

Total Activity (Ci)

7.69E+00

1.46E-05

1.07E-07

2.73E-01

2.37E+01

4.79E+01

1.15E+01

1.85E+02

1.66E-02

1.75E-08

5.22E-11

4.52E-08

4.62E-16

1.19E-06 4.95E-03

7.91E-05

9.54E-06

1.25E-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,
F002, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

Soils contaminated with TRU resulting from facility and equipment operations/maintenance

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 D	ate 12/31/2022
Stream Name	SILICON-BASED OIL - LIQUID		Activities Dec	ayed to CY 2022

Waste Volume Detail (m 3)	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	Paramete	ers

	1
	Total
	Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	8.30E+00
Aluminum-based Metal/Alloys	1.57E+00
Other Metal/Alloys	0.00E+00
Other Inorganic Materials	0.00E+00
Cellulose	3.25E+00
Rubber	3.37E-01
Plastic	4.71E+00
Cement	0.00E+00
Solidified Inorganic Material	4.70E+01
Solidified Organic Material	4.70E+01
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	7.71E+00
Packaging Material, Rubber	1.18E-01
Packaging Material, Steel	2.72E+01
Packaging Material, Lead	0.00E+00

Final Form Radionuclides Total Activity (Ci) Isotope Pu-238 4.69E-02 Th-230 1.81E-09 U-234 7.72E-06

No Hazardous **Waste Numbers Provided** No TRUCON **Codes Provided**

Waste Stream Description

Absorbed Organics on Vermiculite

Final Form Radionuclides

Total Activity

(Ci)

2.32E-01

3.15E-06

2.24E-02 1.05E+00 2.50E-01 3.88E-01 1.69E-05 4.04E-13 1.96E-09 4.22E-16 3.04E-10 6.17E-06 1.95E-05 3.56E-07 1.26E-13

Waste Stream ID: LA-TA-21-05

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S5000 Defense Determination Def	ense-Related	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Graphite Waste	Inventory Da	te 12/31/2022
Stream Name	Graphite		Activities Decay	yed to CY 2022

Waste	Volume	Detail ((m ³)
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Final Form Volumes						
Container Type Stored Proj. To						
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

	Total	
	Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	5.25E+01	Am-241
Aluminum-based Metal/Alloys	1.85E+00	Np-237
Other Metal/Alloys	8.80E-01	Pu-238
Other Inorganic Materials	3.25E-01	Pu-239
Cellulose	1.33E+01	Pu-240
Rubber	2.06E+00	Pu-241
Plastic	5.35E+00	Pu-242
Cement	0.00E+00	Th-229
Solidified Inorganic Material	3.10E+00	Th-230
Solidified Organic Material	0.00E+00	Th-232
Soil	0.00E+00	U-233
Vitrified	0.00E+00	U-234
Packaging Material, Cellulose	0.00E+00	U-235
Packaging Material, Plastic	1.54E+01	U-236
Packaging Material, Rubber	2.36E-01	U-238
Packaging Material, Steel	5.44E+01	
Packaging Material, Lead	0.00E+00	

No Hazardous **Waste Numbers Provided**

TRUCON Code(s) 116/216, 125/225

Waste Stream Description

Graphite and Incinerator solids

Waste Stream ID: LA-TA-21-06

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S5000 D	Defense Determination Defens	e-Related H	landling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Hete	erogeneous Debris Waste	Inventory Date	12/31/2022
Stream Name	Combustible debris waste (mixed)			Activities Decaye	ed to CY 2022

Waste Volume Detail (m ³)			
Final For	m 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		Final Forn	n Radionuclides	Haz. Waste No(s)	
	Total		Total	F001, F002	
	Mass		Activity		
Material Parameter	(kg)	Isotope	(Ci)		
Iron-based Metal/Alloys	2.21E+04	Am-241	1.01E+02		
Aluminum-based Metal/Alloys	7.80E+02	Np-237	1.30E-03	TRUCON Code(s)	
Other Metal/Alloys	3.71E+02	Pu-238	1.27E+04	116/216, 125/225	
Other Inorganic Materials	1.37E+02	Pu-239	2.59E+02	1	
Cellulose	5.60E+03	Pu-240	7.84E+01		
Rubber	8.70E+02	Pu-241	1.94E+02	1	
Plastic	2.26E+03	Pu-242	1.44E-02	1	
Cement	0.00E+00	Th-229	1.52E-10	1	
Solidified Inorganic Material	1.31E+03	Th-230	5.82E-04	1	
Solidified Organic Material	0.00E+00	Th-232	1.22E-13		
Soil	0.00E+00	U-233	1.19E-07	1	
Vitrified	0.00E+00	U-234	2.31E+00		
Packaging Material, Cellulose	0.00E+00	U-235	1.19E-03		
Packaging Material, Plastic	1.21E+04	U-236	1.07E-04		
Packaging Material, Rubber	1.85E+02	U-238	1.03E-10		
Packaging Material, Steel	4.26E+04			_	
Packaging Material, Lead	0.00E+00				

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.

Waste Stream ID: LA-TA-21-07

Wasta Valuma Datail (m 3)

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S500	0 Defense Determin	ation Defense-	-Related I	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Dat	e 12/31/2022
Stream Name	Debris and Metal				Activities Decay	ed to CY 2022

waste volume Detail (iii)			
Final Fo	rm Volumes		
Container Type	Stored	Proj.	Tota
55-gal Drum Dir Ld w/ Liner	143.4	0.0	14

 SWB Dir Ld w/ Liner
 492.6
 0.0
 492.6

 Final Form Total
 636.0
 0.0
 636.0

Waste Material Parameters				
	Total			
	Mass			
Material Parameter	(kg)	ls		
Iron-based Metal/Alloys	6.32E+04	Δ		
Aluminum-based Metal/Alloys	2.23E+03	Ν		
Other Metal/Alloys	1.06E+03	P		
Other Inorganic Materials	3.92E+02	P		
Cellulose	1.60E+04	P		
Rubber	2.48E+03	P		
Plastic	6.45E+03	P		
Cement	0.00E+00	T		
Solidified Inorganic Material	3.73E+03	T		
Solidified Organic Material	0.00E+00	T		
Soil	0.00E+00	ī		
Vitrified	0.00E+00	ī		
Packaging Material, Cellulose	0.00E+00	L		
Packaging Material, Plastic	5.86E+03	l		
Packaging Material, Rubber	1.76E+02	l		
Packaging Material, Steel	9.46E+04	_		
Packaging Material, Lead	0.00E+00			

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	5.60E+01		
Np-237	7.24E-04	l	
Pu-238	1.06E+04		
Pu-239	3.21E+02		
Pu-240	5.75E+01		
Pu-241	1.04E+02		
Pu-242	4.71E-03		
Th-229	8.51E-11		
Th-230	3.85E-04		
Th-232	8.91E-14		
U-233	6.67E-08		
U-234	1.69E+00		
U-235	2.33E-05		
U-236	7.85E-05		
U-238	3.36E-11		

Haz. Waste No(s).

D008

TRUCON Code(s) 116/216, 125/225

Waste Stream Description

Equipment, Debris, and Metal Parts

Final Form Radionuclides

Total

Activity (Ci)

9.99E-01

1.32E-05

8.17E+01

3.00E+00

8.41E-01

1.81E+00

1.25E-04

1.61E-12

3.01E-06

1.36E-15

1.24E-09

1.31E-02

2.49E-07

1.17E-06

9.13E-13

Waste Stream ID: LA-TA-21-08

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S500	0 Defense Determina	ntion Defense-	-Related I	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris	Waste	Inventory Dat	e 12/31/2022
Stream Name	Glass				Activities Decay	ed to CY 2022

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

Waste Material Parameters Final			
	Total Mass		
Material Parameter	(kg)	Isotope	
Iron-based Metal/Alloys	3.44E+02	Am-241	
Aluminum-based Metal/Alloys	1.21E+01	Np-237	
Other Metal/Alloys	5.77E+00	Pu-238	
Other Inorganic Materials	2.13E+00	Pu-239	
Cellulose	8.70E+01	Pu-240	
Rubber	1.35E+01	Pu-241	
Plastic	3.51E+01	Pu-242	
Cement	0.00E+00	Th-229	
Solidified Inorganic Material	2.03E+01	Th-230	
Solidified Organic Material	0.00E+00	Th-232	
Soil	0.00E+00	U-233	
Vitrified	0.00E+00	U-234	
Packaging Material, Cellulose	0.00E+00	U-235	
Packaging Material, Plastic	1.54E+02	U-236	
Packaging Material, Rubber	2.36E+00	U-238	
Packaging Material, Steel	5.44E+02		
Packaging Material, Lead	0.00E+00		

No Hazardous **Waste Numbers Provided**

TRUCON Code(s) 116/216, 125/225

Waste Stream Description

Glass and Glass Residues

Waste Stream ID: LA-TA-21-09

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S500	0 Defense Determin	ation Defense	-Related I	landling	СН
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/	/2022
Stream Name	Hepa Filters				Activities Decay	ed to CY	2022

Waste	Volume	Detail	(m ³)
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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 Parame	Fina	
	Total	
	Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	1.09E+03	Am-24
Aluminum-based Metal/Alloys	3.83E+01	Np-237
Other Metal/Alloys	1.83E+01	Pu-238
Other Inorganic Materials	6.74E+00	Pu-239
Cellulose	2.75E+02	Pu-240
Rubber	4.28E+01	Pu-241
Plastic	1.11E+02	Pu-242
Cement	0.00E+00	Th-229
Solidified Inorganic Material	6.43E+01	Th-230
Solidified Organic Material	0.00E+00	Th-232
Soil	0.00E+00	U-233
Vitrified	0.00E+00	U-234
Packaging Material, Cellulose	0.00E+00	U-235
Packaging Material, Plastic	5.24E+02	U-236
Packaging Material, Rubber	8.02E+00	U-238
Packaging Material, Steel	1.85E+03	
Packaging Material, Lead	0.00E+00	

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	7.55E-02	
Np-237	1.03E-06	
Pu-238	1.33E+03	
Pu-239	3.59E-01	
Pu-240	8.36E-02	
Pu-241	1.26E-01	
Pu-242	4.86E-06	
Th-229	1.32E-13	
Th-230	5.14E-05	
Th-232	1.41E-16	
U-233	9.88E-11	
U-234	2.19E-01	
U-235	3.03E-08	
U-236	1.19E-07	

3.62E-14

No Hazardous Waste Numbers Provided

TRUCON Code(s) 116/216, 125/225

Waste Stream Description

Filter cells, filter trash, and graphite glass filters

Waste Stream ID: LA-TA-21-12

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S5000 Defense Determine	nation Defense	-Related	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Heterogeneous Debi	ris Waste	Inventory Da	ate 12/31/2022
Stream Name	Non-combustible and combustible debris waste			Activities Deca	yed to CY 2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes				
Container Type	Store	t	Proj.	Total
55-gal Drum Dir Ld w/ Liner	33	3.7	0.0	338.7
SWB Dir Ld w/ Liner		7.5	0.0	7.5
Final Form Total	34	6.3	0.0	346.3

Waste Material Parameters				
Total				
	Mass			
Material Parameter	(kg)			
Iron-based Metal/Alloys	2.27E+04			
Aluminum-based Metal/Alloys	8.01E+02			
Other Metal/Alloys	3.82E+02			
Other Inorganic Materials	1.41E+02			
Cellulose	5.75E+03			
Rubber	8.94E+02			
Plastic	2.32E+03			
Cement	0.00E+00			
Solidified Inorganic Material	1.34E+03			
Solidified Organic Material	0.00E+00			
Soil	0.00E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	1.24E+04			
Packaging Material, Rubber	1.92E+02			
Packaging Material, Steel	4.50E+04			
Packaging Material, Lead	0.00E+00			

Final Form Radionuclides			
	Total		
Isotope	Activity (Ci)		
Am-241	1.59E+02		
Np-237	2.00E-03		
Pu-238	3.99E+04		
Pu-239	2.89E+02		
Pu-240	9.73E+01		
Pu-241	3.10E+02		
Pu-242	2.62E-02		
Th-229	1.64E-01		
Th-230	2.24E-03		
Th-232	1.44E-13		
U-233	4.15E+01		
U-234	8.28E+00		
U-235	2.09E-03		
U-236	1.30E-04		
U-238	1.83E-10		

No Hazardous Waste Numbers Provided

TRUCON Code(s) 116/216, 125/225

Waste Stream Description

COMBINED COMBUSTIBLE/NON-COMBUSTIBLE LAB TRASH

Np-237

Pu-239

Th-229

U-233

U-235

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 D	late 12/31/2022
Stream Name	Cemented wastewater treatment sludge (mixed)		Activities Dec	ayed to CY 2022

Waste	Volume	Detail	(m 3)	
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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	iviateriai	ai Parameters		
			1	

	Total
	Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	6.01E+02
Aluminum-based Metal/Alloys	0.00E+00
Other Metal/Alloys	0.00E+00
Other Inorganic Materials	0.00E+00
Cellulose	0.00E+00
Rubber	0.00E+00
Plastic	1.65E+01
Cement	1.44E+04
Solidified Inorganic Material	0.00E+00
Solidified Organic Material	0.00E+00
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	5.55E+02
Packaging Material, Rubber	8.50E+00
Packaging Material, Steel	1.96E+03
Packaging Material, Lead	0.00E+00

Final Form Radionuclides Haz. Waste No(s). Total D007, F001, F002 Activity (Ci) Isotope Am-241

7.06E-08

3.03E-07

4.51E+01 No TRUCON 6.98E-04 **Codes Provided** 6.67E+00 9.57E-11

Waste Stream Description

Cemented Wastewater Treatment Sludge Solidified aqueous waste generated from facility and equipment operations and maintenance. Solidified aqueous waste is a dewatered sludge generated by the vacuum filtration of solids from treated aqueous waste slurry. The filter media (diatomaceous earth) with the entrapped filtrate is then placed in drums with dry concreted absorbent.

Waste Stream ID: LA-TA-21-15

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S3000 Defense Determination	Defense-Related	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Solidified Organics	Inventory I	Date 12/31/2022
Stream Name	Solidified organics		Activities Dec	cayed to CY 2022

Waste	Volume	Detail	(m ³)
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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				
Total Mass				
Material Parameter	(kg)			
Iron-based Metal/Alloys	9.27E+01			
Aluminum-based Metal/Alloys	0.00E+00			
Other Metal/Alloys	0.00E+00			
Other Inorganic Materials	0.00E+00			
Cellulose	0.00E+00			
Rubber	0.00E+00			
Plastic	9.11E+01			
Cement	0.00E+00			
Solidified Inorganic Material	1.60E+03			
Solidified Organic Material	2.11E+02			
Soil	0.00E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	1.23E+02			
Packaging Material, Rubber	1.89E+00			
Packaging Material, Steel	4.35E+02			
Packaging Material, Lead	0.00E+00			

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	8.35E-01		
Np-237	1.11E-05		
Pu-238	8.08E-02		
Pu-239	5.40E+00		
Pu-240	9.26E-01		
Pu-241	1.46E+00		
Pu-242	5.39E-05		
Th-229	1.36E-12		
Th-230	6.65E-09		
Th-232	1.50E-15		
U-233	1.05E-09		
U-234	2.15E-05		
U-235	3.98E-07		
U-236	1.29E-06		
U-238	3.93E-13		

No Hazardous Waste Numbers Provided

No TRUCON
Codes Provided

Waste Stream Description

Contaminated oil absorbed in vermiculite

Waste Stream ID: LA-TA-21-16

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S3000 Defense Determinati	ion Defense-Related	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Solidified Inorganics	Inventory	Date 12/31/2022
Stream Name	SOLIDIFIED INORGANIC PROCESS SOLID		Activities De	cayed to CY 2022

Waste Volume Detail (m ³)					
Final Form Volumes					
Container Type		Stored	Proj.	Total	
55-gal Drum Dir Ld w/ Liner		54.8	0.0	54.8	
Final Form Total	Ī	54.8	0.0	54.8	

Waste Material Parameters		Final Forn	n Radionuclides	Haz. Waste No(s).
	Total		Total	D008
	Mass		Activity	
Material Parameter	(kg)	Isotope	(Ci)	
Iron-based Metal/Alloys	4.20E+02	Am-241	1.52E+02	
Aluminum-based Metal/Alloys	0.00E+00	Np-237	2.06E-03	No TRUCON
Other Metal/Alloys	0.00E+00	Pu-238	1.91E+01	Codes Provided
Other Inorganic Materials	0.00E+00	Pu-239	6.61E+02	
Cellulose	0.00E+00	Pu-240	1.57E+02	
Rubber	0.00E+00	Pu-241	2.56E+02	
Plastic	7.46E+01	Pu-242	1.30E-02	
Cement	1.17E+04	Th-229	2.64E-10	
Solidified Inorganic Material	0.00E+00	Th-230	1.71E-06	
Solidified Organic Material	0.00E+00	Th-232	2.66E-13	
Soil	0.00E+00	U-233	1.98E-07	
Vitrified	0.00E+00	U-234	5.34E-03	
Packaging Material, Cellulose	0.00E+00	U-235	3.45E-03	
Packaging Material, Plastic	2.01E+03	U-236	2.24E-04	
Packaging Material, Rubber	3.08E+01	U-238	9.70E-11	
Packaging Material, Steel	7.10E+03			
Packaging Material, Lead	0.00E+00			

Waste Stream Description LEACHED PROCESS RESIDUES

Final Form Radionuclides

Total

Activity (Ci)

7.34E-03

9.97E-08

7.04E-04

3.49E-02

8.13E-03

1.22E-02

4.73E-07

1.28E-14

6.01E-11

1.37E-17

9.61E-12

1.91E-07

2.95E-09

1.16E-08

3.52E-15

Waste Stream ID: LA-TA-21-17

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S5000 Defense Determin	nation Defense-	-Related	Handling CH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group Heterogeneous Debr	is Waste	Inventory Da	ate 12/31/2022
Stream Name	Process solids			Activities Deca	yed to CY 2022

Waste	Volume	Detail	(m ³)
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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 Paramet	Final	
Total Mass		
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	4.75E+01	Am-241
Aluminum-based Metal/Alloys	1.67E+00	Np-237
Other Metal/Alloys	7.97E-01	Pu-238
Other Inorganic Materials	2.94E-01	Pu-239
Cellulose	1.20E+01	Pu-240
Rubber	1.87E+00	Pu-241
Plastic	4.85E+00	Pu-242
Cement	0.00E+00	Th-229
Solidified Inorganic Material	2.81E+00	Th-230
Solidified Organic Material	0.00E+00	Th-232
Soil	0.00E+00	U-233
Vitrified	0.00E+00	U-234
Packaging Material, Cellulose	0.00E+00	U-235
Packaging Material, Plastic	2.31E+01	U-236
Packaging Material, Rubber	3.54E-01	U-238
Packaging Material, Steel	8.16E+01	
Packaging Material, Lead	0.00E+00	

No Hazardous **Waste Numbers Provided**

TRUCON Code(s) 116/216, 125/225

Waste Stream Description

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

Isotope Am-241

Np-237

Pu-239

Th-229

U-233

U-235

Waste Stream ID: LA-TA-50-18

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S3000 Defense Determinat	tion Defense-F	Related H	andling	CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group Solidified Inorganics		Inventory Date	12/31/2	2022
Stream Name	Cemented caustic liquid waste (mixed)		_	Activities Decaye	d to CY	2022

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

	Total Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	0.00E+00
Aluminum-based Metal/Alloys	0.00E+00
Other Metal/Alloys	0.00E+00
Other Inorganic Materials	0.00E+00
Cellulose	0.00E+00
Rubber	0.00E+00
Plastic	4.28E-01
Cement	4.27E+02
Solidified Inorganic Material	0.00E+00
Solidified Organic Material	0.00E+00
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	1.54E+01
Packaging Material, Rubber	2.36E-01
Packaging Material, Steel	5.44E+01
Packaging Material, Lead	0.00E+00

Final Form Radionuclides Haz. Waste No(s). D007, F001, F002 Total

Activity (Ci)

2.93E-01

4.73E-06

5.70E-03

7.06E-13

4.99E-10

2.70E-10

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.

Waste Stream ID: LA-TA-50-19

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S3000 Defense Determination Defen	se-Related Handling CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group Solidified Inorganics	Inventory Date 12/31/2022
Stream Name	Homogeneous Inorganic Solids		Activities Decayed to CY 2022

Waste Volume Detail (m 3)				
Final Form Volumes				
Container Type		Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner		63.0	0.0	63.0
Final Form Total		63.0	0.0	63.0

Waste Material Parameters		
	Total Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	5.34E+00	
Aluminum-based Metal/Alloys	0.00E+00	
Other Metal/Alloys	0.00E+00	
Other Inorganic Materials	0.00E+00	
Cellulose	0.00E+00	
Rubber	0.00E+00	
Plastic	2.83E+02	
Cement	0.00E+00	
Solidified Inorganic Material	5.31E+04	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	2.31E+03	
Packaging Material, Rubber	3.54E+01	
Packaging Material, Steel	8.16E+03	
-		

0.00E+00

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	2.13E+01	
Np-237	3.14E-04	
Pu-238	1.36E+00	
Pu-239	1.39E+00	
Th-229	3.93E-11	
Th-230	4.33E-08	
U-233	3.03E-08	
U-234	2.02E-04	
U-235	6.03E-08	

F001
TRUCON Code(s)
111/211

Haz. Waste No(s).

Waste Stream Description

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

Packaging Material, Lead

Waste Stream ID: LA-TA-55-04

Appendix AWaste Profile Report

Site	Los Alamos National Laboratory	Summary Category S5000	Defense Determination	Defense-Rel	lated I	Handling	CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	leterogeneous Debris Wa	ste	Inventory Dat	e 12/31,	/2022
Stream Name	TA-55 metal waste				Activities Decay	ed to CY	2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
55-gal Drum Dir Ld w/ Liner	23.5	0.0	23.5	
55-gal POC - 12" w/ Liner	5.6	0.0	5.6	
SLB2 Dir Ld	29.6	0.0	29.6	
SWB Dir Ld w/ Liner	24.4	0.0	24.4	
SWB w/ 4 - 55-gal Drums w/ Liners	4.2	0.0	4.2	
Final Form Total	87.3	0.0	87.3	

Waste Material Parameters		Final Form	Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	6.43E+03	Am-241	2.12E+02
Aluminum-based Metal/Alloys	2.60E+01	Am-243	5.50E-06
Other Metal/Alloys	7.71E+02	Np-237	8.55E-04
Other Inorganic Materials	4.17E+03	Pu-238	4.29E+03
Cellulose	5.32E+02	Pu-239	6.78E+02
Rubber	7.99E+02	Pu-240	1.65E+02
Plastic	2.46E+03	Pu-241	2.66E+03
Cement	0.00E+00	Pu-242	4.21E-02
Solidified Inorganic Material	1.03E+02	Pu-244	3.16E-08
Solidified Organic Material	0.00E+00	Th-229	1.55E-13
Soil	0.00E+00	Th-230	4.53E-06
Vitrified	0.00E+00	Th-232	2.23E-16
Packaging Material, Cellulose	3.23E+03	U-233	3.57E-09
Packaging Material, Plastic	1.93E+03	U-234	4.99E-01
Packaging Material, Rubber	3.89E+01	U-235	5.21E-05
Packaging Material, Steel	2.63E+04	U-236	6.97E-06
Packaging Material, Lead	0.00E+00	U-238	1.54E-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)

122/222, 124/224, 125/225

Waste Stream Description

Metal waste from facility and equipment operations/maintenance that includes tools, cans, equipment, motors, pumps, with possible presence of a small amount of plastics

Waste Stream ID: LA-TA-55-19

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S500	00 Defense Determin	nation Defense	-Related I	landling	СН
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/	/2022
Stream Name	Combustible debris waste (mixed)				Activities Decay	ed to CY	2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes					
Container Type	Stored	Proj.	Total		
55-gal Drum Dir Ld w/ Liner	41.8	0.0	41.8		
SLB2 Dir Ld	14.8	0.0	14.8		
Final Form Total	56.6	0.0	56.6		

waste Material Parameters				
	Total Mass			
Material Parameter	(kg)			
Iron-based Metal/Alloys	3.24E+03			
Aluminum-based Metal/Alloys	1.31E+01			
Other Metal/Alloys	3.88E+02			
Other Inorganic Materials	2.10E+03			
Cellulose	2.68E+02			
Rubber	4.02E+02			
Plastic	1.24E+03			
Cement	0.00E+00			
Solidified Inorganic Material	5.16E+01			
Solidified Organic Material	0.00E+00			
Soil	0.00E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	1.53E+03			
Packaging Material, Rubber	2.51E+01			
Packaging Material, Steel	7.85E+03			

0.00E+00

Waste Material Parameters

Total			
	Activity		
Isotope	(Ci)		
Am-241	3.07E+02		
Np-237	5.42E-03		
Pu-238	1.59E+02		
Pu-239	3.14E+02		
Pu-240	1.56E+02		
Pu-241	7.15E+02		
Pu-242	8.97E-02		
Th-229	1.00E-09		
Th-230	1.09E-04		
Th-232	2.39E-12		
U-233	6.44E-07		
U-234	2.88E-01		
U-235	7.64E-03		
U-236	1.23E-03		
U-238	1.78E-03		

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

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.

Packaging Material, Lead

Annual Transuranic Waste Inventory Report - 2023

Waste Stream ID: LA-TA-55-21

Annual Transuranic Waste Inventory Report - 2023

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S500	0 Defense Determin	nation Defense	-Related I	landling	СН
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/	/2022
Stream Name	Metal debris waste (mixed)				Activities Decay	ed to CY	2022

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				
	Total			
	Mass			
Material Parameter	(kg)			
Iron-based Metal/Alloys	2.77E+02			
Aluminum-based Metal/Alloys	1.12E+00			
Other Metal/Alloys	3.32E+01			
Other Inorganic Materials	1.80E+02			
Cellulose	2.29E+01			
Rubber	3.44E+01			
Plastic	1.06E+02			
Cement	0.00E+00			
Solidified Inorganic Material	4.41E+00			
Solidified Organic Material	0.00E+00			
Soil	0.00E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	8.48E+01			
Packaging Material, Rubber	1.30E+00			
Packaging Material, Steel	2.99E+02			
Packaging Material, Lead	0.00E+00			

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	4.04E-01		
Np-237	4.81E-06		
Pu-238	2.76E+01		
Pu-239	7.10E-01		
Pu-240	2.53E-01		
Pu-241	9.11E-01		
Pu-242	6.73E-05		
Th-229	4.90E-13		
Th-230	2.55E-06		
Th-232	3.43E-16		
U-233	4.12E-10		
U-234	8.34E-03		
U-235	5.63E-08		
U-236	3.23E-07		
U-238	2.47E-06		

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.

Waste Stream ID: LA-TA-55-30

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S5000 Defense Determi	nation Defense	-Related	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Heterogeneous Deb	ris Waste	Inventory D	ate 12/31/2022
Stream Name	Non-combustible and combustible debris waste (mixed)			Activities Deca	ayed to CY 2022

Waste Volume D	Detail (m ³)
----------------	------------------------	---

Final Form Volumes				
Container Type	Stored	Proj.	Total	
55-gal Drum Dir Ld w/ Liner	66.8	0.0	66.8	
SLB2 Dir Ld	133.0	0.0	133.0	
Final Form Total	199.8	0.0	199.8	

waste material i aranie	iters	
Material Parameter	Total Mass (kg)	Isot
Iron-based Metal/Alloys	1.04E+04	Am-
Aluminum-based Metal/Alloys	4.20E+01	Am-
Other Metal/Alloys	1.24E+03	Np-2
Other Inorganic Materials	6.74E+03	Pu-2
Cellulose	8.60E+02	Pu-2
Rubber	1.29E+03	Pu-2
Plastic	3.98E+03	Pu-2
Cement	0.00E+00	Pu-2
Solidified Inorganic Material	1.65E+02	Pu-2
Solidified Organic Material	0.00E+00	Th-2
Soil	0.00E+00	Th-2
Vitrified	0.00E+00	Th-2
Packaging Material, Cellulose	0.00E+00	U-23
Packaging Material, Plastic	2.45E+03	U-23
Packaging Material, Rubber	5.22E+01	U-23

3.06E+04

0.00E+00

Waste Material Parameters

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	2.67E+02	
Am-243	1.26E-04	
Np-237	5.40E-04	
Pu-238	3.08E+02	
Pu-239	2.42E+02	
Pu-240	1.49E+02	
Pu-241	5.10E+03	
Pu-242	2.51E-01	
Pu-244	2.85E-08	
Th-229	1.48E-12	
Th-230	3.06E-06	
Th-232	1.41E-14	
U-233	7.63E-09	
U-234	5.81E-02	
U-235	8.31E-04	
U-236	6.08E-05	
U-238	1.20E-02	

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

TRUCON Code(s)

F005

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.

Packaging Material, Steel

Packaging Material, Lead

Waste Stream ID: LA-TA-55-38

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S3000 Defense Determination	on Defense-Related	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Solidified Inorganics	Inventory Da	ate 12/31/2022
Stream Name	LEACHED PROCESS RESIDUES		Activities Deca	yed to CY 2022

Waste Volume Detail (m ³)			
Final Forn	n 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 Parame	Waste Material Parameters		Final Form Radionuclides	
	Total		Total	D008
	Mass		Activity	
Material Parameter	(kg)	Isotope	(Ci)	
Iron-based Metal/Alloys	5.49E-01	Am-241	3.73E-02	
Aluminum-based Metal/Alloys	0.00E+00	Np-237	4.14E-07	TRUCON Code(s)
Other Metal/Alloys	0.00E+00	Pu-238	2.10E+01	114/214, 126/226
Other Inorganic Materials	0.00E+00	Pu-239	1.71E-02	
Cellulose	0.00E+00	Pu-240	8.59E-03	
Rubber	0.00E+00	Pu-241	9.58E-02	
Plastic	9.76E-02	Pu-242	7.09E-06	1
Cement	1.54E+01	Th-229	3.66E-14	1
Solidified Inorganic Material	0.00E+00	Th-230	1.73E-06	1
Solidified Organic Material	0.00E+00	Th-232	1.01E-17	1
Soil	0.00E+00	U-233	3.30E-11	
Vitrified	0.00E+00	U-234	6.02E-03	
Packaging Material, Cellulose	0.00E+00	U-235	1.54E-09	
Packaging Material, Plastic	3.08E+01	U-236	1.02E-08	
Packaging Material, Rubber	4.72E-01	U-238	4.40E-14	
Packaging Material, Steel	1.09E+02			
Packaging Material, Lead	0.00E+00			

Waste Stream Description

Cemented Inorganics and Spent Samples Solidified inorganic process solids generated from facility and equipment operations and maintenance. This waste includes process leached solids, ash, filter cakes, salts, metal oxides, fines, evaporator bottoms, and sample residues (received from the CMR building) stabilized in Portland or gypsum cement.

Waste Stream ID: LA-TA-55-400

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S500	Defense Determin	nation Defense	-Related I	Handling CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/2022
Stream Name	NON-RCRA DEBRIS RLUOB				Activities Decay	ed to CY 2022

Waste Volume I	Detail ((m 3)
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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		
	Total Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	8.41E+00	
Aluminum-based Metal/Alloys	3.40E-02	
Other Metal/Alloys	1.01E+00	
Other Inorganic Materials	5.45E+00	
Cellulose	6.96E-01	
Rubber	1.04E+00	
Plastic	3.22E+00	
Cement	0.00E+00	
Solidified Inorganic Material	1.34E-01	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	7.71E+00	
Packaging Material, Rubber	1.18E-01	
Packaging Material, Steel	2.72E+01	

0.00E+00

	Total Activity
Isotope	(Ci)
Am-241	1.93E-02
Np-237	8.86E-07
Pu-238	7.59E-04
Pu-239	4.47E-02
Pu-240	5.29E-03
Pu-241	5.57E-02
Pu-242	5.28E-07
Th-229	1.69E-16
Th-230	4.36E-13
Th-232	3.86E-21
U-233	3.84E-12
U-234	4.85E-08
U-235	1.65E-09
U-236	1.57E-10
U-238	8.19E-17

No Hazardous Waste Numbers Provided

TRUCON Code(s) 125/225

Waste Stream Description

Debris waste resulting from analytical processes at the Radiological Laboratory/Utility/Office Building.

Packaging Material, Lead

Waste Stream ID: LA-TRU-Empty-110

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S5	Defense Determi	nation Defense	-Related	Handling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Grou	p Heterogeneous Deb	ris Waste	Inventory Dat	e 12/31,	/2022
Stream Name	Empty containers				Activities Decay	ed to CY	2022

Waste	Volume	Detail	(m ³)
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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

Waste Material Paramet	ers	Final Form	Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
ron-based Metal/Alloys	1.33E+02	Am-241	2.09E-02
Aluminum-based Metal/Alloys	0.00E+00	Am-243	4.12E-06
Other Metal/Alloys	0.00E+00	Cs-137	9.84E-09
Other Inorganic Materials	0.00E+00	Np-237	5.94E-07
Cellulose	0.00E+00	Pu-238	3.42E-03
Rubber	3.61E-01	Pu-239	4.68E-03
Plastic	2.38E+01	Pu-240	3.88E-05
Cement	0.00E+00	Pu-241	4.92E-03
Solidified Inorganic Material	0.00E+00	Pu-242	1.43E-08
Solidified Organic Material	0.00E+00	Sr-90	9.27E-09
Soil	0.00E+00	Th-229	1.21E-13
Vitrified	0.00E+00	Th-230	9.02E-11
Packaging Material, Cellulose	0.00E+00	Th-232	4.32E-20
Packaging Material, Plastic	2.27E+00	U-233	7.80E-11
Packaging Material, Rubber	3.63E-01	U-234	4.60E-07
Packaging Material, Steel	2.90E+02	U-235	5.27E-09
Packaging Material, Lead	0.00E+00	U-236	4.49E-11
		U-238	1.28E-07

Haz Wasta Na(s)

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

Waste Stream ID: LA-TRU-Empty-55

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S500	Defense Determin	nation Defense-	-Related	Handling CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	te 12/31/2022
Stream Name	Empty containers				Activities Decay	red to CY 2022

Waste Volume I	Detail ((m 3)
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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			

Wasta Material Parameters

Waste Material Parameters		Final F
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	1.76E+02	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Am-243
Other Metal/Alloys	0.00E+00	Cs-137
Other Inorganic Materials	0.00E+00	Np-237
Cellulose	0.00E+00	Pu-238
Rubber	7.69E-01	Pu-239
Plastic	4.98E+01	Pu-240
Cement	0.00E+00	Pu-241
Solidified Inorganic Material	0.00E+00	Pu-242
Solidified Organic Material	0.00E+00	Sr-90
Soil	0.00E+00	Th-229
Vitrified	0.00E+00	Th-230
Packaging Material, Cellulose	0.00E+00	Th-232
Packaging Material, Plastic	2.27E+00	U-233
Packaging Material, Rubber	3.63E-01	U-234
Packaging Material, Steel	2.90E+02	U-235
Packaging Material, Lead	0.00E+00	U-236
·		U-238

Final Form Radionuclides

Total Activity (Ci)

9.94E-02

7.02E-06

7.74E-08

1.11E-06

8.89E-03

1.93E-02

1.19E-03

9.46E-02

3.94E-09 7.71E-08

8.21E-16

2.64E-11

3.49E-21

9.43E-12 1.46E-06

3.84E-11

7.06E-11

1.22E-18

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

Annual Transuranic Waste Inventory Report - 2023 Waste Stream ID: LA-TRU-Empty-85

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S5	Defense Determi	nation Defense	-Related	Handling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Grou	p Heterogeneous Deb	ris Waste	Inventory Dat	e 12/31,	/2022
Stream Name	Empty containers				Activities Decay	ed to CY	2022

Waste Volume I	Detail ((m 3)
----------------	----------	-------

Final Form Volumes					
Container Type Stored Proj. T					
SWB Dir Ld w/ Liner	90.2	0.0	90.2		
Final Form Total	90.2	0.0	90.2		

Waste Material Parameters

waste material rafaillet	Fillali	
	Total	
	Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	3.10E+04	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Am-243
Other Metal/Alloys	0.00E+00	Cs-137
Other Inorganic Materials	0.00E+00	Np-237
Cellulose	0.00E+00	Pu-238
Rubber	1.15E+02	Pu-239
Plastic	3.74E+03	Pu-240
Cement	0.00E+00	Pu-241
Solidified Inorganic Material	0.00E+00	Pu-242
Solidified Organic Material	0.00E+00	Sr-90
Soil	0.00E+00	Th-229
Vitrified	0.00E+00	Th-230
Packaging Material, Cellulose	0.00E+00	Th-232
Packaging Material, Plastic	1.09E+02	U-233
Packaging Material, Rubber	1.74E+01	U-234
Packaging Material, Steel	1.39E+04	U-235
Packaging Material, Lead	0.00E+00	U-236
	•	U-238

Haz Wasta No(s) **Final Form Radionuclides** Total

Activity (Ci)

2.19E+02

2.17E-02

1.29E-03

4.47E-03 2.17E+01

4.69E+01

1.02E+01

2.01E+02

3.13E-04

1.29E-03

2.79E-06

4.62E-08

4.89E-17

1.93E-08 5.05E-03

1.48E-05

1.14E-06

4.17E-04

naz. waste wo(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

Waste Stream ID: LA-TRU-Empty-SWB

Appendix A

Waste Profile Report

Site	Los Alamos National Laboratory	Summary Category S5	Defense Determi	nation Defense	-Related	Handling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Grou	p Heterogeneous Deb	ris Waste	Inventory Dat	e 12/31,	/2022
Stream Name	Empty containers				Activities Decay	ed to CY	2022

Waste Volume D	Detail (m ³)
----------------	------------------------	---

Final Form Volumes						
Container Type	Stored	Proj.	Total			
SWB Dir Ld w/ Liner	16.9	0.0	16.9			
Final Form Total	Final Form Total 16.9					

Waste Material Parameters

Waste Material Parame	Final Form	Radionuclides	
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	1.23E+03	Am-241	3.50E-01
Aluminum-based Metal/Alloys	0.00E+00	Am-243	1.05E-05
Other Metal/Alloys	0.00E+00	Cs-137	1.06E-06
Other Inorganic Materials	0.00E+00	Np-237	5.45E-06
Cellulose	0.00E+00	Pu-238	1.84E+01
Rubber	1.31E+00	Pu-239	3.93E-01
Plastic	8.16E+01	Pu-240	9.20E-02
Cement	0.00E+00	Pu-241	6.23E-01
Solidified Inorganic Material	0.00E+00	Pu-242	4.30E-06
Solidified Organic Material	0.00E+00	Sr-90	1.03E-06
Soil	0.00E+00	Th-229	1.64E-13
Vitrified	0.00E+00	Th-230	4.63E-07
Packaging Material, Cellulose	0.00E+00	Th-232	1.32E-17
Packaging Material, Plastic	2.04E+01	U-233	2.82E-10
Packaging Material, Rubber	3.27E+00	U-234	3.97E-03
Packaging Material, Steel	2.61E+03	U-235	2.15E-07
Packaging Material, Lead	0.00E+00	U-236	3.82E-08
·		U-238	1.54E-07

Haz Wasta No(s)

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

Waste Stream ID: LB-T001

Appendix A

Waste Profile Report

Site	Lawrence Berkeley National Laboratory	Summary Category S500	0 Defense Determin	ation Defense	-Related	Handling	СН
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Da	te 12/31/	2022
Stream Name	LBL-Non Mixed Waste				Activities Deca	yed to CY	2022

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

Waste Material Parameters

vvaste iviateriai raraille	ters	Fillali
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	0.00E+00	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Am-243
Other Metal/Alloys	2.02E+00	Cm-244
Other Inorganic Materials	7.40E-01	Cs-137
Cellulose	1.09E+00	Np-237
Rubber	0.00E+00	Pu-238
Plastic	6.40E-01	Pu-239
Cement	0.00E+00	Pu-240
Solidified Inorganic Material	6.00E-02	Pu-241
Solidified Organic Material	4.00E-03	Pu-242
Soil	0.00E+00	Pu-244
Vitrified	0.00E+00	Th-229
Packaging Material, Cellulose	0.00E+00	Th-230
Packaging Material, Plastic	7.71E+00	Th-232
Packaging Material, Rubber	1.18E-01	U-233
Packaging Material, Steel	2.72E+01	U-234
Packaging Material, Lead	0.00E+00	U-235
		U-236

Final Form Radionuclides Total Activity Otope (Ci) No Hazardous Waste Numbers Provided

5.36E-03

8.99E-04

6.46E-04

7.36E-08

8.54E-06

3.20E-03

3.08E-04

1.00E-05

9.51E-05

5.41E-20

6.70E-17

4.11E-18

4.15E-16

5.60E-07

1.31E-12

9.02E-10

3.03E-14

2.96E-14

3.90E-10

U-238

TRUCON Code(s)

125/225

Waste Stream Description

Heterogeneous transuranic, non mixed waste

Waste Stream ID: LB-T002

Appendix A

Waste Profile Report

Site	Lawrence Berkeley National Laboratory	Summary Category S50	Defense Determin	nation Defense	-Related I	landling	СН
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/	/2022
Stream Name	LBL - Mixed Waste				Activities Decay	ed to CY	2022

Waste	Volume	Detail	(m ³)
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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 Parame	ters	_
	Total	
	Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	0.00E+00	
Aluminum-based Metal/Alloys	0.00E+00	
Other Metal/Alloys	3.10E-04	
Other Inorganic Materials	1.10E-01	
Cellulose	3.70E-01	
Rubber	0.00E+00	
Plastic	0.00E+00	
Cement	0.00E+00	
Solidified Inorganic Material	5.50E-03	_
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	7.71E+00	
Packaging Material, Rubber	1.18E-01	
Packaging Material, Steel	2.72E+01	

0.00E+00

Final Form	Radionuclides
	Total
	Activity
Isotope	(Ci)
Am-241	8.74E-06
Am-243	1.20E-08
Np-237	5.80E-08
Pu-239	5.50E-05
Pu-241	3.96E-05
Th-229	2.79E-20
U-233	8.87E-15
U-235	5.42E-15

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

Waste Stream Description

Heterogeneous transuranic mixed waste

Packaging Material, Lead

Final Form Radionuclides

Isotope

Am-241

Am-243

Cm-244

Cs-137

Np-237

Pu-238

Pu-239

Pu-240

Pu-241

Pu-242

Pu-244

Sr-90

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

U-238

Total Activity

(Ci)

6.34E+02

3.41E-02

1.64E+02

6.41E-01

4.82E-03

7.11E+02

6.88E+02

3.40E+02

1.92E+03

6.62E-02

1.75E-10

6.40E-01

1.54E-07

9.96E-05

1.94E-05

1.76E-02

3.20E-02

8.40E-04

1.00E-06

9.00E-03

Waste Stream ID: LL-M001

Appendix A

Waste Profile Report

Site	Lawrence Livermore National Laboratory	Summary Category S500	0 Defense Determin	ation Defense-	-Related	Handling	СН
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Da	te 12/31/	2022
Stream Name	R&D Glovebox Waste				Activities Deca	yed to CY	2022

Final Form Volumes				
Container Type	Stored	Proj.	Total	
55-gal Drum Dir Ld w/o Liner	26.0	168.0	194.0	
55-gal POC - 12" w/ Liner	0.6	2.7	3.3	
SWB Dir Ld w/o Liner	7.5	45.1	52.6	
Final Form Total	34.1	215.8	249.9	

Waste Material Paramet	ters
	Total
	Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	1.05E+04
Aluminum-based Metal/Alloys	2.92E+03
Other Metal/Alloys	6.57E+03
Other Inorganic Materials	5.83E+02
Cellulose	5.01E+03
Rubber	5.16E+03
Plastic	1.63E+04
Cement	0.00E+00
Solidified Inorganic Material	1.41E+03
Solidified Organic Material	1.46E+02
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	1.88E+03
Packaging Material, Plastic	5.17E+02
Packaging Material, Rubber	1.27E+02
Packaging Material, Steel	4.06E+04
Packaging Material, Lead	0.00E+00

Haz. Waste No(s).
D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D022, D028, D029,
F001, F002, F005

TRUCON Code(s) 116/216

Waste Stream Description

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

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 12/31/2022
Stream Name	Pyrochemical salt waste		Activities Decayed to CY 2022

Waste	Volume	Detail	(m ³)
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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	0.0	1.7	1.7	
Final Form Total 0.3 1.7 1				

Waste Material Parameters		Final Form	Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	3.05E+01	Am-241	3.33E+00
Aluminum-based Metal/Alloys	9.47E+00	Cm-244	1.45E-02
Other Metal/Alloys	0.00E+00	Np-237	1.70E-05
Other Inorganic Materials	1.62E+02	Pu-238	6.28E-01
Cellulose	0.00E+00	Pu-239	1.02E+01
Rubber	0.00E+00	Pu-240	2.08E+00
Plastic	1.33E+01	Pu-241	1.15E+01
Cement	0.00E+00	Pu-242	2.33E-04
Solidified Inorganic Material	0.00E+00	Th-229	8.15E-18
Solidified Organic Material	0.00E+00	Th-230	8.15E-14
Soil	0.00E+00	Th-232	1.52E-20
Vitrified	0.00E+00	U-233	2.59E-12
Packaging Material, Cellulose	9.84E+02	U-234	1.77E-07
Packaging Material, Plastic	2.70E+02	U-235	1.01E-09
Packaging Material, Rubber	4.25E+00	U-236	6.16E-09
Packaging Material, Steel	3.88E+03	U-238	3.61E-15
Packaging Material, Lead	0.00E+00		

Haz. Waste No(s).

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.

Annual Transuranic Waste Inventory Report - 2023 Waste Stream ID: LL-W018-S5100

Appendix A

Waste Profile Report

Site	Lawrence Livermore National Laboratory	Summary Category S5000	Defense Determin	nation Defense	-Related	Handling CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Da	te 12/31/2022
Stream Name	Combined metal scrap & incidental combust				Activities Decay	/ed to CY 2022

Waste Volume Detail (m ³)			
Final Form Volum	es		
Container Type	Stored	Proj.	Total
SLB2 Dir Ld	184.8	0.0	184.8

184.8

0.0

184.8

Waste Material Paramet	ters	
	Total	
	Mass	
Material Parameter	(kg)	Iso
Iron-based Metal/Alloys	7.46E+03	Am
Aluminum-based Metal/Alloys	4.68E+02	Cm
Other Metal/Alloys	1.85E+03	Np
Other Inorganic Materials	7.79E+01	Pu-
Cellulose	2.05E+03	Pu-
Rubber	3.86E+02	Pu-
Plastic	2.94E+02	Pu-
Cement	0.00E+00	Pu-
Solidified Inorganic Material	0.00E+00	Th-
Solidified Organic Material	3.67E+02	Th-
Soil	0.00E+00	Th-
Vitrified	0.00E+00	U-2
Packaging Material, Cellulose	0.00E+00	U-2
Packaging Material, Plastic	0.00E+00	U-2
Packaging Material, Rubber	2.04E+01	U-2
Packaging Material, Steel	3.05E+04	U-2
Packaging Material, Lead	0.00E+00	

Radionuclides	
Total Activity	0
(Ci)	
5.02E+00	
4.17E-03	
2.27E-05	_
3.47E-01	
6.95E+00	
1.74E+00	
2.58E+01	
3.21E-04	
3.10E-13	
1.10E-09	
2.86E-16	
7.17E-10	
1.56E-05	
1.03E-07	
7.73E-07	
7.47E-13	
	Total Activity (Ci) 5.02E+00 4.17E-03 2.27E-05 3.47E-01 6.95E+00 1.74E+00 2.58E+01 3.21E-04 3.10E-13 1.10E-09 2.86E-16 7.17E-10 1.56E-05 1.03E-07 7.73E-07

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

TRUCON Code(s) 425

Waste Stream Description

Final Form Total

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

Waste Stream ID: LL-W018-SS

Appendix A

Waste Profile Report

Site	Lawrence Livermore National Laboratory	Summary Category S500	00 Defense Determin	ation Defense-	-Related I	landling	СН
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Dat	e 12/31/	/2022
Stream Name	Sealed Sources				Activities Decay	ed to CY	2022

Waste Volume I	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		
Final Form Total 4.2 0.0 4					

Waste Material Parameters			
	Total Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	2.96E+01		
Aluminum-based Metal/Alloys	6.34E+00		
Other Metal/Alloys	1.79E+01		
Other Inorganic Materials	1.57E+01		
Cellulose	6.41E+00		
Rubber	0.00E+00		
Plastic	1.40E-01		
Cement	0.00E+00		
Solidified Inorganic Material	3.87E+01		
Solidified Organic Material	2.05E+01		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	0.00E+00		
Packaging Material, Rubber	2.36E+00		
Packaging Material, Steel	5.44E+02		
Packaging Material, Lead	0.00E+00		

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	7.73E+01	
Am-243	1.04E-05	
Cm-244	5.12E-04	
Cs-137	1.13E-02	
Np-237	3.87E-04	
Pu-238	1.17E+01	
Pu-239	6.00E-01	
Pu-240	1.92E-03	
Pu-241	2.12E-01	
Pu-244	8.77E-22	
Sr-90	3.46E-02	
Th-229	5.75E-12	
Th-230	3.68E-08	
Th-232	3.15E-19	
U-233	1.28E-08	
U-234	5.24E-04	
U-235	4.37E-07	
U-236	8.52E-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

Isotope

Am-241

Am-243

Cm-244

Cs-137

Np-237

Pu-238

Pu-239

Pu-240

Pu-241

Pu-242

Sr-90

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

U-238

Waste Stream ID: LL-W019

Appendix A

Waste Profile Report

Site	Lawrence Livermore National Laboratory	Summary Category S3000 Defense Determination Def	ense-Related I	landling CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Solidified Inorganics	Inventory Dat	e 12/31/2022
Stream Name	Solidified Waste		Activities Decay	ed to CY 2022

Waste	Volume	Detail	(m 3)
vvaste	volulle	Detail	<i>,</i>

Final Form Volumes					
Container Type	Stored	Proj.	Total		
55-gal Drum Dir Ld w/o Liner	16.8	16.4	33.2		
Final Form Total 16.8 16.4 33.2					

Waste Material Parameters

	Total Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	4.35E+02
Aluminum-based Metal/Alloys	4.96E+01
Other Metal/Alloys	1.49E+02
Other Inorganic Materials	0.00E+00
Cellulose	3.10E+02
Rubber	2.11E+02
Plastic	2.02E+03
Cement	0.00E+00
Solidified Inorganic Material	7.79E+03
Solidified Organic Material	1.45E+03
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	0.00E+00
Packaging Material, Rubber	1.86E+01
Packaging Material, Steel	4.30E+03
Packaging Material, Lead	0.00E+00

Haz Wasto No(s) **Final Form Radionuclides** Total

Activity (Ci)

3.01E+01

3.52E-05

1.31E-02

7.34E-05

2.89E-03

1.25E+02

7.36E+01

1.90E+01

2.03E+02

4.99E-03

7.30E-05

1.98E-05

2.45E-09

4.54E-05

2.25E+00

2.68E-03

2.90E-04

5.62E-08

3.48E-03

naz. waste wo(s).
D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D022, D028, D029,
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.

Waste Stream ID: ND-T001

Appendix A

Waste Profile Report

Site	Nuclear Radiation Development Site	Summary Category S5000	Defense Determin	ation Defense-	Related	landling	СН
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/	/2022
Stream Name	AmO2 Bagout/ Silver Bagout				Activities Decay	ed to CY	2022

Waste	Volume	Detail	(m ³)
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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

	T-4-1
	Total
	Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	8.80E+01
Aluminum-based Metal/Alloys	0.00E+00
Other Metal/Alloys	4.42E+00
Other Inorganic Materials	2.25E+00
Cellulose	8.80E+01
Rubber	1.32E+01
Plastic	2.20E+01
Cement	0.00E+00
Solidified Inorganic Material	2.21E+02
Solidified Organic Material	4.42E+00
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	0.00E+00
Packaging Material, Rubber	2.36E-01
Packaging Material, Steel	5.44E+01
Packaging Material, Lead	0.00E+00

Final Form Radionuclides	
	Total
	Activity
Isotope	(Ci)
Am-241	2.92E+01
Np-237	1.05E-04
Th-229	8.06E-13
11-233	2 50F-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).

Waste Stream ID: ND-T002

Appendix A

Waste Profile Report

Site	Nuclear Radiation Development Site	Summary Category S500	Defense Determin	nation Defense	-Related I	landling	СН
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/	/2022
Stream Name	Returned Smoke Detector Sources				Activities Decay	ed to CY	2022

Waste Volume Det	ail	(m ³
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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 Paramete	ers	_
	Total Mass	
Material Parameter	(kg)	ا
Iron-based Metal/Alloys	5.29E+01	/
Aluminum-based Metal/Alloys	0.00E+00	Ī
Other Metal/Alloys	5.29E+00	-
Other Inorganic Materials	0.00E+00	Ī
Cellulose	0.00E+00	_
Rubber	0.00E+00	
Plastic	0.00E+00	
Cement	0.00E+00	
Solidified Inorganic Material	0.00E+00	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	0.00E+00	
Packaging Material, Rubber	9.44E-01	

2.18E+02

0.00E+00

Wasta Material Parameters

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	3.70E+00	
Np-237	1.58E-05	Г
Th-229	1.69E-13	L
U-233	4.44E-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.

Data ver. **D.22.01.33**

Packaging Material, Steel

Packaging Material, Lead

Waste Stream ID: NT-JAS-01

Appendix A

Waste Profile Report

Site	Nevada National Security Site	Summary Category S500	Defense Determin	nation Defense	-Related	Handling CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debr	ris Waste	Inventory Da	te 12/31/2022
Stream Name	Combined metal scrap and incidental combustibles				Activities Decay	yed to CY 2022

Waste \	Volume	Detail	(m ³)
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Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	75.2	79.0	154.2
Final Form Total	75.2	79.0	154.2

Waste Material Parameters	
	Total Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	1.07E+05
Aluminum-based Metal/Alloys	5.45E+02
Other Metal/Alloys	0.00E+00
Other Inorganic Materials	5.45E+02
Cellulose	0.00E+00
Rubber	5.45E+02
Plastic	5.45E+02
Cement	0.00E+00
Solidified Inorganic Material	0.00E+00
Solidified Organic Material	0.00E+00
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	0.00E+00
Packaging Material, Rubber	2.98E+01
Packaging Material, Steel	2.38E+04
Packaging Material, Lead	0.00E+00

	Total Activity
Isotope	(Ci)
Am-241	1.07E+01
Np-237	1.36E-04
Pu-238	1.96E+01
Pu-239	1.45E+02
Pu-240	3.29E+01
Pu-241	1.14E+02
Pu-242	1.84E-03
Th-229	6.78E-12
Th-230	1.01E-07
Th-232	8.69E-15
U-233	8.84E-09
U-234	1.13E-03
U-235	2.71E-06
U-236	1.85E-05
U-238	5.41E-12

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.

Data ver. **D.22.01.33**

Waste Stream ID: OR-CHEM-CH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S5000 Defense Determin	nation Defense	-Related	Handling	СН
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group Heterogeneous Debr	ris Waste	Inventory Dat	te 12/31/	2022
Stream Name	ORNL Analytical Chemistry CH-TRU Debris Waste			Activities Decay	ed to CY	2022

Waste Volume Detail (m 3)

Final Form Volumes					
Container Type	Stored	Proj.	Total		
55-gal Drum Dir Ld w/o Liner	31.1	0.0	31.1		
55-gal POC - 6" w/ Liner	0.0	0.0	0.0		
SWB w/ 4 - 55-gal Drums w/o Liners	3.4	0.0	3.4		
Final Form Total	34.5	0.0	34.5		

Waste Material Parameters			
	Total Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	8.12E+02		
Aluminum-based Metal/Alloys	6.40E+00		
Other Metal/Alloys	6.61E+01		
Other Inorganic Materials	3.54E+02		
Cellulose	1.22E+02		
Rubber	4.05E+01		
Plastic	7.27E+02		
Cement	0.00E+00		
Solidified Inorganic Material	0.00E+00		
Solidified Organic Material	4.26E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	8.94E+01		
Packaging Material, Plastic	1.54E+01		
Packaging Material, Rubber	2.10E+01		
Packaging Material, Steel	5.76E+03		
Packaging Material, Lead	0.00E+00		

Final Form	Radionuclides
	Total
	Activity
Isotope	(Ci)
Am-241	2.44E+01
Am-243	2.70E-02
Cm-244	8.37E+00
Cs-137	4.40E+00
Np-237	2.26E-04
Pu-238	1.58E+01
Pu-239	5.81E+00
Pu-240	2.75E+00
Pu-241	3.20E+01
Pu-242	4.24E-03
Pu-244	3.85E-18
Sr-90	4.74E+00
Th-229	2.01E-05
Th-230	9.56E-09
Th-232	4.00E-07
U-233	2.20E+00
U-234	1.04E-02
U-235	2.14E-04
U-236	8.13E-09
U-238	8.83E-03

Haz. Waste No(s). D004, D005, D006, D007, D008, D009, D011, D019, D022, F002, F005

TRUCON Code(s) 125/225

Waste Stream Description

Waste consists of CH-TRU debris from analytical chemistry operations at ORNL

Waste Stream ID: OR-CHEM-RH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S50	000 Defense Determi	nation Defense	-Related	Handling RH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Grou	p Heterogeneous Deb	ris Waste	Inventory Da	te 12/31/2022
Stream Name	ORNL Analytical Chemistry Laboratory Operations RH-TRU Debris Waste				Activities Decay	yed to CY 2022

Waste Volume Detail (m ³)				
Final Form Volumes				
Container Type	Stored	Proj.	Total	
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	3.8	0.0	3.8	
Final Form Total	3.8	0.0	3.8	

Waste Material Parameters			
	Total		
	Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	8.40E+01		
Aluminum-based Metal/Alloys	6.62E-01		
Other Metal/Alloys	7.06E+00		
Other Inorganic Materials	3.66E+01		
Cellulose	1.26E+01		
Rubber	4.19E+00		
Plastic	7.52E+01		
Cement	0.00E+00		
Solidified Inorganic Material	2.21E-01		
Solidified Organic Material	0.00E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	1.71E+02		
Packaging Material, Rubber	2.12E+00		
Packaging Material, Steel	3.49E+03		
Packaging Material, Lead	0.00E+00		

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	1.33E+00	
Am-243	9.50E-14	
Cm-244	1.24E+01	
Cs-137	2.17E+00	
Np-237	4.32E-08	
Pu-238	3.95E+00	
Pu-239	4.77E-02	
Pu-240	2.36E-01	
Pu-241	2.09E-08	
Pu-242	3.13E-03	
Pu-244	2.74E-11	
Sr-90	3.17E+00	
Th-229	6.33E-08	
Th-230	3.33E-09	
Th-232	1.72E-21	
U-233	7.19E-03	
U-234	3.62E-03	
U-235	1.39E-04	
U-236	6.99E-10	
U-238	2.59E-03	

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

Waste Stream ID: OR-CRF-CH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S500	O Defense Determin	ation Defense	-Related I	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Dat	e 12/31/2022
Stream Name	Curium Recovery Facility CH-TRU Waste				Activities Decay	ed to CY 2022

Waste \	/olume	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 Parame	Fina	
	Total Mass	
Material Parameter	(kg)	Isotop
Iron-based Metal/Alloys	4.14E+02	Am-24
Aluminum-based Metal/Alloys	7.66E-01	Am-24
Other Metal/Alloys	1.30E+01	Cm-24
Other Inorganic Materials	1.61E+01	Cs-137
Cellulose	7.66E+01	Np-237
Rubber	1.46E+01	Pu-238
Plastic	2.99E+01	Pu-239
Cement	0.00E+00	Pu-240
Solidified Inorganic Material	0.00E+00	Pu-241
Solidified Organic Material	0.00E+00	Pu-242
Soil	2.02E+02	Sr-90
Vitrified	0.00E+00	Th-229
Packaging Material, Cellulose	0.00E+00	Th-230
Packaging Material, Plastic	0.00E+00	Th-232
Packaging Material, Rubber	1.89E+00	U-233
Packaging Material, Steel	4.35E+02	U-234
Packaging Material, Lead	0.00E+00	U-235

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	1.15E-01		
Am-243	8.58E-03		
Cm-244	1.94E+00		
Cs-137	4.55E-04		
Np-237	9.99E-06		
Pu-238	4.61E-01		
Pu-239	4.58E-05		
Pu-240	2.82E-02		
Pu-241	8.12E-01		
Pu-242	3.46E-05		
Sr-90	4.55E-04		
Th-229	1.89E-08		
Th-230	5.99E-14		
Th-232	2.06E-22		
U-233	2.15E-03		
U-234	1.30E-07		

4.51E-15

8.35E-11

5.37E-16

U-236

U-238

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

Waste Stream ID: OR-GENR-CH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S5000 Defense Determi	nation Defense	-Related	Handling Cl	Н
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Heterogeneous Deb	ris Waste	Inventory Dat	te 12/31/202	22
Stream Name	ORNL General Research & Development CH-TRU Debris Waste			Activities Decay	ed to CY 202	22

Waste Vo	lume Detail	(m ³)
----------	-------------	-------

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	19.3	0.0	19.3
55-gal POC - 12" w/ Liner	0.0	0.0	0.0
55-gal POC - 6" w/ Liner	0.0	0.0	0.0
SWB w/ 4 - 55-gal Drums w/o Liners	0.8	0.0	0.8
Final Form Total	20.2	0.0	20.2

Waste Material Parameters		
	Total Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	3.25E+02	
Aluminum-based Metal/Alloys	8.08E+01	
Other Metal/Alloys	8.08E+01	
Other Inorganic Materials	3.25E+02	
Cellulose	5.99E+02	
Rubber	3.94E+02	
Plastic	1.64E+02	
Cement	0.00E+00	
Solidified Inorganic Material	0.00E+00	
Solidified Organic Material	1.97E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	7.28E+01	
Packaging Material, Plastic	1.54E+01	
Packaging Material, Rubber	1.19E+01	
Packaging Material, Steel	3.08E+03	
Packaging Material, Lead	0.00E+00	

Final Form Radionuclides				
	Total			
	Activity			
Isotope	(Ci)			
Am-241	4.99E+00			
Am-243	3.17E-01			
Cm-244	3.50E+00			
Cs-137	2.54E-03			
Np-237	1.30E-02			
Pu-238	3.38E+00			
Pu-239	1.96E+00			
Pu-240	2.34E+00			
Pu-241	3.71E+01			
Pu-242	6.87E-01			
Pu-244	3.02E-13			
Sr-90	2.54E-03			
Th-229	8.97E-06			
Th-230	7.22E-11			
Th-232	6.96E-06			
U-233	3.57E-04			
U-234	7.90E-05			
U-235	1.37E-06			
U-236	7.08E-09			
U-238	8.38E-04			

Haz. Waste No(s).
D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D022, D028, F002,
F005

TRUCON Code(s) 125/225

Waste Stream Description

Waste consists of CH-TRU debris from general R&D at ORNL

Waste Stream ID: OR-GRSC-CH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S5000 Defense Determi	nation Defense	-Related	Handling CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Heterogeneous Deb	ris Waste	Inventory D	ate 12/31/2022
Stream Name	ORNL Graphite Reactor Storage Canal Cleanup CH-TRU Waste			Activities Deca	ayed to CY 2022

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		Final Form Radionuclides		Haz. Waste No(s).
	Total		Total	D006, D008
	Mass		Activity	
Material Parameter	(kg)	Isotope	(Ci)	
Iron-based Metal/Alloys	2.43E+00	Am-241	6.81E-04	
Aluminum-based Metal/Alloys	0.00E+00	Am-243	6.64E-06	TRUCON Code(s)
Other Metal/Alloys	0.00E+00	Cm-244	1.44E-04	125/225
Other Inorganic Materials	0.00E+00	Cs-137	4.90E-03	
Cellulose	9.72E-01	Np-237	2.21E-11	
Rubber	9.72E-01	Pu-238	2.54E-04	
Plastic	9.72E-01	Pu-239	1.03E-03	
Cement	0.00E+00	Pu-240	8.15E-05	
Solidified Inorganic Material	8.89E+01	Pu-241	6.98E-04	
Solidified Organic Material	2.92E+00	Pu-242	6.87E-08	
Soil	0.00E+00	Sr-90	4.95E-03	
Vitrified	0.00E+00	Th-229	1.99E-11	
Packaging Material, Cellulose	0.00E+00	Th-230	1.65E-11	
Packaging Material, Plastic	0.00E+00	Th-232	5.95E-25	
Packaging Material, Rubber	3.54E-01	U-233	2.26E-06	
Packaging Material, Steel	8.16E+01	U-234	1.80E-05	
Packaging Material, Lead	0.00E+00	U-235	7.70E-07	
		U-236	2.41E-13	

U-238

1.79E-05

Waste Stream Description

Waste consists of CH-TRU debris from Graphite Reactor storage canal cleanup at ORNL

Waste Stream ID: OR-GRSC-RH-HOM

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S3000 Defense Determinati	ion Defense-Related	Handling RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Solidified Inorganics	Inventory Da	ate 12/31/2022
Stream Name	RH-TRU from ORGR Storage Canal Cleanup		Activities Deca	yed to CY 2022

waste volume Detail (m ³)	
	Final Form Volumes

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			
	Total		
	Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	3.30E+00		
Aluminum-based Metal/Alloys	0.00E+00		
Other Metal/Alloys	0.00E+00		
Other Inorganic Materials	0.00E+00		
Cellulose	3.30E+00		
Rubber	0.00E+00		
Plastic	3.30E+00		
Cement	0.00E+00		
Solidified Inorganic Material	4.27E+02		
Solidified Organic Material	3.30E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	5.70E+01		
Packaging Material, Rubber	7.08E-01		
Packaging Material, Steel	1.16E+03		
Packaging Material, Lead	0.00E+00		

Final Form Radionuclides Total		
	Activity	
Isotope	(Ci)	
Am-241	2.57E-02	
Am-243	4.25E-04	
Cm-244	4.83E-02	
Cs-137	1.61E+00	
Np-237	8.34E-10	
Pu-238	8.09E-02	
Pu-239	3.24E-01	
Pu-240	2.57E-02	
Pu-241	2.39E-01	
Pu-242	2.15E-05	
Sr-90	1.63E+00	
Th-229	6.30E-09	
Th-230	5.20E-09	
Th-232	1.88E-22	
U-233	7.16E-04	
U-234	5.65E-03	
U-235	2.45E-04	
U-236	7.61E-11	
U-238	5.64E-03	

Haz. Waste No(s).

D006, D008

TRUCON Code(s)

Waste Stream Description

Waste consists of RH-TRU generated by the cleanout of Graphite Reactor storage canal

Waste Stream ID: OR-IFEL-CH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S5000 Defense Determine	ination Defense	-Related	Handling	СН
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Heterogeneous Deb	ris Waste	Inventory Da	te 12/31/2	2022
Stream Name	Irradiated Fuels Examination Laboratory CH-TRU Waste			Activities Decay	yed to CY 2	2022

Waste Volume Detail (I	n ³)
------------------------	------

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

Waste Material Parameters

Waste Material Parame	Final F	
	Total Mass	
Material Parameter	(kg)	Isotope
	7.93E+02	
Iron-based Metal/Alloys	_	Am-241
Aluminum-based Metal/Alloys	2.55E+01	Am-243
Other Metal/Alloys	1.80E+01	Cm-244
Other Inorganic Materials	4.80E+01	Cs-137
Cellulose	2.07E+02	Np-237
Rubber	7.65E+01	Pu-238
Plastic	3.31E+02	Pu-239
Cement	0.00E+00	Pu-240
Solidified Inorganic Material	0.00E+00	Pu-241
Solidified Organic Material	0.00E+00	Pu-242
Soil	0.00E+00	Sr-90
Vitrified	0.00E+00	Th-229
Packaging Material, Cellulose	0.00E+00	Th-230
Packaging Material, Plastic	0.00E+00	Th-232
Packaging Material, Rubber	5.19E+00	U-233
Packaging Material, Steel	1.20E+03	U-234
Packaging Material, Lead	0.00E+00	U-235
		U-236

Final Form Radionuclides Haz. Waste No(s).

Total Activity (Ci)

5.55E-01

2.81E-03

1.39E+00

3.20E-01

1.45E-04

2.86E-01

1.01E-01

9.48E-02

2.35E+00

1.71E-04

1.05E-01

3.48E-08

9.45E-10

6.92E-22

3.95E-03

1.03E-03

2.31E-05

2.81E-10

8.04E-05

U-238

D004, D005, D006,
D007, D008, D009,
D010, D011, 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

Waste Stream ID: OR-ISTP-CH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S5000 Defense Determi	nation Defense	-Related	Handling	СН
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group Heterogeneous Deb	ris Waste	Inventory Date	te 12/31/	/2022
Stream Name	ORNL Isotopes Facilities CH-TRU Debris Waste			Activities Decay	ed to CY	2022

Waste Volume Detail (m 3)	Waste	Volume	Detail	(m ³)
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Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	59.6	0.0	59.6
55-gal POC - 12" w/ Liner	0.3	0.0	0.3
55-gal POC - 6" w/ Liner	0.0	0.0	0.0
SWB w/ 4 - 55-gal Drums w/o Liners	0.8	0.0	0.8
Final Form Total	60.8	0.0	60.8

Waste Material Parameters		
	Total Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	2.98E+03	
Aluminum-based Metal/Alloys	1.57E+02	
Other Metal/Alloys	8.56E+02	
Other Inorganic Materials	1.84E+02	
Cellulose	1.49E+03	
Rubber	8.19E+02	
Plastic	2.70E+03	
Cement	0.00E+00	
Solidified Inorganic Material	0.00E+00	
Solidified Organic Material	1.84E+01	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	2.86E+02	
Packaging Material, Plastic	6.94E+01	
Packaging Material, Rubber	3.54E+01	
Packaging Material, Steel	9.03E+03	
Packaging Material, Lead	0.00E+00	

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	3.00E+02	
Am-243	6.94E-01	
Cm-244	1.08E+03	
Cs-137	7.59E-02	
Np-237	8.99E-02	
Pu-238	2.97E+02	
Pu-239	1.44E+01	
Pu-240	1.77E+01	
Pu-241	5.44E+02	
Pu-242	5.20E-01	
Pu-244	6.78E-04	
Sr-90	4.20E-02	
Th-229	1.37E-04	
Th-230	4.26E-08	
Th-232	1.26E-05	
U-233	1.28E+00	
U-234	4.64E-02	
U-235	4.17E-04	
U-236	1.21E-04	
U-238	7.17E-04	

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

D008, D009, D011, D019, D022, F002, F005

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from isotopes production at ORNL

Waste Stream ID: OR-ISTP-RH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S5000 Defense Determi	nation Defense	-Related	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group Heterogeneous Deb	ris Waste	Inventory Da	te 12/31/	/2022
Stream Name	ORNL Isotopes Facilities RH-TRU Debris Waste			Activities Deca	yed to CY	2022

Waste	Volume	Detail	(m ³)

Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can NS30 w/ Liner	0.3	0.0	0.3
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	4.4	0.0	4.4
Final Form Total	4.7	0.0	4.7

Waste Material Parameters		
	Total Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	1.76E+02	
Aluminum-based Metal/Alloys	9.23E+00	
Other Metal/Alloys	5.05E+01	
Other Inorganic Materials	1.09E+01	
Cellulose	8.79E+01	
Rubber	4.83E+01	
Plastic	1.59E+02	
Cement	0.00E+00	
Solidified Inorganic Material	1.09E+00	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	4.56E+02	
Packaging Material, Rubber	2.48E+00	
Packaging Material, Steel	4.62E+03	
Packaging Material, Lead	0.00E+00	

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	4.59E+01	
Am-243	5.66E-03	
Cm-244	2.55E+02	
Cs-137	2.52E-04	
Np-237	6.47E-04	
Pu-238	1.03E+00	
Pu-239	2.55E+00	
Pu-240	4.83E+00	
Pu-241	4.98E-01	
Pu-244	3.89E-19	
Sr-90	2.52E-04	
Th-229	3.11E-16	
Th-230	1.20E-05	
Th-232	1.00E-03	
U-233	9.87E-11	
U-234	1.39E-03	
U-235	3.00E-05	
U-236	1.43E-08	

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

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

1.12E-04

U-238

Waste Stream ID: OR-LWT-CH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S500	O Defense Determin	ation Defense-	-Related I	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Dat	e 12/31/2022
Stream Name	ORNL-Liquid Waste Treatment CH-TRU Debris Waste				Activities Decay	ed to CY 2022

Waste Volu	Detail (m ³)
------------	--------------------------

Final Form Volumes					
Container Type Stored Proj. To					
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

Waste Material Parameters		Final Forr	n Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	2.63E+02	Am-241	4.41E-01
Aluminum-based Metal/Alloys	1.71E+00	Am-243	7.95E-04
Other Metal/Alloys	8.55E-01	Cm-244	2.31E-02
Other Inorganic Materials	3.42E+00	Cs-137	4.05E-01
Cellulose	1.71E+01	Np-237	4.69E-05
Rubber	8.55E-01	Pu-238	1.13E-01
Plastic	5.47E+01	Pu-239	1.01E+00
Cement	0.00E+00	Pu-240	5.99E-03
Solidified Inorganic Material	0.00E+00	Pu-241	9.81E-02
Solidified Organic Material	0.00E+00	Pu-242	1.73E-05
Soil	0.00E+00	Sr-90	4.11E-01
Vitrified	0.00E+00	Th-229	8.77E-05
Packaging Material, Cellulose	0.00E+00	Th-230	4.38E-05
Packaging Material, Plastic	0.00E+00	Th-232	6.84E-05
Packaging Material, Rubber	3.07E+00	U-233	3.74E-03
Packaging Material, Steel	7.07E+02	U-234	3.10E-03
Packaging Material, Lead	0.00E+00	U-235	5.06E-05
		U-236	3.20E-05

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

TRUCON Code(s) 125/225

Waste Stream Description

Waste consists of CH-TRU debris from ORNL liquids waste system.

Waste Stream ID: OR-MRF-CH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S5000 Defense Determine	nination Defense	-Related	Handling	СН
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group Heterogeneous De	bris Waste	Inventory Da	te 12/31/20	.022
Stream Name	ORNL Metal Recovery Facility CH-TRU Debris Waste			Activities Deca	yed to CY 2	2022

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

Waste Material Parameters				
	Total			
	Mass			
Material Parameter	(kg)			
Iron-based Metal/Alloys	5.98E+02			
Aluminum-based Metal/Alloys	0.00E+00			
Other Metal/Alloys	0.00E+00			
Other Inorganic Materials	2.39E+01			
Cellulose	6.70E+02			
Rubber	2.39E+02			
Plastic	3.35E+02			
Cement	0.00E+00			
Solidified Inorganic Material	4.79E+02			
Solidified Organic Material	4.79E+01			
Soil	0.00E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	0.00E+00			
Packaging Material, Rubber	4.96E+00			
Packaging Material, Steel	1.14E+03			
Packaging Material, Lead	0.00E+00			

Final Form Radionuclides					
	Total				
	Activity				
Isotope	(Ci)				
Am-241	8.79E-01				
Am-243	1.42E-03				
Cm-244	1.12E-01				
Cs-137	1.59E+00				
Np-237	5.23E-05				
Pu-238	1.20E-01				
Pu-239	1.62E+00				
Pu-240	3.36E-01				
Pu-241	6.59E-01				
Pu-242	1.18E-04				
Sr-90	1.03E+01				
Th-229	2.25E-07				
Th-230	8.03E-10				
Th-232	2.21E-18				
U-233	8.52E-04				
U-234	2.96E-05				
U-235	9.60E-07				

2.99E-08

1.93E-05

U-236

U-238

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

Waste Stream ID: OR-MRF-RH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S5000	Defense Determin	ation Defense-	-Related	Handling	RH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group He	eterogeneous Debri	s Waste	Inventory Da	ite 12/31,	/2022
Stream Name	ORNL Metal Recovery Facility RH-TRU Debris Waste				Activities Deca	yed to CY	2022

Waste Volume D	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			
	Total		
	Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	1.47E+02		
Aluminum-based Metal/Alloys	0.00E+00		
Other Metal/Alloys	0.00E+00		
Other Inorganic Materials	5.87E+00		
Cellulose	1.64E+02		
Rubber	5.87E+01		
Plastic	8.22E+01		
Cement	0.00E+00		
Solidified Inorganic Material	1.17E+02		
Solidified Organic Material	1.17E+01		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	8.55E+01		
Packaging Material, Rubber	1.06E+00		
Packaging Material, Steel	1.74E+03		
Packaging Material, Lead	0.00E+00		

1 11101 1 0111	Radionuclides Total
	Activity
Isotono	(Ci)
Isotope Am-241	5.18E-02
Cm-244	9.43E-03
Cs-137	1.96E+00
Np-237	1.67E-08
Pu-238	3.67E-02
Pu-239	3.70E-01
Pu-240	4.67E-02
Pu-241	3.59E-01
Pu-242	4.07E-06
Sr-90	3.13E+00
Th-229	1.23E-09
Th-230	3.49E-08
Th-232	3.41E-20
U-233	1.40E-05
U-234	3.79E-03
U-235	1.80E-04
U-236	1.38E-09
U-238	3.82E-03

Haz. Waste No(s).

TRUCON Code(s)

Waste Stream Description

Waste consists of RH-TRU debris from ORNL metal recovery facility activities

Activity

(Ci)

4.69E-01

1.85E+00

6.28E+01

5.89E-05

2.22E-02

7.37E-01

1.93E-01

5.47E-01

8.49E-06

4.61E-15

5.70E+01

3.37E-02

1.65E-04

2.36E-13 6.81E+00

2.56E-01

5.60E-05

6.59E-05

1.32E-05

U-238

Waste Stream ID: OR-MSRE-CH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S5000	Defense Determin	nation Defense	-Related	Handling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Da	ite 12/31,	/2022
Stream Name	ORNL Molten Salt Reactor Experiment CH-TRU Waste				Activities Deca	yed to CY	2022

Waste Volume Detail (m 3)	Waste	Volume	Detail	(m ³)
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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

waste Material Parame	rınaı r	
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	2.82E+02	Am-241
Aluminum-based Metal/Alloys	1.59E+00	Cm-244
Other Metal/Alloys	1.20E+03	Cs-137
Other Inorganic Materials	5.74E+01	Np-237
Cellulose	2.55E+01	Pu-238
Rubber	1.59E+00	Pu-239
Plastic	2.55E+01	Pu-240
Cement	0.00E+00	Pu-241
Solidified Inorganic Material	0.00E+00	Pu-242
Solidified Organic Material	1.59E+00	Pu-244
Soil	0.00E+00	Sr-90
Vitrified	0.00E+00	Th-229
Packaging Material, Cellulose	0.00E+00	Th-230
Packaging Material, Plastic	0.00E+00	Th-232
Packaging Material, Rubber	4.72E+00	U-233
Packaging Material, Steel	1.09E+03	U-234
Packaging Material, Lead	0.00E+00	U-235
		U-236

Final Form Radionuclides Haz. Waste No(s). Total D006, D007, D008,

TRUCON Code(s) 125/225

D011

Waste Stream Description

Waste consists of CH-TRU debris from MSRE at ORNL

3.54E+00

5.81E+03

0.00E+00

Th-232

U-233

U-234

U-235

U-236

U-238

Waste Stream ID: OR-MSRE-RH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S500	0 Defense Determi	nation Defense	-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debi	is Waste	Inventory Da	ate 12/31,	/2022
Stream Name	ORNL Molten Salt Reactor Experiment RH-TRU Waste				Activities Deca	yed to CY	2022

Waste Vo	lume Detail	(m ³)
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Final Form Volum	nes		
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

	Total	
	Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	9.13E+01	Am-241
Aluminum-based Metal/Alloys	2.68E-01	Am-243
Other Metal/Alloys	4.12E+02	Cm-244
Other Inorganic Materials	1.83E+01	Cs-137
Cellulose	7.52E+00	Np-237
Rubber	2.68E-01	Pu-238
Plastic	7.52E+00	Pu-239
Cement	0.00E+00	Pu-240
Solidified Inorganic Material	0.00E+00	Pu-241
Solidified Organic Material	0.00E+00	Pu-242
Soil	0.00E+00	Pu-244
Vitrified	0.00E+00	Sr-90
Packaging Material, Cellulose	0.00E+00	Th-229
Packaging Material, Plastic	2.85E+02	Th-230

Packaging Material, Rubber

Packaging Material, Steel

Packaging Material, Lead

Waste Material Parameters

Final Form	Radionuclides	Haz. Waste No(s).
	Total	D006, D007, D008,
	Activity	D011
Isotope	(Ci)	
Am-241	4.76E-03	
Am-243	1.37E-11	TRUCON Code(s)
Cm-244	3.27E-02	325
Cs-137	1.44E-01	

1.31E-05

9.61E-03

2.53E-03

1.18E-03

1.85E-02

2.05E-05

3.32E-06

4.01E-02

2.21E-06

1.37E-08

8.64E-24

2.51E-01

1.49E-02

1.83E-06

3.50E-12

1.78E-06

Waste Stream Description

Waste consists of RH-TRU debris from MSRE at ORNL

2.49E-04

U-238

Waste Stream ID: OR-NBL-CH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S5000	Defense Determin	nation Defense	-Related	Handling	СН
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Da	ate 12/31,	/2022
Stream Name	New Brunswick Laboratory CH-TRU Debris Waste				Activities Deca	yed to CY	2022

Waste Volume I	Detail ((m 3)
----------------	----------	-------

Final Form Volumes				
Container Type	Stored	Proj.	Total	
55-gal Drum Dir Ld w/o Liner	6.7	0.0	6.7	
Final Form Total	6.7	0.0	6.7	

Waste Material Parameters

Waste Material Parameters		Final Forr	n Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	2.17E+02	Am-241	1.49E+00
Aluminum-based Metal/Alloys	1.42E+01	Am-243	3.52E-04
Other Metal/Alloys	2.80E+02	Cm-244	4.02E-02
Other Inorganic Materials	4.79E+02	Cs-137	6.79E-04
Cellulose	8.49E+01	Np-237	7.45E-05
Rubber	1.51E+02	Pu-238	2.94E-01
Plastic	8.49E+01	Pu-239	2.69E+00
Cement	0.00E+00	Pu-240	1.09E+00
Solidified Inorganic Material	2.83E+00	Pu-241	8.93E+00
Solidified Organic Material	1.02E+02	Pu-242	2.72E-04
Soil	0.00E+00	Sr-90	6.78E-04
Vitrified	0.00E+00	Th-229	8.73E-08
Packaging Material, Cellulose	0.00E+00	Th-230	2.02E-09
Packaging Material, Plastic	0.00E+00	Th-232	2.94E-05
Packaging Material, Rubber	3.78E+00	U-233	5.16E-03
Packaging Material, Steel	8.70E+02	U-234	2.19E-03
Packaging Material, Lead	0.00E+00	U-235	7.21E-05
		U-236	3.24E-09

Haz. Waste No(s).

D004, D005, D007, D008, D009, D011, D022, F002, F005

TRUCON Code(s)

125/225

Waste Stream Description

Waste consists of CH-TRU debris from NBL

Waste Stream ID: OR-NFS-CH-HET-A

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S50	00 Defense Determin	nation Defense-	-Related I	Handling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/	/2022
Stream Name	Nuclear Fuel Services CH-TRU Waste				Activities Decay	ed to CY	2022

Waste '	Volume	Detail ((m ³)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
55-gal Drum Dir Ld w/o Liner	53.1	0.0	53.1	
85-gal Drum Dir Ld w/o Liner	9.9	0.0	9.9	
Final Form Total	63.1	0.0	63.1	

Waste Material Parameters			
	Total		
	Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	3.75E+03		
Aluminum-based Metal/Alloys	3.30E+02		
Other Metal/Alloys	3.03E+02		
Other Inorganic Materials	2.01E+04		
Cellulose	7.71E+02		
Rubber	1.65E+02		
Plastic	2.12E+03		
Cement	0.00E+00		
Solidified Inorganic Material	0.00E+00		
Solidified Organic Material	2.75E+01		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	0.00E+00		
Packaging Material, Rubber	3.35E+01		
Packaging Material, Steel	8.02E+03		
Packaging Material, Lead	0.00E+00		

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	1.72E+01		
Am-243	2.67E-05		
Cm-244	9.92E-01		
Cs-137	1.54E-04		
Np-237	1.92E-04		
Pu-238	4.21E+00		
Pu-239	3.55E+01		
Pu-240	1.17E+01		
Pu-241	6.96E+01		
Pu-242	1.33E-03		
Sr-90	1.54E-04		
Th-229	3.80E-05		
Th-230	5.43E-03		
Th-232	1.03E-04		
U-233	4.33E-02		
U-234	1.52E-03		
U-235	8.19E-05		
U-236	3.48E-08		

2.27E-03

U-238

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

Waste Stream ID: OR-NFS-CH-HOM-A

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S3000 Defense Determination	tion Defense-Related	Handling CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Solidified Inorganics	Inventory D	ate 12/31/2022
Stream Name	Nuclear Fuel Services CH-TRU Homogeneous Waste		Activities Deca	ayed to CY 2022

Waste	Volume	Detail	(m ³)

Final Form Volumes				
Container Type	Stored	Proj.	Total	
55-gal Drum Dir Ld w/o Liner	17.2	0.0	17.2	
55-gal POC - 12" w/ Liner	0.1	0.0	0.1	
Final Form Total	17.3	0.0	17.3	

Waste Material Paramet	Final	
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	8.56E+01	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Am-243
Other Metal/Alloys	0.00E+00	Cs-137
Other Inorganic Materials	0.00E+00	Np-237
Cellulose	0.00E+00	Pu-238
Rubber	0.00E+00	Pu-239
Plastic	1.71E+02	Pu-240
Cement	1.40E+02	Pu-241
Solidified Inorganic Material	8.68E+02	Pu-242
Solidified Organic Material	1.37E+02	Sr-90
Soil	0.00E+00	Th-229
Vitrified	0.00E+00	Th-230
Packaging Material, Cellulose	5.62E+01	Th-232
Packaging Material, Plastic	1.54E+01	U-233
Packaging Material, Rubber	9.91E+00	U-234
Packaging Material, Steel	2.45E+03	U-235
Packaging Material, Lead	0.00E+00	U-236
		U-238

Final Form Radionuclides		Haz. Waste No(s).
	Total	D006, D009
	Activity	
Isotope	(Ci)	
Am-241	6.80E+01	
Am-243	5.26E-03	TRUCON Code(s)
Cs-137	2.27E-04	127/227
Np-237	5.08E-04	
Pu-238	1.37E+01	
Pu-239	1.11E+02	

3.73E+01

2.86E+02

6.37E-03

2.27E-04

8.22E-05

4.64E-03

9.88E-05

1.73E-02

1.13E-03

5.40E-05

1.10E-07

9.49E-04

Waste Stream Description

Waste consists of homogeneous waste from NFS

Waste Stream ID: OR-NFS-CH-SOIL

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S	4000 Defense Determin	nation Defense	-Related I	landling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Gro	oup Contaminated Soil/D	ebris Waste	Inventory Dat	e 12/31/2	2022
Stream Name	Nuclear Fuel Services CH-TRU Soil Waste	•			Activities Decay	ed to CY 2	2022

Waste \	Volume	Detail	(m ³)
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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 Paramete	rs
	T

	Fillali	
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	0.00E+00	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Am-243
Other Metal/Alloys	0.00E+00	Cs-137
Other Inorganic Materials	0.00E+00	Np-237
Cellulose	0.00E+00	Pu-238
Rubber	0.00E+00	Pu-239
Plastic	1.23E+00	Pu-240
Cement	0.00E+00	Pu-241
Solidified Inorganic Material	0.00E+00	Pu-242
Solidified Organic Material	8.22E+00	Sr-90
Soil	4.02E+02	Th-229
Vitrified	0.00E+00	Th-230
Packaging Material, Cellulose	0.00E+00	Th-232
Packaging Material, Plastic	1.54E+01	U-233
Packaging Material, Rubber	2.36E-01	U-234
Packaging Material, Steel	5.44E+01	U-235
Packaging Material, Lead	0.00E+00	U-236
		U-238

iai Form	Radionucides	_	maz. waste No(s)
	Total		F002
	Activity	_	

(Ci)

1.41E-02

5.52E-07

1.03E-06

1.90E-07

3.66E-03

3.29E-02

1.18E-02

4.87E-02

2.15E-06

1.03E-06

9.14E-20

4.75E-16

8.62E-23

2.91E-14 1.03E-09

3.24E-12

3.49E-11

3.33E-17

TRUCON Code(s) 111/211

Waste Stream Description

Waste consists of soils from NFS

Waste Stream ID: OR-OXIDE-CH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S5000 Defense Determine	nation Defense	-Related	Handling CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group Heterogeneous Debi	ris Waste	Inventory Da	ate 12/31/2022
Stream Name	ORNL Oxide CH-TRU Debris Waste			Activities Deca	yed to CY 2022

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

0.6

0.0

0.6

Waste Material Parameters		Final For	m Radionuclides	Haz. Waste No(s).
	Total		Total	D008
	Mass		Activity	
Material Parameter	(kg)	Isotope	(Ci)	
Iron-based Metal/Alloys	2.80E+02	Am-241	1.98E+03	
Aluminum-based Metal/Alloys	0.00E+00	Am-243	1.58E-03	TRUCON Code(s)
Other Metal/Alloys	0.00E+00	Cs-137	2.97E-05	125/225
Other Inorganic Materials	5.59E+02	Np-237	1.81E-02	
Cellulose	9.32E+01	Pu-238	5.71E+02	
Rubber	0.00E+00	Pu-239	2.17E+02	
Plastic	0.00E+00	Pu-240	5.62E+02	
Cement	0.00E+00	Pu-241	9.71E+03	
Solidified Inorganic Material	0.00E+00	Pu-242	2.53E+00	
Solidified Organic Material	0.00E+00	Sr-90	2.95E-05	
Soil	0.00E+00	Th-229	5.51E-04	
Vitrified	0.00E+00	Th-230	1.40E-05	
Packaging Material, Cellulose	2.41E+03	Th-232	6.47E-13	
Packaging Material, Plastic	4.16E+02	U-233	2.09E+00	
Packaging Material, Rubber	6.37E+00	U-234	7.28E-02	
Packaging Material, Steel	3.60E+03	U-235	6.08E-05	
Packaging Material, Lead	0.00E+00	U-236	6.36E-04	
		U-238	1.11E-03	

Waste Stream Description

Final Form Total

Waste consists of CH-TRU debris from ORNL oxide handling, packaging, and production activities

Waste Stream ID: OR-PGDP-CH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S5000	Defense Determin	nation Defense	-Related	Handling	СН
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Da	ate 12/31,	/2022
Stream Name	Paducah Gaseous Diffusion Plant CH-TRU Debris Waste				Activities Deca	yed to CY	2022

Waste Volume I	Detail ((m 3)
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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				

W	/aste	Mate	rial P	'arame	eters

Waste Material Parameters		Final Form	Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	1.81E+03	Am-241	2.44E-01
Aluminum-based Metal/Alloys	5.11E+01	Am-243	2.56E-05
Other Metal/Alloys	4.33E+02	Cs-137	1.65E-04
Other Inorganic Materials	2.43E+02	Np-237	1.14E-01
Cellulose	7.21E+01	Pu-238	1.26E-01
Rubber	5.41E+01	Pu-239	9.52E-01
Plastic	2.52E+02	Pu-240	1.99E-01
Cement	0.00E+00	Pu-241	2.36E+00
Solidified Inorganic Material	1.80E+01	Pu-242	2.04E-05
Solidified Organic Material	7.21E+01	Sr-90	1.65E-04
Soil	0.00E+00	Th-229	5.71E-07
Vitrified	0.00E+00	Th-230	3.58E-08
Packaging Material, Cellulose	0.00E+00	Th-232	1.46E-19
Packaging Material, Plastic	0.00E+00	U-233	6.49E-03
Packaging Material, Rubber	3.66E+00	U-234	3.89E-03
Packaging Material, Steel	8.43E+02	U-235	6.74E-04
Packaging Material, Lead	0.00E+00	U-236	5.90E-09
·		U-238	1.68E-02

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

TRUCON Code(s) 125/225

Waste Stream Description

Waste consists of CH-TRU debris from PGDP

Data ver. **D.22.01.33**

Waste Stream ID: OR-PUBE-CH-HOM

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S3000 Defense Determina	ation Defense-	-Related	Handling	СН
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Solidified Inorganics		Inventory Da	ate 12/31/2	2022
Stream Name	ORNL Plutonium and Beryllium Solidified CH-TRU Waste			Activities Deca	yed to CY 2	2022

Waste	Vo	lume	Detail	1	(m ³)	

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

Total				
	Mass			
Material Parameter	(kg)			
Iron-based Metal/Alloys	9.40E+00			
Aluminum-based Metal/Alloys	0.00E+00			
Other Metal/Alloys	0.00E+00			
Other Inorganic Materials	0.00E+00			
Cellulose	0.00E+00			
Rubber	0.00E+00			
Plastic	0.00E+00			
Cement	5.20E+00			
Solidified Inorganic Material	7.20E+00			
Solidified Organic Material	0.00E+00			
Soil	0.00E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	2.81E+01			
Packaging Material, Plastic	7.71E+00			
Packaging Material, Rubber	1.18E-01			
Packaging Material, Steel	1.10E+02			
Packaging Material, Lead	0.00E+00			

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	6.21E-01		
Am-243	2.73E-05		
Cs-137	7.15E-04		
Np-237	1.36E-05		
Pu-238	1.95E+00		
Pu-239	2.19E-03		
Pu-240	1.45E-03		
Pu-241	1.29E-02		
Pu-242	8.73E-07		
Sr-90	2.15E-03		
Th-229	2.58E-15		
Th-230	3.51E-09		
Th-232	1.06E-21		
U-233	5.88E-11		
U-234	3.85E-04		
U-235	2.16E-12		
U-236	4.29E-11		
U-238	1.35E-16		

Haz. Waste No(s).

TRUCON Code(s)

Waste Stream Description

Waste consists of solidified plutonium and beryllium waste from neutron sources at REDC

Waste Stream ID: OR-RADP-CH-HET

Wasta Valuma Datail (m 3)

SWB w/ 4 - 55-gal Drums w/o Liners

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S50	Defense Determi	nation Defense	-Related	Handling	СН
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Grou	p Heterogeneous Deb	ris Waste	Inventory Da	ate 12/31/	/2022
Stream Name	ORNL Radiochemical Processing Research & Development CH-TRU Debris Waste				Activities Deca	yed to CY	2022

waste volume betail (iii)						
Final Form Volumes						
Container Type	Stored	Proj.	Total			
55-gal Drum Dir Ld w/o Liner	16.6	0.0	16.6			
55-gal POC - 6" w/ Liner	0.0	0.0	0.0			

Final Form Total 18.3 0.0 18.3

1.7

0.0

1.7

Waste Material Parameters		Final For	m Radionuclides	Haz. Wa
Material Parameter	Total Mass (kg)	Isotope	Total Activity (Ci)	D004, D0 D007, D0 D010, D0
Iron-based Metal/Alloys	6.00E+02	Am-241	9.63E+00	F002
Aluminum-based Metal/Alloys	2.24E+01	Am-243	1.34E+00	
Other Metal/Alloys	8.32E+01	Cm-244	5.31E+00	
Other Inorganic Materials	6.88E+01	Cs-137	1.18E+01	TRUCO
Cellulose	3.46E+02	Np-237	9.97E-04	12
Rubber	8.48E+01	Pu-238	1.58E+00	
Plastic	3.82E+02	Pu-239	9.19E+00	
Cement	0.00E+00	Pu-240	5.57E+00	
Solidified Inorganic Material	0.00E+00	Pu-241	4.87E+01	
Solidified Organic Material	1.28E+01	Pu-242	7.41E-04	
Soil	0.00E+00	Pu-244	5.80E-04	
Vitrified	0.00E+00	Sr-90	1.63E+00	
Packaging Material, Cellulose	4.47E+01	Th-229	4.99E-05	
Packaging Material, Plastic	7.71E+00	Th-230	1.77E-07	
Packaging Material, Rubber	1.11E+01	Th-232	1.79E-05	
Packaging Material, Steel	3.01E+03	U-233	5.67E-01	
Packaging Material, Lead	0.00E+00	U-234	1.31E-03	
		U-235	4.60E-05	
		U-236	5.99E-08	

U-238

5.11E-05

Haz. Waste No(s).

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

TRUCON Code(s) 125/225

Waste Stream Description

Waste consists of CH-TRU debris from radiochemical processing R&D at ORNL

Waste Stream ID: OR-RADP-RH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S5	000 Defense Determi	nation Defense	-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Grou	Heterogeneous Deb	ris Waste	Inventory Da	ate 12/31/	/2022
Stream Name	ORNL Radiochemical Processing Research & Development RH-TRU Debris Waste				Activities Deca	yed to CY	2022

2.2

Waste Volume Detail (m³)				
Final Form Volumes				
Container Type	Stored	Proj.	Total	
RH Can NS30 w/ Liner	0.3	0.0	0.3	
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	1.9	0.0	1.9	

2.2

0.0

Waste Material Parameters				
	Total Mass			
Material Parameter	(kg)	l		
Iron-based Metal/Alloys	8.25E+01	/		
Aluminum-based Metal/Alloys	3.08E+00	(
Other Metal/Alloys	1.14E+01	(
Other Inorganic Materials	9.46E+00	1		
Cellulose	4.75E+01	F		
Rubber	1.17E+01	F		
Plastic	5.26E+01	F		
Cement	0.00E+00	F		
Solidified Inorganic Material	1.76E+00	F		
Solidified Organic Material	0.00E+00	9		
Soil	0.00E+00	F		
Vitrified	0.00E+00	F		
Packaging Material, Cellulose	0.00E+00	Ī		
Packaging Material, Plastic	3.42E+02	ι		
Packaging Material, Rubber	1.06E+00	ī		
Packaging Material, Steel	2.29E+03	ī		
Packaging Material, Lead	0.00E+00	ī		
		<u> </u>		

		<i>'</i>
Final Forn	n Radionuclides	Haz. Waste No(s).
	Total	D004, D005, D006,
	Activity	D007, D008, D009,
Isotope	(Ci)	D010, D011, D028,
Am-241	5.58E-02	F002, F005
Cm-244	5.19E-01	
Cs-137	2.38E+01	
Np-237	1.80E-09	TRUCON Code(s)
Pu-238	6.98E-01	325
Pu-239	1.25E-02	
Pu-240	1.78E-02	
Pu-241	1.63E+00	
Pu-242	1.04E-04	
Sr-90	4.67E+00	
Th-229	5.76E-08	
Th-230	2.41E-10	
Th-232	3.46E-05	
U-233	6.55E-03	
U-234	2.62E-04	
U-235	6.43E-06	
U-236	5.28E-11	
U-238	1.85E-04	

Waste Stream Description

Final Form Total

Waste consists of RH-TRU debris from radiochemical processing R&D at ORNL

Waste Stream ID: OR-REDC-CH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S500	0 Defense Determin	nation Defense	-Related	Handling CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Da	te 12/31/2022
Stream Name	Radiochemical Engineering Development Center CH-TRU Waste				Activities Decay	red to CY 2022

Waste Volume	Detail ((m ³)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
55-gal Drum Dir Ld w/o Liner	107.3	99.8	207.1	
55-gal POC - 12" w/ Liner	0.8	0.0	0.8	
55-gal POC - 6" w/ Liner	0.0	0.0	0.0	
SWB Dir Ld w/o Liner	0.0	11.3	11.3	
SWB w/ 4 - 55-gal Drums w/o Liners	0.8	0.0	0.8	
Final Form Total	109.0	111.0	220.0	

Waste Material Parameters				
	Total Mass			
Material Parameter	(kg)			
Iron-based Metal/Alloys	7.01E+03			
Aluminum-based Metal/Alloys	3.40E+02			
Other Metal/Alloys	2.12E+02			
Other Inorganic Materials	2.72E+03			
Cellulose	1.02E+03			
Rubber	2.76E+02			
Plastic	9.66E+03			
Cement	0.00E+00			
Solidified Inorganic Material	0.00E+00			
Solidified Organic Material	0.00E+00			
Soil	0.00E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	5.84E+02			
Packaging Material, Plastic	1.46E+02			
Packaging Material, Rubber	1.22E+02			
Packaging Material, Steel	3.09E+04			
Packaging Material, Lead	0.00E+00			

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	1.39E+02	
Am-243	2.06E+00	
Cm-244	1.85E+03	
Cs-137	4.02E+00	
Np-237	2.28E+00	
Pu-238	3.31E+03	
Pu-239	2.50E+01	
Pu-240	3.01E+01	
Pu-241	1.97E+02	
Pu-242	3.33E-01	
Pu-244	1.09E-02	
Sr-90	5.01E+01	
Th-229	1.89E-03	
Th-230	5.66E-03	
Th-232	1.11E-06	
U-233	3.81E-01	
U-234	5.20E-01	
U-235	2.20E-04	
U-236	7.85E-05	
U-238	5.42E-04	

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

Total Activity (Ci)

1.91E+02

2.97E+01

4.52E+03

1.48E+02

4.13E-01

1.30E+03 1.82E+01

7.43E+01

8.04E+02

9.16E-01 3.19E-07

2.52E+03

5.18E-07

7.01E-08

3.53E-16

5.88E-02

7.64E-02

4.07E-04

7.16E-05

9.69E-03

U-236

U-238

Waste Stream ID: OR-REDC-RH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S5000 Defense Determ	ination Defense	-Related	Handling RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Heterogeneous Deb	ris Waste	Inventory D	ate 12/31/2022
Stream Name	Radiochemical Engineering Development Center RH-TRU Waste			Activities Deca	ayed to CY 2022

Waste Volume Detail (m 3)	Waste	Volume	Detail	(m ³)
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Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can NS15 w/ Liner	3.7	7.8	11.5
RH Can NS30 w/ Liner	4.0	0.0	4.0
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	47.3	48.5	95.8
Final Form Total	54.9	56.3	111.2

Waste	Materia	l Parameters

Waste Material Parameters		
Total Mass		
(kg)	Isotope	
2.73E+04	Am-241	
4.61E+00	Am-243	
2.73E+03	Cm-244	
7.74E+03	Cs-137	
3.08E+03	Np-237	
7.66E+02	Pu-238	
3.98E+03	Pu-239	
0.00E+00	Pu-240	
5.58E+02	Pu-241	
0.00E+00	Pu-242	
0.00E+00	Pu-244	
0.00E+00	Sr-90	
0.00E+00	Th-229	
3.35E+04	Th-230	
5.38E+01	Th-232	
1.26E+05	U-233	
0.00E+00	U-234	
	U-235	
	Total Mass (kg) 2.73E+04 4.61E+00 2.73E+03 7.74E+03 3.08E+03 7.66E+02 3.98E+03 0.00E+00 5.58E+02 0.00E+00 0.00E+00 0.00E+00 3.35E+04 5.38E+01 1.26E+05	

Final Form Radionuclides Haz. Waste No(s).

110.2. 110.000 110 (0).
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

Isotope Am-241 Am-243 Cm-244 Cs-137 Np-237 Pu-238 Pu-239

Pu-240

Pu-241

Pu-242

Sr-90

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

U-238

Waste Stream ID: OR-RF-CH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S5000 Defense Determine	nation Defense	-Related I	landling	СН
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Heterogeneous Debr	ris Waste	Inventory Date	e 12/31,	/2022
Stream Name	ORNL Reactor Fuels Research & Development CH-TRU Debris Waste			Activities Decay	ed to CY	2022

Waste Volume De	etail (m ³	1
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Final Form Volumes					
Container Type	Stored	Proj.	Total		
55-gal Drum Dir Ld w/o Liner	36.5	0.0	36.5		
55-gal POC - 12" w/ Liner	0.0	0.0	0.0		
55-gal POC - 6" w/ Liner	0.0	0.0	0.0		
SWB w/ 4 - 55-gal Drums w/o Liners	2.5	0.0	2.5		
Final Form Total	39.1	0.0	39.1		

Waste Material Parameters				
Total Mass				
Material Parameter	(kg)			
Iron-based Metal/Alloys	9.00E+02			
Aluminum-based Metal/Alloys	1.64E+02			
Other Metal/Alloys	4.09E+02			
Other Inorganic Materials	8.18E+01			
Cellulose	6.96E+02			
Rubber	5.73E+02			
Plastic	1.06E+03			
Cement	0.00E+00			
Solidified Inorganic Material	2.05E+02			
Solidified Organic Material	0.00E+00			
Soil	0.00E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	1.62E+02			
Packaging Material, Plastic	3.08E+01			
Packaging Material, Rubber	2.35E+01			
Packaging Material, Steel	6.24E+03			
Packaging Material, Lead	0.00E+00			

Final Form	Radionuclides	Haz. Waste No(s).
	Total	D006, D007, D008,
	Activity	D009, D011, D019,
otope	(Ci)	F001, F002, F005
m-241	2.73E+01	
m-243	5.81E-03	
m-244	5.54E+00	TRUCON Code(s)
s-137	7.09E-01	125/225
lp-237	5.57E-04	
u-238	3.86E+01	

5.28E+01

2.55E+01

2.47E+02

8.57E-03

6.45E-02

1.53E-02

2.20E-07

8.12E-05

2.36E+01

2.39E-01

4.53E-04

5.86E-06

3.86E-04

Waste Stream Description

Waste consists of CH-TRU debris from reactor fuels R&D at ORNL

Waste Stream ID: OR-RF-RH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S500	Defense Determi	nation Defense	-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Heterogeneous Debris Waste		Inventory Da	ate 12/31,	./2022	
Stream Name	ORNL Reactor Fuels Research & Development RH-TRU Debris Waste				Activities Deca	yed to CY	2022

Waste Volume Detail (m ³)				
Final Form Volumes				
Container Type	Stored	Proj.	Total	
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	27.1	41.6	68.7	

27.1

41.6

68.7

	Total Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	7.63E+03
Aluminum-based Metal/Alloys	1.73E+03
Other Metal/Alloys	1.56E+03
Other Inorganic Materials	1.56E+03
Cellulose	2.43E+03
Rubber	5.20E+02
Plastic	1.39E+03
Cement	0.00E+00
Solidified Inorganic Material	1.73E+02
Solidified Organic Material	3.47E+02
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	3.11E+03
Packaging Material, Rubber	3.86E+01
Packaging Material, Steel	6.33E+04
Packaging Material, Lead	0.00E+00

Final Forn	n Radionuclides	На
	Total	DC
	Activity	
Isotope	(Ci)	
Am-241	1.88E+02	
Am-243	1.48E-01	T
Cm-244	4.10E+02] <u> </u>
Cs-137	4.72E+03	
Np-237	1.68E-03	1
Pu-238	2.74E+02	1
Pu-239	2.50E+01	1
Pu-240	5.00E+01	1
Pu-241	4.88E+03	1
Pu-242	1.63E-01	1
Pu-244	4.67E-09	1
Sr-90	2.50E+03	1
Th-229	4.89E-05	1
Th-230	5.90E-07	
Th-232	1.80E-05	
U-233	5.56E+00	
U-234	8.66E-02	
U-235	8.97E-04	

1.04E-03

1.27E-02

U-236

U-238

Haz. Waste No(s).
D008, D009, D011

TRUCON Code(s)
325

Waste Stream Description

Final Form Total

Waste consists of RH-TRU debris from reactor fuels R&D at ORNL

Waste Stream ID: OR-RF-RH-HET-A

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S500	Defense Determi	nation Defense	-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Heterogeneous Debris Waste		Inventory Da	ate 12/31,	./2022	
Stream Name	ORNL Reactor Fuels Research & Development RH-TRU Debris Waste				Activities Deca	yed to CY	2022

Waste Volume D	Detail (m ³)
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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	

Wasta Material Parameters

Waste Material Parame	Waste Material Parameters		n Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	1.59E+01	Am-241	1.62E-01
Aluminum-based Metal/Alloys	0.00E+00	Am-243	1.98E-04
Other Metal/Alloys	0.00E+00	Cs-137	3.46E-04
Other Inorganic Materials	2.00E+01	Np-237	1.48E-05
Cellulose	4.74E+01	Pu-238	2.97E-02
Rubber	0.00E+00	Pu-239	1.24E-01
Plastic	1.41E+02	Pu-240	6.14E-02
Cement	0.00E+00	Pu-241	1.32E+00
Solidified Inorganic Material	0.00E+00	Pu-242	1.82E-05
Solidified Organic Material	0.00E+00	Sr-90	2.82E-05
Soil	0.00E+00	Th-229	1.99E-03
Vitrified	0.00E+00	Th-230	8.49E-09
Packaging Material, Cellulose	0.00E+00	Th-232	6.21E-11
Packaging Material, Plastic	2.85E+01	U-233	1.12E+00
Packaging Material, Rubber	3.54E-01	U-234	9.24E-03
Packaging Material, Steel	5.81E+02	U-235	9.59E-08
Packaging Material, Lead	0.00E+00	U-236	7.15E-07
		U-238	5.12E-08

Haz. Waste No(s).

D006, D007, D008, D009, D011, D019, F001, F002, F005

TRUCON Code(s)

325

Waste Stream Description

Waste consists of RH-TRU debris from reactor fuels R&D at ORNL

Waste Stream ID: OR-SOURCE-CH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S5000 Defense Determine	nation Defense	-Related H	landling	СН
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group Heterogeneous Debi	ris Waste	Inventory Date	e 12/31/	/2022
Stream Name	Contact-Handled Transuranic Sources at ORNL			Activities Decaye	ed to CY	2022

Waste Volume Detail (m 3)	Waste	Volume	Detail	(m ³)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
55-gal Drum Dir Ld w/o Liner	8.0	0.0	8.0	
55-gal POC - 12" w/ Liner	0.0	0.0	0.0	
Final Form Total	8.0	0.0	8.0	

Waste Material Parameters		
	Total	
	Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	9.97E+02	
Aluminum-based Metal/Alloys	8.75E+00	
Other Metal/Alloys	3.15E+02	
Other Inorganic Materials	1.40E+02	
Cellulose	5.25E+01	
Rubber	8.75E+00	
Plastic	2.27E+02	
Cement	0.00E+00	
Solidified Inorganic Material	0.00E+00	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	2.81E+01	
Packaging Material, Plastic	7.71E+00	
Packaging Material, Rubber	4.60E+00	
Packaging Material, Steel	1.14E+03	
Packaging Material, Lead	0.00E+00	

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	7.15E+01	
Am-243	3.47E-04	
Cm-244	1.32E-01	
Cs-137	9.47E-03	
Np-237	7.36E-03	
Pu-238	2.09E+01	
Pu-239	5.25E+00	
Pu-240	1.27E+00	
Pu-241	8.95E+00	
Pu-242	2.18E-04	
Pu-244	5.90E-16	
Sr-90	2.54E-04	
Th-229	1.34E-07	
Th-230	4.04E-09	
Th-232	1.47E-17	
U-233	1.52E-02	
U-234	4.40E-03	

1.77E-04

2.99E-06

3.17E-03

U-235

U-236

U-238

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

TRUCON Code(s) 125/225

Waste Stream Description

Waste consists of CH-TRU obsolete sources that have been removed from service.

Waste Stream ID: OR-SWSA-CH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S	5000 Defense	Determinat	ion Defense	-Related	Handling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Gro	up Heterogene	ous Debris '	Waste	Inventory D	ate 12/31	/2022
Stream Name	ORNL Solid Waste Storage Area 5 North 7802N Trench Area Debris Waste					Activities Deca	ayed to CY	2022

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		
	Total Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	5.06E+00	
Aluminum-based Metal/Alloys	0.00E+00	
Other Metal/Alloys	0.00E+00	
Other Inorganic Materials	1.25E+02	
Cellulose	6.66E-01	
Rubber	0.00E+00	
Plastic	6.66E-01	
Cement	0.00E+00	
Solidified Inorganic Material	0.00E+00	
Solidified Organic Material	0.00E+00	
Soil	1.33E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	0.00E+00	
Packaging Material, Rubber	3.54E-01	
Packaging Material, Steel	8.16E+01	
Packaging Material, Lead	0.00E+00	

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	1.91E-01	
Am-243	1.90E-04	
Cm-244	2.33E-01	
Cs-137	1.13E-04	
Np-237	7.92E-05	
Pu-238	6.83E-03	
Pu-239	1.99E-03	
Pu-240	6.64E-04	
Pu-241	2.19E-03	
Pu-242	4.62E-08	
Sr-90	1.12E-04	
Th-229	1.01E-05	
Th-230	7.63E-09	
Th-232	1.46E-20	
U-233	1.71E-02	
U-234	1.38E-04	
U-235	1.18E-11	
U-236	1.04E-10	
U-238	4.30E-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

Waste Stream ID: OR-SWSA-CH-SOIL

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S4	Defense Determi	nation Defense	-Related	Handling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Grou	p Contaminated Soil/D	ebris Waste	Inventory Da	ate 12/31/	/2022
Stream Name	ORNL Solid Waste Storage Area 5 North 7802N Trench Area Soil Waste				Activities Deca	yed to CY	2022

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				
	Total			
	Mass			
Material Parameter	(kg)			
Iron-based Metal/Alloys	7.98E+00			
Aluminum-based Metal/Alloys	0.00E+00			
Other Metal/Alloys	3.99E+00			
Other Inorganic Materials	1.80E+01			
Cellulose	7.98E+00			
Rubber	0.00E+00			
Plastic	4.39E+01			
Cement	0.00E+00			
Solidified Inorganic Material	3.23E+02			
Solidified Organic Material	7.98E+00			
Soil	1.58E+03			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	1.00E+02			
Packaging Material, Rubber	1.53E+00			
Packaging Material, Steel	3.54E+02			
Packaging Material, Lead	0.00E+00			

Final Form	Final Form Radionuclides				
	Total				
	Activity				
Isotope	(Ci)				
Am-241	1.70E-01				
Am-243	1.64E-04				
Cm-244	2.02E+01				
Cs-137	1.40E-05				
Np-237	7.85E-06				
Pu-238	1.13E-01				
Pu-239	7.06E-02				
Pu-240	3.79E-02				
Pu-241	1.65E-01				
Pu-242	1.35E-05				
Sr-90	1.38E-05				
Th-229	1.23E-06				
Th-230	7.17E-10				
Th-232	1.01E-06				
U-233	1.97E-10				
U-234	1.40E-05				
U-235	2.59E-07				
U-236	5.50E-09				
U-238	1.16E-14				

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D028, F001, F002,
F005

TRUCON Code(s)
111/211

Waste Stream Description

Waste consists of CH-TRU soils from SWSA 5 7802N Trench area

Waste Stream ID: OR-TDYN-CH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S5000 Defense Determin	nation Defense	-Related	Handling CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group Heterogeneous Debr	is Waste	Inventory Da	ate 12/31/2022
Stream Name	Teledyne Isotopes CH-TRU Waste			Activities Deca	yed to CY 2022

Waste Volume Detail (m ³)				
	Final Form Volum	es		
Container Type		Stored	Proi.	T

 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				
	Total			
	Mass			
Material Parameter	(kg)	Is		
Iron-based Metal/Alloys	2.66E+01	A C		
Aluminum-based Metal/Alloys	0.00E+00	С		
Other Metal/Alloys	0.00E+00	N		
Other Inorganic Materials	9.06E+01	Р		
Cellulose	5.33E+00	Р		
Rubber	5.33E+00	S		
Plastic	5.33E+00	Т		
Cement	0.00E+00	Т		
Solidified Inorganic Material	0.00E+00	U		
Solidified Organic Material	0.00E+00	U		
Soil	0.00E+00	U		
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	0.00E+00			
Packaging Material, Rubber	2.36E-01			
Packaging Material, Steel	5.44E+01			

0.00E+00

Final Form Radionuclides				
	Total Activity			
Isotope	(Ci)			
Am-241	3.66E-04			
Cs-137	2.25E-07			
Np-237	1.07E-09			
Pu-238	6.85E-02			
Pu-239	6.00E-03			
Sr-90	2.22E-07			
Th-229	5.51E-18			
Th-230	1.15E-09			
U-233	2.08E-14			
U-234	1.48E-05			
U-235	5.32E-11			

Haz. Waste No(s).
D008
TRUCON Code(s)
125/225

Waste Stream	Description
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Waste consists of CH-TRU debris from Teledyne Isotopes stored at ORNL

Packaging Material, Lead

Final Form Radionuclides

Isotope

Am-241

Am-243

Cm-244

Cs-137

Np-237

Pu-238

Pu-239

Pu-240

Pu-241

Pu-242

Sr-90

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

U-238

Total

Activity (Ci)

4.94E+00

6.73E-04

1.90E-02

2.31E+01

2.25E-03

4.13E-01

1.07E+00

3.80E-03

5.10E+00

5.91E-04

2.17E-01

4.55E+00

2.65E-03

6.32E-02

5.95E+00

2.06E-01

3.51E-03

5.35E-03

6.17E-02

Waste Stream ID: OR-W1A-CH-SOIL

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S40	Defense Determina	tion Defense-	Related I	Handling CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	p Contaminated Soil/Deb	oris Waste	Inventory Dat	e 12/31/2022
Stream Name	ER CH TRU Soils				Activities Decay	ed to CY 2022

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

	Total
	Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	0.00E+00
Aluminum-based Metal/Alloys	0.00E+00
Other Metal/Alloys	0.00E+00
Other Inorganic Materials	0.00E+00
Cellulose	4.73E+00
Rubber	0.00E+00
Plastic	4.73E+00
Cement	0.00E+00
Solidified Inorganic Material	0.00E+00
Solidified Organic Material	1.89E+01
Soil	2.34E+03
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	3.32E+02
Packaging Material, Rubber	5.07E+00
Packaging Material, Steel	1.17E+03
Packaging Material, Lead	0.00E+00

No Hazardous **Waste Numbers Provided**

TRUCON Code(s) 111/211

Waste Stream Description

This waste is made up of soils.

Waste Stream ID: OR-W1A-RH-SOIL

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S400	Defense Determinatio	n Defense-R	Related H	landling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Contaminated Soil/Debris	Waste	Inventory Date	e 12/31/2	2022
Stream Name	ER RH TRU Soils				Activities Decaye	ed to CY	2022

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			
	Total		
	Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	0.00E+00		
Aluminum-based Metal/Alloys	0.00E+00		
Other Metal/Alloys	0.00E+00		
Other Inorganic Materials	0.00E+00		
Cellulose	1.98E+01		
Rubber	0.00E+00		
Plastic	1.98E+01		
Cement	0.00E+00		
Solidified Inorganic Material	0.00E+00		
Solidified Organic Material	7.91E+01		
Soil	9.76E+03		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	4.56E+02		
Packaging Material, Rubber	5.66E+00		
Packaging Material, Steel	9.30E+03		

0.00E+00

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	5.27E+00		
Cm-244	3.06E-01		
Cs-137	6.90E+00		
Np-237	6.32E-06		
Pu-238	1.25E-01		
Pu-239	1.42E+00		
Pu-240	7.98E-01		
Pu-241	1.18E+02		
Pu-242	7.61E-04		
Sr-90	2.06E+00		
Th-229	2.18E-04		
Th-230	7.51E-07		
Th-232	9.33E-18		
U-233	6.20E-01		
U-234	2.04E-02		
U-235	3.42E-04		
U-236	9.45E-08		
U-238	1.00E-02		

No Hazardous Waste Numbers Provided

TRUCON Code(s)

Waste Stream Description

This waste is made up of soils.

Packaging Material, Lead

Waste Stream ID: OR-WC14-RH-HET

Appendix A

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S50	Defense Determi	nation Defense	-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Grou	p Heterogeneous Deb	ris Waste	Inventory Da	ate 12/31	/2022
Stream Name	Radiochemical Processing Research and Development RH-TRU Waste				Activities Deca	ayed to CY	2022

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 Parame	Final	
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	2.73E+01	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Cm-244
Other Metal/Alloys	0.00E+00	Cs-137
Other Inorganic Materials	0.00E+00	Np-237
Cellulose	3.39E+00	Pu-238
Rubber	4.63E+00	Pu-239
Plastic	2.85E+00	Pu-240
Cement	0.00E+00	Pu-241
Solidified Inorganic Material	1.26E+02	Pu-242
Solidified Organic Material	1.44E+01	Sr-90
Soil	0.00E+00	Th-229
Vitrified	0.00E+00	Th-230
Packaging Material, Cellulose	0.00E+00	Th-232
Packaging Material, Plastic	8.55E+01	U-233
Packaging Material, Rubber	1.06E+00	U-234
Packaging Material, Steel	1.74E+03	U-235
Packaging Material, Lead	0.00E+00	U-236
	<u>.</u>	U-238

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	2.14E-01		
Cm-244	3.51E-02		
Cs-137	6.70E-01		
Np-237	1.38E-07		
Pu-238	2.79E-02		
Pu-239	2.34E-01		
Pu-240	1.24E-01		
Pu-241	6.73E-01		
Pu-242	4.33E-04		
Sr-90	2.50E-01		
Th-229	1.22E-05		
Th-230	2.08E-08		
Th-232	3.63E-19		
U-233	6.92E-02		
U-234	1.13E-03		
U-235	3.98E-05		
U-236	7.36E-09		
U-238	2.09E-03		

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

TRUCON Code(s)
325

Waste Stream Description

Waste consists of RH-TRU generated by the cleanout and closure of tank WC-14

Waste Stream ID: RL100D-08

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S500	Defense Determin	nation Defense	-Related I	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/	/2022
Stream Name	RH-TRU Non Mixed Debris Waste from 100-D				Activities Decay	ed to CY	2022

Final Form Volumes					
Container Type	Stored	Proj.	Total		
RH SCA-30G1 w/ Liner	0.	6 0.0	0.6		
Final Form Total 0.6 0.0					

Waste Material Parameters		
	Total Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	1.07E+03	
Aluminum-based Metal/Alloys	0.00E+00	
Other Metal/Alloys	0.00E+00	
Other Inorganic Materials	0.00E+00	
Cellulose	0.00E+00	
Rubber	0.00E+00	
Plastic	0.00E+00	
Cement	0.00E+00	
Solidified Inorganic Material	0.00E+00	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	4.76E+01	
Packaging Material, Rubber	5.90E-01	
Packaging Material, Steel	2.05E+03	
Packaging Material, Lead	2.16E+03	

Final Form Radionuclides				
	Total			
	Activity			
Isotope	(Ci)			
Am-241	1.06E-02			
Am-243	1.34E-05			
Cs-137	3.61E-01			
Np-237	2.27E-06			
Pu-238	5.58E-03			
Pu-239	8.37E-03			
Pu-240	1.08E-02			
Pu-241	5.17E-01			
Pu-242	4.21E-06			
Sr-90	2.56E-01			
Th-229	4.27E-14			
Th-230	7.65E-12			
Th-232	7.88E-19			
U-233	9.72E-11			
U-234	1.64E-07			
U-235	2.19E-06			
U-236	3.19E-09			
U-238	1.62E-05			

No Hazardous Waste Numbers Provided

TRUCON Code(s) 125/225

Waste Stream Description

RH TRU Aluminum capsules from swelling test experiments. Waste was generated by Washington Closure Hanford during reactor burial ground remediation.

Annual Transuranic Waste Inventory Report - 2023 Waste Stream ID: RL105-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S500	Defense Determin	nation Defense-	-Related I	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/2022
Stream Name	105-C, 105KE, and 105-N Bldg. TRU CH Mixed Debris				Activities Decay	ed to CY 2022

Waste Volume Detail (m 3)	Waste	Volume	Detail	(m ³)
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Final Form Volumes					
Container Type	Stored	Proj.	Total		
55-gal Drum Dir Ld w/ Liner	38.2	0.0	38.2		
SWB Dir Ld w/ Liner	5.6	7.5	13.2		
Final Form Total	43.9	7.5	51.4		

Waste Material Parameters		Final Form Radionuclides		
Total Mass		Total Activity		
		(Ci)		
9.38E+03	Am-241	1.96E+00		
4.78E+02	Cs-137	1.71E-01		
0.00E+00	Np-237	7.48E-06		
3.11E+03	Pu-238	3.16E-01		
1.91E+03	Pu-239	1.72E+00		
1.67E+03	Pu-240	8.25E-01		
3.54E+03	Pu-241	1.55E+01		
0.00E+00	Pu-242	3.73E-05		
0.00E+00	Sr-90	3.21E-01		
0.00E+00	Th-229	7.53E-14		
0.00E+00	Th-230	2.20E-09		
0.00E+00	Th-232	1.02E-16		
0.00E+00	U-233	2.02E-10		
1.42E+03	U-234	2.44E-05		
2.40E+01	U-235	3.27E-07		
6.98E+03	U-236	3.18E-07		
0.00E+00	U-238	6.51E-06		
	Total Mass (kg) 9.38E+03 4.78E+02 0.00E+00 3.11E+03 1.91E+03 1.67E+03 3.54E+03 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.42E+03 2.40E+01 6.98E+03	Total Mass (kg) Isotope 9.38E+03 Am-241 4.78E+02 Cs-137 0.00E+00 Np-237 3.11E+03 Pu-238 1.91E+03 Pu-240 3.54E+03 Pu-241 0.00E+00 O.00E+00 Th-229 0.00E+00 Th-230 0.00E+00 U-233 1.42E+03 U-234 U-235 6.98E+03 U-236 U-236		

Haz. Waste No(s). D004, D005, D006, D007, D008, D009, D010, D011, D022, D027, D028, D029, D030, D034, D037, D043, F001, F002,

TRUCON Code(s) 125/225

F003, F004, F005

Waste Stream Description

CH TRU Combustible and noncombustible debris from Hanford production reactor storage basin operations. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, cartridge-type water filters from the Primary Recirculation System, and absorbed liquids.

Waste Stream ID: RL105-03

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S3000 Defense Determination Defense	-Related Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Solidified Inorganics	Inventory Date 12/31/2022
Stream Name	NLOP sludge		Activities Decayed to CY 2022

Final Form Volumes					
Container Type	Stored	Proj.	Total		
55-gal Drum Dir Ld w/ Liner	68.7	0.0	68.7		
Final Form Total	68.7	0.0	68.7		

Waste Material Parameters		Final Form	Radionuclides
	Total		Total
	Mass		Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	2.47E+03	Am-241	4.20E+01
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	8.57E+01
Other Metal/Alloys	0.00E+00	Np-237	7.62E-04
Other Inorganic Materials	8.61E+02	Pu-238	4.23E+00
Cellulose	0.00E+00	Pu-239	2.31E+01
Rubber	0.00E+00	Pu-240	1.27E+01
Plastic	0.00E+00	Pu-241	3.09E+02
Cement	6.37E+04	Pu-242	6.06E-03
Solidified Inorganic Material	4.25E+04	Sr-90	4.21E+02
Solidified Organic Material	0.00E+00	Th-229	2.39E-11
Soil	0.00E+00	Th-230	5.27E-06
Vitrified	0.00E+00	Th-232	6.27E-14
Packaging Material, Cellulose	0.00E+00	U-233	4.07E-08
Packaging Material, Plastic	2.52E+03	U-234	4.10E-02
Packaging Material, Rubber	3.86E+01	U-235	1.54E-03
Packaging Material, Steel	8.89E+03	U-236	9.35E-05
Packaging Material, Lead	0.00E+00	U-238	3.29E-02

No Hazardous **Waste Numbers Provided**

TRUCON Code(s) 111/211

Waste Stream Description

Solidified inorganic CH TRU waste generated from Facility/Equipment Operation and Maintenance activities at the Reactor facility.

Waste Stream ID: RL105-08

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S500	Defense Determin	nation Defense-	-Related I	landling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris Waste		Inventory Dat	e 12/31/2	2022
Stream Name	105-C, 105KE, and 105-N Bldg RH-TRU Mixed Debris				Activities Decay	ed to CY 2	2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
RH SCA-30G1 w/ Liner	70.2	16.4	86.6	
Final Form Total	70.2	16.4	86.6	

Wasta Material Parameters

Waste Material Paramet	ers	Final Form	Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	2.12E+04	Am-241	1.18E+01
Aluminum-based Metal/Alloys	1.08E+03	Cm-244	1.47E-02
Other Metal/Alloys	0.00E+00	Cs-137	1.74E+02
Other Inorganic Materials	7.03E+03	Np-237	5.94E-05
Cellulose	4.33E+03	Pu-238	2.53E+00
Rubber	3.79E+03	Pu-239	9.65E+00
Plastic	7.58E+03	Pu-240	5.15E+00
Cement	0.00E+00	Pu-241	6.33E+01
Solidified Inorganic Material	0.00E+00	Pu-242	1.43E-04
Solidified Organic Material	0.00E+00	Sr-90	8.32E+01
Soil	0.00E+00	Th-229	1.03E-12
Vitrified	0.00E+00	Th-230	5.42E-08
Packaging Material, Cellulose	0.00E+00	Th-232	1.09E-15
Packaging Material, Plastic	7.49E+03	U-233	2.11E-09
Packaging Material, Rubber	9.29E+01	U-234	4.10E-04
Packaging Material, Steel	3.22E+05	U-235	2.61E-05
Packaging Material, Lead	3.39E+05	U-236	2.60E-06
		U-238	5.55E-04

Haz Waste No(s)

maz. waste mo(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

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.

Waste Stream ID: RL105-09

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S3000 Defense Determinat	tion Defense-Related	Handling RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Solidified Inorganics	Inventory	Date 12/31/2022
Stream Name	105KE TRU RH Non-mixed solidified inorganics		Activities D	ecayed to CY 2022

Final Form Volumes				
Container Type	Stored	Proj.	Total	
RH SCA-30G1 w/ Liner	687.5	0.0	687.5	
Final Form Total	687.5	0.0	687.5	

Waste Material Parame	ters	Final Form	Radionuclides
	Total		Total
Material Development	Mass		Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	2.65E+03	Am-241	7.44E+02
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	2.85E+03
Other Metal/Alloys	0.00E+00	Np-237	6.18E-02
Other Inorganic Materials	9.90E+01	Pu-238	7.73E+01
Cellulose	0.00E+00	Pu-239	4.07E+02
Rubber	0.00E+00	Pu-240	2.36E+02
Plastic	0.00E+00	Pu-241	2.18E+03
Cement	7.19E+02	Pu-242	9.85E-02
Solidified Inorganic Material	6.49E+03	Sr-90	3.92E+03
Solidified Organic Material	0.00E+00	Th-229	2.89E-09
Soil	0.00E+00	Th-230	1.78E-04
Vitrified	0.00E+00	Th-232	1.22E-10
Packaging Material, Cellulose	0.00E+00	U-233	4.15E-06
Packaging Material, Plastic	5.95E+04	U-234	1.21E+00
Packaging Material, Rubber	7.38E+02	U-235	4.91E-02
Packaging Material, Steel	2.56E+06	U-236	1.55E-01
Packaging Material, Lead	2.69E+06	U-238	1.07E+00

No Hazardous
Waste Numbers
Provided
TRUCON Code(s)

TRUCON Code(s) 111/211

Waste Stream Description

Solidified inorganic RH TRU waste generated from Facility/Equipment Operation and Maintenance activities at the K Basin facility.

Waste Stream ID: RL170-08

Final Form Total

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000	Defense Determinat	ion Defense-	Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group He	eterogeneous Debris \	Waste	Inventory Dat	e 12/31,	/2022
Stream Name	1706-KEL facility TRU RH Mixed Debris				Activities Decay	ed to CY	2022

Waste Volume Detail (m ³)				
Final Form Volumes				
Container Type	Stored	Proi.	Total	
container Type	Storeu	ı ıoj.	Iotai	

0.3

0.0

0.3

Waste Material Paramet	ers	Final Form	Radionuclides	Haz. Waste No(s).
	Total		Total	D008
	Mass		Activity	
Material Parameter	(kg)	Isotope	(Ci)	
Iron-based Metal/Alloys	2.25E+01	Am-241	1.05E-02	
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	3.02E-03	TRUCON Code(s)
Other Metal/Alloys	0.00E+00	Np-237	3.82E-08	125/225
Other Inorganic Materials	1.73E+02	Pu-238	1.57E-03	
Cellulose	5.63E+00	Pu-239	6.89E-03	
Rubber	0.00E+00	Pu-240	3.89E-03	
Plastic	1.41E+00	Pu-241	6.44E-02	
Cement	0.00E+00	Pu-242	1.56E-07	
Solidified Inorganic Material	0.00E+00	Sr-90	2.69E-03	
Solidified Organic Material	0.00E+00	Th-229	3.35E-16	
Soil	0.00E+00	Th-230	3.13E-12	
Vitrified	0.00E+00	Th-232	4.09E-19	
Packaging Material, Cellulose	0.00E+00	U-233	9.65E-13	
Packaging Material, Plastic	2.86E+01	U-234	5.59E-08	
Packaging Material, Rubber	3.54E-01	U-235	8.14E-11	
Packaging Material, Steel	1.23E+03	U-236	1.38E-09	
Packaging Material, Lead	1.29E+03	U-238	2.90E-16	

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%.

Waste Stream ID: RL200-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S500	Defense Determin	ation Defense-	Related	Handling CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Dat	e 12/31/2022
Stream Name	Misc 200 Area TRU Mixed Debris				Activities Decay	ed to CY 2022

Waste Volume I	Detail ((m 3)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
55-gal Drum Dir Ld w/ Liner	90.7	0.0	90.7	
SWB Dir Ld w/ Liner	5.6	323.4	329.0	
Final Form Total	96.4	323.4	419.7	

Waste Material Parameters		Final Form	Radionuclides
	Total		Total
	Mass		Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	3.69E+05	Am-241	1.91E+01
Aluminum-based Metal/Alloys	8.34E+04	Cs-137	3.74E-02
Other Metal/Alloys	0.00E+00	Np-237	9.32E-05
Other Inorganic Materials	2.18E+04	Pu-238	1.54E+00
Cellulose	1.60E+04	Pu-239	6.57E+01
Rubber	5.52E+03	Pu-240	1.50E+01
Plastic	2.19E+04	Pu-241	8.14E+01
Cement	0.00E+00	Pu-242	1.28E-03
Solidified Inorganic Material	3.51E+03	Sr-90	2.74E-03
Solidified Organic Material	0.00E+00	Th-229	1.45E-12
Soil	1.88E+03	Th-230	6.78E-09
Vitrified	0.00E+00	Th-232	2.80E-15
Packaging Material, Cellulose	0.00E+00	U-233	3.14E-09
Packaging Material, Plastic	3.73E+03	U-234	8.22E-05
Packaging Material, Rubber	1.15E+02	U-235	1.24E-06
Packaging Material, Steel	6.25E+04	U-236	7.09E-06
Packaging Material, Lead	0.00E+00	U-238	4.45E-06

Haz. Waste No(s).

maz. waste mo(s).
0004, D005, D006,
0007, 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.

Annual Transuranic Waste Inventory Report - 2023

Waste Stream ID: RL200-02

Appendix AWaste Profile Report

Site Hanford (Richland) Site Source Cat.

Source Cat. Soli from Groundwater projects and contaminated soil from PFP operable units PW-1, PW-3, PW-6, CW-5

Site Mannage Soli from Groundwater projects and contaminated soil from PFP operable units PW-1, PW-3, PW-6, CW-5

Stream Name Soli from Groundwater projects and contaminated soil from PFP operable units PW-1, PW-3, PW-6, CW-5

Summary Category S4000 Defense Determination Defense-Related Handling CH

Soli from Groundwater projects and contaminated soil from PFP operable units PW-1, PW-3, PW-6, CW-5

Activities Decayed to CY 2022

Waste Volume Detail (m ³)					
Final Form Volumes					
Container Type	Stored	Proj.	Total		
55-gal Drum Dir Ld w/ Liner	9.9	4846.6	4856.5		
SWB Dir Ld w/ Liner	0.0	135.4	135.4		
Final Form Total	9.9	4982.0	4991.8		

Waste Material Parameters		Final Form	Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	1.89E+04	Am-241	2.15E+03
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	4.09E+00
Other Metal/Alloys	0.00E+00	Np-237	1.52E-02
Other Inorganic Materials	2.70E+06	Pu-238	6.18E+01
Cellulose	2.49E+04	Pu-239	1.10E+03
Rubber	1.15E+04	Pu-240	3.31E+02
Plastic	4.87E+04	Pu-241	1.53E+03
Cement	0.00E+00	Pu-242	2.62E-02
Solidified Inorganic Material	0.00E+00	Sr-90	6.14E+01
Solidified Organic Material	0.00E+00	Th-229	4.56E-08
Soil	2.86E+06	Th-230	1.08E-04
Vitrified	0.00E+00	Th-232	4.69E-05
Packaging Material, Cellulose	0.00E+00	U-233	4.36E-05
Packaging Material, Plastic	1.78E+05	U-234	8.05E-03
Packaging Material, Rubber	2.76E+03	U-235	2.88E-04
Packaging Material, Steel	6.50E+05	U-236	4.22E-04
Packaging Material, Lead	0.00E+00	U-238	5.74E-03

Haz. Waste No(s).
D004, D005, D006,
D007, D008, D009,
D010, D011, D018,
D019, D021, D022,
D027, D028, D030,
D039, D040, D043,
F001, F002, F003,
F005

TRUCON Code(s) 125/225

Waste Stream Description

Crib and soil characterization and remediation wastes

Waste Stream ID: RL200-10

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S400	00 Defense Determin	nation Defense	-Related I	landling	RH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Contaminated Soil/D	ebris Waste	Inventory Dat	e 12/31,	/2022
Stream Name	Groundwater TRU RH Soils				Activities Decay	ed to CY	2022

Waste	Volume	Detail	(m ³)
-------	--------	---------------	-------

Final Form Volumes					
Container Type	Stored	Proj.	Total		
RH SCA-30G1 w/ Liner	0.2	0.0	0.2		
Final Form Total	0.2	0.0	0.2		

Waste Material Parameters		
	Total	
	Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	0.00E+00	
Aluminum-based Metal/Alloys	0.00E+00	
Other Metal/Alloys	0.00E+00	
Other Inorganic Materials	0.00E+00	
Cellulose	0.00E+00	
Rubber	0.00E+00	
Plastic	0.00E+00	
Cement	0.00E+00	
Solidified Inorganic Material	0.00E+00	
Solidified Organic Material	0.00E+00	
Soil	1.00E+02	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	1.90E+01	
Packaging Material, Rubber	2.36E-01	
Packaging Material, Steel	8.18E+02	
Packaging Material, Lead	8.62E+02	

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	3.72E-04		
Cs-137	1.05E-04		
Np-237	8.48E-10		
Pu-239	1.70E-03		
Pu-240	1.70E-03		
Sr-90	4.21E-04		
Th-229	2.62E-18		
Th-230	1.25E-11		
Th-232	1.47E-18		
U-233	1.27E-14		
U-234	1.94E-07		
U-235	7.89E-09		
U-236	4.43E-09		

1.90E-07

U-238

No Hazardous Waste Numbers Provided

TRUCON Code(s)
111/211

Waste Stream Description

RH soils from Groundwater projects.

Haz. Waste No(s).

TRUCON Code(s) 122/222

Waste Stream ID: RL201-03

Final Form Total

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S3000 Defense Determination	n Defense-Related	Handling CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Solidified Inorganics	Inventory Da	te 12/31/2022
Stream Name	201C TRU Mixed Solid Inorganic		Activities Deca	yed to CY 2022

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

13.7

0.0

13.7

Waste Material Parameters		Final Form Radionuclides		
Material Parameter	Total Mass (kg)	Isotope	Total Activity (Ci)	
Iron-based Metal/Alloys	0.00E+00	Am-241	2.79E+01	
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	2.09E+00	
Other Metal/Alloys	3.74E+02	Np-237	1.00E-04	Ĺ
Other Inorganic Materials	1.24E+02	Pu-238	8.52E-04	
Cellulose	8.72E+02	Pu-239	1.88E+00	
Rubber	1.61E+03	Pu-240	4.63E-01	
Plastic	4.36E+02	Pu-241	2.77E-02	
Cement	0.00E+00	Pu-242	6.76E-07	
Solidified Inorganic Material	1.26E+01	Sr-90	5.33E+01	
Solidified Organic Material	0.00E+00	Th-229	7.71E-13	
Soil	4.25E+03	Th-230	1.23E-11	
Vitrified	0.00E+00	Th-232	4.10E-17	
Packaging Material, Cellulose	0.00E+00	U-233	2.39E-09	
Packaging Material, Plastic	5.01E+02	U-234	2.43E-07	
Packaging Material, Rubber	7.67E+00	U-235	2.04E-08	
Packaging Material, Steel	1.77E+03	U-236	1.51E-07	
Packaging Material, Lead	0.00E+00	U-238	7.00E-03	

Waste Stream Description

Generated from tank CX-70 sludge cleanout/remediation. A vacuuming process loaded sludge waste into cloth lined 16 gal drums. A 16 gal drum was placed into each 55 gal drum. Diatomaceous earth was added to ensure no free liquid process waste.

Waste Stream ID: RL202S-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000 Defense Determ	ination Defense	-Related H	landling Cl
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Heterogeneous Del	oris Waste	Inventory Date	12/31/202
Stream Name	202S TRU Mixed Debris			Activities Decaye	ed to CY 202

Waste Volume Detail (m ³)			
Final For	m Volumes		
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	1.3	60.5	61.7
Final Form Total	1.3	60.5	61.7

Waste Material Paramet	Final Form	Radionuclides	Haz. Waste No(s).	
	Total		Total	D006, D007, D008,
	Mass		Activity	D009
Material Parameter	(kg)	Isotope	(Ci)	
Iron-based Metal/Alloys	1.39E+02	Am-241	2.46E+00	
Aluminum-based Metal/Alloys	4.65E+01	Cs-137	4.38E-06	TRUCON Code(s)
Other Metal/Alloys	3.91E+01	Np-237	1.03E-04	125/225
Other Inorganic Materials	0.00E+00	Pu-238	5.06E-01	
Cellulose	1.70E+02	Pu-239	3.20E+00	
Rubber	3.91E+01	Pu-240	1.20E+00	
Plastic	2.71E+03	Pu-241	4.56E+00	
Cement	0.00E+00	Pu-242	1.38E-04	
Solidified Inorganic Material	1.83E+02	Sr-90	3.90E-06	
Solidified Organic Material	0.00E+00	Th-229	2.64E-12	
Soil	0.00E+00	Th-230	1.01E-09	
Vitrified	0.00E+00	Th-232	1.26E-16	
Packaging Material, Cellulose	0.00E+00	U-233	5.09E-09	
Packaging Material, Plastic	2.27E+03	U-234	1.80E-05	
Packaging Material, Rubber	3.47E+01	U-235	3.79E-08	
Packaging Material, Steel	8.00E+03	U-236	4.26E-07	
Packaging Material, Lead	0.00E+00	U-238	2.56E-13	

Waste Stream Description

Generated from investigations at the North Sample Gallery of the 202-S Canyon (REDOX CANYON AND SERVICE FACILITY). Debris waste of personal protective equipment, sharp metal objects, and cleanup material generated in S canyon investigation, waste characterization samples. Predominant debris waste consists of over 80% plastic.

Waste Stream ID: RL209E-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S500	O Defense Determin	ation Defense	-Related I	Handling CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Dat	e 12/31/2022
Stream Name	209E TRU Mixed Debris				Activities Decay	red to CY 2022

Waste Volume I	Detail ((m 3)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
55-gal Drum Dir Ld w/ Liner	14.3	0.0	14.3	
SWB Dir Ld w/ Liner	88.4	0.0	88.4	
Final Form Total	102.6	0.0	102.6	

Waste Material Parame	Final Form	n Radionuclides	_	
Material Parameter	Total Mass (kg)	Isotope	Total Activity (Ci)	
Iron-based Metal/Alloys	2.48E+04	Am-241	2.74E+03	
· '		-	<u> </u>	
Aluminum-based Metal/Alloys	1.11E+01	Cs-137	4.19E-06	
Other Metal/Alloys	2.52E+02	Np-237	3.09E-02	
Other Inorganic Materials	3.00E+03	Pu-238	4.96E+02	
Cellulose	1.38E+04	Pu-239	3.83E+03	
Rubber	5.27E+03	Pu-240	1.40E+03	
Plastic	1.20E+04	Pu-241	9.56E+03	
Cement	0.00E+00	Pu-242	2.05E-01	
Solidified Inorganic Material	0.00E+00	Sr-90	3.74E-06	
Solidified Organic Material	0.00E+00	Th-229	5.63E-10	
Soil	0.00E+00	Th-230	8.64E-06	
Vitrified	0.00E+00	Th-232	1.23E-13	
Packaging Material, Cellulose	0.00E+00	U-233	1.24E-06	
Packaging Material, Plastic	6.31E+02	U-234	9.34E-02	
Packaging Material, Rubber	2.51E+01	U-235	2.87E-03	
Packaging Material, Steel	1.55E+04	U-236	4.55E-04	
Packaging Material, Lead	0.00E+00	U-238	7.24E-03	

TRUCON Code(s) 125/225

Haz. Waste No(s).
D006, D007, D008,
D018, D019, D043,
F002, F003, F005

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.

Haz. Waste No(s).
D006, D007, D018,
D019, F002, F003,
F005

TRUCON Code(s) 125/225

Waste Stream ID: RL209E-08

Final Form Total

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S500	0 Defense Determin	nation Defense-	-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/2	2022
Stream Name	209E TRU RH Mixed Debris				Activities Decay	ed to CY	2022

Waste Volume Detail (m ³)			
Final Form Volum	es		
Container Type	Stored	Proj.	Total
RH SCA-30G1 w/ Liner	0.2	0.0	0.2

0.2

0.0

0.2

Waste Material Parameters		Final Form	Final Form Radionuclides		
	Total Mass		Total Activity		
Material Parameter	(kg)	Isotope	(Ci)		
Iron-based Metal/Alloys	1.50E+00	Am-241	2.70E+00		
Aluminum-based Metal/Alloys	0.00E+00	Np-237	3.08E-05		
Other Metal/Alloys	0.00E+00	Pu-238	4.81E-01		
Other Inorganic Materials	5.00E-01	Pu-239	3.49E+00		
Cellulose	1.50E+01	Pu-240	1.22E+00		
Rubber	2.00E+00	Pu-241	7.29E+00		
Plastic	1.44E+01	Pu-242	1.52E-04		
Cement	0.00E+00	Th-229	9.53E-13		
Solidified Inorganic Material	0.00E+00	Th-230	1.52E-09		
Solidified Organic Material	0.00E+00	Th-232	2.01E-16		
Soil	0.00E+00	U-233	1.58E-09		
Vitrified	0.00E+00	U-234	2.16E-05		
Packaging Material, Cellulose	0.00E+00	U-235	5.16E-08		
Packaging Material, Plastic	1.90E+01	U-236	5.43E-07		
Packaging Material, Rubber	2.36E-01	U-238	3.54E-13		
Packaging Material, Steel	8.18E+02				
Packaging Material, Lead	8.62E+02				

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.

Waste Stream ID: RL216Z-02

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S4000	Defense Determination Defense	-Related H	andling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group C	Contaminated Soil/Debris Waste	Inventory Date	12/31/2022
Stream Name	216-Z-9 TRU Mixed Soil			Activities Decaye	d to CY 2022

Waste Volume Detail (m ³)			
Final Form	n 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 Paramete	ers	Final Form	Radionuclides	Haz. Waste No(s).
	Total Mass		Total Activity	D005, D006, D007, D008, D009, D011,
Material Parameter	(kg)	Isotope	(Ci)	D039, F001, F002,
Iron-based Metal/Alloys	6.56E+02	Am-241	1.49E+03	F003, F005
Aluminum-based Metal/Alloys	0.00E+00	Np-237	5.45E-03	
Other Metal/Alloys	0.00E+00	Pu-238	3.45E+02	
Other Inorganic Materials	5.31E+03	Pu-239	4.49E+03	TRUCON Code(s)
Cellulose	1.09E+02	Pu-240	1.06E+03	125/225
Rubber	0.00E+00	Pu-241	9.79E+03	
Plastic	3.28E+02	Pu-242	6.32E-02	
Cement	0.00E+00	Th-229	4.71E-11	
Solidified Inorganic Material	5.83E+03	Th-230	5.75E-07	
Solidified Organic Material	0.00E+00	Th-232	9.34E-14	
Soil	5.83E+03	U-233	1.37E-07	
Vitrified	0.00E+00	U-234	1.12E-02	
Packaging Material, Cellulose	0.00E+00	U-235	4.87E-05	
Packaging Material, Plastic	1.26E+04	U-236	3.44E-04	
Packaging Material, Rubber	1.92E+02	U-238	1.08E-10	
Packaging Material, Steel	4.43E+04			
Packaging Material, Lead	0.00E+00			

Waste Stream Description

Soil contaminated with large quantities of plutonium, americium, organics, and neutralized acid waste solutions that were removed from the 216-Z-9 Crib. Original packaging material (e.g., 10-L stainless steel slip-lid cans, plastic bags, and vermiculite) now waste due to deterioration and TRU contamination.

Waste Stream ID: RL221U-03

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S3000 Defense Determination D	efense-Related	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Solidified Inorganics	Inventory Da	te 12/31/2022
Stream Name	221U Solidified sludge		Activities Deca	yed to CY 2022

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

Material Parameter

Packaging Material, Cellulose

Packaging Material, Plastic

Packaging Material, Rubber

Packaging Material, Steel

Packaging Material, Lead

Waste Material Parameters

Total

0.00E+00

1.54E+01

2.36E-01

5.44E+01

0.00E+00

Np-237

Pu-238

Pu-239

Pu-240

Pu-241

Pu-242

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

U-238

Sr-90

	Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	2.06E+00
Aluminum-based Metal/Alloys	2.86E-01
Other Metal/Alloys	8.61E-02
Other Inorganic Materials	3.82E-01
Cellulose	2.20E-01
Rubber	5.21E-02
Plastic	1.94E-01
Cement	0.00E+00
Solidified Inorganic Material	3.64E-02
Solidified Organic Material	7.14E-05
Soil	3.86E-02
Vitrified	0.00E+00

Final Form Radionuclides Haz. Waste No(s). Total D006, D007, D008, D009, D011, D027, D009, D011, D027, D030, D032, D033, D032, D034, D036, D037, D036, D036, D037, D036, D037, D036, D036, D037, D036, D036, D037, D036, D0

4.32E-10

1.48E-05

6.79E-04

1.55E-04

5.70E-04

1.32E-08

2.17E-04

3.23E-18

2.46E-14

1.37E-20

1.01E-14

4.79E-10

7.36E-12

5.04E-11

2.25E-17

TRUCON Code(s)

Waste Stream	Description
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Solidified sludge and laboratory sample debris (e.g., glass sample bottles, plastic, and tape) from characterization efforts of U Plant.

Waste Stream ID: RL221U-08

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S3000 Defense Determination	n Defense-Related	Handling RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Solidified Inorganics	Invent	ory Date 12/31/2022
Stream Name	U Plant Tank 10 Waste		Activities	Decayed to CY 2022

Waste Volume Detail (m 3)						
Final Form Volumes						
Container Type	Stored	Proj.	Total			
RH SCA-30G1 w/ Liner	30.3	0.0	30.3			
Final Form Total	30.3	0.0	30.3			

Waste Material Parameters		Final Forr	n Radionuclides	Haz. Waste No(s).		
	Total		Total	D007, D008, D010		
	Mass		Activity			
Material Parameter	(kg)	Isotope	(Ci)			
Iron-based Metal/Alloys	0.00E+00	Am-241	2.43E+01			
Aluminum-based Metal/Alloys	0.00E+00	Am-243	1.98E-06	TRUCON Code(s)		
Other Metal/Alloys	0.00E+00	Cm-244	4.80E-01	125/225		
Other Inorganic Materials	0.00E+00	Cs-137	4.06E+02			
Cellulose	0.00E+00	Np-237	6.30E-02			
Rubber	0.00E+00	Pu-238	6.02E+00			
Plastic	0.00E+00	Pu-239	4.86E+01			
Cement	0.00E+00	Pu-240	1.38E+01			
Solidified Inorganic Material	6.90E+03	Pu-241	3.95E+02			
Solidified Organic Material	6.97E+01	Pu-242	1.40E-03			
Soil	0.00E+00	Sr-90	3.07E+02			
Vitrified	0.00E+00	Th-229	2.93E-09			
Packaging Material, Cellulose	0.00E+00	Th-230	3.01E-05			
Packaging Material, Plastic	2.62E+03	Th-232	9.46E-06			
Packaging Material, Rubber	3.24E+01	U-233	4.33E-06			
Packaging Material, Steel	1.12E+05	U-234	2.52E-01			
Packaging Material, Lead	1.19E+05	U-235	2.64E-04			
		U-236	5.31E-06			
		U-238	4.94E-03			

Waste Stream Description

RH-TRU Nitrate Salts in the heel of U Plant Tank 10. Waste is under a CERCLA ROD to dispose of TRU constituents at WIPP.

Waste Stream ID: RL222S-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determin	nation Defense	Related	Handling	СН
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code G	roup H	eterogeneous Debr	is Waste	Inventory Da	ate 12/31,	/2022
Stream Name	222S TRU Mixed Debris					Activities Deca	yed to CY	2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes						
Container Type	Stored	Proj.	Total			
55-gal Drum Dir Ld w/ Liner	67.8	6.9	74.8			
SWB Dir Ld w/ Liner	5.6	0.0	5.6			
Final Form Total	73.5	6.9	80.4			

Waste Material Parameters		
	Total Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	7.03E+04	
Aluminum-based Metal/Alloys	1.40E+04	
Other Metal/Alloys	1.65E+00	
Other Inorganic Materials	4.68E+03	
Cellulose	7.11E+03	
Rubber	2.81E+03	
Plastic	7.89E+03	
Cement	0.00E+00	
Solidified Inorganic Material	0.00E+00	
Solidified Organic Material	0.00E+00	
Soil	1.17E+03	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	2.75E+03	
Packaging Material, Rubber	4.31E+01	
Packaging Material, Steel	1.06E+04	
Packaging Material, Lead	0.00E+00	

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	1.56E+01	
Am-243	2.67E-05	
Cs-137	8.22E-02	
Np-237	2.01E-03	
Pu-238	1.11E+00	
Pu-239	6.93E+00	
Pu-240	2.96E+00	
Pu-241	4.78E+01	
Pu-242	2.03E-04	
Sr-90	7.23E-02	
Th-229	2.13E-05	
Th-230	3.33E-09	
Th-232	3.11E-16	
U-233	2.02E-02	
U-234	4.97E-05	
U-235	4.38E-07	
U-236	1.05E-06	
U-238	8.84E-03	

Haz. Waste No(s). D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D030, D039, F001, F002, F003, F005

TRUCON Code(s) 125/225

Waste Stream Description

Combustible waste and Noncombustible waste - TRU wastes were generated from multiple operations, primarily from the hot cells, the hoods, or from within the gloveboxes (for standards laboratory tasks) located in the Analytical laboratory.

Waste Stream ID: RL222S-08

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000 Defense Determination	Defense-Related Handling RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Heterogeneous Debris Waste	Inventory Date 12/31/2022
Stream Name	222S TRU RH Mixed Debris		Activities Decayed to CY 2022

Waste	Volume	Detail ((m ³)	١
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Final Form Volumes					
Container Type	Stored	Proj.	Total		
RH SCA-30G1 w/ Liner	1.3	0.0	1.3		
Final Form Total 1.3 0.0 1.					

Waste Material Parameters

Waste Material Paramete	Final F	
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	9.48E+02	Am-241
Aluminum-based Metal/Alloys	1.50E+02	Am-243
Other Metal/Alloys	0.00E+00	Cs-137
Other Inorganic Materials	7.32E+01	Np-237
Cellulose	1.80E+02	Pu-238
Rubber	7.67E+01	Pu-239
Plastic	1.84E+02	Pu-240
Cement	0.00E+00	Pu-241
Solidified Inorganic Material	0.00E+00	Pu-242
Solidified Organic Material	0.00E+00	Pu-244
Soil	2.63E+01	Sr-90
Vitrified	0.00E+00	Th-229
Packaging Material, Cellulose	0.00E+00	Th-230
Packaging Material, Plastic	1.14E+02	Th-232
Packaging Material, Rubber	1.42E+00	U-233
Packaging Material, Steel	4.91E+03	U-234
Packaging Material, Lead	5.17E+03	U-235
		U-236

Final Form Radionuclides Haz. Waste No(s).

Total Activity (Ci)

3.60E-01

1.89E-02

1.56E-01

2.07E-03

3.96E-02

4.67E+00

1.20E-01

6.71E+00

4.17E-04 1.73E-06 2.53E-01 4.58E-04 1.44E-10

2.24E-17 3.26E-01 1.92E-06 7.94E-06

5.67E-08

2.92E-04

U-238

maz. waste mo(s).
D004, D005, D006,
D007, D008, D009,
D010, D039, F001,
F002, F003, F004,
F005

TRUCON Code(s)

125/225

Waste Stream Description

Combustible waste and Noncombustible waste- TRU wastes were generated from multiple operations, primarily from the hot cells, the hoods, or from within the gloveboxes (for standards laboratory tasks) located in the Analytical laboratory.

Waste Stream ID: RL231Z-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category	S5000	Defense Determin	nation Defense	e-Related	Handling	СН
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code G	iroup⊢	leterogeneous Debr	is Waste	Inventory D	ate 12/31	/2022
Stream Name	231-Z TRU Mixed Debris					Activities Dec	ayed to CY	2022

Waste Vo	lume Detai	I (m ³)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
55-gal Drum Dir Ld w/ Liner	175.8	4.2	180.0	
SWB Dir Ld w/ Liner	408.0	22.6	430.5	
Final Form Total 583.7 26.8 610.5				

Waste Material Parameters		
	Total	
	Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	1.65E+05	
Aluminum-based Metal/Alloys	7.11E+02	
Other Metal/Alloys	2.65E+03	
Other Inorganic Materials	2.50E+04	
Cellulose	3.23E+04	
Rubber	5.92E+03	
Plastic	4.24E+04	
Cement	0.00E+00	
Solidified Inorganic Material	0.00E+00	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	7.13E+03	
Packaging Material, Rubber	1.84E+02	
Packaging Material, Steel	8.97E+04	
Packaging Material, Lead	0.00E+00	

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	3.60E+02	
Am-243	5.56E-05	
Cs-137	1.91E-02	
Np-237	7.47E-03	
Pu-238	5.78E+01	
Pu-239	4.92E+02	
Pu-240	1.57E+02	
Pu-241	2.05E+03	
Pu-242	1.34E-02	
Sr-90	1.68E-02	
Th-229	1.80E-10	
Th-230	6.69E-06	
Th-232	9.47E-05	
U-233	3.52E-07	
U-234	6.16E-02	
U-235	1.14E-03	
U-236	5.58E-05	
U-238	4.80E-02	

Haz. Waste No(s). D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D027, D028, D029, D030, D034, D035, D037, D043, F001, F002, F003, F004, F005

TRUCON Code(s) 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.

Haz. Waste No(s). D006, D007, D008, D009, F001, F002,

F003, F005

TRUCON Code(s) 122/222

Waste Stream ID: RL231Z-03

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S3000 Defense Determination Defen	se-Related Handling CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Solidified Inorganics	Inventory Date 12/31/2022
Stream Name	231Z TRU Mixed Solid Inorganic		Activities Decayed to CY 2022

Waste Volume Detail (m ³)			
Final Form Volui	nes		
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.6	0.0	C

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 Parame	eters	Final Form Radionucli	
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	0.00E+00	Am-241	1.15E-01
Aluminum-based Metal/Alloys	0.00E+00	Np-237	1.57E-06
Other Metal/Alloys	6.55E+01	Pu-238	7.61E-05
Other Inorganic Materials	1.20E-01	Pu-239	3.09E-01
Cellulose	4.10E+00	Pu-240	1.07E-01
Rubber	9.75E-01	Pu-241	7.65E-02
Plastic	1.28E+01	Pu-242	9.52E-06
Cement	0.00E+00	Th-229	1.81E-13
Solidified Inorganic Material	5.83E+01	Th-230	2.30E-12
Solidified Organic Material	0.00E+00	Th-232	1.44E-16
Soil	0.00E+00	U-233	1.45E-10
Vitrified	0.00E+00	U-234	1.10E-08
Packaging Material, Cellulose	0.00E+00	U-235	1.31E-08
Packaging Material, Plastic	2.31E+01	U-236	1.36E-07
Packaging Material, Rubber	3.54E-01	U-238	6.35E-14
Packaging Material, Steel	8.16E+01		
Packaging Material, Lead	0.00E+00		

Waste Stream Description

Solidified inorganic waste generated during operations, cleanout, and D&D activities of the 231-Z Building, which has also been called the 231-W Building, the Concentration Building, the Isolation Building, the Plutonium Metallurgical Laboratory, and the 231-Z Materials Engineering Laboratory.

Waste Stream ID: RL233S-01

Appendix A Waste Profile Report

Summary Category S5000 Hanford (Richland) Site **Defense Determination** Defense-Related **Handling** CH Site Other/Multiple Sources Inventory Date 12/31/2022 Waste Matrix Code Group Heterogeneous Debris Waste Source Cat. 233S TRU Mixed Debris Activities Decayed to CY 2022 Stream Name

Waste Volume Detail (m ³)			
Final Fo	rm Volumes		
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	9.7	0.0	9.7
SWB Dir Ld w/ Liner	33.8	0.0	33.8
Final Form Total	43.5	0.0	43.5

Waste Material Parameters		Final Form	Radionuclides	Haz. Waste No(s).
	Total Mass		Total Activity	D004, D005, D006, D007, D008, D009,
Material Parameter	(kg)	Isotope	(Ci)	D010, D011, F002,
Iron-based Metal/Alloys	8.68E+03	Am-241	1.46E+01	F003
Aluminum-based Metal/Alloys	3.64E+01	Cs-137	2.26E-03	
Other Metal/Alloys	7.92E+01	Np-237	3.07E-03	
Other Inorganic Materials	1.98E+02	Pu-238	2.13E+00	TRUCON Code(s)
Cellulose	5.93E+02	Pu-239	1.59E+01	125/225
Rubber	1.28E+02	Pu-240	7.14E+00	
Plastic	7.04E+02	Pu-241	7.08E+01	
Cement	0.00E+00	Pu-242	1.46E-03	
Solidified Inorganic Material	0.00E+00	Sr-90	2.02E-03	
Solidified Organic Material	0.00E+00	Th-229	8.28E-11	
Soil	2.31E+01	Th-230	7.61E-09	
Vitrified	0.00E+00	Th-232	7.51E-16	
Packaging Material, Cellulose	0.00E+00	U-233	1.57E-07	
Packaging Material, Plastic	3.96E+02	U-234	1.06E-04	
Packaging Material, Rubber	1.20E+01	U-235	1.21E-06	
Packaging Material, Steel	6.47E+03	U-236	2.54E-06	
Packaging Material, Lead	0.00E+00	U-238	1.53E-05	

Waste Stream Description

Combustible and noncombustible debris waste generated during cleanout, stabilization, and D&D activities of the 233-S Building (Plutonium Concentration Facility) at Hanford. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: RL233S-03

Final Form Total

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 D	ate 12/31/2022
Stream Name	233S solidified inorganic waste		Activities Dec	ayed to CY 2022

s		
Stored	Proj.	Total
6.1	0.0	6.1

Waste Material Parame	Final For	m Radionuclides	Haz. Waste No(
	Total		Total	D007
	Mass		Activity	
Material Parameter	(kg)	Isotope	(Ci)	
Iron-based Metal/Alloys	2.00E-01	Am-241	3.88E-01	
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	4.68E-06	TRUCON Code(s
Other Metal/Alloys	0.00E+00	Np-237	3.13E-04	122/222
Other Inorganic Materials	2.67E+03	Pu-238	8.44E-02	
Cellulose	0.00E+00	Pu-239	3.65E-01	
Rubber	2.00E-01	Pu-240	1.47E-01	
Plastic	3.40E+00	Pu-241	4.73E-01	
Cement	0.00E+00	Pu-242	9.33E-05	
Solidified Inorganic Material	0.00E+00	Sr-90	3.83E-06	
Solidified Organic Material	0.00E+00	Th-229	1.00E-11	
Soil	0.00E+00	Th-230	1.98E-10	
Vitrified	0.00E+00	Th-232	1.82E-17	
Packaging Material, Cellulose	0.00E+00	U-233	1.75E-08	
Packaging Material, Plastic	2.24E+02	U-234	3.26E-06	
Packaging Material, Rubber	3.42E+00	U-235	4.67E-09	
Packaging Material, Steel	7.89E+02	U-236	5.66E-08	
Packaging Material, Lead	0.00E+00	U-238	1.88E-13	

Waste Stream Description

Solidified inorganic CH TRU waste generated from 233 Facility/Equipment Operation and Maintenance activities

6.1

0.0

6.1

Waste Stream ID: RL300-01

Final Form Total

Appendix AWaste Profile Report

Site Hanford (Richland) Site Source Cat.
Source Cat. Other/Multiple Sources Stream Name 300 Area TRU Mixed Debris Summary Category Source Cat. Stream Name Source Cat. Stream

Waste Volume Detail (m ³)			
Final Form Volum	ies		
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	29.6	0.0	29.6
SWB Dir Ld w/ Liner	20.7	0.0	20.7

50.3

0.0

50.3

Waste Material Parame	ters	Final Forn	n Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	4.95E+03	Am-241	3.24E+02
Aluminum-based Metal/Alloys	5.20E+01	Am-243	3.35E-02
Other Metal/Alloys	6.21E+03	Cm-244	2.81E+00
Other Inorganic Materials	1.93E+03	Cs-137	1.57E+02
Cellulose	1.81E+03	Np-237	4.39E-03
Rubber	1.23E+02	Pu-238	5.51E+01
Plastic	1.54E+03	Pu-239	1.83E+02
Cement	0.00E+00	Pu-240	1.56E+02
Solidified Inorganic Material	0.00E+00	Pu-241	2.58E+03
Solidified Organic Material	0.00E+00	Pu-242	1.09E-01
Soil	0.00E+00	Sr-90	1.79E-02
Vitrified	0.00E+00	Th-229	7.31E-05
Packaging Material, Cellulose	0.00E+00	Th-230	8.67E-06
Packaging Material, Plastic	1.11E+03	Th-232	6.39E-03
Packaging Material, Rubber	2.06E+01	U-233	7.56E-02
Packaging Material, Steel	7.03E+03	U-234	4.99E-02
Packaging Material, Lead	0.00E+00	U-235	1.89E-03
·		U-236	5.07E-05

U-238

3.71E-02

Haz. Waste No(s).
D004, D005, D006,
D007, D008, D009,
D010, D011, D022,
D027, D028, D029,
D030, D034, D037,
D043, F001, F002,
F003, F004, F005

TRUCON Code(s) 125/225

Waste Stream Description

Combustible and noncombustible debris waste generated from operations, including fuel fabrication, reactor studies, research and development, maintenance, and laboratory operations in the Hanford 300 Area. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: RL300-03

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S3000 Defense Determinatio	n Defense-Related	Handling CH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group Solidified Inorganics	Inventory Da	ate 12/31/2022
Stream Name	300 Area Mixed Solidified Inorganics		Activities Deca	ayed to CY 2022

Waste Volume Detail (m 3)	Waste	Volume	Detail	(m ³)
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Final Form Volumes						
Container Type	Type Stored Proj. To					
55-gal Drum Dir Ld w/ Liner	5.5	0.0	5.5			
Final Form Total	5.5	0.0	5.5			

Wasta Material Parameters

Waste Material Paramet	Final Form	Radionuclides	
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	1.08E+01	Am-241	1.33E+01
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	1.68E-03
Other Metal/Alloys	0.00E+00	Np-237	1.17E-04
Other Inorganic Materials	0.00E+00	Pu-238	2.62E+00
Cellulose	0.00E+00	Pu-239	1.50E+01
Rubber	0.00E+00	Pu-240	7.67E+00
Plastic	1.14E+02	Pu-241	7.18E+01
Cement	2.12E+03	Pu-242	1.27E-03
Solidified Inorganic Material	0.00E+00	Sr-90	2.06E-03
Solidified Organic Material	0.00E+00	Th-229	1.99E-12
Soil	0.00E+00	Th-230	2.26E-08
Vitrified	0.00E+00	Th-232	6.78E-16
Packaging Material, Cellulose	0.00E+00	U-233	4.47E-09
Packaging Material, Plastic	2.00E+02	U-234	2.65E-04
Packaging Material, Rubber	3.07E+00	U-235	6.45E-06
Packaging Material, Steel	7.07E+02	U-236	2.50E-06
Packaging Material, Lead	0.00E+00	U-238	1.09E-04

Haz. Waste No(s).

maz. waste mo(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.

Annual Transuranic Waste Inventory Report - 2023 Waste Stream ID: RL300-08

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000	Defense Determin	ation Defense-	-Related I	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Dat	e 12/31/2	.022
Stream Name	300 Area TRU RH Mixed and Non-Mixed Debris				Activities Decay	ed to CY 2	2022

Waste	Volume	Detail	(m ³)
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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 SCA-30G1 w/ Liner	173.1	0.0	173.1			
Final Form Total	287.8	0.0	287.8			

Waste Material Parameters

Waste Material Parameters		Final Form	Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	2.35E+04	Am-241	1.03E+03
Aluminum-based Metal/Alloys	0.00E+00	Am-243	3.42E+00
Other Metal/Alloys	0.00E+00	Cm-244	4.32E+02
Other Inorganic Materials	1.80E+05	Cs-137	1.50E+05
Cellulose	5.87E+03	Np-237	2.71E-02
Rubber	0.00E+00	Pu-238	2.48E+02
Plastic	1.47E+03	Pu-239	6.77E+01
Cement	0.00E+00	Pu-240	7.82E+01
Solidified Inorganic Material	0.00E+00	Pu-241	4.01E+03
Solidified Organic Material	0.00E+00	Pu-242	2.66E-01
Soil	0.00E+00	Pu-244	2.97E-11
Vitrified	0.00E+00	Sr-90	8.74E+04
Packaging Material, Cellulose	0.00E+00	Th-229	1.87E-04
Packaging Material, Plastic	2.02E+04	Th-230	8.24E-06
Packaging Material, Rubber	2.50E+02	Th-232	9.30E-12
Packaging Material, Steel	7.50E+05	U-233	1.77E-01
Packaging Material, Lead	6.78E+05	U-234	7.90E-02
·		U-235	1.44E-03
		U-236	1.57E-02

U-238

4.48E-02

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)

125/225, 325

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: RL308-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000	Defense Determin	nation Defense	-Related	Handling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31,	/2022
Stream Name	308 TRU Mixed Debris				Activities Decay	ed to CY	2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	33.6	0.0	33.6
SWB Dir Ld w/ Liner	325.2	0.0	325.2
Final Form Total	358.8	0.0	358.8

Waste Material Parameters		
Material Parameter	Total Mass (kg)	
Iron-based Metal/Alloys	1.12E+05	
Aluminum-based Metal/Alloys	1.07E+02	
Other Metal/Alloys	2.10E+03	
Other Inorganic Materials	1.98E+03	
Cellulose	3.95E+03	
Rubber	8.79E+02	
Plastic	4.54E+03	
Cement	0.00E+00	
Solidified Inorganic Material	0.00E+00	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	1.63E+03	
Packaging Material, Rubber	8.17E+01	
Packaging Material, Steel	5.45E+04	
Packaging Material, Lead	0.00E+00	

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	2.11E+04	
Am-243	1.85E-03	
Cs-137	1.48E-01	
Np-237	7.62E-02	
Pu-238	5.50E+03	
Pu-239	9.47E+03	
Pu-240	6.13E+03	
Pu-241	7.84E+04	
Pu-242	5.80E+00	
Sr-90	1.32E-01	
Th-229	7.23E-05	
Th-230	2.35E-05	
Th-232	5.30E-04	
U-233	7.48E-02	
U-234	3.20E-01	
U-235	1.41E-02	
U-236	2.00E-03	
U-238	2.03E-01	

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,

TRUCON Code(s) 125/225

F005

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.

Isotope Am-241 Np-237

Pu-238

Pu-239

Pu-240

Pu-241

Pu-242

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

U-238

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 12/31/2022
Stream Name	308 Building TRU Solid Inorganics		Activities Decayed to CY 2022

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		
	Total Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	3.95E+01	
Aluminum-based Metal/Alloys	0.00E+00	
Other Metal/Alloys	0.00E+00	
Other Inorganic Materials	0.00E+00	
Cellulose	2.00E+00	
Rubber	0.00E+00	
Plastic	3.00E+00	
Cement	9.53E+01	
Solidified Inorganic Material	0.00E+00	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	1.54E+01	
Packaging Material, Rubber	2.36E-01	
Packaging Material, Steel	5.44E+01	
Packaging Material, Lead	0.00E+00	

Final Form	Radionuclides	No Hazardous
	Total Activity	Waste Numbers Provided
otope	(Ci)	
m-241	2.57E-01	
p-237	2.76E-06	TRUCON Code(s)
	4.40F-02	122/222

4.40E-02

3.34E-01

1.27E-01

3.87E-01

1.53E-05

2.05E-13

8.42E-10

1.14E-16

2.04E-10

5.00E-06

1.15E-08

1.32E-07

8.33E-14

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.

Waste Stream ID: RL308-08

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S500	Defense Determin	ation Defense-	-Related I	landling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Dat	e 12/31/	/2022
Stream Name	308 Building TRU RH Non-Mixed Debris				Activities Decay	ed to CY	2022

Waste Vo	lume Detail	(m ³)
----------	-------------	-------

Final Form Volumes				
Container Type Stored Proj. Total				
RH SCA-30G1 w/ Liner	2.2	0.0	2.2	
Final Form Total 2.2 0.0 2.2				

	Total Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	1.02E+01
Aluminum-based Metal/Alloys	2.44E-02
Other Metal/Alloys	1.56E+00
Other Inorganic Materials	1.40E+00
Cellulose	1.80E+00
Rubber	5.74E-01
Plastic	3.91E+00
Cement	0.00E+00
Solidified Inorganic Material	0.00E+00
Solidified Organic Material	0.00E+00
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	1.90E+02
Packaging Material, Rubber	2.36E+00
Packaging Material, Steel	8.18E+03
Packaging Material, Lead	8.62E+03

Final Form Radionuclides				
Total				
	Activity			
Isotope	(Ci)			
Am-241	4.54E-03			
Cm-244	1.08E-04			
Cs-137	2.79E+00			
Np-237	1.72E-08			
Pu-238	3.23E-03			
Pu-239	2.37E-03			
Pu-240	2.54E-03			
Pu-241	3.81E-02			
Pu-242	7.75E-07			
Sr-90	4.91E+00			
Th-229	1.73E-16			
Th-230	7.60E-12			
Th-232	3.14E-19			
U-233	4.64E-13			
U-234	1.25E-07			
U-235	3.00E-09			

9.79E-10

1.01E-06

U-236

U-238

No Hazardous Waste Numbers Provided

TRUCON Code(s) 125/225

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.

Isotope Am-241

Am-243

Cm-244

Cs-137

Np-237

Pu-238

Pu-239

Pu-240

Pu-241

Pu-242

Pu-244

Sr-90

2.69E+04

4.52E+02

1.30E+05

0.00E+00

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

U-238

Waste Stream ID: RL325-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S500	Defense Determin	ation Defense-	Related	Handling CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/2022
Stream Name	325 TRU Mixed and Non-Mixed Debris				Activities Decay	ed to CY 2022

Waste Volume I	Detail ((m 3)
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Final Form Volumes					
Container Type Stored Proj. Tota					
55-gal Drum Dir Ld w/ Liner	680.2	44.1	724.3		
SWB Dir Ld w/ Liner	193.6	41.4	235.0		
Final Form Total	873.8	85.5	959.3		

	Total
	Mass
Material Parameter	(kg)

Waste Material Parameters

	IVIUSS
Material Parameter	(kg)
Iron-based Metal/Alloys	4.75E+04
Aluminum-based Metal/Alloys	1.79E+02
Other Metal/Alloys	5.32E+03
Other Inorganic Materials	1.58E+04
Cellulose	8.40E+03
Rubber	2.27E+03
Plastic	1.53E+04
Cement	5.74E+02
Solidified Inorganic Material	4.53E+01
Solidified Organic Material	0.00E+00
Soil	2.24E+02
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00

Final Form Radionuclides Total Activity

(Ci)

5.84E+02

1.29E-01

2.66E+01

8.76E+00

4.81E-02

6.58E+02

5.69E+02

2.47E+02

5.30E+03

3.62E-02

1.28E-11

2.49E+01

2.29E-04

4.00E-05

8.16E-03

1.59E-01

8.76E-01

2.53E-02

4.22E-05

5.35E-01

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

IKU	CON	Coae	<u> </u>
	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.

Packaging Material, Plastic

Packaging Material, Rubber

Packaging Material, Steel

Packaging Material, Lead

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 Da	ate 12/31/2022
Stream Name	325 TRU Mixed Solid Inorganic		Activities Deca	ayed to CY 2022

Waste Volume Detail (m	3)
------------------------	----

Final Form Volumes					
Container Type Stored Proj. Total					
55-gal Drum Dir Ld w/ Liner	19.5	6.9	26.5		
Final Form Total	19.5	6.9	26.5		

Waste Material Parameters

waste Material Paramet	rinai i	
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	8.41E+02	Am-241
Aluminum-based Metal/Alloys	5.68E+00	Am-243
Other Metal/Alloys	1.40E+01	Cm-244
Other Inorganic Materials	3.67E+03	Cs-137
Cellulose	1.05E+03	Np-237
Rubber	7.97E+01	Pu-238
Plastic	5.02E+02	Pu-239
Cement	4.85E+03	Pu-240
Solidified Inorganic Material	0.00E+00	Pu-241
Solidified Organic Material	1.32E+03	Pu-242
Soil	4.74E+02	Sr-90
Vitrified	0.00E+00	Th-229
Packaging Material, Cellulose	0.00E+00	Th-230
Packaging Material, Plastic	9.71E+02	Th-232
Packaging Material, Rubber	1.49E+01	U-233
Packaging Material, Steel	3.43E+03	U-234
Packaging Material, Lead	0.00E+00	U-235
·		U-236

Final Form Radionuclides Total

Activity (Ci)

6.35E+01

1.81E-01

5.52E+01

2.48E-01

8.20E-03

1.65E+01

5.29E+01

2.22E+01

4.68E+02

4.37E-03

1.06E+00

3.82E-08

1.71E-06

2.16E-15 3.97E-05

1.72E-02

5.75E-04

7.58E-06

9.39E-03

U-238

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.

Final Form Radionuclides

Total Activity (Ci)

1.76E+02

8.28E-01 4.92E+01

6.60E+02

1.26E-01

7.63E+02

7.36E+01

4.17E+01

2.09E+03

5.39E-02

2.66E+03

1.89E-04

3.94E-06

1.30E-03 2.69E-01

6.23E-02

2.27E-03

1.41E-03

4.78E-03

U-238

Waste Stream ID: RL325-08

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000 Defense Determine	nation Defense	-Related Handl i	ng RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Heterogeneous Debi	ris Waste	Inventory Date 12	/31/2022
Stream Name	325 TRU RH Mixed and Non-Mixed Debris			Activities Decayed to	CY 2022

Waste Volume Detail (m	3)
------------------------	----

Final Form Volumes					
Container Type	Stored	Proj.	Total		
RH SCA-30G1 w/ Liner	225.8	79.3	305.1		
Final Form Total	225.8	79.3	305.1		

Waste Material Parameters

	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	1.36E+04	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Am-243
Other Metal/Alloys	0.00E+00	Cm-244
Other Inorganic Materials	2.80E+04	Cs-137
Cellulose	1.41E+03	Np-237
Rubber	2.57E+02	Pu-238
Plastic	2.79E+03	Pu-239
Cement	2.77E+03	Pu-240
Solidified Inorganic Material	0.00E+00	Pu-241
Solidified Organic Material	0.00E+00	Pu-242
Soil	1.28E+01	Sr-90
Vitrified	0.00E+00	Th-229
Packaging Material, Cellulose	0.00E+00	Th-230
Packaging Material, Plastic	2.64E+04	Th-232
Packaging Material, Rubber	3.27E+02	U-233
Packaging Material, Steel	1.13E+06	U-234
Packaging Material, Lead	1.20E+06	U-235
	_	U-236

Haz Waste No(s)

naz. waste wots.
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)

125/225

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.

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 D	Date 12/31/2022
Stream Name	B325 Solidified sludges		Activities Dec	ayed to CY 2022

Waste Volume I	Detail ((m 3)
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Final Form Volumes						
Container Type	Stored	Proj.	Total			
RH SCA-30G1 w/ Liner	2.6	0.0	2.6			
Final Form Total	2.6	0.0	2.6			

Waste Material Parameters

waste material rafaillet	FIIIai i	
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	3.17E+00	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Am-243
Other Metal/Alloys	2.20E-01	Cm-244
Other Inorganic Materials	3.52E+01	Cs-137
Cellulose	4.62E+00	Np-237
Rubber	0.00E+00	Pu-238
Plastic	3.14E+00	Pu-239
Cement	1.48E+01	Pu-240
Solidified Inorganic Material	5.31E-01	Pu-241
Solidified Organic Material	1.05E+01	Pu-242
Soil	0.00E+00	Sr-90
Vitrified	0.00E+00	Th-229
Packaging Material, Cellulose	0.00E+00	Th-230
Packaging Material, Plastic	2.28E+02	Th-232
Packaging Material, Rubber	2.83E+00	U-233
Packaging Material, Steel	9.82E+03	U-234
Packaging Material, Lead	1.03E+04	U-235
		U-236

Final Form Radionuclides Haz. Waste No(

Total Activity (Ci)

8.98E-01

8.85E-03

4.10E-01 7.00E+01

6.79E-05

6.31E-01

6.96E-02

1.24E-01

5.03E+00

5.98E-04 7.22E+02 3.15E-12 1.80E-08

1.97E-14 5.64E-09 2.52E-04 2.73E-06 5.00E-05

7.78E-05

U-238

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)

111/211

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.

Waste Stream ID: RL618-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S50	Defense Determin	nation Defense	-Related	Handling	СН
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Da	te 12/31/	/2022
Stream Name	618 - 10&11 Burial Grounds TRU Mixed Debris				Activities Decay	ed to CY	2022

Waste Volume Deta	il	(m ³)
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Final Form Volumes						
Container Type	ype Stored Proj.					
55-gal Drum Dir Ld w/ Liner	1.5	0.0	1.5			
Final Form Total	1.5	0.0	1.5			

Wasta Material Parameters

Waste Material Parameters		Final Forn	n Radionuclides
	Total		Total
	Mass		Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	4.02E+00	Am-241	3.06E+00
Aluminum-based Metal/Alloys	0.00E+00	Am-243	4.35E-04
Other Metal/Alloys	7.23E+00	Cs-137	9.14E-02
Other Inorganic Materials	6.96E+00	Np-237	3.87E-04
Cellulose	5.35E-01	Pu-238	1.15E+00
Rubber	1.07E+00	Pu-239	6.54E+00
Plastic	1.07E+00	Pu-240	2.52E+00
Cement	0.00E+00	Pu-241	1.58E+01
Solidified Inorganic Material	0.00E+00	Pu-242	2.90E-04
Solidified Organic Material	0.00E+00	Sr-90	1.06E-01
Soil	2.68E+00	Th-229	2.59E-12
Vitrified	0.00E+00	Th-230	5.57E-10
Packaging Material, Cellulose	0.00E+00	Th-232	6.63E-17
Packaging Material, Plastic	5.40E+01	U-233	9.85E-09
Packaging Material, Rubber	8.26E-01	U-234	2.00E-05
Packaging Material, Steel	1.90E+02	U-235	9.63E-05
Packaging Material, Lead	0.00E+00	U-236	4.48E-07
	_	U-238	7.64E-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

Final Form Radionuclides

Total Activity (Ci)

1.40E+00

2.96E+02

2.71E-06

2.16E-01

1.23E+00

4.72E-01

2.62E+00

3.44E+02

6.10E-15

1.06E-10

1.24E-17

3.47E-11

3.80E-06

1.84E-04

8.39E-08

3.50E-03

Waste Stream ID: RL618-08

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S50	00 Defense Determin	nation Defense	-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debr	ris Waste	Inventory Da	ite 12/31/	/2022
Stream Name	618 - 10&11 Burial Grounds TRU RH Mixed Debris				Activities Deca	yed to CY	2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes					
Container Type Stored Proj. T					
RH SCA-30G1 w/ Liner	3.0	0.0	3.0		
Final Form Total	3.0	0.0	3.0		

Waste Material Paramet	Final F	
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	1.07E+02	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Cs-137
Other Metal/Alloys	1.12E+01	Np-237
Other Inorganic Materials	3.92E+02	Pu-238
Cellulose	5.30E+01	Pu-239
Rubber	1.00E+01	Pu-240
Plastic	1.50E+01	Pu-241
Cement	0.00E+00	Sr-90
Solidified Inorganic Material	0.00E+00	Th-229
Solidified Organic Material	0.00E+00	Th-230
Soil	1.07E+02	Th-232
Vitrified	0.00E+00	U-233
Packaging Material, Cellulose	0.00E+00	U-234
Packaging Material, Plastic	2.57E+02	U-235
Packaging Material, Rubber	3.19E+00	U-236
Packaging Material, Steel	1.10E+04	U-238
Packaging Material, Lead	1.16E+04	

No Hazardous
Waste Numbers
Provided
TRUCON Code(s)

TRUCON Code(s) 125/225

Waste Stream Description

Retrieved containerized debris waste from Burial Grounds 618 - 10 and 11.

Waste Stream ID: RLALE-02

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S4000	Defense Determin	nation Defense	-Related	Handling	СН
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Contaminated Soil/D	ebris Waste	Inventory D	ate 12/31,	/2022
Stream Name	TRU Soils/Absorbents from the Arid Lands Ecology Reserve				Activities Deca	ayed to CY	2022

Waste	Volume	Detail	(m ³)
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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		

Wasta Material Parameters

Waste Material Paramet	Final Form	Radionuclides	
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	1.60E+00	Am-241	2.12E-04
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	2.68E-07
Other Metal/Alloys	0.00E+00	Np-237	6.39E-10
Other Inorganic Materials	0.00E+00	Pu-238	2.41E-05
Cellulose	0.00E+00	Pu-239	5.29E-02
Rubber	2.00E+00	Pu-240	1.71E-03
Plastic	5.08E+01	Pu-241	3.21E-03
Cement	0.00E+00	Pu-242	1.68E-07
Solidified Inorganic Material	0.00E+00	Pu-244	2.27E-11
Solidified Organic Material	0.00E+00	Sr-90	2.40E-07
Soil	2.38E+02	Th-229	4.39E-18
Vitrified	0.00E+00	Th-230	4.01E-14
Packaging Material, Cellulose	0.00E+00	Th-232	1.52E-19
Packaging Material, Plastic	2.31E+01	U-233	1.41E-14
Packaging Material, Rubber	3.54E-01	U-234	7.81E-10
Packaging Material, Steel	8.16E+01	U-235	5.74E-10
Packaging Material, Lead	0.00E+00	U-236	5.58E-10
		U-238	2.86E-16

No Hazardous **Waste Numbers Provided**

TRUCON Code(s) 125/225

Waste Stream Description

Soils and debris from the 6652H building.

Waste Stream ID: RLARG-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S500	0 Defense Determin	ation Defense-	Related	Handling CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/2022
Stream Name	Argonne Nat Lab TRU Mixed Debris				Activities Decay	ed to CY 2022

|--|

Final Form Volumes							
Container Type Stored Proj. Total							
55-gal Drum Dir Ld w/ Liner	13.9	0.0	13.9				
Final Form Total	13.9	0.0	13.9				

Waste Material Parame	ters	Final Form	Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	6.37E+03	Am-241	6.34E+01
Aluminum-based Metal/Alloys	8.65E+02	Cs-137	6.55E-07
Other Metal/Alloys	1.06E+02	Np-237	6.97E-04
Other Inorganic Materials	4.27E+02	Pu-238	2.11E+02
Cellulose	1.04E+03	Pu-239	4.56E+01
Rubber	4.47E+02	Pu-240	2.32E+01
Plastic	1.06E+03	Pu-241	1.35E+02
Cement	0.00E+00	Pu-242	8.11E-04
Solidified Inorganic Material	0.00E+00	Sr-90	5.75E-07
Solidified Organic Material	0.00E+00	Th-229	5.77E-11
Soil	2.81E+02	Th-230	1.26E-05
Vitrified	0.00E+00	Th-232	1.45E-05
Packaging Material, Cellulose	0.00E+00	U-233	5.40E-08
Packaging Material, Plastic	5.09E+02	U-234	4.92E-02
Packaging Material, Rubber	7.79E+00	U-235	1.07E-03
Packaging Material, Steel	1.80E+03	U-236	2.55E-05
Packaging Material, Lead	0.00E+00	U-238	1.51E-03

TRUCON Code(s) 125/225

No Hazardous Waste Numbers Provided

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters. The waste is generated from R&D/R&D Laboratory Waste activities at the Argonne National Laboratory - East (IL).

Waste Stream ID: RLBART-07

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S500	O Defense Determin	ation Defense	-Related I	Handling R	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Dat	e 12/31/20)22
Stream Name	Bartlesville RH-TRU Debris				Activities Decay	ed to CY 20	022

Waste \	/olume	Detail	(m ³)

Final Form Volumes							
Container Type Stored Proj. Total							
RH SCA-30G1 w/ Liner	0.3	0.0	0.3				
Final Form Total	0.3	0.0	0.3				

Waste Material Parameters				
Material Parameter	Total Mass (kg)			
Iron-based Metal/Alloys	1.58E+02			
Aluminum-based Metal/Alloys	2.49E+01			
	0.00E+00			
Other Metal/Alloys				
Other Inorganic Materials	1.22E+01			
Cellulose	3.00E+01			
Rubber	1.28E+01			
Plastic	3.07E+01			
Cement	0.00E+00			
Solidified Inorganic Material	0.00E+00			
Solidified Organic Material	0.00E+00			
Soil	4.39E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	2.86E+01			
Packaging Material, Rubber	3.54E-01			
Packaging Material, Steel	1.23E+03			
Packaging Material, Lead	1.29E+03			

Final Form Radionuclides				
	Total Activity			
Isotope	(Ci)			
Am-241	4.38E-01			
Np-237	6.02E-06			
Pu-238	3.92E-07			
Pu-239	3.38E-06			
Pu-240	1.63E-06			
Pu-241	2.59E-06			
Pu-242	4.72E-10			
Th-229	6.55E-13			
Th-230	1.06E-14			
Th-232	2.01E-21			
U-233	5.42E-10			
U-234	5.36E-11			
U-235	1.36E-13			
U-236	1.99E-12			
U-238	3.00E-18			

No Hazardous Waste Numbers Provided

TRUCON Code(s) 125/225

Waste Stream Description

Drums contains noncombustible waste items. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: RLBAT-01

Hanford (Richland) Site

Battelle Columbus TRU Mixed Debris

Appendix A Waste Profile Report

Summary Category S5000 Defense Determination Defense-Related **Handling** CH Facility/Equipment Operation and Maintenance Waste Waste Matrix Code Group Heterogeneous Debris Waste Inventory Date 12/31/2022 Activities Decayed to CY 2022

Waste Volume Detail (m 3)

Site Source Cat.

Stream Name

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	9.4	0.0	9.4			
Final Form Total	28.3	0.0	28.3			

Waste Material Parameters		Final Form	Radionuclides	Haz. Waste No(s).
	Total		Total	D005, D006, D007,
	Mass		Activity	D008, D009, D011,
Material Parameter	(kg)	Isotope	(Ci)	F001, F002, F003,
Iron-based Metal/Alloys	2.54E+04	Am-241	1.57E+01	F005
Aluminum-based Metal/Alloys	5.34E+03	Np-237	1.13E-03	
Other Metal/Alloys	0.00E+00	Pu-238	8.42E+01	
Other Inorganic Materials	1.61E+03	Pu-239	1.49E+01	TRUCON Code(s)
Cellulose	1.94E+03	Pu-240	6.68E+00	125/225
Rubber	7.24E+02	Pu-241	1.18E+02	
Plastic	2.27E+03	Pu-242	3.22E-04	
Cement	0.00E+00	Th-229	2.98E-11	
Solidified Inorganic Material	0.00E+00	Th-230	2.33E-06	
Solidified Organic Material	0.00E+00	Th-232	4.04E-06	
Soil	3.42E+02	U-233	5.69E-08	
Vitrified	0.00E+00	U-234	2.26E-02	
Packaging Material, Cellulose	0.00E+00	U-235	6.82E-04	
Packaging Material, Plastic	7.05E+02	U-236	2.37E-06	
Packaging Material, Rubber	1.24E+01	U-238	3.52E-03	
Packaging Material, Steel	3.90E+03			
Packaging Material, Lead	0.00E+00			

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: RLBAT-08

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S500	0 Defense Determin	nation Defense	-Related	Handling RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/2022
Stream Name	BATCO TRU RH Mixed and Non-Mixed Debris				Activities Decay	red to CY 2022

Waste Volume Detail (m ³)						
Final Form Volumes						
Container Type	Stored	Proj.	Total			
RH SCA-30G1 w/ Liner	7.2	0.0	7.2			
Final Form Total	7.2	0.0	7.2			

Waste Material Paramet	Waste Material Parameters			Haz. Waste No(s).
	Total		Total	D006, D008, P015
	Mass		Activity	
Material Parameter	(kg)	Isotope	(Ci)	
Iron-based Metal/Alloys	6.68E+02	Am-241	4.42E+00	
Aluminum-based Metal/Alloys	0.00E+00	Am-243	2.52E-02	TRUCON Code(s)
Other Metal/Alloys	1.52E+03	Cm-244	1.28E+00	125/225
Other Inorganic Materials	2.25E+02	Cs-137	4.29E+01	
Cellulose	7.42E+01	Np-237	2.60E-05	
Rubber	2.65E+01	Pu-238	2.80E+00	
Plastic	4.58E+02	Pu-239	4.21E-01	
Cement	0.00E+00	Pu-240	6.90E-01	
Solidified Inorganic Material	0.00E+00	Pu-241	2.10E+01	
Solidified Organic Material	0.00E+00	Pu-242	1.83E-03	
Soil	1.50E+00	Sr-90	2.73E+01	
Vitrified	0.00E+00	Th-229	2.03E-11	
Packaging Material, Cellulose	0.00E+00	Th-230	8.22E-08	
Packaging Material, Plastic	6.19E+02	Th-232	6.88E-14	
Packaging Material, Rubber	7.67E+00	U-233	1.23E-08	
Packaging Material, Steel	2.66E+04	U-234	5.30E-04	
Packaging Material, Lead	2.80E+04	U-235	1.66E-05	
		U-236	6.99E-05	
		U-238	3.23E-04	

Waste Stream Description

Boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Boxes may be used for disposal of high-efficiency particulate air filters.

No Hazardous Waste Numbers Provided

TRUCON Code(s) 125/225

Waste Stream ID: RLBET-08

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000	Defense Determin	ation Defense	-Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debr	s Waste	Inventory Dat	e 12/31/	/2022
Stream Name	Bettis TRU Non-Mixed Debris				Activities Decay	ed to CY	2022

Waste	Volume	Detail	(m ³)
-------	--------	--------	-------

Final Form Volumes							
Container Type Stored Proj. T							
RH SCA-30G1 w/ Liner	0.2	0.0	0.2				
Final Form Total	0.2	0.0	0.2				

Waste Material Paramet	Final Form	Radionuclides	
	Total		Total
	Mass		Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	6.76E+01	Am-241	6.04E-03
Aluminum-based Metal/Alloys	1.07E+01	Cs-137	7.38E-05
Other Metal/Alloys	0.00E+00	Np-237	2.04E-08
Other Inorganic Materials	5.27E+00	Pu-238	1.91E-03
Cellulose	1.29E+01	Pu-239	9.83E-03
Rubber	5.51E+00	Pu-240	5.53E-03
Plastic	1.31E+01	Pu-241	3.47E-02
Cement	0.00E+00	Pu-242	2.20E-07
Solidified Inorganic Material	0.00E+00	Sr-90	6.60E-05
Solidified Organic Material	0.00E+00	Th-229	1.51E-16
Soil	1.84E+00	Th-230	1.63E-08
Vitrified	0.00E+00	Th-232	4.89E-19
Packaging Material, Cellulose	0.00E+00	U-233	4.74E-13
Packaging Material, Plastic	1.90E+01	U-234	1.61E-04
Packaging Material, Rubber	2.36E-01	U-235	5.91E-06
Packaging Material, Steel	8.18E+02	U-236	1.80E-09
Packaging Material, Lead	8.62E+02	U-238	6.25E-08

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. Drums may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: RLBW-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000 Defense Determi	nation Defense	-Related H	landling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Heterogeneous Debi	ris Waste	Inventory Date	12/31/	/2022
Stream Name	Babcock and Wilcox TRU Mixed Debris			Activities Decaye	ed to CY	2022

Waste Volume	Detail ((m ³)
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Final Form Volumes					
Container Type	Stored	Proj.	Total		
55-gal Drum Dir Ld w/ Liner	47.9	0.0	47.9		
SWB Dir Ld w/ Liner	86.5	0.0	86.5		
Final Form Total	134.4	0.0	134.4		

Waste Material Paramete	Final Form	Radionuclides	
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	9.82E+03	Am-241	2.96E+02
Aluminum-based Metal/Alloys	4.23E+01	Cs-137	1.73E-01
Other Metal/Alloys	9.89E+02	Np-237	1.45E-03
Other Inorganic Materials	6.52E+03	Pu-238	4.79E+01
Cellulose	4.75E+03	Pu-239	2.50E+02
Rubber	1.02E+03	Pu-240	1.25E+02
Plastic	5.17E+03	Pu-241	2.01E+03
Cement	0.00E+00	Pu-242	1.12E-02
Solidified Inorganic Material	1.68E+02	Sr-90	1.54E-01
Solidified Organic Material	2.90E+01	Th-229	1.80E-11
Soil	0.00E+00	Th-230	1.08E-06
Vitrified	0.00E+00	Th-232	1.11E-14
Packaging Material, Cellulose	0.00E+00	U-233	4.50E-08
Packaging Material, Plastic	1.86E+03	U-234	1.14E-02
Packaging Material, Rubber	4.36E+01	U-235	2.63E-04
Packaging Material, Steel	1.95E+04	U-236	4.08E-05
Packaging Material, Lead	0.00E+00	U-238	1.15E-02

Haz, Waste No(s).

maz. waste mo(s).
D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D030, D035, F001,
F002, F003, F005

TRUCON Code(s)

125/225

Waste Stream Description

Combustible and noncombustible debris waste generated from operations and decontamination and decommissioning of the Babcock and Wilcox Parks Township Site Plutonium Facility. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: RLBW-03

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S3000 Defense Determination	n Defense-Related	Handling CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Solidified Inorganics	Inventory [Date 12/31/2022
Stream Name	Babcock & Wilcox solidified inorganics		Activities Dec	cayed to CY 2022

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						

Wasta Material Parameters

Waste Material Parameters		Final Form	Radionuclides
Material Parameter	Total Mass (kg)	Isotope	Total Activity (Ci)
Iron-based Metal/Alloys	1.32E+01	Am-241	4.15E+01
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	2.64E-06
Other Metal/Alloys	0.00E+00	Np-237	2.83E-04
Other Inorganic Materials	1.89E+03	Pu-238	7.09E+00
Cellulose	0.00E+00	Pu-239	4.28E+01
Rubber	0.00E+00	Pu-240	2.16E+01
Plastic	5.30E+01	Pu-241	2.12E+02
Cement	0.00E+00	Pu-242	2.90E-03
Solidified Inorganic Material	0.00E+00	Sr-90	2.37E-06
Solidified Organic Material	0.00E+00	Th-229	4.91E-12
Soil	0.00E+00	Th-230	1.02E-07
Vitrified	0.00E+00	Th-232	2.28E-15
Packaging Material, Cellulose	0.00E+00	U-233	1.06E-08
Packaging Material, Plastic	3.47E+02	U-234	1.05E-03
Packaging Material, Rubber	5.31E+00	U-235	2.94E-05
Packaging Material, Steel	1.22E+03	U-236	7.69E-06
Packaging Material, Lead	0.00E+00	U-238	4.79E-04

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.

Isotope

Am-241

Np-237

Pu-238

Pu-239

Pu-240

Pu-241

Pu-242

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

U-238

Waste Stream ID: RLBW-08

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S50	Defense Determin	nation Defense	-Related I	landling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Grou	p Heterogeneous Debr	ris Waste	Inventory Dat	e 12/31/	/2022
Stream Name	Babcock and Wilcox TRU RH Mixed Debris				Activities Decay	ed to CY	2022

Waste Volume Detail (m 3)	
	Final Form Volu

Final Form Volumes				
Container Type	Stored	Proj.	Total	
RH SCA-30G1 w/ Liner	0.4	0.0	0.4	
Final Form Total	0.4	0.0	0.4	

Waste Material Parameters

	Total
	Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	5.09E+00
Aluminum-based Metal/Alloys	0.00E+00
Other Metal/Alloys	2.55E-01
Other Inorganic Materials	2.55E+00
Cellulose	3.41E+01
Rubber	3.82E-01
Plastic	2.29E+01
Cement	0.00E+00
Solidified Inorganic Material	0.00E+00
Solidified Organic Material	0.00E+00
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	3.81E+01
Packaging Material, Rubber	4.72E-01
Packaging Material, Steel	1.64E+03
Packaging Material, Lead	1.72E+03

Final Form Radionuclides Haz. Waste No(s). Total

Activity

(Ci)

1.13E+00

4.97E-06

1.78E-01

7.59E-01

4.29E-01

8.01E+00

1.73E-05

6.62E-14

5.61E-10

7.05E-17

1.54E-10

7.98E-06

1.12E-08

1.90E-07

4.03E-14

mazi traste mo(s).
D005, D006, D007,
D008, D009, D011,
F001, F002, F003,
F005

TRUCON Code(s)

•	NO	CO	1	CU	ue	:13
		125	5/	22	5	

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.

Isotope Am-241

Np-237 Pu-238 Pu-239 Pu-240

Pu-241

Pu-242

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

U-238

Waste Stream ID: RLCFF-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S500	Defense Determin	nation Defense	-Related I	landling	СН
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/	/2022
Stream Name	Kerr McGee TRU Mixed Debris				Activities Decay	ed to CY	2022

Waste Volume Detail (m ³)			
Final Forr	n Volumes		
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.6	0.0	3.6
Final Form Total	3.6	0.0	3.6

Waste Material Parameters				
	Total			
	Mass			
Material Parameter	(kg)			
Iron-based Metal/Alloys	4.10E+02			
Aluminum-based Metal/Alloys	5.50E+00			
Other Metal/Alloys	2.41E+01			
Other Inorganic Materials	1.10E+02			
Cellulose	1.71E+02			
Rubber	2.63E+01			
Plastic	1.90E+02			
Cement	0.00E+00			
Solidified Inorganic Material	0.00E+00			
Solidified Organic Material	0.00E+00			
Soil	3.00E-01			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	1.31E+02			
Packaging Material, Rubber	2.01E+00			
Packaging Material, Steel	4.62E+02			
Packaging Material, Lead	0.00E+00			

Final Form Radionuclides		Haz. Waste No(s).
	Total	D007, D008, D009,
	Activity	D040, F001, F002,
otope	(Ci)	F003
m-241	4.84E+00	
p-237	1.77E-05	
u-238	1.61E+01	TRUCON Code(s)
u-239	4.12E+00	125/225
u-240	2.17E+00	

3.35E+01

2.41E-04

1.59E-13

3.29E-08

2.28E-16

4.52E-10

5.80E-04

2.83E-07

7.70E-07

3.50E-06

Waste Stream Description

The CFFD (KM) waste stream consists of heterogeneous debris waste generated at the Cimarron Plutonium Fuel Fabrication Facility, operated by the Kerr-McGee Nuclear Corporation. This facility was a MOX fuel fabrication facility. The waste was generated during D&D activities at the facility. The waste includes typical D&D waste, e.g., paper, plastic, leaded rubber gloves, rags, glass, equipment, disassembled gloveboxes, and HEPA filters.

Waste Stream ID: RLCFF-03

Final Form Total

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 Da	ate 12/31/2022
Stream Name	Kerr McGee TRU Mixed Solid Inorganic		Activities Deca	ayed to CY 2022

Waste Volume Detail (m ³)			
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.8	0.0	4.8

4.8

0.0

4.8

Waste Material Parameters			
	Total		
	Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	1.50E+02		
Aluminum-based Metal/Alloys	0.00E+00		
Other Metal/Alloys	3.90E-01		
Other Inorganic Materials	2.15E+03		
Cellulose	3.99E+01		
Rubber	4.90E+00		
Plastic	1.66E+02		
Cement	0.00E+00		
Solidified Inorganic Material	0.00E+00		
Solidified Organic Material	0.00E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	1.77E+02		
Packaging Material, Rubber	2.71E+00		
Packaging Material, Steel	6.26E+02		
Packaging Material, Lead	0.00E+00		

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	6.26E+00	
Np-237	2.33E-05	
Pu-238	1.02E+00	
Pu-239	7.17E+00	
Pu-240	3.52E+00	
Pu-241	2.82E+01	
Pu-242	4.45E-04	
Th-229	2.06E-13	
Th-230	7.78E-09	
Th-232	3.70E-16	
U-233	5.92E-10	
U-234	8.83E-05	
U-235	2.37E-06	
U-236	1.25E-06	
U-238	4.90E-05	

Haz. Waste No(s). D007, D008, D009, F001, F002, F003

TRUCON Code(s) 122/222

Waste Stream Description

Waste generated from R&D/R&D Laboratory Waste activities at the Kerr McGee.

Waste Stream ID: RLCH2-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S50	00 Defense Determin	nation Defense	-Related I	Handling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debr	ris Waste	Inventory Dat	te 12/31/	/2022
Stream Name	Tank Farms TRU Mixed Debris				Activities Decay	ed to CY	2022

Waste Volume Detail (m ³)	
	Final Form Volumes

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 Paramet	Final Form	Final Form Radionuclides		
	Total		Total	
	Mass		Activity	
Material Parameter	(kg)	Isotope	(Ci)	
Iron-based Metal/Alloys	4.51E+01	Am-241	7.87E-03	
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	4.24E-02	
Other Metal/Alloys	3.99E+01	Np-237	3.05E-08	
Other Inorganic Materials	2.32E+01	Pu-238	6.75E-04	
Cellulose	3.37E+00	Pu-239	5.50E-03	
Rubber	1.69E-02	Pu-240	1.41E-03	
Plastic	3.99E+00	Pu-241	7.56E-03	
Cement	0.00E+00	Sr-90	3.78E-02	
Solidified Inorganic Material	9.76E-03	Th-229	2.78E-16	
Solidified Organic Material	0.00E+00	Th-230	1.34E-12	
Soil	0.00E+00	Th-232	1.48E-19	
Vitrified	0.00E+00	U-233	7.90E-13	
Packaging Material, Cellulose	0.00E+00	U-234	2.40E-08	
Packaging Material, Plastic	7.71E+00	U-235	6.50E-11	
Packaging Material, Rubber	1.18E-01	U-236	5.00E-10	
Packaging Material, Steel	2.72E+01			
Packaging Material, Lead	0.00E+00			

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.

Final Form Radionuclides

Isotope

Am-241

Cs-137

Np-237

Pu-238

Pu-239

Pu-240

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

8.18E+02

8.62E+02

Sr-90

Total

Activity (Ci)

1.53E-03

8.93E-02

4.49E-09

2.11E-05

7.19E-04

1.54E-04

8.33E-01

2.30E-17

2.33E-14

9.10E-21

8.71E-14

5.56E-10

6.37E-12

4.10E-11

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 D	Date 12/31/2022
Stream Name	Tank Farms Absorbed Oils		Activities Dec	ayed to CY 2022

Final Form Volumes				
Container Type	Stored	Proj.	Total	
RH SCA-30G1 w/ Liner	0.2	0.0	0.2	
Final Form Total	0.2	0.0	0.2	

Waste Material Parameters

	Total Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	0.00E+00
Aluminum-based Metal/Alloys	0.00E+00
Other Metal/Alloys	4.50E-01
Other Inorganic Materials	0.00E+00
Cellulose	0.00E+00
Rubber	0.00E+00
Plastic	0.00E+00
Cement	0.00E+00
Solidified Inorganic Material	0.00E+00
Solidified Organic Material	2.27E+01
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	1.90E+01
Packaging Material, Rubber	2.36E-01

Haz. Waste No(s). D007, F001, F002, F003, F004, F005

TRUCON Code(s) 114/214

Waste Stream Description

Solidified organic waste generated during Tank Farms operations.

Packaging Material, Steel

Packaging Material, Lead

Waste Stream ID: RLESG-01

Final Form Total

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000 Defense Determi	nation Defense	-Related	landling	CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Heterogeneous Deb	ris Waste	Inventory Dat	e 12/31/	2022
Stream Name	Energy Systems Group TRU Mixed Debris			Activities Decay	ed to CY	2022

Waste Volume Detail (m³)				
Final Form Volumes				
Container Type	Stored	Proj.	Total	
55-gal Drum Dir Ld w/ Liner	17.0	0.0	17.0	

17.0

0.0

17.0

Waste Material Paramete	Final Forn	n Radionuclides	Haz. Waste No(s).	
	Total		Total	D006, D007, D008,
	Mass		Activity	F001, F002, F003
Material Parameter	(kg)	Isotope	(Ci)	
Iron-based Metal/Alloys	8.19E+03	Am-241	2.12E+01	
Aluminum-based Metal/Alloys	2.41E+01	Cs-137	1.66E+00	TRUCON Code(s)
Other Metal/Alloys	2.61E+02	Np-237	1.04E-04	125/225
Other Inorganic Materials	1.08E+03	Pu-238	4.33E+00	
Cellulose	1.02E+03	Pu-239	2.63E+01	
Rubber	6.83E+02	Pu-240	1.28E+01	
Plastic	1.39E+03	Pu-241	1.99E+02	
Cement	0.00E+00	Pu-242	3.22E-03	
Solidified Inorganic Material	0.00E+00	Sr-90	1.58E+00	
Solidified Organic Material	0.00E+00	Th-229	1.22E-07	
Soil	0.00E+00	Th-230	2.77E-06	
Vitrified	0.00E+00	Th-232	1.13E-15	
Packaging Material, Cellulose	0.00E+00	U-233	1.26E-04	
Packaging Material, Plastic	6.25E+02	U-234	2.74E-02	
Packaging Material, Rubber	9.56E+00	U-235	5.18E-04	
Packaging Material, Steel	2.20E+03	U-236	4.18E-06	
Packaging Material, Lead	0.00E+00	U-238	3.59E-04	

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.

Waste Stream ID: RLESG-03

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S3000 Defense Determina	ation Defense-	-Related	Handling	СН
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Solidified Inorganics		Inventory Da	ate 12/31/2	2022
Stream Name	Energy Systems Group TRU Solid Inorganics			Activities Deca	yed to CY 2	2022

Waste Vo	lume Detail	(m ³)
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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 Paramete	Final	
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	3.09E+01	Am-241
Aluminum-based Metal/Alloys	3.09E+01	Cs-137
Other Metal/Alloys	0.00E+00	Np-237
Other Inorganic Materials	0.00E+00	Pu-238
Cellulose	3.09E+01	Pu-239
Rubber	3.09E+01	Pu-240
Plastic	3.09E+01	Pu-241
Cement	2.33E+01	Pu-242
Solidified Inorganic Material	6.50E+01	Sr-90
Solidified Organic Material	0.00E+00	Th-229
Soil	1.31E+02	Th-230
Vitrified	0.00E+00	Th-232
Packaging Material, Cellulose	0.00E+00	U-233
Packaging Material, Plastic	4.63E+01	U-234
Packaging Material, Rubber	7.08E-01	U-235
Packaging Material, Steel	1.63E+02	U-236
Packaging Material, Lead	0.00E+00	U-238

Final Forn	n Radionuclides	No Hazardous
Isotope	Total Activity (Ci)	Waste Numbers Provided
Am-241	3.12E-02	
Cs-137	3.01E-03	TRUCON Code(s)
Np-237	9.64E-08	122/222
Pu-238	8.12E-03	

1.82E-01

4.91E-02 4.17E-01

5.39E-05

2.69E-03

6.74E-16

2.10E-09

4.34E-18

2.16E-12

2.09E-05

7.59E-07

1.60E-08

8.01E-09

Waste Stream Description

Absorbed/solidified liquids from operations and decommissioning of the Nuclear Materials Development Facility.

Waste Stream ID: RLESG-08

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S50	Defense Determi	nation Defense-	-Related I	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Grou	p Heterogeneous Debi	is Waste	Inventory Dat	e 12/31/2	2022
Stream Name	Energy Systems Group RH TRU Mixed Debris				Activities Decay	ed to CY	2022

Waste Volume Detail (m ³)				
Final Form Volumes				
Container Type	Stored	Proj.	Total	
RH SCA-30G1 w/ Liner	22.8	0.0	22.8	
Final Form Total	22.8	0.0	22.8	

Waste Material Parameters		Final Form	Radionuclides	Haz. Waste No(s).
	Total		Total	D006, D007, D008,
	Mass		Activity	F001, F002, F003
Material Parameter	(kg)	Isotope	(Ci)	_
Iron-based Metal/Alloys	4.72E+02	Am-241	3.66E+00	
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	1.46E+00	TRUCON Code(s)
Other Metal/Alloys	6.30E+01	Np-237	1.23E-05	125/225
Other Inorganic Materials	1.78E+04	Pu-238	5.13E-01	
Cellulose	1.97E+03	Pu-239	2.52E+00	
Rubber	4.30E+00	Pu-240	1.34E+00	
Plastic	8.00E+01	Pu-241	2.37E+01	
Cement	0.00E+00	Pu-242	5.01E-05	
Solidified Inorganic Material	0.00E+00	Sr-90	4.13E-01	
Solidified Organic Material	0.00E+00	Th-229	9.05E-14	
Soil	0.00E+00	Th-230	8.53E-10	
Vitrified	0.00E+00	Th-232	1.18E-16	
Packaging Material, Cellulose	0.00E+00	U-233	2.84E-10	
Packaging Material, Plastic	1.97E+03	U-234	1.66E-05	
Packaging Material, Rubber	2.44E+01	U-235	2.73E-08	
Packaging Material, Steel	8.47E+04	U-236	4.36E-07	
Packaging Material, Lead	8.92E+04	U-238	8.56E-14	

F001, F002, F003

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters. The waste is generated from R&D/R&D Laboratory Waste activities at the Rockwell International, Energy Systems Group (CA).

Waste Stream ID: RLESG-09

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S3000 Defense Determina	tion Defense-Related	Handling RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Solidified Inorganics	Invent	ory Date 12/31/2022
Stream Name	Energy Systems Group RH TRU Homogenous solids		Activities	Decayed to CY 2022

Waste Volume Detail (m ³)	
	Final Form Volumes

Final Form Volumes				
Container Type	Stored	Proj.	Total	
RH SCA-30G1 w/ Liner	17.4	0.0	17.4	
Final Form Total	17.4	0.0	17.4	

Waste Material Paramet	Final Form	Radionuclides	
	Total		Total
	Mass		Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	4.37E+02	Am-241	9.46E-01
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	2.41E-02
Other Metal/Alloys	9.49E+00	Np-237	3.09E-06
Other Inorganic Materials	0.00E+00	Pu-238	1.58E-01
Cellulose	0.00E+00	Pu-239	6.57E-01
Rubber	0.00E+00	Pu-240	3.71E-01
Plastic	1.95E+03	Pu-241	8.13E+00
Cement	0.00E+00	Pu-242	1.50E-05
Solidified Inorganic Material	1.41E+04	Sr-90	2.16E-02
Solidified Organic Material	0.00E+00	Th-229	2.25E-14
Soil	0.00E+00	Th-230	2.62E-10
Vitrified	0.00E+00	Th-232	3.28E-17
Packaging Material, Cellulose	0.00E+00	U-233	7.09E-11
Packaging Material, Plastic	1.50E+03	U-234	5.11E-06
Packaging Material, Rubber	1.86E+01	U-235	7.12E-09
Packaging Material, Steel	6.46E+04	U-236	1.21E-07
Packaging Material, Lead	6.81E+04	U-238	2.55E-14

Haz. Waste No(s). D006, D007, D008, F001, F002, F003

TRUCON Code(s) 122/222

Waste Stream Description

Homogenous solids generated from R&D/R&D Laboratory Waste activities at the Rockwell International, Energy Systems Group (CA).

Final Form Radionuclides

Isotope

Am-241

Np-237

Pu-238

Pu-239

Pu-240

Pu-241

Pu-242

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

U-238

Total Activity

(Ci)

3.13E+02

1.94E-03

1.13E+02

7.69E+01

6.57E+01

1.20E+03

8.00E-02

2.79E-11

9.45E-07

5.80E-15

6.62E-08

1.11E-02

9.94E-05

2.14E-05

3.94E-03

Waste Stream ID: RLEXX-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000 Defense De	termination Defense	-Related H	landling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Heterogeneou	s Debris Waste	Inventory Date	12/31/2022
Stream Name	Exxon TRU Mixed Debris			Activities Decaye	ed to CY 2022

|--|

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			
	Total		
	Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	5.19E+03		
Aluminum-based Metal/Alloys	2.10E+01		
Other Metal/Alloys	1.03E+03		
Other Inorganic Materials	3.37E+03		
Cellulose	6.17E+02		
Rubber	1.42E+02		
Plastic	6.59E+02		
Cement	0.00E+00		
Solidified Inorganic Material	0.00E+00		
Solidified Organic Material	0.00E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	2.02E+03		
Packaging Material, Rubber	3.09E+01		
Packaging Material, Steel	7.13E+03		
Packaging Material, Lead	0.00E+00		

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.

Waste Stream ID: RLFFTF-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000 Defense Determination Defense	e-Related Handling CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Heterogeneous Debris Waste	Inventory Date 12/31/2022
Stream Name	FFTF TRU Non-Mixed Debris		Activities Decayed to CY 2022
_			

Waste Volume Detail (I	n ³)
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Final Form Volumes							
Container Type	Stored	Stored Proj.					
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 Total Mass Material Parameter (kg) Iron-based Metal/Alloys 1.21E+02 Aluminum-based Metal/Alloys 4.92E-01 Other Metal/Alloys 2.40E+01 Other Inorganic Materials 7.87E+01 1.44E+01 Cellulose Rubber 3.32E+00 Plastic 1.60E+00 Cement 0.00E+00 Solidified Inorganic Material 0.00E+00 Solidified Organic Material 0.00E+00 0.00E+00 Soil Vitrified 0.00E+00 0.00E+00 Packaging Material, Cellulose Packaging Material, Plastic 3.85E+01 Packaging Material, Rubber 5.90E-01 Packaging Material, Steel 1.36E+02 Packaging Material, Lead 0.00E+00

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	1.30E-02		
Cs-137	9.00E-03		
Np-237	4.47E-08		
Pu-238	3.33E-03		
Pu-239	1.10E-02		
Pu-240	9.51E-03		
Pu-241	5.72E-02		
Sr-90	6.00E-03		
Th-229	3.34E-16		
Th-230	5.53E-12		
Th-232	8.41E-19		
U-233	1.04E-12		
U-234	1.08E-07		
U-235	1.20E-10		
U-236	3.10E-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.

Waste Stream ID: RLFFTF-08

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000 Defense Dete	mination Defense	-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Heterogeneous D	ebris Waste	Inventory Da	te 12/31/	/2022
Stream Name	FFTF RH-TRU Non-Mixed Debris			Activities Decay	yed to CY	2022

Waste	Vo	lume	Detail	1	(m ³)	

Final Form Volumes								
Container Type	Stored	Proj.	Total					
RH SCA-30G1 w/ Liner	0.3	0.0	0.3					
Final Form Total	0.3	0.0	0.3					

Waste Material Parameters			
	Total Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	1.65E+00		
Aluminum-based Metal/Alloys	6.68E-03		
Other Metal/Alloys	3.26E-01		
Other Inorganic Materials	1.07E+00		
Cellulose	1.96E-01		
Rubber	4.51E-02		
Plastic	2.07E-01		
Cement	0.00E+00		
Solidified Inorganic Material	0.00E+00		
Solidified Organic Material	0.00E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	2.86E+01		
Packaging Material, Rubber	3.54E-01		
Packaging Material, Steel	1.23E+03		
Packaging Material, Lead	1.29E+03		

	Total Activity
Isotope	(Ci)
Am-241	3.08E-03
Am-243	3.32E-11
Cs-137	4.12E-01
Np-237	1.19E-08
Pu-238	7.14E-04
Pu-239	2.35E-03
Pu-240	2.02E-03
Pu-241	2.20E-02
Sr-90	4.37E-04
Th-229	1.21E-16
Th-230	1.68E-12
Th-232	2.49E-19
U-233	3.23E-13
U-234	2.76E-08
U-235	3.01E-11
U-236	7.77E-10

No Hazardous			
Waste Numbers			
Provided			

TRUCON Code(s) 125/225

Waste Stream Description

Combustible and noncombustible debris from Fast Flux Test Reactor operations, maintenance, and clean out. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Data ver. **D.22.01.33**

Waste Stream ID: RLGEV-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000	Defense Determin	ation Defense-	-Related I	Handling CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Dat	e 12/31/2022
Stream Name	GE San Jose and Vallecitos TRU Mixed Debris				Activities Decay	ed to CY 2022

Waste	Volume	Detail	(m ³)

Final Form Volumes					
Container Type	Stored	Proj.	Total		
55-gal Drum Dir Ld w/ Liner	23.3	0.0	23.3		
SWB Dir Ld w/ Liner	79.0	0.0	79.0		
Final Form Total	102.3	0.0	102.3		

Waste Material Parameters		Final Form	Radionuclides
	Total		Total
	Mass		Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	5.19E+04	Am-241	1.20E+02
Aluminum-based Metal/Alloys	5.82E+01	Cs-137	2.38E-05
Other Metal/Alloys	1.03E+03	Np-237	8.60E-04
Other Inorganic Materials	5.52E+03	Pu-238	2.46E+01
Cellulose	4.64E+03	Pu-239	1.42E+02
Rubber	1.15E+03	Pu-240	6.17E+01
Plastic	1.16E+04	Pu-241	6.16E+02
Cement	0.00E+00	Pu-242	9.74E-03
Solidified Inorganic Material	0.00E+00	Sr-90	2.13E-05
Solidified Organic Material	0.00E+00	Th-229	1.34E-11
Soil	0.00E+00	Th-230	6.79E-06
Vitrified	0.00E+00	Th-232	5.45E-15
Packaging Material, Cellulose	0.00E+00	U-233	3.10E-08
Packaging Material, Plastic	9.51E+02	U-234	6.75E-02
Packaging Material, Rubber	2.83E+01	U-235	1.42E-03
Packaging Material, Steel	1.52E+04	U-236	2.01E-05
Packaging Material, Lead	0.00E+00	U-238	4.85E-02

125/225

Haz. Waste No(s). D006, D007, D008, D011, D035

TRUCON Code(s)

Waste Stream Description

Combustible and noncombustible debris waste from decontamination and decommissioning of Building 102 at the GE-Vallecitos Nuclear Center. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: RLGEV-03

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S3000 Defense Determinatio	n Defense-Related	Handling CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Solidified Inorganics	Inventory	Date 12/31/2022
Stream Name	GE Vallecitos TRU Homogeneous Solids		Activities De	cayed to CY 2022

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		Final Form	Final Form Radionuclides		
	Total Mass		Total		
Material Parameter	(kg)	Isotope	Activity (Ci)		
Iron-based Metal/Alloys	8.84E+00	Am-241	1.01E+01		
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	5.74E-08		
Other Metal/Alloys	0.00E+00	Np-237	3.58E-05		
Other Inorganic Materials	4.54E-01	Pu-238	1.68E+00		
Cellulose	1.01E+01	Pu-239	7.02E+00		
Rubber	8.12E-02	Pu-240	3.96E+00		
Plastic	1.76E+01	Pu-241	8.53E+01		
Cement	0.00E+00	Pu-242	1.60E-04		
Solidified Inorganic Material	7.99E+02	Sr-90	5.25E-08		
Solidified Organic Material	1.23E+01	Th-229	3.10E-13		
Soil	0.00E+00	Th-230	7.09E-08		
Vitrified	0.00E+00	Th-232	4.17E-16		
Packaging Material, Cellulose	0.00E+00	U-233	8.96E-10		
Packaging Material, Plastic	7.71E+01	U-234	6.72E-04		
Packaging Material, Rubber	1.18E+00	U-235	2.05E-05		
Packaging Material, Steel	2.72E+02	U-236	1.41E-06		
Packaging Material, Lead	0.00E+00	U-238	3.06E-04		

.

TRUCON Code(s) 122/222

Haz. Waste No(s). D006, D007, D008, D011, D035

Waste Stream Description

Homogeneous solids from decontamination and decommissioning of Building 102 at the GE-Vallecitos Nuclear Center.

Waste Stream ID: RLGEV-08

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S500	00 Defense Determin	nation Defense	-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Da	ite 12/31,	/2022
Stream Name	GE San Jose and Vallecitos TRU RH Non-Mixed Debris				Activities Deca	yed to CY	2022

Waste Vo	lume Detail	(m ³)
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Final Form Volumes						
Container Type Stored Proj. Tota						
RH SCA-30G1 w/ Liner	6.5	0.0	6.5			
Final Form Total	6.5	0.0	6.5			

Waste Material Parameters		Final Form	Radionuclides
	Total		Total
	Mass		Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	7.29E+03	Am-241	1.27E+01
Aluminum-based Metal/Alloys	1.15E+03	Cs-137	7.30E+00
Other Metal/Alloys	0.00E+00	Np-237	1.43E-04
Other Inorganic Materials	5.63E+02	Pu-238	1.25E+00
Cellulose	1.38E+03	Pu-239	6.48E+01
Rubber	5.90E+02	Pu-240	1.47E+01
Plastic	1.42E+03	Pu-241	2.63E+01
Cement	0.00E+00	Pu-242	1.26E-03
Solidified Inorganic Material	0.00E+00	Sr-90	5.40E+00
Solidified Organic Material	0.00E+00	Th-229	1.26E-11
Soil	2.03E+02	Th-230	3.09E-07
Vitrified	0.00E+00	Th-232	1.64E-14
Packaging Material, Cellulose	0.00E+00	U-233	1.15E-08
Packaging Material, Plastic	5.62E+02	U-234	9.39E-04
Packaging Material, Rubber	6.96E+00	U-235	3.80E-05
Packaging Material, Steel	2.41E+04	U-236	1.70E-05
Packaging Material, Lead	2.54E+04	U-238	1.10E-03

No Hazardous Waste Numbers Provided

TRUCON Code(s) 125/225

Waste Stream Description

Combustible and noncombustible debris waste from decontamination and decommissioning of Building 102 at the GE-Vallecitos Nuclear Center. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: RLHAN-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5	000 Defense Determin	nation Defense	-Related	Handling	СН
Source Cat.	Other/Multiple Sources	Waste Matrix Code Grou	up Heterogeneous Debr	ris Waste	Inventory Dat	e 12/31/	/2022
Stream Name	Trench Designation Debris waste stream				Activities Decay	ed to CY	2022

Waste '	Volume	Detail ((m ³)
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Final Form Volumes					
Container Type	Stored	Proj.	Total		
55-gal Drum Dir Ld w/ Liner	166.1	0.0	166.1		
SWB Dir Ld w/ Liner	240.6	0.0	240.6		
SWB w/ 4 - 55-gal Drums w/ Liners	15.1	0.0	15.1		
Final Form Total	421.9	0.0	421.9		

Waste Material Parameters			
Total Mass			
Material Parameter	(kg)		
Iron-based Metal/Alloys	1.53E+04		
Aluminum-based Metal/Alloys	5.38E+01		
Other Metal/Alloys	3.61E+03		
Other Inorganic Materials	5.04E+03		
Cellulose	1.32E+04		
Rubber	4.54E+03		
Plastic	2.35E+04		
Cement	0.00E+00		
Solidified Inorganic Material	0.00E+00		
Solidified Organic Material	0.00E+00		
Soil 0.00E+			
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	6.94E+03		
Packaging Material, Rubber	1.55E+02		
Packaging Material, Steel	6.58E+04		
Packaging Material, Lead 0.00E+00			

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	4.59E+02		
Am-243	6.98E-03		
Cm-244	7.01E-01		
Cs-137	2.56E+00		
Np-237	1.26E-02		
Pu-238	8.16E+01		
Pu-239	3.83E+02		
Pu-240	1.78E+02		
Pu-241	3.08E+03		
Pu-242	1.31E-02		
Sr-90	2.25E+00		
Th-229	2.83E-04		
Th-230	2.94E-06		
Th-232	7.62E-05		
U-233	2.15E-01		
U-234	2.81E-02		
U-235	8.99E-04		
U-236	6.32E-05		
U-238	1.36E-02		

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.

Waste Stream ID: RLHAN-08

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S50	Defense Determin	nation Defense-	-Related	Handling	RH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	te 12/31/	/2022
Stream Name	Trench Designation waste stream				Activities Decay	ed to CY	2022

Final Form Volumes				
Container Type	Stored	Proj.	Total	
RH SCA-30G1 w/ Liner	17.6	0.0	17.6	
Final Form Total	17.6	0.0	17.6	

Wasta Material Parameters

Waste Material Parame	Final For	
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	5.65E+02	Am-241
Aluminum-based Metal/Alloys	1.96E+00	Am-243
Other Metal/Alloys	1.32E+02	Cs-137
Other Inorganic Materials	1.86E+02	Np-237
Cellulose	4.91E+02	Pu-238
Rubber	1.66E+02	Pu-239
Plastic	5.93E+02	Pu-240
Cement	0.00E+00	Pu-241
Solidified Inorganic Material	0.00E+00	Pu-242
Solidified Organic Material	0.00E+00	Sr-90
Soil	0.00E+00	Th-229
Vitrified	0.00E+00	Th-230
Packaging Material, Cellulose	0.00E+00	Th-232
Packaging Material, Plastic	1.52E+03	U-233
Packaging Material, Rubber	1.89E+01	U-234
Packaging Material, Steel	6.54E+04	U-235
Packaging Material, Lead	6.90E+04	U-236
		U-238

Final Form Radionuclides Haz. Waste No(s).

Total Activity (Ci) 1.48E+01 6.30E-05 1.82E+00 1.19E-04 1.67E+00 9.53E+00 3.69E+00

8.34E+01

1.48E-04 1.47E+00 1.93E-06 2.77E-09 3.26E-16 2.00E-03 5.41E-05 1.03E-07 1.20E-06 2.53E-13

Tiaz. Waste 140(3).
D004, D005, D006,
D007, D008, D009,
D010, D011, D018,
D019, D022, D027,
D028, D029, D030,
D034, D035, D037,
D043, F001, F002,
F003, F004, F005

TRUCON Code(s)

125/225

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.

Total

Activity

(Ci)

7.94E-01

1.36E-05

3.07E-06

3.87E-01

2.21E-01

2.84E-01

1.04E+00

4.19E-04

1.22E-05

2.78E-14

7.71E-10

2.98E-17

7.92E-11

1.38E-05

2.61E-09

1.01E-07

7.80E-13

Waste Stream ID: RLIAEA-03

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S500	00 Defense Determin	nation Defense	-Related	Handling	СН
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Da	ite 12/31/	/2022
Stream Name	International Atomic Energy Agency TRU Non-Mixed Debris				Activities Deca	yed to CY	2022

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

Waste Material Parameters Final Form Radionuclides Total Mass Material Parameter (kg) Isotope Iron-based Metal/Alloys 2.30E+02 Am-241 Aluminum-based Metal/Alloys 3.62E+01 Cs-137 0.00E+00 Other Metal/Alloys Np-237 Other Inorganic Materials 1.79E+01 Pu-238 4.37E+01 Pu-239 Cellulose Rubber 1.87E+01 Pu-240 Plastic 4.45E+01 Pu-241 Cement 0.00E+00 Pu-242 Sr-90 Solidified Inorganic Material 0.00E+00 Solidified Organic Material 0.00E+00 Th-229 6.24E+00 Th-230 Soil Th-232 Vitrified 0.00E+00 U-233 Packaging Material, Cellulose 0.00E+00 1.54E+01 U-234 Packaging Material, Plastic U-235 Packaging Material, Rubber 2.36E-01 Packaging Material, Steel U-236 5.44E+01

0.00E+00

U-238

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.

Packaging Material, Lead

Waste Stream ID: RLMLB-08

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S500	Defense Determin	ation Defense-	Related	Handling R	₹H
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Dat	e 12/31/20)22
Stream Name	Lawrence Berkeley Nat Lab TRU Mixed Debris				Activities Decay	ed to CY 20)22

Waste Volume Detail (m ³)			
Final Form Volun	nes		
Container Type	Stored	Proj.	To

 Container Type
 Stored
 Proj.
 Total

 RH SCA-30G1 w/ Liner
 0.2
 0.0
 0.2

 Final Form Total
 0.2
 0.0
 0.2

Waste Material Parame	eters	Final Forr	Final Form Radionuclides		
	Total Mass		Total Activity		
Material Parameter	(kg)	Isotope	(Ci)		
Iron-based Metal/Alloys	2.50E+02	Am-241	8.71E-02		
Aluminum-based Metal/Alloys	3.95E+01	Cm-244	8.67E+00		
Other Metal/Alloys	0.00E+00	Np-237	1.02E-06		
Other Inorganic Materials	1.95E+01	Pu-238	9.99E-03		
Cellulose	4.76E+01	Pu-239	5.20E-02		
Rubber	2.04E+01	Pu-240	1.16E-01		
Plastic	4.85E+01	Pu-241	1.64E-01		
Cement	0.00E+00	Pu-242	1.19E-06		
Solidified Inorganic Material	6.80E+00	Th-229	9.47E-14		
Solidified Organic Material	0.00E+00	Th-230	2.57E-10		
Soil	8.16E+00	Th-232	8.11E-17		
Vitrified	0.00E+00	U-233	8.37E-11		
Packaging Material, Cellulose	0.00E+00	U-234	1.33E-06		
Packaging Material, Plastic	1.90E+01	U-235	2.05E-09		
Packaging Material, Rubber	2.36E-01	U-236	9.86E-08		
Packaging Material, Steel	8.18E+02	U-238	7.36E-15		
Packaging Material, Lead	8.62E+02	·			

Haz. Waste No(s). D005, D007, D008, D009, D011, D019, 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. Drums may be used for disposal of high-efficiency particulate air filters.

Isotope Am-241

Np-237

Pu-238

Pu-239

Pu-240

Pu-241

Pu-242

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

U-238

0.00E+00

Waste Stream ID: RLMLL-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000	Defense Determin	ation Defense-	-Related I	landling	СН
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Date	e 12/31/	/2022
Stream Name	Lawrence Livermore TRU Mixed Debris				Activities Decay	ed to CY	2022

Waste	Vo	lume	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

	Total	
	Mass	
Material Parameter	(kg)	
ron-based Metal/Alloys	4.10E+02	
Aluminum-based Metal/Alloys	6.46E+01	
Other Metal/Alloys	0.00E+00	
Other Inorganic Materials	3.19E+01	
Cellulose	7.79E+01	
Rubber	3.34E+01	
Plastic	7.94E+01	
Cement	0.00E+00	
solidified Inorganic Material	0.00E+00	
solidified Organic Material	0.00E+00	
oil	1.11E+01	
/itrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	3.85E+01	
Packaging Material, Rubber	5.90E-01	
Packaging Material, Steel	1.36E+02	

Final Form Radionuclides Haz. Waste No(s). Total D006, D007, D008, Activity D011

(Ci)

2.46E-01

3.56E-06

2.49E-02

4.58E-01

1.39E-01

3.01E-01

9.27E-06

4.96E-13

2.17E-07

2.44E-16

3.59E-10

4.84E-04

2.19E-05

2.02E-07

6.76E-04

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.

Packaging Material, Lead

Waste Stream ID: RLP11-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000	Defense Determin	ation Defense-	Related	Handling CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debri	is Waste	Inventory Dat	e 12/31/2022
Stream Name	P11 Criticality Facility TRU Mixed Debris				Activities Decay	ed to CY 2022

Waste Volume	Detail ((m ³)
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Final Form Volumes						
Container Type	Stored	Proj.	Total			
SWB Dir Ld w/ Liner	7.5	0.0	7.5			
Final Form Total	7.5	0.0	7.5			

Waste Material Parameters

Waste Material Parame	Final Form	Radionuclides	
Material Parameter	Total Mass (kg)	Isotope	Total Activity (Ci)
Iron-based Metal/Alloys	4.21E+02	Am-241	2.23E-01
Aluminum-based Metal/Alloys	2.11E+02	Cs-137	1.67E-06
Other Metal/Alloys	0.00E+00	Np-237	1.17E-06
Other Inorganic Materials	4.21E+02	Pu-238	3.49E-02
Cellulose	2.10E+02	Pu-239	2.49E-01
Rubber	0.00E+00	Pu-240	1.01E-01
Plastic	2.10E+02	Pu-241	1.79E+00
Cement	2.11E+02	Pu-242	3.92E-06
Solidified Inorganic Material	1.80E+00	Th-229	1.70E-14
Solidified Organic Material	1.80E+00	Th-230	6.94E-11
Soil	0.00E+00	Th-232	1.07E-17
Vitrified	0.00E+00	U-233	3.91E-11
Packaging Material, Cellulose	0.00E+00	U-234	1.24E-06
Packaging Material, Plastic	9.08E+00	U-235	2.94E-09
Packaging Material, Rubber	1.45E+00	U-236	3.60E-08
Packaging Material, Steel	1.16E+03	U-238	7.30E-15
Packaging Material, Lead	0.00E+00		

Haz. Waste No(s).

D005, D006, D007

TRUCON Code(s) 125/225

Waste Stream Description

Misc. demolition debris.

Waste Stream ID: RLPFP-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S50	00 Defense Determin	nation Defense	-Related I	landling	СН
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/	/2022
Stream Name	2345Z TRU Mixed and Non-Mixed Debris				Activities Decay	ed to CY	2022

Waste Volume Detail (m	3)
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Final Form Volumes					
Container Type	Sto	red	Proj.	Total	
55-gal Drum Dir Ld w/ Liner	2:	155.7	0.0	2155.7	
SLB2 Dir Ld	-	709.4	0.0	709.4	
SWB Dir Ld w/ Liner	34	142.3	0.0	3442.3	
Final Form Total	6	307.4	0.0	6307.4	

Waste Material Parameters			
Total Mass			
Material Parameter	(kg)		
Iron-based Metal/Alloys	4.80E+05		
Aluminum-based Metal/Alloys	1.46E+03		
Other Metal/Alloys	2.94E+04		
Other Inorganic Materials	3.24E+05		
Cellulose	8.94E+04		
Rubber	4.98E+04		
Plastic	1.64E+05		
Cement	6.04E+03		
Solidified Inorganic Material	4.20E+02		
Solidified Organic Material	3.37E+03		
Soil	1.40E+03		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	8.33E+04		
Packaging Material, Rubber	1.95E+03		
Packaging Material, Steel	9.27E+05		
Packaging Material, Lead	0.00E+00		

Final Form Radionuclides				
	Total			
	Activity			
Isotope	(Ci)			
Am-241	6.15E+03			
Am-243	8.27E-02			
Cs-137	3.63E-01			
Np-237	2.71E+00			
Pu-238	1.26E+03			
Pu-239	8.74E+03			
Pu-240	3.35E+03			
Pu-241	5.39E+04			
Pu-242	5.52E-01			
Sr-90	3.35E-01			
Th-229	2.52E-04			
Th-230	8.61E-06			
Th-232	1.68E-04			
U-233	5.73E-01			
U-234	1.96E-01			
U-235	6.06E-03			
U-236	4.95E-04			
U-238	8.93E-02			

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, 425

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, 236-Z, 236-Z, 2736-ZB, 242-Z, and 291-Z Buildings. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: RLPFP-01A

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S500	0 Defense Determina	ation Defense-	-Related I	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debris	s Waste	Inventory Dat	e 12/31/2022
Stream Name	2345Z TRU HMOX				Activities Decay	ed to CY 2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes						
Container Type Stored Proj. Total						
55-gal Drum Dir Ld w/ Liner	9.2	0.0	9.2			
Final Form Total	9.2	0.0	9.2			

Waste Material Paramet	Final	
	Total	
	Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	5.33E+02	Am-241
Aluminum-based Metal/Alloys	5.24E+01	Np-237
Other Metal/Alloys	3.99E+03	Pu-238
Other Inorganic Materials	8.34E+02	Pu-239
Cellulose	0.00E+00	Pu-240
Rubber	0.00E+00	Pu-241
Plastic	7.89E+00	Pu-242
Cement	0.00E+00	Th-229
Solidified Inorganic Material	0.00E+00	Th-230
Solidified Organic Material	0.00E+00	Th-232
Soil	0.00E+00	U-233
Vitrified	0.00E+00	U-234
Packaging Material, Cellulose	0.00E+00	U-235
Packaging Material, Plastic	3.39E+02	U-236
Packaging Material, Rubber	5.19E+00	U-238
Packaging Material, Steel	1.20E+03	
Packaging Material, Lead	0.00E+00	

l Form Radionuclides		Haz. Waste No(s)
	Total	D004, D005, D006
	Activity	D007, D008, D009
е	(Ci)	D010, D011, D019
1	2.19E+03	D030
7	7.70E-03	
3	4.16E+02	1
)	8.13E+02	TRUCON Code(s)

6.30E+02

5.95E+03

5.63E-01

5.88E-11

6.91E-07

5.57E-14

1.82E-07

1.35E-02

4.85E-04

2.05E-04 4.99E-04

125/225

Waste Stream Description

Waste containers from PFP which contain mixed oxides (HMOX).

Waste Stream ID: RLPFP-03

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S3000 Defense Determination	on Defense-Related	Handling CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Solidified Inorganics	Inventory	Date 12/31/2022
Stream Name	PFP Absorbed Plutonium Nitrate Solutions		Activities De	ecayed to CY 2022

Waste Volume I	Detail ((m 3)
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Final Form Volumes					
Container Type Stored Proj. Total					
55-gal Drum Dir Ld w/ Liner	16.2	0.0	16.2		
Final Form Total 16.2 0.0 16.					

Waste Material Parameters		Final Form	Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	8.91E+01	Am-241	1.29E+02
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	4.25E-05
Other Metal/Alloys	1.05E-01	Np-237	9.81E-04
Other Inorganic Materials	2.66E+01	Pu-238	2.65E+01
Cellulose	5.99E+01	Pu-239	2.13E+02
Rubber	6.32E-01	Pu-240	6.84E+01
Plastic	1.84E+02	Pu-241	5.68E+02
Cement	0.00E+00	Pu-242	1.36E-02
Solidified Inorganic Material	6.02E+03	Sr-90	3.80E-05
Solidified Organic Material	2.88E+02	Th-229	1.56E-11
Soil	0.00E+00	Th-230	1.56E-06
Vitrified	0.00E+00	Th-232	6.05E-15
Packaging Material, Cellulose	0.00E+00	U-233	3.59E-08
Packaging Material, Plastic	5.94E+02	U-234	1.59E-02
Packaging Material, Rubber	9.09E+00	U-235	8.51E-05
Packaging Material, Steel	2.09E+03	U-236	2.23E-05
Packaging Material, Lead	0.00E+00	U-238	7.22E-04

TPLICON Codo(s)

TRUCON Code(s) 114/214

Haz. Waste No(s). D004, D006, D007, D008, D010, D011

Waste Stream Description

Solidified inorganic waste generated from operations, maintenance, and D&D activities at the 325 Laboratory, the 209-E Critical Mass Laboratory, and the Plutonium Reclamation Facility (Bldg. 236-Z) at the Plutonium Finishing Plant (PFP).

Waste Stream ID: RLPFP-04

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S3000 Defense Determination	Defense-Related	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Solidified Organics	Inventory D	Date 12/31/2022
Stream Name	PFP Comprehensive Homogenous Solids		Activities Dec	ayed to CY 2022

Final Form Volumes				
Container Type Stored Proj. Total				
55-gal Drum Dir Ld w/ Liner	74.6	0.0	74.6	
Final Form Total 74.6 0.0				

Waste Material Parameters		Final Form	Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	3.52E+02	Am-241	5.60E+02
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	2.45E-03
Other Metal/Alloys	9.74E+00	Np-237	3.68E-03
Other Inorganic Materials	0.00E+00	Pu-238	9.56E+01
Cellulose	2.29E+02	Pu-239	1.05E+03
Rubber	4.48E+00	Pu-240	3.41E+02
Plastic	3.26E+02	Pu-241	3.62E+03
Cement	0.00E+00	Pu-242	4.09E-02
Solidified Inorganic Material	0.00E+00	Sr-90	2.19E-03
Solidified Organic Material	1.77E+03	Th-229	5.53E-11
Soil	8.04E+00	Th-230	5.47E-07
Vitrified	0.00E+00	Th-232	3.02E-14
Packaging Material, Cellulose	0.00E+00	U-233	1.29E-07
Packaging Material, Plastic	2.74E+03	U-234	6.93E-03
Packaging Material, Rubber	4.19E+01	U-235	1.50E-04
Packaging Material, Steel	9.66E+03	U-236	1.11E-04
Packaging Material, Lead	0.00E+00	U-238	1.95E-03

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.

Waste Stream ID: RLPFP-08

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S500	Defense Determin	ation Defense	-Related I	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Dat	e 12/31/	/2022
Stream Name	2345Z RH-TRU Mixed Debris				Activities Decay	ed to CY	2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
RH SCA-30G1 w/ Liner	29.8	0.0	29.8	
Final Form Total 29.8 0.0 2				

Waste Material Parameters		
	Total Mass	
Material Parameter	(kg)	
ron-based Metal/Alloys	9.55E+02	
Aluminum-based Metal/Alloys	0.00E+00	
Other Metal/Alloys	2.17E+02	
Other Inorganic Materials	3.07E+03	
Cellulose	2.74E+02	
Rubber	1.86E+02	
Plastic	1.42E+03	
Cement	0.00E+00	
Solidified Inorganic Material	0.00E+00	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	2.58E+03	
Packaging Material, Rubber	3.20E+01	
Packaging Material, Steel	1.11E+05	
Packaging Material, Lead	1.17E+05	

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	6.37E+02	
Am-243	5.49E-12	
Cs-137	4.07E-04	
Np-237	6.87E-03	
Pu-238	1.14E+02	
Pu-239	3.11E+02	
Pu-240	1.52E+02	
Pu-241	2.20E+03	
Pu-242	4.47E-02	
Sr-90	3.64E-04	
Th-229	1.23E-10	
Th-230	2.40E-07	
Th-232	1.34E-14	
U-233	2.73E-07	
U-234	4.19E-03	
U-235	2.13E-05	
U-236	4.95E-05	
U-238	1.18E-04	

Haz. Waste No(s).
D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D022, D030, 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, 236-Z, 236-Z, 2736-ZB, 242-Z, and 291-Z Buildings. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: RLPFP-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 Da	ate 12/31/2022
Stream Name	2345Z RH-TRU Homogenous solids		Activities Deca	yed to CY 2022

Waste Volume Detail (m ³)					
Final Form Volumes					
Container Type		Stored	Proi		

 Container Type
 Stored
 Proj.
 Total

 RH SCA-30G1 w/ Liner
 7.5
 0.0
 7.5

 Final Form Total
 7.5
 0.0
 7.5

Waste Material Parameters					
Total Mass					
Material Parameter	(kg)				
Iron-based Metal/Alloys	0.00E+00				
Aluminum-based Metal/Alloys	0.00E+00				
Other Metal/Alloys	0.00E+00				
Other Inorganic Materials	5.25E+02				
Cellulose	6.39E+01				
Rubber	0.00E+00				
Plastic	0.00E+00				
Cement	0.00E+00				
Solidified Inorganic Material	0.00E+00				
Solidified Organic Material	0.00E+00				
Soil	0.00E+00				
Vitrified	0.00E+00				
Packaging Material, Cellulose	0.00E+00				
Packaging Material, Plastic	6.47E+02				
Packaging Material, Rubber	8.02E+00				
Packaging Material, Steel	2.78E+04				
Packaging Material, Lead	2.93E+04				

	Total
	Activity
Isotope	(Ci)
Am-241	1.20E+01
Np-237	7.72E-05
Pu-238	1.54E+00
Pu-239	1.44E+01
Pu-240	5.12E+00
Pu-241	4.68E+01
Pu-242	6.78E-04
Th-229	1.13E-12
Th-230	3.78E-08
Th-232	4.53E-16
U-233	2.67E-09
U-234	3.98E-04
U-235	1.30E-05
U-236	1.67E-06
U-238	1.35E-07

No Hazardous				
Waste Numbers				
Provided				

TRUCON Code(s) 122/222

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-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.

Final Form Radionuclides

Isotope Am-241

Am-243

Cs-137

Np-237

Pu-238

Pu-239

Pu-240

Pu-241

Pu-242

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

U-238

Sr-90

Total Activity (Ci)

3.84E+03

4.51E-04

8.62E+00

1.82E-02

1.25E+03

7.01E+03

2.67E+03

5.16E+04

6.28E-01

7.71E+00

1.61E-03

2.47E-06

2.36E-13

1.66E+00

4.43E-02

2.04E-04

8.70E-04

2.10E-03

Waste Stream ID: RLPURX-01 Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000 Defense Dete	rmination Defense	-Related I	landling	СН
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Heterogeneous	Debris Waste	Inventory Dat	e 12/31/	2022
Stream Name	202A and 202AL TRU Mixed Debris			Activities Decay	ed to CY	2022

Waste	Volume	Detail ((m ³)	١
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Final Form Volumes						
Container Type	Store	d	Proj.	Total		
55-gal Drum Dir Ld w/ Liner	38	4.1	0.6	384.7		
SWB Dir Ld w/ Liner	10	5.3	0.0	105.3		
Final Form Total	48	9.4	0.6	490.0		

Waste Material Parameters			
	Total		
	Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	2.70E+04		
Aluminum-based Metal/Alloys	9.73E+01		
Other Metal/Alloys	3.15E+02		
Other Inorganic Materials	8.39E+03		
Cellulose	1.08E+04		
Rubber	1.03E+04		
Plastic	1.83E+04		
Cement	0.00E+00		
Solidified Inorganic Material	0.00E+00		
Solidified Organic Material	0.00E+00		
Soil	1.06E+01		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	1.43E+04		
Packaging Material, Rubber	2.37E+02		
Packaging Material, Steel	6.61E+04		
Packaging Material, Lead	0.00E+00		

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.

Waste Stream ID: RLPURX-08

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S500	0 Defense Determin	ation Defense-	-Related I	Handling RF	Н
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Dat	e 12/31/202	22
Stream Name	202A & 202AL TRU RH Mixed Debris				Activities Decay	ed to CY 202	22

Waste Volume Detail (m 3)			
Final Fo	orm Volumes		
Container Type	Stored	Proj.	Total
RH SCA-30G1 w/ Liner	45.1	0.0	45.1
Final Form Total	45.1	0.0	45.1

Waste Material Paramete	ers	Final Form	Radionuclides	Haz. Waste No(s).
	Total Mass		Total Activity	D004, D005, D006, D007, D008, D009,
Material Parameter	(kg)	Isotope	(Ci)	D010, D011
Iron-based Metal/Alloys	2.01E+03	Am-241	2.06E+01	
Aluminum-based Metal/Alloys	0.00E+00	Np-237	2.94E-04	
Other Metal/Alloys	5.04E+01	Pu-238	1.15E+00	TRUCON Code(s)
Other Inorganic Materials	1.51E+03	Pu-239	5.25E+01	125/225
Cellulose	1.01E+03	Pu-240	1.50E+01	
Rubber	3.43E+03	Pu-241	8.81E+00	
Plastic	2.52E+03	Pu-242	1.56E-03	
Cement	0.00E+00	Th-229	3.59E-11	
Solidified Inorganic Material	0.00E+00	Th-230	3.66E-08	
Solidified Organic Material	0.00E+00	Th-232	2.13E-14	
Soil	0.00E+00	U-233	2.79E-08	
Vitrified	0.00E+00	U-234	1.71E-04	
Packaging Material, Cellulose	0.00E+00	U-235	2.28E-06	
Packaging Material, Plastic	3.90E+03	U-236	1.96E-05	
Packaging Material, Rubber	4.84E+01	U-238	1.06E-11	
Packaging Material, Steel	1.68E+05			
Packaging Material, Lead	1.77E+05			

Waste Stream Description

Combustible and noncombustible debris waste generated from facility/equipment operation and maintenance, and analytical laboratory waste activities at the Plutonium Uranium Extraction Facility. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: RLRFET-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S50	00 Defense Determin	nation Defense-	-Related I	Handling	СН
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/	/2022
Stream Name	Rocky Flats TRU Mixed Debris				Activities Decay	ed to CY	2022

Waste	Vo	lume	Detai	I	(m ³	<u>) </u>

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	255.6	0.0	255.6
Final Form Total	255.6	0.0	255.6

Waste Material Parameters				
	Total Mass			
Material Parameter	(kg)			
Iron-based Metal/Alloys	9.18E+04			
Aluminum-based Metal/Alloys	1.28E+04			
Other Metal/Alloys	3.84E+03			
Other Inorganic Materials	1.71E+04			
Cellulose	9.80E+03			
Rubber	2.33E+03			
Plastic	8.65E+03			
Cement	0.00E+00			
Solidified Inorganic Material	0.00E+00			
Solidified Organic Material	3.19E+00			
Soil	1.62E+03			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	9.38E+03			
Packaging Material, Rubber	1.44E+02			
Packaging Material, Steel	3.31E+04			
Packaging Material, Lead	0.00E+00			

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	1.02E+02	
Np-237	1.25E-03	
Pu-238	3.20E+00	
Pu-239	1.27E+02	
Pu-240	3.03E+01	
Pu-241	6.69E+01	
Pu-242	2.50E-03	
Th-229	1.13E-10	
Th-230	1.10E-03	
Th-232	3.20E-14	
U-233	1.02E-07	
U-234	3.16E+00	
U-235	1.44E-01	
U-236	3.42E-05	
U-238	4.41E+00	

No Hazardous Waste Numbers Provided

TRUCON Code(s) 125/225

Waste Stream Description

Typically, drums contain both combustible and noncombustible waste items. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste items may include metals, glass, concrete, and absorbed liquids. If present, boxes typically contain larger waste items (e.g., whole or sectioned glove boxes, ducting, and process vessels). Both drums and boxes may be used for disposal of high-efficiency particulate air filters.

Waste Stream ID: RLSAN-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000 Defense D	etermination Defense-	-Related F	landling Cl
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Heterogeneo	us Debris Waste	Inventory Date	e 12/31/202
Stream Name	GE San Jose TRU Mixed Debris			Activities Decaye	ed to CY 202

Waste	Volume	Detail	(m ³)
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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	Total Mass (kg)	
Iron-based Metal/Alloys	9.71E+02	
Aluminum-based Metal/Alloys	9.54E-01	
Other Metal/Alloys	2.32E+01	
Other Inorganic Materials	9.09E+01	
Cellulose	7.89E+01	
Rubber	1.93E+01	
Plastic	2.07E+02	
Cement	0.00E+00	
Solidified Inorganic Material	0.00E+00	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	1.54E+02	
Packaging Material, Rubber	2.36E+00	
Packaging Material, Steel	5.44E+02	

0.00E+00

	Total
	Activity
Isotope	(Ci)
Am-241	5.51E+01
Np-237	6.28E-04
Pu-238	6.38E+00
Pu-239	3.30E+01
Pu-240	1.86E+01
Pu-241	1.09E+02
Pu-242	7.46E-04
Th-229	5.55E-11
Th-230	2.24E-06
Th-232	2.07E-14
U-233	5.03E-08
U-234	6.63E-03
U-235	2.54E-04
U-236	2.15E-05
U-238	6.24E-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.

Packaging Material, Lead

Final Form Padionuclidos

Waste Stream ID: RLSWO-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000 Defense Determi	nation Defense	-Related H	andling	СН
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group Heterogeneous Deb	ris Waste	Inventory Date	12/31/	/2022
Stream Name	SWOC TRU Mixed and Non-Mixed Debris			Activities Decaye	d to CY	2022

Waste	Volume	Detail	(m 3)
vvaste	volulle	Detail	1111 <i>1</i>

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	45.8	10.7	56.5
SWB Dir Ld w/ Liner	139.1	18.8	157.9
Final Form Total	184.9	29.5	214.4

Wasta Material Parameters

Waste Material Parameters		Final Form	Radionuclides
	Total		Total
	Mass		Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	1.07E+05	Am-241	2.34E+02
Aluminum-based Metal/Alloys	9.03E+03	Am-243	2.77E-06
Other Metal/Alloys	2.50E+02	Cs-137	4.57E-01
Other Inorganic Materials	2.50E+02	Np-237	1.40E-03
Cellulose	1.80E+03	Pu-238	5.49E+01
Rubber	1.45E+03	Pu-239	2.16E+02
Plastic	8.65E+03	Pu-240	1.10E+02
Cement	0.00E+00	Pu-241	2.77E+03
Solidified Inorganic Material	0.00E+00	Pu-242	1.45E-01
Solidified Organic Material	7.60E+01	Sr-90	6.20E-04
Soil	0.00E+00	Th-229	2.40E-06
Vitrified	0.00E+00	Th-230	3.00E-08
Packaging Material, Cellulose	0.00E+00	Th-232	3.72E-08
Packaging Material, Plastic	2.26E+03	U-233	5.45E-03
Packaging Material, Rubber	6.22E+01	U-234	1.05E-03
Packaging Material, Steel	3.17E+04	U-235	1.02E-05
Packaging Material, Lead	0.00E+00	U-236	1.63E-05
		U-238	4.77E-05

Haz Wasto No(s)

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.

Waste Stream ID: RLWAR-01

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000 Defense Deter	mination Defense	-Related F	landling CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Heterogeneous D	ebris Waste	Inventory Date	e 12/31/2022
Stream Name	Ward TRU Mixed Debris			Activities Decaye	ed to CY 2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
55-gal Drum Dir Ld w/ Liner	36.5	0.0	36.5	
SWB Dir Ld w/ Liner	131.6	0.0	131.6	
Final Form Total	168.1	0.0	168.1	

Waste Material Paramet	Final Form	Radionuclides	
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	3.97E+04	Am-241	6.43E+01
Aluminum-based Metal/Alloys	1.79E+02	Cs-137	1.53E-07
Other Metal/Alloys	8.67E+02	Np-237	1.12E-02
Other Inorganic Materials	6.47E+03	Pu-238	1.23E+01
Cellulose	8.40E+03	Pu-239	4.59E+01
Rubber	2.20E+03	Pu-240	2.39E+01
Plastic	1.24E+04	Pu-241	4.02E+02
Cement	0.00E+00	Pu-242	4.82E-03
Solidified Inorganic Material	0.00E+00	Sr-90	1.37E-07
Solidified Organic Material	3.00E+00	Th-229	2.54E-10
Soil	0.00E+00	Th-230	1.83E-06
Vitrified	0.00E+00	Th-232	2.11E-15
Packaging Material, Cellulose	0.00E+00	U-233	5.27E-07
Packaging Material, Plastic	1.50E+03	U-234	1.83E-02
Packaging Material, Rubber	4.59E+01	U-235	6.39E-04
Packaging Material, Steel	2.50E+04	U-236	7.77E-06
Packaging Material, Lead	0.00E+00	U-238	2.90E-03

Haz. Waste No(s). D007, D008, D009, D035, F001, F002, F003, F005

TRUCON Code(s) 125/225

Waste Stream Description

Combustible and noncombustible debris waste generated during decontamination and decommissioning of the Westinghouse Advanced Reactors Division facility in Cheswick, PA. Combustible waste may include wood, plastics, paper, and rags. Noncombustible waste may include metals, glass, concrete, and absorbed liquids.

Waste Stream ID: RLWAR-03

Appendix A

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S3000 Defense Determination Defe	ense-Related	Handling CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Solidified Inorganics	Inventory Da	te 12/31/2022
Stream Name	WARD solidified inorganics		Activities Deca	yed to CY 2022

Waste	Volume	Detail	(m ³)
-------	--------	---------------	-------

Final Form Volumes					
Container Type	Proj.	Total			
55-gal Drum Dir Ld w/ Liner	7.4	0.0	7.4		
SWB Dir Ld w/ Liner	26.3	0.0	26.3		
Final Form Total	33.7	0.0	33.7		

Waste Material Parameters			
	Total		
	Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	5.82E+00		
Aluminum-based Metal/Alloys	0.00E+00		
Other Metal/Alloys	7.77E-01		
Other Inorganic Materials	0.00E+00		
Cellulose	2.33E+01		
Rubber	0.00E+00		
Plastic	3.01E+02		
Cement	2.92E+03		
Solidified Inorganic Material	0.00E+00		
Solidified Organic Material	0.00E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	3.02E+02		
Packaging Material, Rubber	9.21E+00		
Packaging Material, Steel	5.01E+03		
Packaging Material, Lead	0.00E+00		

Final Form Radionuclides				
	Total			
	Activity			
Isotope	(Ci)			
Am-241	1.27E+02			
Cs-137	5.86E-07			
Np-237	5.63E-04	-		
Pu-238	2.32E+01	L		
Pu-239	5.90E+01			
Pu-240	3.89E+01			
Pu-241	5.08E+02			
Pu-242	3.16E-02			
Th-229	7.08E-12			
Th-230	1.63E-07			
Th-232	5.58E-15			
U-233	1.71E-08			
U-234	1.74E-03			
U-235	3.88E-05			
U-236	1.61E-05			
U-238	3.64E-05			

Haz. Waste No(s). D007, D008, D009, D035, F001, F002, F003, F005

TRUCON Code(s)

Waste Stream Description

Solidified inorganic waste generated during decontamination and decommissioning of the Westinghouse Advanced Reactors Division facility in Cheswick, PA.

Waste Stream ID: SA-W134

Appendix A

Waste Profile Report

Site	Sandia National Laboratories	Summary Category S500	0 Defense Determin	nation Defense	-Related I	landling	СН
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/	/2022
Stream Name	CH TRU Project Generated Waste (PGW)				Activities Decay	ed to CY	2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes					
Container Type Stored Proj. Tot					
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		Final Form	Radionuclides
	Total		Total
	Mass		Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	2.08E+02	Am-241	2.96E-02
Aluminum-based Metal/Alloys	4.71E+01	Cs-137	3.04E-01
Other Metal/Alloys	9.40E+00	Np-237	6.43E-08
Other Inorganic Materials	1.03E+01	Pu-238	1.14E-02
Cellulose	7.40E+00	Pu-239	5.82E-02
Rubber	2.50E+00	Pu-240	3.28E-02
Plastic	1.31E+01	Pu-241	2.27E-01
Cement	0.00E+00	Pu-242	8.45E-06
Solidified Inorganic Material	0.00E+00	Sr-90	1.35E-02
Solidified Organic Material	0.00E+00	Th-229	1.92E-12
Soil	0.00E+00	Th-230	9.66E-09
Vitrified	0.00E+00	Th-232	2.42E-05
Packaging Material, Cellulose	0.00E+00	U-233	3.12E-09
Packaging Material, Plastic	0.00E+00	U-234	1.50E-04
Packaging Material, Rubber	8.26E-01	U-235	5.05E-06
Packaging Material, Steel	1.90E+02	U-236	6.79E-09
Packaging Material, Lead	0.00E+00	U-238	1.84E-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

Waste Stream ID: SA-W135

Appendix A

Waste Profile Report

Site	Sandia National Laboratories	Summary Category S5000 Defense Determin	nation Defense	-Related Ha	ndling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Heterogeneous Debr	ris Waste	Inventory Date	12/31/2	2022
Stream Name	TRU Waste from SNL/NM - Remote Handled			Activities Decayed	to CY	2022

Waste Volume I	Detail ((m 3)
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Final Form Volumes						
Container Type Stored Proj. To						
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		Final Form	Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	3.94E+02	Am-241	1.43E+01
Aluminum-based Metal/Alloys	5.61E+01	Cs-137	1.34E+02
Other Metal/Alloys	2.39E+01	Np-237	3.11E-05
Other Inorganic Materials	2.61E+01	Pu-238	6.51E+00
Cellulose	1.89E+01	Pu-239	1.77E+01
Rubber	4.95E+00	Pu-240	1.13E+01
Plastic	2.83E+01	Pu-241	1.14E+02
Cement	0.00E+00	Pu-242	5.48E-03
Solidified Inorganic Material	0.00E+00	Sr-90	9.99E+01
Solidified Organic Material	0.00E+00	Th-229	6.30E-10
Soil	0.00E+00	Th-230	3.93E-06
Vitrified	0.00E+00	Th-232	4.06E-16
Packaging Material, Cellulose	0.00E+00	U-233	1.02E-06
Packaging Material, Plastic	2.71E+01	U-234	6.11E-02
Packaging Material, Rubber	1.77E+00	U-235	1.96E-03
Packaging Material, Steel	2.91E+03	U-236	2.35E-06
Packaging Material, Lead	0.00E+00	U-238	6.90E-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

Final Form Radionuclides

Isotope Am-241

Np-237

Pu-238

Pu-239

Pu-240

Pu-241

Pu-242

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

U-238

Total Activity (Ci)

5.11E-01

2.18E-06

2.30E-01

7.14E+00

1.68E+00

6.72E+00

1.45E-04

1.63E-14

2.70E-10

1.15E-16

5.33E-11

6.31E-06

6.95E-08

4.90E-07

7.89E-11

Waste Stream ID: SA-W136

Appendix A

Waste Profile Report

Site	Sandia National Laboratories	Summary Category S5000 Defense Determin	nation Defense-	-Related	Handling CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Uncategorized Metal Waste		Inventory D	ate 12/31/2022
Stream Name	CH TRU Debris waste from Z-machine			Activities Dec	ayed to CY 2022

Waste Volume Detail (m 3)

Final Form Volumes						
Container Type Stored Proj. Total						
SWB Dir Ld w/o Liner	11.3	52.6	63.9			
Final Form Total 11.3 52.6 63.9						

Waste Material Parameters			
	Total		
Material Parameter	Mass (kg)		
Iron-based Metal/Alloys	2.78E+04		
Aluminum-based Metal/Alloys	2.11E+02		
Other Metal/Alloys	1.82E+02		
Other Inorganic Materials	1.91E+00		
Cellulose	0.00E+00		
Rubber	3.60E+01		
Plastic	2.24E+01		
Cement	0.00E+00		
Solidified Inorganic Material	0.00E+00		
Solidified Organic Material	3.40E+01		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	0.00E+00		
Packaging Material, Rubber	1.23E+01		
Packaging Material, Steel	9.86E+03		
Packaging Material, Lead	0.00E+00		

No Hazardous
Waste Numbers
Provided

TRUCON Code(s) 125/225

Waste Stream Description

CH debris waste from the Z-machine, Pu ICE experiments. Waste generated at SNL/NM, but is LANL waste

Final Form Radionuclides

Isotope Am-241

Cs-137

Np-237

Pu-238

Pu-239

Pu-240

Pu-241

Pu-242

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

U-238

Total Activity (Ci)

3.29E-01

5.76E-03

1.14E-06

1.67E-01

4.91E-01

2.17E-01

1.22E+00

2.02E-04

8.53E-15

1.21E-09

1.92E-17

2.66E-11

1.46E-05

4.28E-07

7.06E-08

9.11E-06

Waste Stream ID: SA-W137

Appendix A

Waste Profile Report

Site	Sandia National Laboratories	Summary Category S3000 Defense Determin	ation Defense-Rela	ited Handling CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Solidified Inorganics		Inventory Date 12/31/202
Stream Name	CH TRU solidified waste			Activities Decayed to CY 202

Waste V	olume/	Detail	(m ³)
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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 Parame	
	Total
	Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	0.00E+00
Aluminum-based Metal/Alloys	0.00E+00
Other Metal/Alloys	1.05E+01
Other Inorganic Materials	1.25E+01
Cellulose	0.00E+00
Rubber	0.00E+00
Plastic	0.00E+00
Cement	5.00E-03
Solidified Inorganic Material	5.80E+00
Solidified Organic Material	0.00E+00
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	0.00E+00
Packaging Material, Rubber	4.72E-01
Packaging Material, Steel	1.09E+02
Packaging Material, Lead	0.00E+00

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.

Waste Stream ID: SA-W138M

Appendix A

Waste Profile Report

Site	Sandia National Laboratories	Summary Category S5000 Defense Determin	nation Defense	-Related	Handling CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Heterogeneous Debr	is Waste	Inventory Da	ate 12/31/2022
Stream Name	CH TRU sealed source			Activities Deca	yed to CY 2022

Waste	Volume	Detail	(m ³)
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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.						

n Radionuclides
Total
Activity
(Ci)
1.35E+00
1.55E-07
4.87E-06
7.89E-08
6.13E-02
3.74E-14
1.31E-16
1.16E-10
2.56E-12
6.64E-10

0.00E+00

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.

Packaging Material, Lead

Waste Stream ID: SA-W139

Appendix A

Waste Profile Report

Site	Sandia National Laboratories	Summary Category S5000 Defense Determination	n Defense-Related	Handling RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Composite Filter Waste	Inventory D	Date 12/31/2022
Stream Name	D&D from AHCF		Activities Dec	ayed to CY 2022

Waste	Volume	Detail ((m ³)	١
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Final Form Volumes							
Container Type	Stored	Proj.	Total				
RH SCA-30G1 w/o Liner	0.0	0.7	0.7				
Final Form Total	0.0	0.7	0.7				

Waste Material Parame	Final Form Radionuclides		
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	4.00E+01	Am-241	1.35E+01
Aluminum-based Metal/Alloys	9.50E+00	Cs-137	1.64E+02
Other Metal/Alloys	0.00E+00	Np-237	4.38E-07
Other Inorganic Materials	4.00E-01	Pu-238	7.09E+00
Cellulose	0.00E+00	Pu-239	1.88E+01
Rubber	0.00E+00	Pu-240	1.20E+01
Plastic	0.00E+00	Pu-241	1.63E+02
Cement	0.00E+00	Pu-242	5.63E-03
Solidified Inorganic Material	0.00E+00	Sr-90	1.23E+02
Solidified Organic Material	1.00E-01	Th-229	9.68E-12
Soil	0.00E+00	Th-230	6.08E-08
Vitrified	0.00E+00	Th-232	8.76E-20
Packaging Material, Cellulose	0.00E+00	U-233	1.10E-06
Packaging Material, Plastic	1.09E+00	U-234	6.61E-02
Packaging Material, Rubber	7.08E-01	U-235	2.13E-03
Packaging Material, Steel	2.45E+03	U-236	3.55E-08
Packaging Material, Lead	2.59E+03	U-238	7.12E-04

No Hazardous **Waste Numbers Provided**

TRUCON Code(s) 125/225

Waste Stream Description

Filter and associated PGW from AHCF

Waste Stream ID: SP-CHHD

Appendix A

Waste Profile Report

Site	Separations Process Research Unit	Summary Category S5000 Defense Determination	on Defense-Related Hand	dling CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Heterogeneous Debris W	aste Inventory Date 1	12/31/2022
Stream Name	D&D Debris		Activities Decayed to	o CY 2022

Waste Volume	Detail	(m ³)
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Final Form Volumes				
Container Type Stored Proj. Tota				
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			
	Total Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	2.30E+01		
Aluminum-based Metal/Alloys	0.00E+00		
Other Metal/Alloys	8.77E+02		
Other Inorganic Materials	1.59E+02		
Cellulose	3.05E+02		
Rubber	0.00E+00		
Plastic	1.55E+02		
Cement	0.00E+00		
Solidified Inorganic Material	0.00E+00		
Solidified Organic Material	0.00E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	2.99E+01		
Packaging Material, Rubber	1.44E+00		
Packaging Material, Steel	9.52E+02		
Packaging Material, Lead	0.00E+00		

Final Form Radionuclides		
Total		
	Activity	
Isotope	(Ci)	
Am-241	2.80E-02	
Cs-137	2.77E+00	
Np-237	6.34E-08	
Pu-238	2.69E-03	
Pu-239	2.58E-01	
Pu-241	2.50E-02	
Pu-242	6.86E-04	
Sr-90	1.09E-01	
Th-229	1.95E-16	
Th-230	1.34E-07	
U-233	9.52E-13	
U-234	2.09E-03	
U-235	1.31E-04	
U-238	2.26E-03	

Haz. Waste No(s).
D007, D008, D011

TRUCON Code(s)

Waste Stream Description

Process components, inorganic solids, Wastelock, piping, asbestos insulation, PPE, herculite and poly sheets, absorbent pads, and miscellaneous debris.

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 Wast	te Inventory Da	te 12/31/2022
Stream Name	D&D Debris		Activities Deca	yed to CY 2022

Final Form Volumes				
Container Type Stored Proj. Tot				
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 Paramet	Final Form	Final Form Radionuclides		
	Total		Total	
	Mass		Activity	
Material Parameter	(kg)	Isotope	(Ci)	
Iron-based Metal/Alloys	1.00E+02	Am-241	3.07E-01	
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	7.83E+00	
Other Metal/Alloys	1.71E+03	Np-237	7.00E-07	
Other Inorganic Materials	3.12E+02	Pu-238	1.11E-02	
Cellulose	6.85E+01	Pu-239	6.93E-01	
Rubber	0.00E+00	Pu-241	5.65E-02	
Plastic	3.20E+00	Pu-242	2.80E-03	
Cement	5.66E+02	Sr-90	2.36E+00	
Solidified Inorganic Material	0.00E+00	Th-229	2.16E-15	
Solidified Organic Material	0.00E+00	Th-230	5.64E-07	
Soil	0.00E+00	Th-232	1.62E-15	
Vitrified	0.00E+00	U-233	1.05E-11	
Packaging Material, Cellulose	0.00E+00	U-234	8.77E-03	
Packaging Material, Plastic	8.55E+01	U-235	8.54E-04	
Packaging Material, Rubber	1.06E+00	U-236	4.70E-06	
Packaging Material, Steel	1.74E+03	U-238	9.59E-03	
Packaging Material, Lead	0.00E+00		_	

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.

Waste Stream ID: SP-RHIN

Appendix A

Waste Profile Report

Site	Separations Process Research Unit	Summary Category S3000 Defense Determination	ation Defense	-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Solidified Inorganics		Inventory Da	ite 12/31/	/2022
Stream Name	Process cell and sump cleanout sediment			Activities Deca	yed to CY	2022

Waste Volume	Detail ((m 3)
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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 Total Mass Material Parameter (kg) Iron-based Metal/Alloys 0.00E+00Aluminum-based Metal/Alloys 0.00E+00 Other Metal/Alloys 0.00E+00 0.00E+00 Other Inorganic Materials 0.00E+00 Cellulose Rubber 0.00E+00 Plastic 6.50E+00 Cement 0.00E+00 Solidified Inorganic Material 1.20E+02 Solidified Organic Material 0.00E+00 0.00E+00 Soil Vitrified 0.00E+00 0.00E+00 Packaging Material, Cellulose Packaging Material, Plastic 2.85E+01 Packaging Material, Rubber 3.54E-01 Packaging Material, Steel 5.81E+02 Packaging Material, Lead 0.00E+00

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	4.58E-02	
Cs-137	1.11E+01	
Np-237	1.03E-07	
Pu-238	6.08E-03	
Pu-239	5.54E-01	
Pu-241	8.97E-02	
Pu-242	4.27E-03	
Sr-90	2.46E-01	
Th-229	3.16E-16	
Th-230	2.61E-07	
U-233	1.54E-12	
U-234	4.06E-03	
U-235	3.12E-04	
U-238	6.27E-03	

D007, D008, D011

Haz. Waste No(s).

TRUCON Code(s)

Waste Stream Description

Inorganic solids with Aquaset IIG added to absorb free water

Waste Stream ID: SR-AGNS-HOM

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S3000 Defense Determination Defe	nse-Related Handl	ling CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Solidified Inorganics	Inventory Date 12	2/31/2022
Stream Name	SR-AGNS-HOM		Activities Decayed to	CY 2022

Waste Volume Detail (m	3)
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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			
	Total		
	Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	1.53E+02		
Aluminum-based Metal/Alloys	0.00E+00		
Other Metal/Alloys	0.00E+00		
Other Inorganic Materials	0.00E+00		
Cellulose	0.00E+00		
Rubber	0.00E+00		
Plastic	0.00E+00		
Cement	2.03E+03		
Solidified Inorganic Material	2.18E+00		
Solidified Organic Material	0.00E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	4.62E+01		
Packaging Material, Rubber	1.07E+00		
Packaging Material, Steel	4.53E+02		
Packaging Material, Lead	0.00E+00		

	Total
	Activity
Isotope	(Ci)
Am-241	6.73E-01
Np-237	6.73E-04
Pu-238	7.42E-01
Pu-239	1.34E+00
Pu-240	3.17E-01
Pu-241	8.96E+00
Pu-242	5.52E-05
Th-229	1.27E-11
Th-230	9.02E-09
Th-232	2.32E-17
U-233	2.89E-08
U-234	1.09E-04
U-235	4.34E-06
U-236	9.39E-08
U-238	9.27E-05

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

TRUCON Code(s)

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.

U-236

U-238

Waste Stream ID: SR-BCLDP.003

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S3000 Defense Determinatio	n Defense-Related	Handling RH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group Solidified Organics	Inventory D	ate 12/31/2022
Stream Name	BCL JN-1 Hydraulic Sludge and Debris		Activities Deca	ayed to CY 2022

Waste Volume I	Detail ((m 3)
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Final Form Volumes			
Container Type	Stored	Proj.	Total
RH SCA-55G1 w/o Liner	0.2	0.0	0.2
Final Form Total	0.2	0.0	0.2

Waste Material Paramet	Final	
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	3.35E-01	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Am-243
Other Metal/Alloys	0.00E+00	Cm-244
Other Inorganic Materials	5.03E-02	Cs-137
Cellulose	3.92E-01	Np-237
Rubber	0.00E+00	Pu-238
Plastic	1.28E+00	Pu-239
Cement	0.00E+00	Pu-240
Solidified Inorganic Material	1.94E+01	Pu-241
Solidified Organic Material	3.45E+01	Pu-242
Soil	0.00E+00	Sr-90
Vitrified	0.00E+00	Th-229
Packaging Material, Cellulose	0.00E+00	Th-230
Packaging Material, Plastic	0.00E+00	Th-232
Packaging Material, Rubber	9.20E-02	U-233
Packaging Material, Steel	1.30E+03	U-234
Packaging Material, Lead	9.34E-01	U-235

Final Form	Radionuclides	Haz. Waste No(s).
	Total	D004, D005, D006,
	Activity	D007, D008, D009,
Isotope	(Ci)	D011, D019, F002,
Am-241	3.08E-02	F005
Am-243	2.28E-05	
Cm-244	1.42E-03	
Cs-137	6.78E-03	TRUCON Code(s)
Np-237	3.62E-07	127/227
Pu-238	2.33E-02	

3.24E-03

5.30E-03

2.75E-01

1.58E-05

6.69E-03

3.11E-14

3.94E-10

9.21E-17

4.58E-11

5.06E-06

7.74E-08

2.08E-07

4.58E-07

Waste Stream Description

This waste consists of RH Hydraulic Sludge and Debris.

Waste Stream ID: SR-BCLDP.004.004

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S500	Defense Determina	ntion Defense	-Related	Handling	СН
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Composite Filter Wast	е	Inventory Dat	e 12/31,	/2022
Stream Name	CH Mixed TRU Cartridge Water Filters(S5000)				Activities Decay	ed to CY	2022

Waste Volume Detail (m 3)	Waste	Volume	Detail	(m ³)
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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 Paramet	ers	Final Form	Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
ron-based Metal/Alloys	0.00E+00	Am-241	9.99E-03
Aluminum-based Metal/Alloys	0.00E+00	Am-243	2.75E-05
Other Metal/Alloys	0.00E+00	Cs-137	8.90E-04
Other Inorganic Materials	1.97E+01	Np-237	3.94E-06
Cellulose	1.88E+01	Pu-238	4.54E-02
Rubber	7.22E-01	Pu-239	8.24E-04
Plastic	3.61E+00	Pu-240	1.35E-03
Cement	0.00E+00	Pu-242	1.61E-08
Solidified Inorganic Material	5.49E+00	Sr-90	8.64E-04
Solidified Organic Material	7.16E+00	Th-229	8.55E-13
Soil	0.00E+00	Th-230	1.88E-09
Vitrified	0.00E+00	Th-232	3.57E-19
Packaging Material, Cellulose	0.00E+00	U-233	6.73E-10
Packaging Material, Plastic	0.00E+00	U-234	1.21E-05
Packaging Material, Rubber	1.18E-01	U-235	1.69E-07
Packaging Material, Steel	2.72E+01	U-236	7.62E-10
Packaging Material, Lead	0.00E+00	U-238	3.26E-06

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.

Final Form Radionuclides

Total Activity (Ci)

1.04E-01

2.89E-07

2.76E+01

1.00E-01

4.63E-02

6.94E-01

1.43E-05

1.43E-15

3.04E-08

2.74E-18

5.48E-12

7.27E-04

8.87E-10

1.24E-08

2.00E-14

Waste Stream ID: SR-BCLDP-HET

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S50	Defense Determi	nation Defense	-Related	Handling CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Grou	p Heterogeneous Debi	ris Waste	Inventory Dat	te 12/31/2022
Stream Name	BCL JN-4 CH TRU Heterogeneous Debris				Activities Decay	/ed to CY 2022

Waste Volume D	Detail (m ³)
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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 Paramete	ers	Final
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	7.50E+02	Am-241
Aluminum-based Metal/Alloys	7.67E+00	Np-237
Other Metal/Alloys	3.84E+00	Pu-238
Other Inorganic Materials	1.53E+01	Pu-239
Cellulose	2.00E+02	Pu-240
Rubber	4.41E+01	Pu-241
Plastic	3.07E+02	Pu-242
Cement	0.00E+00	Th-229
Solidified Inorganic Material	5.93E+02	Th-230
Solidified Organic Material	0.00E+00	Th-232
Soil	0.00E+00	U-233
Vitrified	0.00E+00	U-234
Packaging Material, Cellulose	0.00E+00	U-235
Packaging Material, Plastic	0.00E+00	U-236
Packaging Material, Rubber	7.26E-01	U-238
Packaging Material, Steel	5.80E+02	
Packaging Material, Lead	0.00E+00	

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

4.77E-01

Waste Stream ID: SR-CH-PP

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S5000	Defense Determin	nation Defense	-Related	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Da	te 12/31/2022
Stream Name	CH TRU waste from the Proposed NNSA Pit Production Mission				Activities Decay	red to CY 2022

Waste Volume Deta	il	(m ³)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
55-gal Drum Dir Ld w/o Liner	0.0	229.5	229.5	
Final Form Total 0.0 229.5 2				

Waste Material Parameters

Waste Material Parameters		Final Form	Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
ron-based Metal/Alloys	2.32E+04	Am-241	9.75E+02
Aluminum-based Metal/Alloys	9.37E+01	Am-243	4.46E-02
Other Metal/Alloys	2.77E+03	Cm-244	1.15E+01
Other Inorganic Materials	1.50E+04	Cs-137	9.08E-04
Cellulose	1.91E+03	Np-237	2.24E-02
Rubber	2.87E+03	Pu-238	4.13E+03
Plastic	8.88E+03	Pu-239	2.76E+03
Cement	0.00E+00	Pu-240	9.15E+02
Solidified Inorganic Material	3.69E+02	Pu-241	1.39E+04
Solidified Organic Material	0.00E+00	Pu-242	2.58E-01
Soil	0.00E+00	Sr-90	9.66E-04
Vitrified	0.00E+00	Th-229	1.50E-05
Packaging Material, Cellulose	0.00E+00	Th-230	1.02E-06
Packaging Material, Plastic	0.00E+00	Th-232	6.08E-14
Packaging Material, Rubber	1.29E+02	U-233	1.70E+00
Packaging Material, Steel	2.97E+04	U-234	1.11E+00
Packaging Material, Lead	0.00E+00	U-235	3.12E-03
		U-236	1.23E-02

U-238

No Hazardous **Waste Numbers Provided**

No TRUCON **Codes Provided**

Waste Stream Description

CH TRU waste resulting from processing of aged weapons grade Pu.

Waste Stream ID: SR-DWPF-HET

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S500	0 Defense Determi	nation Defense	-Related	Handling	СН
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debi	is Waste	Inventory Da	ite 12/31,	/2022
Stream Name	CH TRU - Heterogeneous debris from the DWPF laboratory				Activities Deca	yed to CY	2022

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		Final
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	1.47E+00	Am-241
Aluminum-based Metal/Alloys	7.33E-01	Cs-137
Other Metal/Alloys	0.00E+00	Np-237
Other Inorganic Materials	2.93E+00	Pu-238
Cellulose	7.09E+00	Pu-239
Rubber	0.00E+00	Pu-240
Plastic	1.22E+01	Pu-241
Cement	0.00E+00	Sr-90
Solidified Inorganic Material	0.00E+00	Th-229
Solidified Organic Material	0.00E+00	Th-230
Soil	0.00E+00	Th-232
Vitrified	0.00E+00	U-233
Packaging Material, Cellulose	0.00E+00	U-234
Packaging Material, Plastic	0.00E+00	U-235
Packaging Material, Rubber	1.18E-01	U-236
Packaging Material, Steel	2.72E+01	U-238
Packaging Material, Lead	0.00E+00	

Final Form	Radionuclides	No Hazardous
Isotope	Total Activity (Ci)	Waste Numbers Provided
Am-241	9.44E-02	
Cs-137	2.39E-03	TRUCON Code(s)
Np-237	1.23E-06	125/225
Pu-238	1.83E-02	

3.10E-03

4.88E-02

4.85E-02

2.33E-03

4.16E-06

6.63E-11

9.13E-18

2.96E-03

8.82E-07

4.10E-07

2.31E-08

1.16E-05

Waste Stream Description

CH TRU waste consisting of contaminated laboratory debris

Waste Stream ID: SR-HBL-235F-HET

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S5000 Def	efense Determination Def	ense-Related H	landling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Heter	rogeneous Debris Waste	Inventory Date	12/31/2	2022
Stream Name	Commingled waste from HBL and 235F.			Activities Decaye	ed to CY 2	2022

Waste Volume De	etail (m ³	1
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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			
	Total		
	Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	4.31E+02		
Aluminum-based Metal/Alloys	2.97E+01		
Other Metal/Alloys	4.76E+01		
Other Inorganic Materials	4.76E+01		
Cellulose	7.10E+01		
Rubber	4.47E+00		
Plastic	5.29E+01		
Cement	0.00E+00		
Solidified Inorganic Material	3.44E+00		
Solidified Organic Material	0.00E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	2.31E+01		
Packaging Material, Rubber	7.17E-01		
Packaging Material, Steel	3.72E+02		
Packaging Material, Lead	0.00E+00		

	Total
	Activity
Isotope	(Ci)
Am-241	3.28E-04
Np-237	1.72E-04
Pu-238	1.27E+00
Pu-239	9.42E-04
Pu-240	5.15E-04
Pu-241	1.83E-02
Pu-242	6.13E-07
Th-229	2.64E-12
Th-230	1.40E-09
Th-232	3.05E-20
U-233	6.67E-09
U-234	3.34E-05
U-235	8.35E-12
U-236	1.37E-10
U-238	8.56E-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

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).

Final Form Radionuclides

Total Activity (Ci)

3.13E-01

2.31E-06

9.95E-02

8.42E-01

2.18E-01

2.02E+00

7.20E-05

3.63E-15

1.18E-11

1.43E-18

2.82E-11

8.52E-07

1.60E-06

1.94E-08

5.63E-08

Waste Stream ID: SR-KAC-HET

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S5000	Defense Determination	Defense-F	Related I	landling	СН
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	leterogeneous Debris Wa	ste	Inventory Date	e 12/31,	/2022
Stream Name	KIS Debris				Activities Decay	ed to CY	2022

Waste	Volume	Detail	(m ³)
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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 Paramete	Final	
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	1.02E+01	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Np-237
Other Metal/Alloys	0.00E+00	Pu-238
Other Inorganic Materials	0.00E+00	Pu-239
Cellulose	9.47E-01	Pu-240
Rubber	8.77E+00	Pu-241
Plastic	6.60E+01	Pu-242
Cement	0.00E+00	Th-229
Solidified Inorganic Material	0.00E+00	Th-230
Solidified Organic Material	0.00E+00	Th-232
Soil	0.00E+00	U-233
Vitrified	0.00E+00	U-234
Packaging Material, Cellulose	0.00E+00	U-235
Packaging Material, Plastic	0.00E+00	U-236
Packaging Material, Rubber	2.36E-01	U-238
Packaging Material, Steel	5.44E+01	
Packaging Material, Lead	0.00E+00	

No Hazardous
Waste Numbers
Provided

TRUCON Code(s) 125/225

Waste Stream Description

This waste stream consists of plutonium contaminated debris resulting from destructive and non-destructive containers used to store plutonium material

Waste Stream ID: SR-KAC-HET-A

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S500	0 Defense Determi	nation Defense	-Related	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debi	ris Waste	Inventory Da	te 12/31/2022
Stream Name	CH Mixed TRU Heterogeneous debris from the K Area Plutonium surveilland	e program			Activities Decay	yed to CY 2022

Waste Volume Detail (m ³)			
Final Form Volum	nes		
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 Parame	ters	Final Form Radionuclides		Haz. Waste No(s).
	Total		Total	D006, D008
	Mass		Activity	
Material Parameter	(kg)	Isotope	(Ci)	J
Iron-based Metal/Alloys	5.12E+00	Am-241	1.64E-01	
Aluminum-based Metal/Alloys	0.00E+00	Np-237	1.47E-06	TRUCON Code(s)
Other Metal/Alloys	0.00E+00	Pu-238	4.75E-02	125/225
Other Inorganic Materials	0.00E+00	Pu-239	4.21E-01	
Cellulose	4.73E-01	Pu-240	1.09E-01	
Rubber	4.38E+00	Pu-241	7.55E-01	
Plastic	3.30E+01	Pu-242	3.60E-05	
Cement	0.00E+00	Th-229	1.77E-14	
Solidified Inorganic Material	0.00E+00	Th-230	5.23E-11	
Solidified Organic Material	0.00E+00	Th-232	6.45E-18	
Soil	0.00E+00	U-233	4.77E-11	
Vitrified	0.00E+00	U-234	1.25E-06	
Packaging Material, Cellulose	0.00E+00	U-235	8.03E-07	
Packaging Material, Plastic	0.00E+00	U-236	2.90E-08	
Packaging Material, Rubber	1.18E-01	U-238	2.81E-08	
Packaging Material, Steel	2.72E+01			
Packaging Material, Lead	0.00E+00			

Waste Stream Description

This waste stream consists of plutonium contaminated debris resulting from destructive and non-destructive containers used to store plutonium material.

Waste Stream ID: SR-KAC-HET-B

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S5	Defense Determi	nation Defense	-Related	Handling	СН
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Gro	up Heterogeneous Deb	ris Waste	Inventory Da	ite 12/31/	/2022
Stream Name	CH TRU Heterogeneous debris from the K-Area downblend of the 6 MT and	7.1 MT materials			Activities Deca	yed to CY	2022

Waste Volume Detail (m ³)			
Final Form Volu	mes		
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	4.0	45.4	49.4
Final Form Total	4.0	45.4	49.4

Waste Material Parame	ters	Final Form	Radionuclides	No Hazardous
	Total		Total	Waste Numbers
	Mass		Activity	Provided
Material Parameter	(kg)	Isotope	(Ci)	
Iron-based Metal/Alloys	1.20E+03	Am-241	3.65E+01	
Aluminum-based Metal/Alloys	0.00E+00	Np-237	2.59E-04	No TRUCON
Other Metal/Alloys	0.00E+00	Pu-238	1.18E+01	Codes Provided
Other Inorganic Materials	0.00E+00	Pu-239	9.90E+01]
Cellulose	1.11E+02	Pu-240	2.56E+01]
Rubber	1.03E+03	Pu-241	2.49E+02]
Plastic	7.76E+03	Pu-242	8.46E-03	1
Cement	0.00E+00	Th-229	1.87E-13	1
Solidified Inorganic Material	0.00E+00	Th-230	6.18E-10]
Solidified Organic Material	0.00E+00	Th-232	7.49E-17	
Soil	0.00E+00	U-233	2.16E-09	
Vitrified	0.00E+00	U-234	6.70E-05	
Packaging Material, Cellulose	0.00E+00	U-235	1.88E-04	
Packaging Material, Plastic	0.00E+00	U-236	1.52E-06	
Packaging Material, Rubber	2.77E+01	U-238	6.61E-06	
Packaging Material, Steel	6.39E+03			_
Packaging Material, Lead	0.00E+00			

Waste Stream Description

This waste stream consists of plutonium contaminated debris resulting from downblend and packaging Pu oxide, as well as surveillances.

Waste Stream ID: SR-KAC-PuOx

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S	Defense Determi	nation Defense	-Related	Handling	СН
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Gro	up Heterogeneous Deb	ris Waste	Inventory Da	ate 12/31/	/2022
Stream Name	K-Area Pu Oxide waste associated with the 6 MT and 7.1 MT materials				Activities Deca	yed to CY	2022

Waste Volume Detail (m ³)			
Final Form	Volumes		
Container Type	Stored	Proj.	Total
55-gal CCO w/ Liner	14.1	313.1	327.2
Final Form Total	14.1	313.1	327.2

Waste Material Paramete	Final	
	Total	
	Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	2.09E+05	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Np-237
Other Metal/Alloys	4.41E+04	Pu-238
Other Inorganic Materials	3.53E+04	Pu-239
Cellulose	0.00E+00	Pu-240
Rubber	0.00E+00	Pu-241
Plastic	5.88E+03	Pu-242
Cement	0.00E+00	Th-229
Solidified Inorganic Material	0.00E+00	Th-230
Solidified Organic Material	0.00E+00	Th-232
Soil	0.00E+00	U-233
Vitrified	0.00E+00	U-234
Packaging Material, Cellulose	5.90E+05	U-235
Packaging Material, Plastic	1.97E+05	U-236
Packaging Material, Rubber	3.02E+03	U-238
Packaging Material, Steel	2.07E+06	
Packaging Material, Lead	0.00E+00	

Final Form	Radionuclides	No Hazardous
Isotope	Total Activity (Ci)	Waste Numbers Provided
Am-241	2.31E+05	1
Np-237	7.46E-02	TRUCON Code(s)
Pu-238	5.51E+04	125/225
Pu-239	4.07E+05	
Pu-240	1.37E+05	
Pu-241	1.07E+06	
Pu-242	4.74E+01	
Th-229	4.75E-12	1

7.19E-07

1.00E-13

1.62E-07

1.56E-01

4.01E-04

4.06E-03

7.35E-09

Waste Stream Description

The plutonium oxide material is being blended and packaged specifically for disposal at WIPP.

Waste Stream ID: SR-LA-PAD1 Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S50	00 Defense Determi	nation Defense	-Related	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Deb	ris Waste	Inventory Date	te 12/31/2022
Stream Name	CH TRU Heterogeneous debris from the Los Alamos Scientific Laboratory (L	ASL)			Activities Decay	red to CY 2022

Waste Volume Detail (m ³)			
Final Form Volun	nes		
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		Final Form	Radionuclides	Haz. Waste No(s).
	Total Mass		Total Activity	D004, D005, D006, D007, D008, D009,
Material Parameter	(kg)	Isotope	(Ci)	D010, D011, D022,
Iron-based Metal/Alloys	2.95E+02	Am-241	4.39E+00	F001, F002, F005
Aluminum-based Metal/Alloys	2.41E-01	Am-243	1.74E-06	
Other Metal/Alloys	5.32E+00	Cs-137	9.99E-06	
Other Inorganic Materials	3.07E+01	Np-237	2.23E-04	TRUCON Code(s)
Cellulose	3.57E+01	Pu-238	1.78E+03	125/225
Rubber	3.02E+01	Pu-239	2.16E+00	
Plastic	3.61E+01	Pu-240	3.42E+00	
Cement	0.00E+00	Pu-241	2.36E+01	
Solidified Inorganic Material	8.31E-01	Pu-242	4.34E-03	
Solidified Organic Material	3.01E-02	Sr-90	1.18E-05	
Soil	0.00E+00	Th-229	5.27E-07	
Vitrified	0.00E+00	Th-230	2.99E-05	
Packaging Material, Cellulose	0.00E+00	Th-232	2.98E-07	
Packaging Material, Plastic	0.00E+00	U-233	6.66E-04	
Packaging Material, Rubber	2.60E+00	U-234	3.84E-01	
Packaging Material, Steel	5.98E+02	U-235	5.17E-06	
Packaging Material, Lead	0.00E+00	U-236	9.11E-07	
	•	U-238	6.06E-12	

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.

Annual Transuranic Waste Inventory Report - 2023

Waste Stream ID: SR-MD-HET

Appendix A Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determin	nation Defense	-Related	Handling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code G	aroup ⊦	leterogeneous Debr	is Waste	Inventory D	ate 12/31,	/2022
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from Mound Labora	atories				Activities Dec	ayed to CY	2022

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			
	Total		
	Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	1.18E+03		
Aluminum-based Metal/Alloys	4.04E+00		
Other Metal/Alloys	2.23E+01		
Other Inorganic Materials	2.06E+02		
Cellulose	4.13E+02		
Rubber	6.12E+01		
Plastic	2.98E+02		
Cement	0.00E+00		
Solidified Inorganic Material	7.77E+00		
Solidified Organic Material	0.00E+00		
Soil	7.01E+01		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	4.63E+01		
Packaging Material, Rubber	3.37E+00		
Packaging Material, Steel	2.22E+03		
Packaging Material, Lead	0.00E+00		

Final Form	Radionuclides	1 -
	Total	
	Activity	
Isotope	(Ci)	
Am-241	5.18E-01	
Am-243	1.20E-06	
Cm-244	4.38E-05	
Cs-137	8.01E-05	
Np-237	1.01E-04	L
Pu-238	8.14E+01	
Pu-239	1.22E+00	
Pu-240	1.88E-01	
Pu-241	3.51E+00	<u> </u>
Pu-242	1.19E-04	
Sr-90	7.91E-05	
Th-229	1.79E-05	
Th-230	3.57E-05	
Th-232	3.64E-06	
U-233	2.55E-02	
U-234	1.68E-02	
U-235	6.80E-06	
U-236	4.45E-08	
U-238	1.22E-04	

Haz. Waste No(s).
D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D022, D027, D028,
D029, D030, D032,
D034, D037, D043,
F002, F003, F004,
F005, F007, F009

TRUCON Code(s) 127/227

Waste Stream Description

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste.

Annual Transuranic Waste Inventory Report - 2023 Waste Stream ID: SR-MD-PAD1

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S500	0 Defense Determin	nation Defense-	-Related I	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/2022
Stream Name	CH TRU Heterogeneous debris from the Mound Plant				Activities Decay	ed to CY 2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes						
Container Type	Stored	Proj.	Total			
55-gal Drum Dir Ld w/ Liner	13.4	0.0	13.4			
SWB Dir Ld w/o Liner	3.8	0.0	3.8			
Final Form Total	17.2	0.0	17.2			

waste	iviateriai	Parameters	
		,	

Traste material railante		
	Total	
	Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	1.03E+03	Am-241
Aluminum-based Metal/Alloys	2.07E+00	Am-243
Other Metal/Alloys	1.27E+01	Cm-244
Other Inorganic Materials	1.18E+02	Cs-137
Cellulose	3.32E+02	Np-237
Rubber	4.34E+01	Pu-238
Plastic	1.93E+02	Pu-239
Cement	0.00E+00	Pu-240
Solidified Inorganic Material	1.03E+01	Pu-241
Solidified Organic Material	4.75E+00	Pu-242
Soil	0.00E+00	Sr-90
Vitrified	0.00E+00	Th-229
Packaging Material, Cellulose	0.00E+00	Th-230
Packaging Material, Plastic	4.93E+02	Th-232
Packaging Material, Rubber	8.28E+00	U-233
Packaging Material, Steel	2.32E+03	U-234
Packaging Material, Lead	0.00E+00	U-235
		U-236

Haz Wasto No(s) **Final Form Radionuclides** Total

Activity (Ci)

1.03E+01

3.42E-05

1.56E-02

4.12E-02

1.02E-03

4.72E+03

5.97E+00

8.11E+00

5.79E+01

9.90E-03 4.07E-02

1.22E-11

6.99E-05

2.92E-05

3.47E-08

1.00E+00

1.88E-05

1.92E-06

6.89E-05

U-238

naz. waste wo(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

Waste Stream Description

This CH TRU waste stream consists of debris shipped to the SRS from the Mound Plant in 1971 and 1972.

Waste Stream ID: SR-MD-SOIL

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S4000	Defense Determin	nation Defense-	-Related	Handling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Contaminated Soil/D	ebris Waste	Inventory D	ate 12/31	/2022
Stream Name	CH Mixed TRU Soil / Gravel (S4000)				Activities Dec	ayed to CY	2022

Waste Volume De	etail (m ³	1
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Final Form Volumes						
Container Type	S	tored	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 Paramete	Final Form	Radionuclides	
	Total		Total
	Mass		Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	2.10E-01	Am-241	1.59E-02
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	3.87E-06
Other Metal/Alloys	0.00E+00	Np-237	2.18E-06
Other Inorganic Materials	1.43E+02	Pu-238	1.02E+00
Cellulose	7.10E-01	Pu-239	2.60E-02
Rubber	2.42E-01	Pu-240	3.77E-03
Plastic	1.05E+01	Pu-241	3.25E-02
Cement	0.00E+00	Pu-242	5.02E-06
Solidified Inorganic Material	4.19E+01	Sr-90	3.82E-06
Solidified Organic Material	0.00E+00	Th-229	3.30E-14
Soil	1.75E+03	Th-230	1.64E-08
Vitrified	0.00E+00	Th-232	2.23E-19
Packaging Material, Cellulose	0.00E+00	U-233	8.37E-11
Packaging Material, Plastic	7.71E+00	U-234	2.11E-04
Packaging Material, Rubber	1.18E+00	U-235	2.31E-10
Packaging Material, Steel	2.72E+02	U-236	1.00E-09
Packaging Material, Lead	0.00E+00	U-238	7.01E-15

Haz. Waste No(s). D004, D005, D006, D007, D008, D009, D010, D011, F002, F003, F004, F005, F007, F009

TRUCON Code(s) 127/227

Waste Stream Description

Soil mixed with absorbent and some commingled debris.

Waste Stream ID: SR-NIST-HET

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S500	0 Defense Determin	ation Defense	-Related	Handling	СН
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Dat	te 12/31/	/2022
Stream Name	Heterogeneous Debris Waste from the NIST				Activities Decay	ed to CY	2022

Waste	Volume	Detail	(m ³)
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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

Waste Material Parameters		Final Form	n Radionuclides
Total Mass			Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	2.22E+01	Am-241	6.49E+00
Aluminum-based Metal/Alloys	0.00E+00	Np-237	2.07E-05
Other Metal/Alloys	0.00E+00	Pu-238	7.75E+00
Other Inorganic Materials	0.00E+00	Pu-239	2.58E+00
Cellulose	0.00E+00	Pu-240	6.10E-01
Rubber	0.00E+00	Pu-241	1.73E+01
Plastic	2.78E+00	Pu-242	1.09E-04
Cement	2.90E+01	Th-229	1.29E-13
Solidified Inorganic Material	1.53E+00	Th-230	5.03E-08
Solidified Organic Material	0.00E+00	Th-232	3.88E-14
Soil	0.00E+00	U-233	4.42E-10
Vitrified	0.00E+00	U-234	6.59E-04
Packaging Material, Cellulose	0.00E+00	U-235	6.29E-06
Packaging Material, Plastic	7.71E+00	U-236	7.88E-05
Packaging Material, Rubber	1.18E-01	U-238	2.50E-07
Packaging Material, Steel	2.72E+01		
Packaging Material, Lead	0.00E+00		

No Hazardous **Waste Numbers Provided**

TRUCON Code(s) 125/225

Waste Stream Description

This material consist of a combination of unirradiated PuO/UO fuel pellets, Pacemaker source and solidified Pu solutions.

Final Form Radionuclides

Total

Activity (Ci)

4.05E-01

2.44E+00

1.42E+03

1.19E+00

6.16E-01

2.23E+01

7.11E-04

2.95E-08

2.50E-06

6.64E-15

8.38E-05

5.04E-02

6.06E-05

1.69E-05

5.32E-08

Annual Transuranic Waste Inventory Report - 2023 Waste Stream ID: SR-RH-221H.01

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S500	0 Defense Determin	ation Defense	-Related I	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Dat	e 12/31/2	2022
Stream Name	RH TRU Heterogeneous debris from the HB-Line				Activities Decay	ed to CY 2	2022

Waste	Volume	Detail	(m ³)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
RH Can NS30 w/ Liner	0.3	0.0	0.3	
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	0.6	0.0	0.6	
RH SCA-55G1 w/o Liner	2.9	0.0	2.9	
Final Form Total	3.9	0.0	3.9	

Waste Material Paramete	Final	
	Total	
	Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	6.02E+02	Am-241
Aluminum-based Metal/Alloys	3.48E+01	Np-237
Other Metal/Alloys	4.53E+01	Pu-238
Other Inorganic Materials	2.44E+02	Pu-239
Cellulose	2.05E+02	Pu-240
Rubber	5.15E+02	Pu-241
Plastic	1.82E+03	Pu-242
Cement	0.00E+00	Th-229
Solidified Inorganic Material	1.04E+01	Th-230
Solidified Organic Material	3.48E+00	Th-232
Soil	0.00E+00	U-233
Vitrified	0.00E+00	U-234
Packaging Material, Cellulose	0.00E+00	U-235
Packaging Material, Plastic	2.85E+02	U-236
Packaging Material, Rubber	1.64E+00	U-238
Packaging Material, Steel	1.93E+04	
Packaging Material, Lead	1.31E+01	

Haz. Waste No(s). D006, D008, D009, D019, D022, D029, D039, D040, D043, F001, F002, F003, F005, U133

TRUCON Code(s) 125/225, 321, 322, 325

Waste Stream Description

This waste stream is composed of dry heterogeneous organic and inorganic debris.

U-236

U-238

Waste Stream ID: SR-RH-221H.02

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S50	00 Defense Determi	nation Defense	-Related	Handling	RH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Group	Heterogeneous Debi	ris Waste	Inventory Dat	te 12/31/20	.022
Stream Name	RH TRU spent Berl saddles from H-Canyon dissolver off-gas system.				Activities Decay	red to CY 2	2022

Waste Volume Detail (m ³)			
Final Form Volum	nes		
Container Type	Stored	Proj.	Total
RH SCA-55G1 w/o Liner	3.2	0.0	3.2
Final Form Total	3.2	0.0	3.2

Waste Material Parameters					
	Total Mass				
Material Parameter	(kg)	Isc			
Iron-based Metal/Alloys	2.82E+02	Νŗ			
Aluminum-based Metal/Alloys	1.63E+01	Pu			
Other Metal/Alloys	2.12E+01	Pu			
Other Inorganic Materials	1.14E+02	Pu			
Cellulose	9.63E+01	Pu			
Rubber	2.41E+02	Th			
Plastic	8.53E+02	Th			
Cement	0.00E+00	Th			
Solidified Inorganic Material	4.89E+00	U-			
Solidified Organic Material	1.63E+00	U-			
Soil	0.00E+00	U-			
Vitrified	0.00E+00	U-			
Packaging Material, Cellulose	0.00E+00	U-			
Packaging Material, Plastic	0.00E+00				
Packaging Material, Rubber	1.38E+00				
Packaging Material, Steel	1.95E+04				
Packaging Material, Lead	1.40E+01				

Final Form	Radionuclides	Haz. Waste No(s).
	Total	D007, D009, D011
	Activity	
sotope	(Ci)	
lp-237	9.04E-04	
u-238	2.07E+00	TRUCON Code(s)
u-239	1.92E-02	125/225
u-240	1.31E-02	
u-242	2.26E-04	
h-229	1.38E-11	
h-230	2.10E-08	
h-232	7.75E-19	
J-233	3.50E-08	
J-234	2.80E-04	
J-235	1.70F-10	

3.49E-09

3.15E-13

Waste Stream Description

This waste stream is composed of spent Berl saddles (silicon dioxide and aluminum oxide).

Final Form Radionuclides

Total Activity (Ci)

1.55E+02

3.57E-02

3.66E+02

3.00E+00

7.92E-01

3.84E+03

2.88E-04

5.42E-10

4.04E-07

4.68E-17

1.37E-06

9.64E-03

2.66E-08

2.11E-07

4.03E-13

Waste Stream ID: SR-RH-235F.01

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S500	Defense Determin	nation Defense-	-Related I	Handling RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/202
Stream Name	RH TRU Heterogeneous debris from the 235F facility.				Activities Decay	ed to CY 202

Waste Volume D	Detail (m ³)
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Final Form Volumes						
Container Type		Stored	Proj.	Total		
RH SCA-55G1 w/o Liner		1.1	0.0	1.1		
Final Form Total		1.1	0.0	1.1		

Waste Material Paramet	Final	
Total Mass		
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	7.18E+01	Am-241
Aluminum-based Metal/Alloys	3.91E+00	Np-237
Other Metal/Alloys	1.91E+00	Pu-238
Other Inorganic Materials	2.09E+01	Pu-239
Cellulose	1.22E+01	Pu-240
Rubber	7.34E+01	Pu-241
Plastic	9.24E+01	Pu-242
Cement	0.00E+00	Th-229
Solidified Inorganic Material	8.60E-01	Th-230
Solidified Organic Material	1.67E-01	Th-232
Soil	0.00E+00	U-233
Vitrified	0.00E+00	U-234
Packaging Material, Cellulose	0.00E+00	U-235
Packaging Material, Plastic	0.00E+00	U-236
Packaging Material, Rubber	4.60E-01	U-238
Packaging Material, Steel	6.50E+03	
Packaging Material, Lead	4.67E+00	

Haz. Waste No(s).				
D004, D005, D006,				
D007, D008, D009,				
D010, D011, D018,				
D019, D035, F002				

TRUCON Code(s) 125/225

Waste Stream Description

This waste stream is composed of metal equipment and debris.

Waste Stream ID: SR-RH-772F.01

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S	Defense Determi	nation Defense	-Related	Handling	RH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Gro	up Heterogeneous Deb	Heterogeneous Debris Waste		te 12/31,	/2022
Stream Name	RH TRU Heterogeneous debris from the 772F and 772-1F laboratories.				Activities Deca	yed to CY	2022

Final Form Volumes						
Stored	Proj.	Total				
0.4	0.0	0.4				
	Stored	Stored Proj.				

0.4

0.0

0.4

Waste Material Parameters		Final Form	n Radionuclides	Haz. Waste No(s).
	Total		Total	D004, D005, D006,
	Mass		Activity	D007, D008, D009,
Material Parameter	(kg)	Isotope	(Ci)	D010, D011, D019,
Iron-based Metal/Alloys	7.26E+01	Am-241	9.22E-03	D022, D028, D029,
Aluminum-based Metal/Alloys	5.33E+00	Cs-137	5.59E-01	F002, F003, F005
Other Metal/Alloys	1.47E+01	Np-237	4.00E-06	
Other Inorganic Materials	1.47E+02	Pu-238	3.14E-02	
Cellulose	3.66E+01	Pu-239	2.68E-02	TRUCON Code(s)
Rubber	2.73E+01	Pu-240	8.15E-03	125/225
Plastic	3.63E+02	Pu-241	3.32E-02	
Cement	0.00E+00	Pu-242	1.33E-06	
Solidified Inorganic Material	6.66E-01	Sr-90	5.43E-01	
Solidified Organic Material	0.00E+00	Th-229	3.02E-13	
Soil	0.00E+00	Th-230	5.70E-10	
Vitrified	0.00E+00	Th-232	1.63E-16	
Packaging Material, Cellulose	0.00E+00	U-233	3.44E-10	
Packaging Material, Plastic	0.00E+00	U-234	4.03E-06	
Packaging Material, Rubber	1.84E-01	U-235	1.87E-08	
Packaging Material, Steel	2.60E+03	U-236	1.67E-07	
Packaging Material, Lead	1.87E+00	U-238	4.14E-15	

Waste Stream Description

Final Form Total

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, other job control waste, small HEPAs liquids, sludges and resins may also be found in this waste.

Waste Stream ID: SR-RH-773A.01

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S5000 Defense Determin	nation Defense-	-Related	Handling RH
Source Cat.	Analytical Laboratory Waste	Waste Matrix Code Group Heterogeneous Debr	is Waste	Inventory Da	te 12/31/2022
Stream Name	RH TRU Heterogeneous debris from the SRNL			Activities Deca	yed to CY 2022

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			
RH SCA-55G1 w/o Liner	15.8	0.0	15.8			
RH SCA-55G2 w/o Liner	0.2	0.0	0.2			
Final Form Total	16.6	0.0	16.6			

Waste Material Parameters				
Tota Mas				
Material Parameter	(kg)			
Iron-based Metal/Alloys	3.24E+03			
Aluminum-based Metal/Alloys	3.55E+01			
Other Metal/Alloys	2.17E+02			
Other Inorganic Materials	2.13E+03			
Cellulose	1.16E+03			
Rubber	1.76E+03			
Plastic	3.64E+03			
Cement	0.00E+00			
Solidified Inorganic Material	7.35E+01			
Solidified Organic Material	0.00E+00			
Soil	0.00E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	2.85E+01			
Packaging Material, Rubber	7.36E+00			
Packaging Material, Steel	9.91E+04			
Packaging Material, Lead	1.67E+03			

Final Form	Radionuclides
	Total
	Activity
Isotope	(Ci)
Am-241	2.65E+00
Am-243	8.74E-01
Cm-244	5.27E+01
Cs-137	1.30E+01
Np-237	7.19E-05
Pu-238	4.31E+01
Pu-239	1.24E+00
Pu-240	7.51E-01
Pu-241	6.22E+00
Pu-242	3.47E-04
Pu-244	7.23E-13
Sr-90	9.46E+00
Th-229	3.81E-12
Th-230	1.99E-07
Th-232	1.57E-16
U-233	5.01E-09
U-234	2.35E-03
U-235	2.20E-08
U-236	3.66E-07
U-238	9.69E-13

Haz. Waste No(s).						
D004, D005, D006,						
D007, D008, D009,						
D010, D011, D019,						
D022, D027, D028,						
D029, D043, F002,						
F004, F005						

TRUCON Code(s) 125/225, 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.

Waste Stream ID: SR-RH-FBL.01

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S500	Defense Determin	nation Defense-	-Related I	H andling RI	Н
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/202	22
Stream Name	RH TRU Heterogeneous debris from the FB-Line				Activities Decay	ed to CY 20	22

Waste Volume D	etail (m ³	١
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Final Form Volumes				
Container Type		Stored	Proj.	Total
RH SCA-55G1 w/o Liner		0.8	0.0	0.8
Final Form Total		0.8	0.0	0.8

Wasta Material Parameters

Waste Material Paramet	Waste Material Parameters		
Material Parameter	Total Mass (kg)	Isotope	Total Activity (Ci)
Iron-based Metal/Alloys	3.44E+01	Am-241	4.21E+00
Aluminum-based Metal/Alloys	3.96E-01	Cs-137	4.88E-06
Other Metal/Alloys	8.86E-01	Np-237	2.23E-05
Other Inorganic Materials	1.62E+02	Pu-238	1.73E+00
Cellulose	7.61E+00	Pu-239	1.83E+00
Rubber	1.16E+01	Pu-240	1.81E+00
Plastic	9.65E+01	Pu-241	1.14E+01
Cement	0.00E+00	Pu-242	8.97E-05
Solidified Inorganic Material	1.05E-01	Sr-90	4.75E-06
Solidified Organic Material	5.71E-01	Th-229	1.96E-05
Soil	0.00E+00	Th-230	3.66E-08
Vitrified	0.00E+00	Th-232	3.82E-16
Packaging Material, Cellulose	0.00E+00	U-233	1.31E-02
Packaging Material, Plastic	0.00E+00	U-234	2.78E-04
Packaging Material, Rubber	3.68E-01	U-235	3.74E-06
Packaging Material, Steel	5.20E+03	U-236	9.11E-07
Packaging Material, Lead	3.74E+00	U-238	2.61E-05

Haz Waste No(s)

maz. waste mo(s).
D005, D006, D007,
D008, D009, D011,
D018, D019, D022,
D029, D039, D040,
D043, F002, F005,
U002, U151

TRUCON Code(s)

125/225

Waste Stream Description

This waste stream consists primarily of dry heterogeneous organic debris.

Data ver. **D.22.01.33**

Annual Transuranic Waste Inventory Report - 2023

Waste Stream ID: SR-RH-FBL.02

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determin	nation Defense-	Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Gr	roup	Heterogeneous Debr	is Waste	Inventory Da	ate 12/31	1/2022
Stream Name	RH TRU Heterogeneous debris from the F-Canyon dissolver off-gas system.					Activities Deca	yed to CY	2022

Waste Volume Detail (m ³)			
Final Form Volum	ies		
Container Type	Stored	Proj.	Total
RH SCA-55G1 w/o Liner	1.9	0.0	1.9
Final Form Total	1.9	0.0	1.9

Waste Material Paramet	Waste Material Parameters			Haz. Waste No(s).
	Total Mass		Total Activity	D006, D007, D008, D009, D011, D019,
Material Parameter	(kg)	Isotope	(Ci)	D022, D028, D029,
Iron-based Metal/Alloys	0.00E+00	Am-241	2.04E-03	F002, F005
Aluminum-based Metal/Alloys	0.00E+00	Np-237	6.20E-05	
Other Metal/Alloys	0.00E+00	Pu-238	4.76E-05	
Other Inorganic Materials	1.68E+03	Pu-239	1.89E-03	TRUCON Code(s)
Cellulose	0.00E+00	Pu-240	1.37E-03	125/225
Rubber	0.00E+00	Pu-241	7.66E-03	
Plastic	1.23E+02	Pu-242	5.16E-01	
Cement	0.00E+00	Th-229	3.41E-12	
Solidified Inorganic Material	0.00E+00	Th-230	1.81E-05	
Solidified Organic Material	0.00E+00	Th-232	7.62E-15	
Soil	0.00E+00	U-233	4.56E-09	
Vitrified	0.00E+00	U-234	1.16E-01	
Packaging Material, Cellulose	0.00E+00	U-235	1.47E+00	
Packaging Material, Plastic	0.00E+00	U-236	9.09E-06	
Packaging Material, Rubber	8.28E-01	U-238	7.38E-02	
Packaging Material, Steel	1.17E+04		_	
Packaging Material, Lead	8.41E+00			

Waste Stream Description

This waste stream is primarily solids consisting silver coated ceramics (Berl or Beryl saddles) and debris materials.

Final Form Radionuclides

Total Activity (Ci)

7.17E-01

1.54E-06

2.18E+03

1.66E+00

9.05E-01

2.78E+01

1.08E-03

7.57E-15

4.33E-06

9.52E-17

2.78E-11

7.73E-02

1.96E-08

3.22E-07

2.01E-12

4.92E+03

1.87E+00

Waste Stream ID: SR-RH-MNDPAD1.01

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S5000 Defense Determ	ination Defense	-Related F	landling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Heterogeneous De	bris Waste	Inventory Date	e 12/31/	/2022
Stream Name	RH Debris from Mound Laboratories			Activities Decay	ed to CY	2022

Waste	Volume	Detail ((m ³)
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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	
RH SCA-55G1 w/o Liner	0.4	0.0	0.4	
Final Form Total	2.9	0.0	2.9	

waste material Parallie	Fillali	
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	1.91E+02	Am-241
Aluminum-based Metal/Alloys	1.28E-01	Np-237
Other Metal/Alloys	1.50E+00	Pu-238
Other Inorganic Materials	2.62E+01	Pu-239
Cellulose	1.15E+01	Pu-240
Rubber	9.08E+00	Pu-241
Plastic	2.11E+01	Pu-242
Cement	0.00E+00	Th-229
Solidified Inorganic Material	1.12E+00	Th-230
Solidified Organic Material	0.00E+00	Th-232
Soil	0.00E+00	U-233
Vitrified	0.00E+00	U-234
Packaging Material, Cellulose	0.00E+00	U-235
Packaging Material, Plastic	1.14E+02	U-236
Packaging Material, Rubber	1.60E+00	U-238

Waste Material Parameters

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, 325

Waste Stream Description

Process equipment and exchange resin

Packaging Material, Steel

Packaging Material, Lead

Waste Stream ID: SR-RH-SDD.01

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S50	000 Defense Determin	nation Defense	-Related I	Handling	RH
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Grou	p Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/	/2022
Stream Name	Remote Handled PuBe Sources				Activities Decay	ed to CY	2022

Waste	Volume	Detail	(m ³)
-------	--------	--------	-------

Final Form Volumes				
Container Type	Stored	Proj.	Total	
RH Can NS30 w/ Liner	0.3	0.0	0.3	
Final Form Total	0.3	0.0	0.3	

Total Mass Material Parameter (kg) Iron-based Metal/Alloys 1.92E+01 Aluminum-based Metal/Alloys 5.53E-01 Pu-Pu-Pu-Other Metal/Alloys 1.79E-01 0.00E+00 Other Inorganic Materials 2.04E+01 Cellulose Rubber 0.00E+00 Plastic 0.00E+00 Th-229 Cement 0.00E+00 Solidified Inorganic Material 0.00E+00 Th-232 Solidified Organic Material 0.00E+00 0.00E+00 Soil Vitrified 0.00E+00 Packaging Material, Cellulose 0.00E+00 Packaging Material, Plastic 2.56E+02

Packaging Material, Rubber

Packaging Material, Steel

Packaging Material, Lead

Waste Material Parameters

Final Form	Radionuclides	No Hazardous
Isotope	Total Activity (Ci)	Waste Numbers Provided
Am-241	6.18E+00	
Np-237	2.86E-05	TRUCON Code(s)
Pu-238	8.45E+01	320
Pu-239	1.42E+00	1
Pu-240	8.57E-01	1
Pu-241	2.39E+01	
Pu-242	1.43E-03	1

3.95E-13

2.67E-07

1.41E-16

9.08E-10

3.80E-03

2.10E-08

3.81E-07

3.33E-12

Th-230

U-233

U-234

U-235

U-236

U-238

0.00E+00

5.48E+02

0.00E+00

Waste Stream Description

This waste stream consists of three PuBe sources.

Waste Stream ID: SR-RH-SWD.01

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S500	00 Defense Determin	nation Defense	-Related	Handling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Da	ate 12/31	./2022
Stream Name	Remote Handled (RH) Mixed TRU Debris (S5000)				Activities Deca	yed to CY	2022

Waste Volume Detail (m 3)	Waste	Volume	Detail	(m ³)
---------------------------	-------	--------	--------	-------

Final Form Volumes				
Container Type		Stored	Proj.	Total
RH SCA-55G1 w/o Liner		0.2	0.0	0.2
Final Form Total		0.2	0.0	0.2

Waste Material Parameters

waste material rafaffic	ici3	IIIIaii
	Total	
	Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	5.30E+00	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Am-243
Other Metal/Alloys	1.67E+02	Cm-244
Other Inorganic Materials	2.11E+01	Cs-137
Cellulose	1.97E+01	Np-237
Rubber	3.50E+00	Pu-238
Plastic	5.04E+01	Pu-239
Cement	0.00E+00	Pu-240
Solidified Inorganic Material	7.37E+00	Pu-241
Solidified Organic Material	0.00E+00	Pu-242
Soil	0.00E+00	Pu-244
Vitrified	0.00E+00	Sr-90
Packaging Material, Cellulose	0.00E+00	Th-229
Packaging Material, Plastic	0.00E+00	Th-230
Packaging Material, Rubber	9.20E-02	Th-232
Packaging Material, Steel	1.30E+03	U-233
Packaging Material, Lead	9.34E-01	U-234
		U-235

Final Form Radionuclides Haz. Waste No(s).

Total Activity (Ci)

2.57E-02

1.85E-02

1.31E+00

4.37E-03

1.34E-04

7.10E-02

8.62E-02

2.81E-02

6.12E-01

9.39E-06

4.02E-16

3.06E-03

2.05E-12

7.82E-11

1.61E-18

5.19E-09

1.87E-06

7.64E-10

7.31E-09

1.31E-14

U-236

U-238

Hazi traste Ho(s).
D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D022, D027, D028,
D029, D043, F002,
F004, F005, U133

TRUCON Code(s)

125/225

Waste Stream Description

RH Mixed TRU waste resulting from solvent tank emptying and closure in the E-Area of SRS.

Waste Stream ID: SR-SDD-HET-A

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S500	0 Defense Determi	nation Defense	-Related	Handling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debi	ris Waste	Inventory Da	ate 12/31,	./2022
Stream Name	CH TRU - Heterogeneous debris from the D&D of the 211-F-Area				Activities Deca	yed to CY	2022

Waste Volume D	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 Dir Ld w/o Liner	1.9	0.0	1.9		
Final Form Total	2.9	0.0	2.9		

waste Material Parameters			
	Total Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	1.54E+02		
Aluminum-based Metal/Alloys	1.50E+00		
Other Metal/Alloys	1.17E-01		
Other Inorganic Materials	1.46E+00		
Cellulose	6.81E+00		
Rubber	0.00E+00		
Plastic	6.77E+01		
Cement	3.22E+00		
Solidified Inorganic Material	0.00E+00		
Solidified Organic Material	0.00E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	3.85E+01		
Packaging Material, Rubber	9.53E-01		
Packaging Material, Steel	4.26E+02		

0.00E+00

U-236

U-238

Wasta Material Parameters

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	7.10E-03		
Am-243	1.61E-06		
Cm-244	1.23E-04		
Cs-137	6.05E-05		
Np-237	2.26E-05		
Pu-238	1.75E+00		
Pu-239	1.02E-01		
Pu-240	1.43E-02		
Pu-241	1.87E-01		
Pu-242	1.27E-05		
Sr-90	1.47E-02		
Th-229	1.12E-09		
Th-230	2.37E-09		
Th-232	7.07E-17		
U-233	1.60E-06		
U-234	5.24E-05		
U-235	2.47E-08		

1.81E-07

5.11E-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.

Data ver. **D.22.01.33**

Packaging Material, Lead

Waste Stream ID: SR-SDD-HOM-A

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S3000 Defense Determin	nation Defense	-Related	Handling CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Solidified Organics		Inventory Da	ate 12/31/2022
Stream Name	Organic Sludge from D&D of the SRS F-Area 800 Series Underground Tanks			Activities Deca	yed to CY 2022

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		Final Form	n Radionuclides	Haz. Waste No(s).
Add and a second and	Total Mass		Total Activity	D004, D005, D007, D008, D009, D011
Material Parameter	(kg)	Isotope	(Ci)	
Iron-based Metal/Alloys	0.00E+00	Am-241	1.26E-01	
Aluminum-based Metal/Alloys	0.00E+00	Am-243	5.71E-04	TRUCON Code(s)
Other Metal/Alloys	0.00E+00	Np-237	8.10E-02	112/212
Other Inorganic Materials	0.00E+00	Pu-238	9.21E+00	
Cellulose	0.00E+00	Pu-239	8.69E-01	
Rubber	0.00E+00	Pu-240	1.65E-01	
Plastic	3.14E+01	Pu-241	1.69E+00	
Cement	2.09E+03	Pu-242	3.77E-01	
Solidified Inorganic Material	1.57E+01	Th-229	2.60E-04	
Solidified Organic Material	1.10E+02	Th-230	6.12E-05	
Soil	0.00E+00	Th-232	9.77E-13	
Vitrified	0.00E+00	U-233	3.69E-01	
Packaging Material, Cellulose	0.00E+00	U-234	8.33E-01	
Packaging Material, Plastic	1.54E+01	U-235	6.60E-04	
Packaging Material, Rubber	2.24E+00	U-236	2.47E-03	
Packaging Material, Steel	5.17E+02	U-238	4.01E-02	
Packaging Material, Lead	0.00E+00			

Waste Stream Description

Absorbed organic sludge

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 D	Date 12/31/2022
Stream Name	Sludge from D&D of the SRS F-Area 800 Series Underground Tanks		Activities Dec	ayed to CY 2022

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

 55-gal Drum Dir Ld w/o Liner
 3.2
 0.0
 3.2

 Final Form Total
 3.4
 0.0
 3.4

Waste Material Parameters			
	Total		
	Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	1.33E+02		
Aluminum-based Metal/Alloys	0.00E+00		
Other Metal/Alloys	0.00E+00		
Other Inorganic Materials	9.65E+00		
Cellulose	5.09E+01		
Rubber	0.00E+00		
Plastic	1.04E+02		
Cement	5.51E+02		
Solidified Inorganic Material	2.90E+01		
Solidified Organic Material	1.81E-01		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	7.71E+00		
Packaging Material, Rubber	1.89E+00		
Packaging Material, Steel	4.35E+02		
Packaging Material, Lead	0.00E+00		

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	6.13E-01	
Am-243	1.97E-04	
Cm-244	7.58E-03	
Cs-137	1.32E-03	
Np-237	1.98E-03	
Pu-238	1.52E+02	
Pu-239	8.93E+00	
Pu-240	1.25E+00	
Pu-241	1.52E+01	
Pu-242	4.31E-03	
Sr-90	5.63E-04	
Th-229	3.03E-11	
Th-230	2.54E-07	
Th-232	7.20E-15	
U-233	7.66E-08	
U-234	5.04E-03	
U-235	8.70E-06	
U-236	1.64E-05	
U-238	2.55E-04	

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011

TRUCON Code(s)
127/227

Waste Stream Description

Absorbed sludge

Waste Stream ID: SR-SWMF-HET-A

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S50	Defense Determin	nation Defense-	-Related I	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31/2022
Stream Name	CH Mixed TRU Debris (S5000)				Activities Decay	ed to CY 2022

Waste Volume I	Detail ((m 3)
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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	5.9	0.0	5.9	
SWB Dir Ld w/o Liner	58.3	0.0	58.3	
Final Form Total	65.0	0.0	65.0	

Waste Material Parameters			
	Total		
	Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	4.20E+03		
Aluminum-based Metal/Alloys	5.57E+01		
Other Metal/Alloys	4.16E+00		
Other Inorganic Materials	1.32E+02		
Cellulose	5.04E+02		
Rubber	2.88E+02		
Plastic	1.36E+03		
Cement	0.00E+00		
Solidified Inorganic Material	5.37E-02		
Solidified Organic Material	0.00E+00		
Soil	3.22E-01		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	3.08E+01		
Packaging Material, Rubber	1.50E+01		
Packaging Material, Steel	9.86E+03		
Packaging Material, Lead	0.00E+00		

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	4.88E+00		
Am-243	3.60E-04		
Cm-244	9.58E-02		
Cs-137	3.48E-03		
Np-237	4.52E-03		
Pu-238	4.67E+02		
Pu-239	9.87E+00		
Pu-240	2.79E+00		
Pu-241	2.86E+01		
Pu-242	7.21E-03		
Sr-90	3.43E-03		
Th-229	3.10E-07		
Th-230	5.49E-06		
Th-232	1.14E-07		
U-233	3.92E-04		
U-234	7.24E-02		
U-235	9.28E-06		
U-236	7.43E-07		
U-238	3.41E-04		

D008, F001, F002, F004, F005, F007, F009, U133, U151

TRUCON Code(s) 125/225

Waste Stream Description

CH Mixed TRU waste resulting from remediation and re-packaging of Mixed "defense related" TRU waste.

Waste Stream ID: SR-SWMF-HET-B

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S5000	Defense Determina	ation Defense-	Related	Handling CH
Source Cat.	Spill Clean-ups/Emergency Response Actions	Waste Matrix Code Group	Heterogeneous Debris	s Waste	Inventory Dat	e 12/31/2022
Stream Name	Spill cleanup debris.				Activities Decay	ed to CY 2022

Waste Volume I	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

waste Material Paramet	ers	Finai i
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	1.36E+02	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Am-243
Other Metal/Alloys	0.00E+00	Cm-244
Other Inorganic Materials	3.37E+01	Cs-137
Cellulose	2.69E+01	Np-237
Rubber	0.00E+00	Pu-238
Plastic	2.56E+01	Pu-239
Cement	0.00E+00	Pu-240
Solidified Inorganic Material	0.00E+00	Pu-241
Solidified Organic Material	0.00E+00	Pu-242
Soil	0.00E+00	Pu-244
Vitrified	0.00E+00	Sr-90
Packaging Material, Cellulose	0.00E+00	Th-229
Packaging Material, Plastic	3.85E+01	Th-230
Packaging Material, Rubber	5.90E-01	Th-232
Packaging Material, Steel	1.36E+02	U-233
Packaging Material, Lead	0.00E+00	U-234
		U-235

Final Form Radionuclides Total

Activity (Ci)

3.58E-01

4.43E-01

3.13E+01

4.97E-06

1.05E-06

6.68E-01

1.01E-03

1.88E-01

1.99E-01

1.40E-04

1.12E-14

4.91E-06

5.35E-15

7.36E-10

9.78E-18

2.03E-11

1.76E-05

8.48E-12

4.56E-08

1.96E-13

U-236

U-238

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

Waste Stream Description

Solid Waste Management Facility debris resulting from spill cleanup activities

Waste Stream ID: SR-W026-221F-HEPA

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S5000 Defense Determination	n Defense-Related	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Composite Filter Waste	Inventory Da	te 12/31/2022
Stream Name	CH Mixed TRU HEPA Filters (S5000)		Activities Deca	yed to CY 2022

Waste Volu	Detail (m ³)
------------	--------------------------

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

Wasta Material Parameters

Waste Material Paramet	Final Form	Radionuclides	
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	2.09E+01	Am-241	2.40E-01
Aluminum-based Metal/Alloys	1.97E-01	Am-243	1.61E-14
Other Metal/Alloys	0.00E+00	Cs-137	1.52E-07
Other Inorganic Materials	1.30E+00	Np-237	1.95E-06
Cellulose	8.66E+00	Pu-238	5.84E-02
Rubber	0.00E+00	Pu-239	7.84E-01
Plastic	1.52E+01	Pu-240	2.11E-01
Cement	0.00E+00	Pu-241	1.71E+00
Solidified Inorganic Material	0.00E+00	Pu-242	2.66E-05
Solidified Organic Material	0.00E+00	Sr-90	1.50E-07
Soil	0.00E+00	Th-229	1.56E-07
Vitrified	0.00E+00	Th-230	2.30E-09
Packaging Material, Cellulose	0.00E+00	Th-232	1.25E-17
Packaging Material, Plastic	3.08E+01	U-233	1.97E-04
Packaging Material, Rubber	4.72E-01	U-234	2.86E-05
Packaging Material, Steel	1.09E+02	U-235	5.93E-07
Packaging Material, Lead	0.00E+00	U-236	5.61E-08
		U-238	4.28E-08

Haz. Waste No(s).

		- 1 - 7
D005,	D007,	D009,
D011,	D019,	D022,
D028,	D029,	D043,
FC	02, F0	05

TRUCON Code(s)

119/219

Waste Stream Description

HEPA Filters in Filtered Polyethylene Boxes

Waste Stream ID: SR-W026-221F-HET

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S5000 Defense Determi	nation Defense	-Related	Handling	СН
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group Heterogeneous Deb	ris Waste	Inventory Da	ate 12/31,	/2022
Stream Name	CH Mixed TRU/Thirds Heterogeneous debris from 221F			Activities Deca	ayed to CY	2022

Waste Volume Detail (m³)									
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 Paramete	Final Form Radionuclides		Haz. Waste No(s).		
	Total Mass		Total Activity	D006, D007, D008, D009, D022, D028,	
Material Parameter	(kg)	Isotope	(Ci)	D029, F001, F002,	
Iron-based Metal/Alloys	3.71E+01	Am-241	3.50E-01	F003, F005	
Aluminum-based Metal/Alloys	3.86E-01	Am-243	6.74E-07		
Other Metal/Alloys	4.55E-01	Cm-244	3.41E-03		
Other Inorganic Materials	5.91E+00	Cs-137	6.51E-05	TRUCON Code(s)	
Cellulose	2.58E+01	Np-237	4.67E-06	125/225	
Rubber	6.16E+00	Pu-238	3.24E-01		
Plastic	2.74E+01	Pu-239	1.33E+00		
Cement	0.00E+00	Pu-240	3.66E-01		
Solidified Inorganic Material	0.00E+00	Pu-241	4.12E+00		
Solidified Organic Material	2.16E-02	Pu-242	2.26E-04		
Soil	0.00E+00	Sr-90	6.43E-05		
Vitrified	0.00E+00	Th-229	4.96E-14		
Packaging Material, Cellulose	0.00E+00	Th-230	1.10E-08		
Packaging Material, Plastic	3.08E+01	Th-232	4.17E-08		
Packaging Material, Rubber	4.72E-01	U-233	1.46E-10		
Packaging Material, Steel	1.09E+02	U-234	1.53E-04		
Packaging Material, Lead	0.00E+00	U-235	1.95E-06		
		U-236	8.66E-08		
		U-238	1.29E-05		

Waste Stream Description

200 Areas (F and H Separations Facilities). This waste is primarily solids consisting of mainly booties, lab coats, floor sweepings, rags, labware, and other job control wastes. Small HEPAs, liquids, sludges and resins may also be found in this stream. The waste is generated primarily through separation activities in the course of plutonium production, includes small amounts of TRU waste from on site laboratories.

Waste Stream ID: SR-W026-221F-HET-A

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S5000 Defense Determi	nation Defense	-Related	Handling CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Heterogeneous Deb	ris Waste	Inventory D	ate 12/31/2022
Stream Name	CH Mixed TRU/Thirds Heterogeneous debris from 221F			Activities Deca	ayed to CY 2022

Waste Volume Detail (m ³)			
Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	4.6	0.0	

Final Form Total 4.6 0.0 4.6

Waste Material Parame	Final	
	Total	
	Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	0.00E+00	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Cm-244
Other Metal/Alloys	2.80E+00	Cs-137
Other Inorganic Materials	1.90E+02	Np-237
Cellulose	2.54E-01	Pu-238
Rubber	0.00E+00	Pu-239
Plastic	1.09E+01	Pu-240
Cement	0.00E+00	Pu-241
Solidified Inorganic Material	0.00E+00	Pu-242
Solidified Organic Material	0.00E+00	Sr-90
Soil	0.00E+00	Th-229
Vitrified	0.00E+00	Th-230
Packaging Material, Cellulose	0.00E+00	Th-232
Packaging Material, Plastic	1.70E+02	U-233
Packaging Material, Rubber	2.60E+00	U-234
Packaging Material, Steel	5.98E+02	U-235
Packaging Material, Lead	0.00E+00	U-236
		U-238

Final Form Radionuclides				
	Total			
	Activity			
Isotope	(Ci)			
Am-241	4.41E-01			
Cm-244	8.44E-03			
Cs-137	2.65E-01			
Np-237	4.51E-06			
Pu-238	4.96E-02	L		
Pu-239	9.32E-01			
Pu-240	2.35E-01			
Pu-241	4.90E+00			
Pu-242	4.07E-05			
Sr-90	7.35E-02			
Th-229	9.62E-09			
Th-230	2.45E-08			
Th-232	6.10E-16			
U-233	1.22E-05			
U-234	2.97E-04			
U-235	9.39E-06			
U-236	1.40E-06			
U-238	3.57E-06			

Haz. Waste No(s).

D006, D007, D008,
D009, D011, D019,
D022, D028, D029,
F002, F005

TRUCON Code(s) 125/225

Waste Stream Description

200 Areas (F Separations Facilities). This waste consists of silver impregnated ceramic saddles removed from the F-Canyon dissolver off-gas system.

Waste Stream ID: SR-W026-221F-HOM

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S3000 Defense Determination Def	ense-Related F	landling CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group Solidified Inorganics	Inventory Date	e 12/31/2022
Stream Name	CH Mixed TRU Solids (S3000)		Activities Decay	ed to CY 2022

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	

V	Naste	Materi	al Para	ameters

Waste Material Parameters		Final Form	Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	2.46E+00	Am-241	7.07E-01
Aluminum-based Metal/Alloys	0.00E+00	Am-243	1.70E-07
Other Metal/Alloys	0.00E+00	Cs-137	2.96E-02
Other Inorganic Materials	0.00E+00	Np-237	2.29E-05
Cellulose	2.39E+00	Pu-238	4.98E-01
Rubber	9.20E-01	Pu-239	2.69E+00
Plastic	3.92E+01	Pu-240	6.04E-01
Cement	0.00E+00	Pu-241	4.39E+00
Solidified Inorganic Material	3.75E+02	Pu-242	8.55E-05
Solidified Organic Material	6.44E+00	Sr-90	1.53E-05
Soil	0.00E+00	Th-229	4.07E-13
Vitrified	0.00E+00	Th-230	4.64E-09
Packaging Material, Cellulose	0.00E+00	Th-232	4.41E-17
Packaging Material, Plastic	5.40E+01	U-233	9.40E-10
Packaging Material, Rubber	8.26E-01	U-234	5.77E-05
Packaging Material, Steel	1.90E+02	U-235	5.75E-08
Packaging Material, Lead	0.00E+00	U-236	1.79E-07
·		U-238	4.53E-07

Haz, Waste No(s).

maz. waste mo(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

Final Form Radionuclides

Total Activity

(Ci)

1.22E+01

1.06E-04

2.56E-05

3.80E-03

8.37E-02

7.75E-05

1.15E-06

6.49E-05

Waste Stream ID: SR-W026-772F-HET

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S5000 De	efense Determination Defer	se-Related H	landling CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Comb	bustible Waste	Inventory Date	12/31/2022
Stream Name	CH Mixed TRU/Thirds Heterogeneous debris from 772F			Activities Decaye	ed to CY 2022

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	
55-gal Drum Dir Ld w/o Liner	12.6	0.0	12.6	
SWB Dir Ld w/o Liner	22.6	11.3	33.8	
Final Form Total	38.5	11.3	49.8	

	Total
	Mass
Material Parameter	(kg)
ron-based Metal/Alloys	5.54E+0
Aluminum-hased Metal/Alloys	3 25F±0

Solidified Inorganic Material

Packaging Material, Cellulose

Packaging Material, Plastic

Packaging Material, Rubber

Packaging Material, Steel

Packaging Material, Lead

Solidified Organic Material

Soil

Vitrified

Waste Material Parameters

Iron-based Metal/Alloys	5.54E+02
Aluminum-based Metal/Alloys	3.25E+01
Other Metal/Alloys	4.35E+01
Other Inorganic Materials	9.23E+02
Cellulose	3.24E+02
Rubber	2.08E+02
Plastic	2.22E+03
Cement	0.00E+00

Cm-244	1.20E-01
Cs-137	3.93E-02
Np-237	1.20E-02
Pu-238	4.17E+02
Pu-239	1.96E+01
Pu-240	4.87E+00
Pu-241	7.09E+01
Pu-242	2.24E-03
Sr-90	3.87E-02
Th-229	2.93E-06
Th-230	5.80E-06

Isotope

Am-241

Am-243

Th-232

U-233

U-234

U-235

U-236

U-238

4.23E+00

4.29E-01

0.00E+00

0.00E+00

0.00E+00

1.23E+02

1.55E+01

7.29E+03

0.00E+00

Haz. Waste No(s).

maz. waste mo(s).
D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D022, D028, D029,
F002, F003, F005

TRUCON Code(s)

125/225

Waste Stream Description

This waste stream is composed of Job Control waste, sludges and resins, HEPA filters and metal equipment.

Waste Stream ID: SR-W027-221F-HET-A

Wasta Valuma Datail (m 3)

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S500	0 Defense Determi	nation Defense	-Related	Handling	СН
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group	Heterogeneous Debi	is Waste	Inventory Da	ate 12/31,	/2022
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 221F				Activities Deca	yed to CY	2022

waste volume betail (iii)					
Final Form Volumes					
Container Type	Stored	Proj.	Total		
55-gal Drum Dir Ld w/ Liner	2.1	0.0	2.1		
CMD Diald/a Linea	1.0	0.0	1.0		

 55-gal Drum Dir Ld w/ Liner
 2.1
 0.0
 2.1

 SWB Dir Ld w/o Liner
 1.9
 0.0
 1.9

 Final Form Total
 4.0
 0.0
 4.0

Waste Material Parame	Waste Material Parameters		n Radionuclides	Haz. Waste No(s).
	Total		Total	D006, D008, D009,
	Mass		Activity	F001, F002, F005
Material Parameter	(kg)	Isotope	(Ci)	_
Iron-based Metal/Alloys	1.92E+02	Am-241	8.40E-01	
Aluminum-based Metal/Alloys	5.35E-01	Am-243	8.10E-07	TRUCON Code(s)
Other Metal/Alloys	7.83E-02	Cm-244	8.91E-05	125/225
Other Inorganic Materials	7.78E+00	Cs-137	1.68E-06	
Cellulose	1.66E+02	Np-237	8.77E-06	
Rubber	2.42E+00	Pu-238	2.08E-01	
Plastic	7.66E+01	Pu-239	2.62E+00	
Cement	0.00E+00	Pu-240	6.61E-01	
Solidified Inorganic Material	0.00E+00	Pu-241	5.46E+00	
Solidified Organic Material	0.00E+00	Pu-242	6.27E-05	
Soil	0.00E+00	Sr-90	1.66E-06	
Vitrified	0.00E+00	Th-229	3.00E-08	
Packaging Material, Cellulose	0.00E+00	Th-230	8.93E-09	
Packaging Material, Plastic	7.71E+01	Th-232	3.91E-17	
Packaging Material, Rubber	1.54E+00	U-233	3.79E-05	
Packaging Material, Steel	5.62E+02	U-234	1.11E-04	
Packaging Material, Lead	0.00E+00	U-235	4.46E-07	
		U-236	1.76E-07	
		U-238	1.32E-06	

Waste Stream Description

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste. This stream differs from SR-W026 because solvent rags are suspected to be in the waste.

Final Form Radionuclides

U-238

Total Activity (Ci)

7.39E-01

5.76E-06

6.03E-02

1.93E-03

4.28E+02

1.73E+00

4.86E-01

7.22E+00

8.73E-04

5.95E-02

2.96E-11

7.11E-06

2.88E-17

7.47E-08

9.15E-02

5.34E-06

1.30E-07

1.22E-12

Waste Stream ID: SR-W027-221H-HEPA

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S5000 Defense Dete	rmination Defense	-Related H	andling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Composite Filter	Waste	Inventory Date	12/31/2022
Stream Name	CH TRU HEPA filters			Activities Decaye	d to CY 2022

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	1.1	0.0	1.1	
SWB Dir Ld w/o Liner	22.6	22.6	45.1	
Final Form Total	23.8	22.6	46.4	

Waste Material Parame	Final	
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	2.01E+02	Am-241
Aluminum-based Metal/Alloys	1.11E+03	Am-243
Other Metal/Alloys	0.00E+00	Cs-137
Other Inorganic Materials	4.73E+02	Np-237
Cellulose	3.10E+02	Pu-238
Rubber	4.38E+00	Pu-239
Plastic	6.41E+02	Pu-240
Cement	0.00E+00	Pu-241
Solidified Inorganic Material	0.00E+00	Pu-242
Solidified Organic Material	0.00E+00	Sr-90
Soil	0.00E+00	Th-229
Vitrified	0.00E+00	Th-230
Packaging Material, Cellulose	0.00E+00	Th-232
Packaging Material, Plastic	7.71E+00	U-233
Packaging Material, Rubber	9.42E+00	U-234
Packaging Material, Steel	7.12E+03	U-235
Packaging Material, Lead	0.00E+00	U-236
	_	11.220

Haz. Waste No(s).
D006, D007, D008,
D009, D011, D019,
D022, D029, D035,
D039, D040, D043

TRUCON Code(s) 119/219

Waste Stream Description

This waste stream is mixed TRU composed of HEPA filters.

Waste Stream ID: SR-W027-221H-HET

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S50	Defense Determi	nation Defense	-Related	Handling	СН
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Grou	p Heterogeneous Deb	ris Waste	Inventory Da	ate 12/31/	/2022
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 221H				Activities Deca	yed to CY	2022

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 Drum Dir Ld w/o Liner	0.2	0.0	0.2				
SWB Dir Ld w/o Liner	30.1	0.0	30.1				

Final Form Total 33.4 0.0 33.4

Waste Material Parameters		Final For	m Radionuclides	Haz. Waste No(s).
	Total Mass		Total Activity	D006, D008, D009, D019, D022, D029,
Material Parameter	(kg)	Isotope	(Ci)	D039, D040, D043,
Iron-based Metal/Alloys	8.61E+02	Am-241	6.11E+00	F001, F002, F003,
Aluminum-based Metal/Alloys	4.01E+01	Am-243	6.19E-05	F005, U133
Other Metal/Alloys	1.32E+01	Cm-244	7.55E-02	
Other Inorganic Materials	3.18E+02	Cs-137	4.34E-04	
Cellulose	2.04E+02	Np-237	5.16E-02	TRUCON Code(s)
Rubber	5.61E+02	Pu-238	2.56E+03	125/225
Plastic	1.77E+03	Pu-239	8.68E+00	
Cement	0.00E+00	Pu-240	2.44E+00	
Solidified Inorganic Material	4.63E+00	Pu-241	1.48E+02	
Solidified Organic Material	3.24E-01	Pu-242	5.53E-03	
Soil	0.00E+00	Sr-90	4.28E-04	
Vitrified	0.00E+00	Th-229	8.63E-06	
Packaging Material, Cellulose	0.00E+00	Th-230	3.75E-05	
Packaging Material, Plastic	1.16E+02	Th-232	7.81E-05	
Packaging Material, Rubber	7.70E+00	U-233	1.23E-02	
Packaging Material, Steel	5.08E+03	U-234	5.40E-01	
Packaging Material, Lead	0.00E+00	U-235	7.93E-05	
		U-236	5.78E-07	
		U-238	8.27E-05	

Waste Stream Description

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste. This stream differs from SR-W026 because solvent rags are suspected to be in the waste. Small HEPA filters, sludges, resins, absorbed liquids, and large metal equipment are also in these waste streams.

Waste Stream ID: SR-W027-221H-HET-C

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S50	Defense Determin	nation Defense	-Related	Handling	СН
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Grou	p Heterogeneous Debr	is Waste	Inventory Dat	te 12/31,	/2022
Stream Name	CH Mixed TRU - Heterogeneous debris from 221H				Activities Decay	ed to CY	2022

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	30.7	5.3	35.9			
SWB Dir Ld w/o Liner	7.5	9.4	16.9			
Final Form Total	39.0	14.7	53.7			

Waste Material Parameters				
	Total			
	Mass			
Material Parameter	(kg)	ls		
Iron-based Metal/Alloys	2.51E+03	Δ		
Aluminum-based Metal/Alloys	3.82E+02	Α		
Other Metal/Alloys	1.63E+01	C		
Other Inorganic Materials	8.57E+02	Ν		
Cellulose	2.33E+02	Р		
Rubber	1.40E+03	Р		
Plastic	2.89E+03	Р		
Cement	0.00E+00	Р		
Solidified Inorganic Material	8.19E+01	Р		
Solidified Organic Material	0.00E+00	S		
Soil	0.00E+00	Т		
Vitrified	0.00E+00	Т		
Packaging Material, Cellulose	0.00E+00	Т		
Packaging Material, Plastic	3.08E+01	L		
Packaging Material, Rubber	2.39E+01	L		
Packaging Material, Steel	7.37E+03	L		
Packaging Material, Lead	0.00E+00	L		
_		ι		

Total Activity (Ci) Am-241 1.33E+01 Am-243 3.85E-04 Cs-137 1.46E-03 Np-237 1.27E-01 Pu-238 9.22E+01 Pu-239 4.65E+01 Pu-240 1.12E+01 Pu-241 6.51E+01 Pu-242 6.34E-03 Sr-90 1.44E-03 Th-229 6.68E-07 Th-230 1.90E-06 Th-232 5.22E-16 U-233 9.51E-04 U-234 2.69E-02 U-235 3.88E-04 U-236 2.65E-06	Final Form Radionuclides				
Isotope (Ci) Am-241		Total			
Am-241 1.33E+01 Am-243 3.85E-04 Cs-137 1.46E-03 Np-237 1.27E-01 Pu-238 9.22E+01 Pu-239 4.65E+01 Pu-240 1.12E+01 Pu-241 6.51E+01 Pu-242 6.34E-03 Sr-90 1.44E-03 Th-229 6.68E-07 Th-230 1.90E-06 Th-232 5.22E-16 U-233 9.51E-04 U-234 2.69E-02 U-235 3.88E-04 U-236 2.65E-06		Activity			
Am-243 3.85E-04 Cs-137 1.46E-03 Np-237 1.27E-01 Pu-238 9.22E+01 Pu-239 4.65E+01 Pu-240 1.12E+01 Pu-241 6.51E+01 Pu-242 6.34E-03 Sr-90 1.44E-03 Th-229 6.68E-07 Th-230 1.90E-06 Th-232 5.22E-16 U-233 9.51E-04 U-234 2.69E-02 U-235 3.88E-04 U-236 2.65E-06	Isotope	(Ci)			
Cs-137 1.46E-03 Np-237 1.27E-01 Pu-238 9.22E+01 Pu-239 4.65E+01 Pu-240 1.12E+01 Pu-241 6.51E+01 Pu-242 6.34E-03 Sr-90 1.44E-03 Th-229 6.68E-07 Th-230 1.90E-06 Th-232 5.22E-16 U-233 9.51E-04 U-234 2.69E-02 U-235 3.88E-04 U-236 2.65E-06	Am-241	1.33E+01			
Np-237 1.27E-01 Pu-238 9.22E+01 Pu-239 4.65E+01 Pu-240 1.12E+01 Pu-241 6.51E+01 Pu-242 6.34E-03 Sr-90 1.44E-03 Th-229 6.68E-07 Th-230 1.90E-06 Th-232 5.22E-16 U-233 9.51E-04 U-234 2.69E-02 U-235 3.88E-04 U-236 2.65E-06	Am-243	3.85E-04			
Pu-238 9.22E+01 Pu-239 4.65E+01 Pu-240 1.12E+01 Pu-241 6.51E+01 Pu-242 6.34E-03 Sr-90 1.44E-03 Th-229 6.68E-07 Th-230 1.90E-06 Th-232 5.22E-16 U-233 9.51E-04 U-234 2.69E-02 U-235 3.88E-04 U-236 2.65E-06	Cs-137	1.46E-03			
Pu-239	Np-237	1.27E-01			
Pu-240 1.12E+01 Pu-241 6.51E+01 Pu-242 6.34E-03 Sr-90 1.44E-03 Th-229 6.68E-07 Th-230 1.90E-06 Th-232 5.22E-16 U-233 9.51E-04 U-234 2.69E-02 U-235 3.88E-04 U-236 2.65E-06	Pu-238	9.22E+01			
Pu-241 6.51E+01 Pu-242 6.34E-03 Sr-90 1.44E-03 Th-229 6.68E-07 Th-230 1.90E-06 Th-232 5.22E-16 U-233 9.51E-04 U-234 2.69E-02 U-235 3.88E-04 U-236 2.65E-06	Pu-239	4.65E+01			
Pu-242 6.34E-03 Sr-90 1.44E-03 Th-229 6.68E-07 Th-230 1.90E-06 Th-232 5.22E-16 U-233 9.51E-04 U-234 2.69E-02 U-235 3.88E-04 U-236 2.65E-06	Pu-240	1.12E+01			
Sr-90 1.44E-03 Th-229 6.68E-07 Th-230 1.90E-06 Th-232 5.22E-16 U-233 9.51E-04 U-234 2.69E-02 U-235 3.88E-04 U-236 2.65E-06	Pu-241	6.51E+01			
Th-229 6.68E-07 Th-230 1.90E-06 Th-232 5.22E-16 U-233 9.51E-04 U-234 2.69E-02 U-235 3.88E-04 U-236 2.65E-06	Pu-242	6.34E-03			
Th-230 1.90E-06 Th-232 5.22E-16 U-233 9.51E-04 U-234 2.69E-02 U-235 3.88E-04 U-236 2.65E-06	Sr-90	1.44E-03			
Th-232 5.22E-16 U-233 9.51E-04 U-234 2.69E-02 U-235 3.88E-04 U-236 2.65E-06	Th-229	6.68E-07			
U-233 9.51E-04 U-234 2.69E-02 U-235 3.88E-04 U-236 2.65E-06	Th-230	1.90E-06			
U-234 2.69E-02 U-235 3.88E-04 U-236 2.65E-06	Th-232	5.22E-16			
U-235 3.88E-04 U-236 2.65E-06	U-233	9.51E-04			
U-236 2.65E-06	U-234	2.69E-02			
	U-235	3.88E-04			
11-238 2 37F-05	U-236	2.65E-06			
0 230 2.37L 03	U-238	2.37E-05			

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

TRUCON Code(s) 125/225

Waste Stream Description

This waste stream is primarily solids consisting of booties, lab coats, floor sweeping, labware, rags, and other job control waste. Small HEPA filters, sludges, resins, absorbed liquids, and large metal equipment are also in this waste stream.

Isotope Am-241

Am-243

Cs-137

Np-237

Pu-238

Pu-239

Pu-240

Pu-241

Pu-242

Th-229

Th-230

Th-232

U-233

U-234

U-235

U-236

U-238

Sr-90

Waste Stream ID: SR-W027-221H-HOM

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S3000 Defense Determinatio	n Defense-Related	Handling CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group Solidified Inorganics	Inventory	Date 12/31/2022
Stream Name	CH Mixed TRU Absorbed / Stabilized Liquids		Activities De	ecayed to CY 2022

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 Paramete	rs
	-

	Total Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	5.03E+00
Aluminum-based Metal/Alloys	0.00E+00
Other Metal/Alloys	0.00E+00
Other Inorganic Materials	8.89E+01
Cellulose	3.35E+00
Rubber	3.35E+00
Plastic	3.86E+01
Cement	0.00E+00
Solidified Inorganic Material	2.68E+01
Solidified Organic Material	0.00E+00
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	2.31E+01
Packaging Material, Rubber	4.72E-01
Packaging Material, Steel	1.09E+02
Packaging Material, Lead	0.00E+00

Final Form Radionuclides Haz. Waste No(s). Total

Activity (Ci)

2.92E-01

9.68E-08

3.86E-03

1.17E-04

6.08E-01

6.70E-01

1.82E-01

1.49E+00

6.51E-05

3.81E-03

3.70E-09

1.05E-07

2.36E-15

4.68E-06

1.28E-03

2.42E-05

5.34E-06

1.27E-06

Hazi traste Ho(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.

Waste Stream ID: SR-W027-235F-HEPA

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S5000 Defense Determin	nation Defense-Related	Handling CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group Composite Filter Was	ste Inventory	Date 12/31/2022
Stream Name	CH Mixed TRU consisting of HEPA Filters from the 235-F.		Activities De	cayed to CY 2022

Waste	Volume	Detail	(m ³)

Final Form Volumes			
Container Type Stored Proj.			
55-gal Drum Dir Ld w/ Liner	0.2	0.0	0.2
SWB Dir Ld w/o Liner	3.8	0.0	3.8
Final Form Total	4.0	0.0	4.0

Waste Material Parameters					
Total Mass					
Material Parameter	(kg)				
Iron-based Metal/Alloys	1.14E+01				
Aluminum-based Metal/Alloys	0.00E+00				
Other Metal/Alloys	0.00E+00				
Other Inorganic Materials	2.79E+00				
Cellulose	1.12E+02				
Rubber	0.00E+00				
Plastic	7.01E+01				
Cement	0.00E+00				
Solidified Inorganic Material	0.00E+00				
Solidified Organic Material	0.00E+00				
Soil	0.00E+00				
Vitrified	0.00E+00				
Packaging Material, Cellulose	0.00E+00				
Packaging Material, Plastic	7.71E+00				
Packaging Material, Rubber	8.44E-01				
Packaging Material, Steel	6.07E+02				
Packaging Material, Lead	0.00E+00				

Final Form Radionuclides		
Total		
	Activity	
Isotope	(Ci)	
Am-241	4.59E-02	
Am-243	1.71E-13	
Cs-137	2.49E-07	
Np-237	7.06E-04	
Pu-238	3.84E+00	
Pu-239	2.69E-02	
Pu-240	1.17E-02	
Pu-241	1.37E-01	
Pu-242	2.06E-05	
Sr-90	2.46E-07	
Th-229	8.53E-12	
Th-230	9.06E-08	
Th-232	5.45E-19	
U-233	2.42E-08	
U-234	1.28E-03	
U-235	1.04E-05	
U-236	2.76E-09	
U-238	2.56E-14	

Haz. Waste No(s).

D004, D005, D006,
D007, D008, D009,
D010, D011, D018,
D019, D035

TRUCON Code(s) 119/219

Waste Stream Description

This waste stream is composed of spent HEPA Filters.

Waste Stream ID: SR-W027-235F-HET

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category	S5000	Defense Determin	ation Defense	-Related	Handling	СН
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Gr	roup He	eterogeneous Debr	is Waste	Inventory Da	ite 12/31	/2022
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 235F					Activities Deca	yed to CY	2022

Waste Vo	lume Detail	(m ³)
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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	10.3	0.0	10.3
SWB Dir Ld w/o Liner	5.6	0.0	5.6
Final Form Total	18.7	0.0	18.7

Waste Material Parameters		
Material Parameter	Total Mass (kg)	
Iron-based Metal/Alloys	1.06E+03	
Aluminum-based Metal/Alloys	2.97E+01	
Other Metal/Alloys	5.27E+01	
Other Inorganic Materials	1.48E+02	
Cellulose	1.82E+02	
Rubber	4.97E+02	
Plastic	8.98E+02	
Cement	0.00E+00	
Solidified Inorganic Material	3.38E+00	
Solidified Organic Material	1.63E+00	
Soil	6.03E-02	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	1.00E+02	
Packaging Material, Rubber	8.40E+00	
Packaging Material, Steel	2.56E+03	
Packaging Material, Lead	0.00E+00	

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	5.13E+00		
Am-243	2.81E-05		
Cm-244	4.94E-03		
Cs-137	4.08E-05		
Np-237	8.17E-02		
Pu-238	2.22E+03		
Pu-239	3.09E+00		
Pu-240	1.33E+00		
Pu-241	7.73E+01		
Pu-242	2.55E-03		
Sr-90	4.03E-05		
Th-229	2.97E-06		
Th-230	4.50E-05		
Th-232	2.88E-05		
U-233	4.22E-03		
U-234	6.38E-01		
U-235	6.07E-05		
U-236	3.16E-07		
U-238	2.76E-05		

Haz. Waste No(s). D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, F002, F003

TRUCON Code(s) 125/225

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.

Final Form Radionuclides

Total Activity (Ci)

3.44E-02

9.16E-08

4.89E+01

3.66E-02

2.00E-02

6.78E-01 2.38E-05

5.08E-16

6.69E-08

1.46E-18

1.82E-12

1.44E-03

3.61E-10

5.93E-09

3.70E-14

Waste Stream ID: SR-W027-235F-HOM

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S3000 Defense Determination	n Defense-Related	Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Solidified Inorganics	Inventory D	Date 12/31/2022
Stream Name	CH mixed TRU S3000 solids from 235F		Activities Dec	cayed to CY 2022

Waste Volume I	Detail ((m 3)
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Final Form Volumes					
Container Type Stored Proj. Tota					
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		Final F
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	5.83E-01	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Np-237
Other Metal/Alloys	0.00E+00	Pu-238
Other Inorganic Materials	5.83E-01	Pu-239
Cellulose	5.83E-01	Pu-240
Rubber	5.83E-01	Pu-241
Plastic	1.75E+00	Pu-242
Cement	0.00E+00	Th-229
Solidified Inorganic Material	5.42E+01	Th-230
Solidified Organic Material	0.00E+00	Th-232
Soil	0.00E+00	U-233
Vitrified	0.00E+00	U-234
Packaging Material, Cellulose	0.00E+00	U-235
Packaging Material, Plastic	7.71E+00	U-236
Packaging Material, Rubber	1.18E-01	U-238
Packaging Material, Steel	2.72E+01	<u></u>
Packaging Material, Lead	0.00E+00	

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

TRUCON Code(s) 127/227

Waste Stream Description

This waste consists of sludge from tank cleanout.

Waste Stream ID: SR-W027-321-322M-HET

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S5000 Defense Determine	nation Defense-	-Related	Handling	СН
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group Heterogeneous Debr	ris Waste	Inventory Dat	te 12/31/2	2022
Stream Name	CH Mixed TRU Debris (S5000)			Activities Decay	ed to CY	2022

waste volume Detail (iii)					
Final Form Volumes					
Container Type	Stored	Proj.	Total		
55-gal Drum Dir Ld w/ Liner	1.3	0.0	1.3		

Waste Material Parameters				
	Total			
	Mass			
Material Parameter	(kg)	Is		
Iron-based Metal/Alloys	1.77E+02	Α		
Aluminum-based Metal/Alloys	4.52E+00	N		
Other Metal/Alloys	1.04E+01	Р		
Other Inorganic Materials	2.31E+01	Р		
Cellulose	2.94E+01	Р		
Rubber	8.55E+01	Р		
Plastic	1.21E+02	Р		
Cement	0.00E+00	Т		
Solidified Inorganic Material	0.00E+00	Т		
Solidified Organic Material	1.36E+00	Т		
Soil	0.00E+00	U		
Vitrified	0.00E+00	U		
Packaging Material, Cellulose	0.00E+00	U		
Packaging Material, Plastic	4.63E+01	U		
Packaging Material, Rubber	7.08E-01	U		
Packaging Material, Steel	1.63E+02			
Packaging Material, Lead	0.00E+00			

Final Form Radionuclides			
Total			
	Activity		
Isotope	(Ci)		
Am-241	3.00E+00		
Np-237	6.30E-04		
Pu-238	2.93E-02		
Pu-239	5.26E-02		
Pu-240	1.24E-02		
Pu-241	1.23E+02		
Pu-242	2.16E-06		
Th-229	9.59E-12		
Th-230	3.23E-11		
Th-232	7.35E-19		
U-233	2.43E-08		
U-234	7.71E-07		
U-235	4.66E-10		
U-236	3.31E-09		
U-238	3.02E-15		

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

TRUCON Code(s) 125/225, 129/229

Waste Stream Description

Wasta Valuma Datail (m 3)

Final Form Total

CH Mixed TRU waste resulting from target assembly fabrication leading to production of defense related nuclear materials.

1.3

0.0

1.3

Waste Stream ID: SR-W027-773A-HET

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S5000 Defense Determi	nation Defense	-Related H	andling	СН
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Heterogeneous Debi	ris Waste	Inventory Date	12/31/	/2022
Stream Name	CH Mixed TRU/F listed solvents - Heterogeneous debris from 773A			Activities Decaye	d to CY	2022

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	
55-gal Drum Dir Ld w/o Liner	18.7	21.8	40.5	
SWB Dir Ld w/o Liner	9.4	35.7	45.1	
Final Form Total	37.5	57.6	95.1	

Waste Material Parameters		
	Total Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	3.44E+03	
Aluminum-based Metal/Alloys	6.53E+01	
Other Metal/Alloys	1.19E+02	
Other Inorganic Materials	1.35E+03	
Cellulose	1.09E+03	
Rubber	6.59E+02	
Plastic	3.00E+03	
Cement	0.00E+00	
Solidified Inorganic Material	1.48E+01	
Solidified Organic Material	2.09E-01	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	3.47E+02	
Packaging Material, Rubber	3.68E+01	
Packaging Material, Steel	1.34E+04	
Packaging Material, Lead	0.00E+00	

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	1.69E+01	
Am-243	1.02E-01	
Cm-244	7.15E+00	
Cs-137	6.62E-02	
Np-237	2.30E-02	
Pu-238	9.31E+02	
Pu-239	4.11E+01	
Pu-240	9.45E+00	
Pu-241	1.23E+02	
Pu-242	2.04E-03	
Pu-244	3.40E-13	
Sr-90	6.54E-02	
Th-229	3.11E-06	
Th-230	1.37E-05	
Th-232	5.11E-05	
U-233	4.42E-03	
U-234	1.97E-01	
U-235	1.07E-04	
U-236	2.24E-06	
U-238	1.01E-03	

Haz. Waste No(s).

D004, D005, D006, D007, D008, D009, D010, D011, D019, D022, D027, D028, D029, D043, F002, F003, F004, F005

TRUCON Code(s)

125/225

Waste Stream Description

This 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.

Waste Stream ID: SR-W027-773A-HET-A

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S500	Defense Determin	nation Defense	-Related	Handling	СН
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31,	/2022
Stream Name	Idaho sample material combined with SRNL waste				Activities Decay	ed to CY	2022

Waste Volume Detai	I (m ³)	(m 3)
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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					

Waste Material Parameters

Waste Material Parameters		Final Form	Radionuclides
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	0.00E+00	Am-241	9.75E-03
Aluminum-based Metal/Alloys	2.18E-02	Cs-137	9.32E-08
Other Metal/Alloys	0.00E+00	Np-237	3.29E-07
Other Inorganic Materials	7.99E-02	Pu-238	3.10E-03
Cellulose	3.63E-02	Pu-239	9.06E-03
Rubber	0.00E+00	Pu-240	2.25E-03
Plastic	1.31E+00	Pu-241	1.13E-01
Cement	0.00E+00	Pu-242	2.63E-07
Solidified Inorganic Material	1.02E-01	Sr-90	6.92E-08
Solidified Organic Material	0.00E+00	Th-229	2.49E-16
Soil	0.00E+00	Th-230	1.98E-12
Vitrified	0.00E+00	Th-232	6.58E-21
Packaging Material, Cellulose	0.00E+00	U-233	2.84E-12
Packaging Material, Plastic	0.00E+00	U-234	1.16E-07
Packaging Material, Rubber	1.18E-01	U-235	7.80E-09
Packaging Material, Steel	2.72E+01	U-236	1.33E-10
Packaging Material, Lead	0.00E+00	U-238	2.62E-07

Haz Wasto No(s)

Haz. waste No(s).
D004, D005, D006,
D007, D008, D009,
D010, D011, D022,
D026, D027, D028,
D029, D030, D032,
D033, D034, D036,
D037, D043, F001,
F002, F004, F005,
F006

No TRUCON **Codes Provided**

Waste Stream Description

Mixed debris waste that contains laboratory sample material originating from Idaho National Laboratory, Fluor Idaho (INL) combined with Savannah River National Laboratory (SRNL) job control waste

Isotope Cs-137

Pu-238

Pu-239

Sr-90

Th-230

U-234

U-235

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 Da	ate 12/31/2022
Stream Name	CH Mixed TRU Homogeneous Solids (S3000)		Activities Deca	yed to CY 2022

Waste	Volume	Detail ((m ³)
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Final Form Volumes					
Container Type Stored Proj. Tot					
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

	Total
	Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	2.40E+01
Aluminum-based Metal/Alloys	0.00E+00
Other Metal/Alloys	0.00E+00
Other Inorganic Materials	2.35E-01
Cellulose	1.17E+00
Rubber	4.70E-01
Plastic	7.05E+00
Cement	0.00E+00
Solidified Inorganic Material	2.28E+01
Solidified Organic Material	1.77E+02
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	2.31E+01
Packaging Material, Rubber	3.54E-01
Packaging Material, Steel	8.16E+01
Packaging Material, Lead	0.00E+00

Haz Wasta No(s) **Final Form Radionuclides** Total

Activity (Ci)

1.98E-02

7.56E+01

4.06E-02

1.95E-02

1.43E-06

1.82E-02

3.60E-10

naz. waste No(s).
D004, D005, D006,
D007, D008, D009,
D010, D011, D019,
D022, D027, D028,
D029, D043, F002,
F004, F005

TRUCON Code(s) 127/227

Waste Stream Description

CH Mixed TRU Homogeneous Solids resulting from liquid absorption at the SRNL.

Waste Stream ID: SR-W027-FB-Pre86-C

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S5000	Defense Determination	on Defense-Related	Handling CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group C	ombustible Waste	Invento	ry Date 12/31/202
Stream Name	CH Mixed TRU - Heterogeneous debris from FB-Line			Activities	Decayed to CY 202

Waste '	Volume	Detail ((m ³)
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Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	30.9	0.0	30.9
SWB Dir Ld w/o Liner	28.2	0.0	28.2
Final Form Total	59.1	0.0	59.1

Waste Material Parameters		
	Total Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	1.54E+03	
Aluminum-based Metal/Alloys	1.54E+01	
Other Metal/Alloys	1.93E+01	
Other Inorganic Materials	5.19E+02	
Cellulose	5.52E+02	
Rubber	5.01E+02	
Plastic	3.51E+03	
Cement	0.00E+00	
Solidified Inorganic Material	1.12E+01	
Solidified Organic Material	2.60E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	1.13E+03	
Packaging Material, Rubber	2.28E+01	
Packaging Material, Steel	8.35E+03	
Packaging Material, Lead	0.00E+00	

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	5.40E+01		
Am-243	7.78E-05		
Cm-244	1.44E-01		
Cs-137	2.43E-04		
Np-237	3.00E-03		
Pu-238	2.11E+01		
Pu-239	1.52E+02		
Pu-240	4.34E+01		
Pu-241	4.21E+02		
Pu-242	7.98E-03		
Sr-90	2.41E-04		
Th-229	5.69E-07		
Th-230	3.14E-07		
Th-232	4.25E-06		
U-233	7.18E-04		
U-234	4.07E-03		
U-235	1.18E-05		
U-236	1.16E-05		
U-238	4.60E-05		

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

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.

Waste Stream ID: SR-W027-HBL-Box

Appendix A

Waste Profile Report

Site	Savannah River Site	Summary Category S500	0 Defense Determin	nation Defense	-Related I	landling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Date	e 12/31,	/2022
Stream Name	CH mixed TRU from 221H				Activities Decay	ed to CY	2022

Waste	Volume	Detail	(m 3)
vvaste	volulle	Detail	1111 <i>1</i>

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	3.8	0.0	3.8
SWB Dir Ld w/o Liner	39.5	0.0	39.5
Final Form Total	43.3	0.0	43.3

Waste Material Parameters			
	Total Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	1.83E+03		
Aluminum-based Metal/Alloys	4.85E-01		
Other Metal/Alloys	1.68E+00		
Other Inorganic Materials	1.51E+02		
Cellulose	2.13E+03		
Rubber	7.49E+01		
Plastic	1.25E+03		
Cement	0.00E+00		
Solidified Inorganic Material	0.00E+00		
Solidified Organic Material	0.00E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	1.39E+02		
Packaging Material, Rubber	9.75E+00		
Packaging Material, Steel	6.58E+03		
Packaging Material, Lead	0.00E+00		

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Am-241	2.73E-01	
Am-243	2.19E-08	
Cm-244	2.13E-03	
Cs-137	8.34E-04	
Np-237	1.87E-03	
Pu-238	1.11E+02	
Pu-239	6.08E-01	
Pu-240	1.81E-01	
Pu-241	2.35E+00	
Pu-242	3.52E-04	
Sr-90	8.24E-04	
Th-229	2.26E-11	
Th-230	1.56E-06	
Th-232	8.46E-18	
U-233	6.43E-08	
U-234	2.25E-02	
U-235	1.99E-07	
U-236	4.29E-08	

4.37E-13

U-238

Haz. Waste No(s). D006, D007, D008, D009, D011, D019, D022, D029, D043, F002, F005, U133

TRUCON Code(s) 125/225

Waste Stream Description

This waste stream is defense related debris consisting of large equipment and job control waste packaged in large steel boxes.

	DOE/TRU-23-3425, Rev. 0 Annual Transuranic Waste Inventory Report - 2023
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, 2022. 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
- NT Nevada National Security Site
- OR Oak Ridge 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 Determi	nation Pending	Determination H	andling	СН
Source Cat.	Source Information Not Compiled	Waste Matrix Code Group Heterogeneous Deb	ris Waste	Inventory Date	12/31/	/2022
Stream Name	Parks Township TRU Waste			Activities a	s of CY	2000

Waste Volume	Detail ((m ³)
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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			
	Total		
	Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	0.00E+00		
Aluminum-based Metal/Alloys	0.00E+00		
Other Metal/Alloys	0.00E+00		
Other Inorganic Materials	0.00E+00		
Cellulose	0.00E+00		
Rubber	0.00E+00		
Plastic	0.00E+00		
Cement	0.00E+00		
Solidified Inorganic Material	0.00E+00		
Solidified Organic Material	0.00E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	0.00E+00		

3.33E+00

1.39E+03

0.00E+00

Packaging Material, Rubber

Packaging Material, Steel

Packaging Material, Lead

Final Form	Radionuclides	
	Total Activity	
Isotope	(Ci)	
Am-241	7.68E+01	
Cs-137	3.96E-02	
Pu-238	3.31E+01	
Pu-239	1.75E+02	
Pu-240	6.59E+01	
Pu-241	1.76E+03	
Pu-242	3.89E-02	
U-234	2.97E-04	
U-235	1.34E-05	
U-238	2.69E-05	

No Hazardous Waste Numbers Provided
No TRUCON Codes Provided

Waste Stream Description

Waste from Parks Township ROD 63FR3629, 65FR82985, 69FR39446 amended 27 February 2008 Point of Contact William Spurgeon.

Waste Stream ID: BL-Parks-A Appendix B

Waste Profile Report

Site	Babcock and Wilcox Nuclear Energy Services	Summary Category S50	Defense Determi	nation Pending	Determination	Handling	RH
Source Cat.	Source Information Not Compiled	Waste Matrix Code Grou	Heterogeneous Deb	ris Waste	Inventory Da	te 12/31	/2022
Stream Name	Parks Township TRU Waste				Activities	as of CY	2000

Waste Volume D	etail (m ³	١
----------------	-----------------------	---

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				
	Total Mass			
Material Parameter	(kg)			
Iron-based Metal/Alloys	0.00E+00	/		
Aluminum-based Metal/Alloys	0.00E+00	Ī		
Other Metal/Alloys	0.00E+00			
Other Inorganic Materials	0.00E+00			
Cellulose	0.00E+00			
Rubber	0.00E+00			
Plastic	0.00E+00			
Cement	0.00E+00			
Solidified Inorganic Material	0.00E+00			
Solidified Organic Material	0.00E+00			
Soil	0.00E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	5.43E+00			
Packaging Material, Rubber	3.54E-01			

5.81E+02

0.00E+00

Final Form Radionuclides			
Total			
	Activity		
Isotope	(Ci)		
Am-241	5.00E-02		
Pu-239	3.92E+00	l	

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

Packaging Material, Steel

Packaging Material, Lead

Waste Numbers Provided

No TRUCON
Codes Provided

Waste Stream ID: IN-DD-001

Final Form Total

Appendix B

Waste Profile Report

Site	Idaho National Laboratory	Summary Category	S9000	Defense Determin	ation Defense-	Related	Handling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Gr	roup U	nknown		Inventory Da	te 12/31	/2022
Stream Name	To Be Determined				_	Activities	as of CY	N/A
Waste Volume	e Detail (m ³)	Waste Material P	arame	ters	No Final For	m l	No Hazard	ous

waste volume Detail (III ')				
Final Form Volumes				
Container Type	Stored	Proj.	Total	
SWB Dir Ld w/ Liner	0.0	4000.6	4000.6	

0.0

4000.6

4000.6

Waste Material Parameters		No Final Form
	Total	Radionuclides Provided
	Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	0.00E+00	
Aluminum-based Metal/Alloys	0.00E+00	
Other Metal/Alloys	0.00E+00	
Other Inorganic Materials	0.00E+00	
Cellulose	0.00E+00	
Rubber	0.00E+00	
Plastic	0.00E+00	
Cement	0.00E+00	
Solidified Inorganic Material	0.00E+00	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	4.83E+03	
Packaging Material, Rubber	7.72E+02	
Packaging Material, Steel	6.17E+05	
Packaging Material, Lead	0.00E+00	

Waste Stream Description

Waste generated during D&D of AMWTP

B - IN - 1

Waste Stream ID: IN-ID-TRU-RHNH

Appendix B

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S50	Defense Determi	nation Defense	-Related	Handling	RH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Grou	p Heterogeneous Deb	ris Waste	Inventory Da	ate 12/31	/2022
Stream Name	Newly Generated Secondary TRU Waste from Repackaging of MFC RH-TRU				Activitie	s as of CY	2017

Waste Volume Detail (m³)				
Final Form Volumes				
Stored	Proj.	Total		
2.5	0.0	2.5		
	Stored	Stored Proj.		

2.5

0.0

2.5

Waste Material Parameters			
	Total		
	Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	0.00E+00		
Aluminum-based Metal/Alloys	0.00E+00		
Other Metal/Alloys	0.00E+00		
Other Inorganic Materials	0.00E+00		
Cellulose	0.00E+00		
Rubber	0.00E+00		
Plastic	0.00E+00		
Cement	0.00E+00		
Solidified Inorganic Material	0.00E+00		
Solidified Organic Material	0.00E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	2.17E+01		
Packaging Material, Rubber	1.42E+00		
Packaging Material, Steel	2.32E+03		
Packaging Material, Lead	0.00E+00		

Final Form Radionuclides			
	Total Activity		
Isotope	(Ci)		
Am-241	1.57E-01		
Cs-137	1.01E+01		
Pu-238	5.13E-02		
Pu-239	2.56E-01		
Pu-240	6.08E-02		
Pu-241	1.08E+00		
Pu-242	7.91E-05		
Sr-90	6.42E+00		
U-233	1.43E-03		
U-234	8.84E-04		
U-235	4.90E-05		
U-238	1.34E-05		

No Hazardous Waste Numbers Provided
No TRUCON Codes Provided

Waste Stream Description

Final Form Total

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.

Waste Stream ID: IN-SBW-01A

Appendix B

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S3000 Defense Determination	on Defense-Related	Handling RH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group Solidified Inorganics	Invento	ry Date 12/31/2022
Stream Name	SBW Treatment - Steam Reforming - Carbonate Waste Form		Acti	vities as of CY 2006

Waste Volume Detail (m ³)				
Final Form	Volum	es		
Container Type		Stored	Proj.	Total
RH Can w/ Remov Lid - Dir Ld		1335.0	0.0	1335.0

1335.0

0.0

1335.0

Waste Material Parameters			
	Total Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	0.00E+00		
Aluminum-based Metal/Alloys	0.00E+00		
Other Metal/Alloys	0.00E+00		
Other Inorganic Materials	0.00E+00		
Cellulose	0.00E+00		
Rubber	0.00E+00		
Plastic	0.00E+00		
Cement	0.00E+00		
Solidified Inorganic Material	1.31E+06		
Solidified Organic Material	0.00E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	0.00E+00		
Packaging Material, Rubber	0.00E+00		
Packaging Material, Steel	7.49E+05		
Packaging Material, Lead	0.00E+00		

	n Radionuclides Total
	Activity
Isotope	(Ci)
Am-241	3.16E+02
Am-243	1.71E-01
Cm-244	1.21E+00
Cs-137	1.74E+05
Np-237	2.41E+00
Pu-238	3.73E+03
Pu-239	4.04E+02
Pu-240	1.50E+02
Pu-241	1.52E+03
Pu-242	7.73E-02
Sr-90	1.14E+05
U-233	3.38E-02
U-234	5.38E+00
U-235	1.32E-01
U-238	1.29E-01

Haz. Waste No(s). D004, D005, D006, D007, D008, D009, D010, D011, F001, F002, F005, U134

No TRUCON
Codes Provided

Waste Stream Description

Final Form Total

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 1500 canisters with a surface dose rate <100 Rem/hr.

Annual Transuranic Waste Inventory Report - 2023

Waste Stream ID: IN-SBW-01B

Appendix B

Waste Profile Report

Site	Idaho National Laboratory	Summary Category S5000 Defense Determine	nation Defense-	-Related Ha	andling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Heterogeneous Debi	ris Waste	Inventory Date	12/31/2	2022
Stream Name	SBW Treatment - Steam Reforming Process - Debris			Activities as	of CY	2023

Waste Volume	Detail ((m ³)
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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		
	Total Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	6.23E+04	
Aluminum-based Metal/Alloys	0.00E+00	
Other Metal/Alloys	0.00E+00	
Other Inorganic Materials	1.78E+02	
Cellulose	0.00E+00	
Rubber	0.00E+00	
Plastic	0.00E+00	
Cement	0.00E+00	
Solidified Inorganic Material	0.00E+00	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	0.00E+00	
Packaging Material, Rubber	0.00E+00	
Packaging Material, Steel	4.99E+04	
Packaging Material, Lead	0.00E+00	

Final Form	Radionuclides
	Total
	Activity
Isotope	(Ci)
Am-241	4.69E-01
Am-243	2.54E-04
Cm-244	1.80E-03
Cs-137	2.58E+02
Np-237	3.59E-03
Pu-238	5.54E+00
Pu-239	6.01E-01
Pu-240	2.23E-01
Pu-241	2.26E+00
Pu-242	1.15E-04
Sr-90	1.69E+02
U-233	5.02E-05
U-234	7.99E-03
U-235	1.96E-04
U-238	1.92E-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 debris from the steam reforming process would include spent HEPA filters and other failed equipment.

Waste Stream ID: NT-W021

Appendix B

Waste Profile Report

Site	Nevada National Security Site	Summary Category S5000 Defense Determin	nation Defense-	Related H a	andling	СН
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Heterogeneous Debr	ris Waste	Inventory Date	12/31/2	2022
Stream Name	V3XA Spheres			Activities as	of CY	2010

Final Form Volumes			
Container Type	Stored	Proj.	Total
SWB Dir Ld w/o Liner	15.0	0.0	15.0
Final Form Total	15.0	0.0	15.0

Waste Material Parameters		
	Total Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	2.51E+03	
Aluminum-based Metal/Alloys	5.29E+00	
Other Metal/Alloys	8.43E+00	
Other Inorganic Materials	6.80E+01	
Cellulose	8.13E+00	
Rubber	0.00E+00	
Plastic	5.50E-02	
Cement	1.20E+01	
Solidified Inorganic Material	3.70E+02	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	0.00E+00	

2.90E+00

2.32E+03

0.00E+00

Final Form	Radionuclides
Isotope	Total Activity (Ci)
Pu-238	1.36E+00
Pu-239	5.10E+01
Pu-240	1.17E+01
Pu-241	6.80E+01
Pu-242	1.04E-03
U-233	2.10E-09
U-234	6.99E-03
U-235	4.80E-05
U-238	2.48E-03

No Hazardous Waste Numbers Provided
TRUCON Code(s)
125/225

Waste Stream Description

The two steel vessels are 1-inch thick by 3-feet diameter, weighing about 3300 lbs. each. The vessels contain heterogeneous mixtures of the following materials: Plutonium, D-38 (Depleted Uranium), 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. Vessels containing Depleted Uranium (DU) 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.

Packaging Material, Rubber

Packaging Material, Steel

Packaging Material, Lead

Isotope Am-241

Am-243

Cm-244

Cs-137

Np-237

Pu-239

Sr-90

Waste Stream ID: OR-GENR-RH-HET

Appendix B

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 Heterogene	eous Debris Waste	Inventory Dat	te 12/31/	/2022
Stream Name	ORNL General Research & Development RH-TRU Debris Waste			Activities	as of CY	2018

Waste Volume D	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		

Wasta Material Parameters

Waste Material Parameters				
	Total			
	Mass			
Material Parameter	(kg)			
Iron-based Metal/Alloys	9.07E+00			
Aluminum-based Metal/Alloys	2.25E+00			
Other Metal/Alloys	2.25E+00			
Other Inorganic Materials	9.07E+00			
Cellulose	1.67E+01			
Rubber	1.10E+01			
Plastic	4.57E+00			
Cement	0.00E+00			
Solidified Inorganic Material	5.50E-02			
Solidified Organic Material	0.00E+00			
Soil	0.00E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	2.85E+01			
Packaging Material, Rubber	3.54E-01			
Packaging Material, Steel	5.81E+02			
Packaging Material, Lead	0.00E+00			

Haz. Waste No(s). **Final Form Radionuclides**

Total Activity (Ci)

4.78E-02

2.75E-03

2.02E-05

1.06E-05

1.63E-04

1.36E-02

1.06E-05

maz. waste mo(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

U-235

U-236

U-238

Waste Stream ID: OR-TBD-CH-HET

Appendix B

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S500	0 Defense Determin	ation Defense-	Related H	landling	СН
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debri	s Waste	Inventory Date	e 12/31,	/2022
Stream Name	TBD CH-TRU Debris Waste				Activities a	s of CY	1985

Waste Volume D	Detail (m ³)
----------------	------------------------	---

Final Form Volumes					
Container Type	Proj.	Total			
55-gal Drum Dir Ld w/o Liner	9.9	0.0	9.9		
Final Form Total	9.9	0.0	9.9		

Waste Material Parameters

waste Material Parame	ters	Finai
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	2.94E+02	Am-241
Aluminum-based Metal/Alloys	5.35E+01	Am-243
Other Metal/Alloys	1.34E+02	Cm-244
Other Inorganic Materials	2.67E+01	Cs-137
Cellulose	2.27E+02	Np-237
Rubber	1.87E+02	Pu-238
Plastic	3.47E+02	Pu-239
Cement	0.00E+00	Pu-240
Solidified Inorganic Material	0.00E+00	Pu-241
Solidified Organic Material	6.68E+01	Pu-242
Soil	0.00E+00	Pu-244
Vitrified	0.00E+00	Sr-90
Packaging Material, Cellulose	0.00E+00	Th-229
Packaging Material, Plastic	0.00E+00	Th-230
Packaging Material, Rubber	5.55E+00	Th-232
Packaging Material, Steel	1.28E+03	U-233
Packaging Material, Lead	0.00E+00	U-234
·		U-235

Haz Wasto No(s) **Final Form Radionuclides**

Total Activity (Ci)

1.37E+01

3.19E+00

9.64E-02

1.02E-01

2.90E-02

2.30E+02

2.55E+01

2.13E+01

1.13E+02

8.99E-03

1.44E-04

4.04E-03

4.06E-03

2.76E-04

5.62E-04

2.86E+00

1.40E-02

1.05E-03

2.49E-04

5.36E-04

naz. waste wo(s).
D004, D005, D006,
D007, D008, D009,
D010, D011, D022,
F001, F002, F004,
F005

TRUCON Code(s)

125/225

Waste Stream Description

CH-TRU Debris Waste Needing Further Evaluation

Waste Stream ID: OR-TBD-RH-HET

Appendix B

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S500	0 Defense Determin	nation Defense-	-Related	Handling	RH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	te 12/31	/2022
Stream Name	TBD RH-TRU Debris Waste				Activities	as of CY	1985

Waste	Volume	Detail	(m ³)
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Final Form Volumes			
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/ Liner	1.9	3.2	5.0
Final Form Total	1.9	3.2	5.0

Waste Material Parameters		
Total Mass (kg)	Isotope	Total Activity (Ci)
3.22E+03	Am-241	4.80E-01
7.32E+02	Cm-244	1.28E+01
6.58E+02	Cs-137	8.87E+03
7.32E+02	Pu-238	1.58E+02
1.02E+03	Pu-241	4.61E+01
2.19E+02	Sr-90	5.66E+03
5.85E+02	U-234	4.67E-04
0.00E+00	U-235	1.24E-03
0.00E+00	U-238	3.55E-06
1.46E+02	-	
0.00E+00		
0.00E+00		
	Total Mass (kg) 3.22E+03 7.32E+02 6.58E+02 7.32E+03 2.19E+02 5.85E+02 0.00E+00 0.00E+00 1.46E+02 0.00E+00	Total Mass (kg) Isotope 3.22E+03 Am-241 7.32E+02 Cs-137 7.32E+02 Pu-238 1.02E+03 Pu-241 2.19E+02 Sr-90 5.85E+02 U-234 0.00E+00 U-235 0.00E+00 U-238 1.46E+02 0.00E+00

0.00E+00 2.28E+02

2.83E+00

4.65E+03

0.00E+00

Packaging Material, Cellulose

Packaging Material, Plastic Packaging Material, Rubber

Packaging Material, Steel

Packaging Material, Lead

Final Form	Radionuclides	Haz. Waste No(s).
	Total	D005, D006, D007,
	Activity	D008, D009, D011
otope	(Ci)	
m-241	4.80E-01	
m-244	1.28E+01	TRUCON Code(s)
s-137	8.87E+03	325
u-238	1.58E+02	
ı-241	4.61E+01	

D005, D006, D007,	
D008, D009, D011	

Waste Stream Description

RH-TRU Debris Waste Needing Further Evaluation

Waste Stream ID: OR-Y12-CH-HET

Appendix B

Waste Profile Report

Site	Oak Ridge National Laboratory	Summary Category S5000 Defense Determine	nation Defense-	-Related	Handling	СН
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group Heterogeneous Debr	is Waste	Inventory Da	ate 12/31/	2022
Stream Name	Oak Ridge Y-12 CH-TRU Debris Waste			Activitie	s as of CY	2016

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				
	Total			
	Mass			
Material Parameter	(kg)	<u> </u>		
Iron-based Metal/Alloys	1.38E+01	1		
Aluminum-based Metal/Alloys	2.51E+00	F		
Other Metal/Alloys	6.28E+00	F		
Other Inorganic Materials	1.26E+00	F		
Cellulose	1.07E+01	Ī		
Rubber	8.79E+00	Ī		
Plastic	1.63E+01	Ī		
Cement	0.00E+00			
Solidified Inorganic Material	0.00E+00			
Solidified Organic Material	3.14E+00			
Soil	0.00E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	0.00E+00			
Packaging Material, Rubber	3.54E-01			

8.16E+01

0.00E+00

Final Form Radionuclides		
	Total	
	Activity	
Isotope	(Ci)	
Np-237	6.34E-03	
Pu-238	2.65E-04	
Pu-239	3.10E-02	
Pu-240	1.30E-05	
U-234	5.49E-04	
U-235	7.47E-05	
U-238	6.14E-04	

_	Haz. Waste No(s).	
	D008	
_	TRUCON Code(s)	
	125/225	

Waste Stream Description

Waste consists of CH-TRU debris from Y-12

Packaging Material, Steel

Packaging Material, Lead

Waste Stream ID: RL221T-01

Appendix B

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000 De	efense Determination	Defense-Related	Handling	СН
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Heter	rogeneous Debris Waste	Inventory Da	te 12/31/20	.022
Stream Name	Waste Generated during operations in building 221T			Activities	as of CY	N/A

Waste Volume Detail (m ³)	
	Final Form Volumes

Final Form Volumes						
Container Type Stored Proj. To						
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		
Total Mass		
Material Parameter	(kg)	
Iron-based Metal/Alloys	0.00E+00	
Aluminum-based Metal/Alloys	0.00E+00	
Other Metal/Alloys	0.00E+00	
Other Inorganic Materials	0.00E+00	
Cellulose	0.00E+00	
Rubber	0.00E+00	
Plastic	0.00E+00	
Cement	0.00E+00	
Solidified Inorganic Material	0.00E+00	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	3.24E+02	
Packaging Material, Rubber	4.96E+00	
Packaging Material, Steel	1.14E+03	
Packaging Material, Lead	0.00E+00	

No Final Form	No Hazardous
Radionuclides Provided	Waste Numbers Provided
	TRUCON Code(s)
	125/225

Waste Stream Description

Combustible and noncombustible TRU debris waste

Waste Stream ID: RL300-11

Appendix B

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S500	0 Defense Determin	nation Defense-	-Related I	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group	Heterogeneous Debr	is Waste	Inventory Dat	e 12/31,	/2022
Stream Name	300 Area TRU RH Non-Mixed Debris				Activities	as of CY	2001

Waste	Volume	Detail	(m ³)
-------	--------	---------------	-------

Final Form Volumes					
Container Type Stored Proj. Tota					
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 Paramet	Fina	
	Total Mass	
Material Parameter	(kg)	Isotop
Iron-based Metal/Alloys	6.51E+02	Am-24
Aluminum-based Metal/Alloys	0.00E+00	Am-24
Other Metal/Alloys	0.00E+00	Cs-137
Other Inorganic Materials	4.99E+03	Np-237
Cellulose	1.63E+02	Pu-238
Rubber	0.00E+00	Pu-239
Plastic	4.07E+01	Pu-240
Cement	0.00E+00	Pu-241
Solidified Inorganic Material	0.00E+00	Pu-242
Solidified Organic Material	0.00E+00	Sr-90
Soil	0.00E+00	Th-232
Vitrified	0.00E+00	U-234
Packaging Material, Cellulose	0.00E+00	U-235
Packaging Material, Plastic	3.42E+02	U-236
Packaging Material, Rubber	4.25E+00	U-238
Packaging Material, Steel	6.97E+03	
Packaging Material, Lead	0.00E+00	

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	5.51E+00		
Am-243	2.49E+00		
Cs-137	3.98E+06		
Np-237	1.74E-05		
Pu-238	6.14E+00		
Pu-239	2.41E+00		
Pu-240	9.19E-01		
Pu-241	4.06E+01		
Pu-242	1.62E-03		
Sr-90	2.88E+06		
Th-232	9.33E-05		
U-234	3.47E-04		
U-235	5.30E-06		
U-236	1.29E-05		

9.37E-05

No Hazardous Waste Numbers Provided

TRUCON Code(s)

Waste Stream Description

High Cs-137 content, vitrified waste form in heavily shielded casks.

Waste Stream ID: RLALPHA-08

Appendix B

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000 Defense Determi	nation Defense-	Related	Handling	RH
Source Cat.	Other/Multiple Sources	Waste Matrix Code Group Heterogeneous Deb	ris Waste	Inventory Da	ite 12/31/	/2022
Stream Name	Alpha Caissons TRU RH Debris			Activities	s as of CY	N/A
Waste Volum	a Datail (m 3)	Wasta Material Parameters	No Final For	m	No Hazardo	auc.

waste volume Detail (m)	
	Final Form Volumes

Final Form Volumes						
Container Type Stored Proj. Tota						
RH SCA-30G1 w/ Liner	1075.1	. 0.0	1075.1			
Final Form Total 1075.1 0.0 1075.1						

Waste Material Parame	ters	No Final Form	No Hazardous
	Total	Radionuclides Provided	Waste Numbe
	Mass		Provided
Material Parameter	(kg)		
Iron-based Metal/Alloys	0.00E+00		
Aluminum-based Metal/Alloys	0.00E+00		TRUCON Code(s
Other Metal/Alloys	0.00E+00		125/225
Other Inorganic Materials	0.00E+00		
Cellulose	0.00E+00		
Rubber	0.00E+00		
Plastic	0.00E+00		
Cement	0.00E+00		
Solidified Inorganic Material	0.00E+00		
Solidified Organic Material	0.00E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	9.30E+04		
Packaging Material, Rubber	1.15E+03		
Packaging Material, Steel	4.00E+06		
Packaging Material, Lead	4.21E+06		

Waste Stream Description

Debris waste generated from operations within the 300 area hot cells.

Annual Transuranic Waste Inventory Report - 2023 Waste Stream ID: RLCH2-08

Appendix B

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000 Defense Determin	nation Defense-F	Related	Handling	RH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Heterogeneous Debr	is Waste	Inventory D	ate 12/31	/2022
Stream Name	Tank Farms TRU RH Mixed Debris		_	Activitie	s as of CY	2001

Waste Volume Detail (m ³)						
Final For	m Volumes	3				
Container Type		Stored	Proj.	Total		

RH SCA-30G1 w/ Liner 7.0 0.0 7.0 7.0 0.0 **Final Form Total**

Waste Material Parame	Final Form Radionuclides		
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	7.71E+00	Am-241	1.45E-01
Aluminum-based Metal/Alloys	0.00E+00	Cs-137	1.15E+01
Other Metal/Alloys	9.35E+02	Pu-238	3.94E-03
Other Inorganic Materials	1.85E+01	Pu-239	1.26E-01
Cellulose	0.00E+00	Pu-240	2.53E-02
Rubber	1.15E+02	Pu-241	3.77E-02
Plastic	3.19E+01	Sr-90	5.10E+02
Cement	0.00E+00	U-233	1.58E-03
Solidified Inorganic Material	0.00E+00	U-235	4.55E-05
Solidified Organic Material	0.00E+00	U-238	1.05E-03
Soil	0.00E+00		
Vitrified	0.00E+00		

0.00E+00

6.09E+02 7.55E+00

2.62E+04

2.76E+04

Haz. Waste No(s).
D030, D032, F001,
F002, F003, F004,
F005

TRUCON Code(s) 125/225

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.

Packaging Material, Cellulose Packaging Material, Plastic

Packaging Material, Rubber Packaging Material, Steel

Packaging Material, Lead

Waste Stream ID: RLDD-01

Final Form Total

Appendix B

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000 Defense Determ	ination Defense	-Related	Handling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Heterogeneous Deb	ris Waste	Inventory Da	te 12/31/	/2022
Stream Name	Future D&D and CERCLA waste projects TRU Debris			Activities	as of CY	N/A

Waste Volume Detail (m ³)			
Final Form Volu	mes		
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/ Liner	0.0	138.6	138.6
SWB Dir Ld w/ Liner	0.0	413.6	413.6

0.0

552.2

552.2

vvaste iviateriai i arailie	ters
Material Parameter	Total Mass (kg)
Iron-based Metal/Alloys	0.00E+00
Aluminum-based Metal/Alloys	0.00E+00
Other Metal/Alloys	0.00E+0
Other Inorganic Materials	0.00E+0
Cellulose	0.00E+0
Rubber	0.00E+00
Plastic	0.00E+0
Cement	0.00E+0
Solidified Inorganic Material	0.00E+0
Solidified Organic Material	0.00E+0
Soil	0.00E+0
Vitrified	0.00E+0
Packaging Material, Cellulose	0.00E+0
Packaging Material, Plastic	5.59E+0
Packaging Material, Rubber	1.58E+0

Waste Material Parameters		No Final Form	No Hazardous		
	Total	Radionuclides Provided	Waste Numbers		
	Mass		Provided		
Material Parameter	(kg)				
Iron-based Metal/Alloys	0.00E+00				
Aluminum-based Metal/Alloys	0.00E+00		No TRUCON		
Other Metal/Alloys	0.00E+00		Codes Provided		
Other Inorganic Materials	0.00E+00				
Cellulose	0.00E+00				
Rubber	0.00E+00				
Plastic	0.00E+00				
Cement	0.00E+00				
Solidified Inorganic Material	0.00E+00				
Solidified Organic Material	0.00E+00				
Soil	0.00E+00				
Vitrified	0.00E+00				
Packaging Material, Cellulose	0.00E+00				
Packaging Material, Plastic	5.59E+03				
Packaging Material, Rubber	1.58E+02				
Packaging Material, Steel	8.18E+04				
Packaging Material, Lead	0.00E+00				

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, and 325 facility. Additional waste volume from 200-SW-2 not included as part of volume [10,000 m3].

Waste Stream ID: RLDD-08

Appendix BWaste Profile Report

Site Hanford (Richland) Site Source Cat. Remediation/D&D waste Stream Name Future D&D and CERCLA waste projects TRU RH Debris Summary Category S500 Defense Determination Defense-Related Handling RH Waste Matrix Code Group Heterogeneous Debris Waste Inventory Date 12/31/2022 Activities as of CY N/A

Waste Volume Detail (m ³)			
Final Form	Volumes		
Container Type	Stored	Proj.	Total
RH SCA-30G1 w/ Liner	0.0	60.5	60.5
Final Form Total	0.0	60.5	60.5

Waste Material Parameters		No Final Form	No Hazardous
	Total	Radionuclides Provided	Waste Numbers
	Mass		Provided
Material Parameter	(kg)		
Iron-based Metal/Alloys	0.00E+00		
Aluminum-based Metal/Alloys	0.00E+00		No TRUCON
Other Metal/Alloys	0.00E+00		Codes Provided
Other Inorganic Materials	0.00E+00		
Cellulose	0.00E+00		
Rubber	0.00E+00		
Plastic	0.00E+00		
Cement	0.00E+00		
Solidified Inorganic Material	0.00E+00		
Solidified Organic Material	0.00E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	5.24E+03		
Packaging Material, Rubber	6.49E+01		
Packaging Material, Steel	2.25E+05		
Packaging Material, Lead	2.37E+05		

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, and 325 facility. Additional waste volume from 200-SW-2 not included as part of volume [10,000 m3].

Waste Stream ID: RLN622FD-01

Appendix B

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000 Defense Determin	nation Defense	-Related F	landling	СН
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Heterogeneous Debr	ris Waste	Inventory Date	e 12/31,	/2022
Stream Name	Weather station radiological sources			Activities a	as of CY	2007

Waste Volume	Detail ((m ³)
--------------	----------	-------

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

Waste Material Parameters

	Total
	Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	0.00E+00
Aluminum-based Metal/Alloys	0.00E+00
Other Metal/Alloys	0.00E+00
Other Inorganic Materials	0.00E+00
Cellulose	0.00E+00
Rubber	0.00E+00
Plastic	0.00E+00
Cement	0.00E+00
Solidified Inorganic Material	0.00E+00
Solidified Organic Material	0.00E+00
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	1.54E+01
Packaging Material, Rubber	2.36E-01
Packaging Material, Steel	5.44E+01
Packaging Material, Lead	0.00E+00

Final Form Radionuclides No Hazardous

iai Foriii Kaulolluc	iiues
Tota	al
Activ	ity
pe (Ci)
241 7.12E	-02
37 7.06E	-07
38 5.24E	-05
39 2.15E	-03
40 4.90E	-04
41 3.57E	-03
42 4.19E	-08
37 7.06E 38 5.24E 39 2.15E 40 4.90E 41 3.57E	-07 -05 -03 -04 -03

Waste Numbers Provided

No TRUCON
Codes Provided

Waste Stream Description

Source facility is the weather station, Radiological Sources

Waste Stream ID: RLPFP-02

Appendix B

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S400	Defense Determi	nation Defense	-Related I	landling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group	Contaminated Soil/D	ebris Waste	Inventory Dat	e 12/31	/2022
Stream Name	PFP CH-TRU Contaminated Soil				Activities	as of CY	2010

Waste \	∕olume	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		

Wasta Material Parameters

Waste Material Parame	Final I	
	Total Mass	
Material Parameter	(kg)	Isotope
Iron-based Metal/Alloys	0.00E+00	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Cs-137
Other Metal/Alloys	0.00E+00	Pu-238
Other Inorganic Materials	0.00E+00	Pu-239
Cellulose	0.00E+00	Pu-240
Rubber	0.00E+00	Pu-241
Plastic	0.00E+00	Pu-242
Cement	0.00E+00	Sr-90
Solidified Inorganic Material	0.00E+00	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	3.08E+01	
Packaging Material, Rubber	4.72E-01	
Packaging Material, Steel	1.09E+02	

0.00E+00

Final Form Radionuclides No Hazardous **Waste Numbers** Total Activity **Provided**

(Ci)

2.09E-02

8.00E-07

7.89E-04

6.11E-02

1.34E-02

1.02E-01

1.08E-06

7.27E-07

TRUCON Code(s) 125/225

Waste Stream Description

Soil remediation wastes in PFP Zone.

Packaging Material, Lead

Waste Stream ID: RLPRC-01

Appendix B

Waste Profile Report

Site	Hanford (Richland) Site	Summary Category S5000 Defense Determination Unkn	nown Handling CH
Source Cat.	R&D/R&D Laboratory Waste	Waste Matrix Code Group Heterogeneous Debris Waste	Inventory Date 12/31/2022
Stream Name	CUPRC TRU Non-Mixed Debris		Activities as of CY 1987

Soil Vitrified

Packaging Material, Cellulose Packaging Material, Plastic

Packaging Material, Rubber

Packaging Material, Steel

Packaging Material, Lead

Waste Volume Detail (m 3)	Waste	Volume	Detail	(m ³)
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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		

Total Mass Jatorial Parameter (kg)

Waste Material Parameters

	iviass
Material Parameter	(kg)
Iron-based Metal/Alloys	0.00E+00
Aluminum-based Metal/Alloys	0.00E+00
Other Metal/Alloys	8.78E+01
Other Inorganic Materials	1.25E+03
Cellulose	0.00E+00
Rubber	0.00E+00
Plastic	0.00E+00
Cement	0.00E+00
Solidified Inorganic Material	0.00E+00
Solidified Organic Material	0.00E+00

Final Form Radionuclides		
Total		
	Activity	
Isotope	(Ci)	
Am-241	9.24E-02	
Pu-238	3.76E-02	
Pu-239	3.45E-01	
Pu-240	8.79E-02	
Pu-241	2.41E+00	
Pu-242	5.88E-06	
Th-232	1.04E-04	

1.18E-06

5.34E-08

1.15E-06

U-234

U-235

U-238

0.00E+00

0.00E+00 0.00E+00

2.27E+00

3.63E-01

2.90E+02 0.00E+00

The waste is generated from R&D/R&D Laboratory Waste activities at the CEER University Laboratory.

Annual Transuranic Waste Inventory Report - 2023

Waste Stream ID: RP-TFC001

Appendix B

Waste Profile Report

Site	Hanford (River Protection) Site	Summary Category S3000 Defense Determination	ion Defense-R	Related	Handling CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group Solidified Inorganics		Inventory Da	ate 12/31/2022
Stream Name	Bismuth Phosphate Process TRU Solids			Activities	s 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

	Total
	Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	0.00E+00
Aluminum-based Metal/Alloys	0.00E+00
Other Metal/Alloys	0.00E+00
Other Inorganic Materials	0.00E+00
Cellulose	0.00E+00
Rubber	0.00E+00
Plastic	0.00E+00
Cement	0.00E+00
Solidified Inorganic Material	4.83E+05
Solidified Organic Material	0.00E+00
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	0.00E+00
Packaging Material, Rubber	2.51E+02
Packaging Material, Steel	5.79E+04
Packaging Material, Lead	0.00E+00

Final Form Radionuclides		
Total		
	Activity	
Isotope	(Ci)	
Am-241	3.23E+01	
Cs-137	2.68E+02	
Np-237	5.35E-03	
Pu-238	2.90E+00	
Pu-239	2.26E+02	
Pu-240	2.73E+01	
Pu-241	8.29E+01	
Pu-242	1.35E-03	
Sr-90	3.50E+03	
U-233	4.83E-07	
U-234	7.37E-01	
U-235	2.38E-02	
U-236	7.11E-03	
U-238	5.44E-01	

Haz Waste No(s)

naz. waste wo(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

Annual Transuranic Waste Inventory Report - 2023

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 D	ate 12/31/2022
Stream Name	224 Waste		Activitie	es as of CY 2004

Waste Volume I	Detail ((m 3)
----------------	----------	-------

Final Form Volumes				
Container Type Stored Proj. Tot				
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

Waste Material Parameters		
	Total Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	0.00E+00	
Aluminum-based Metal/Alloys	0.00E+00	
Other Metal/Alloys	0.00E+00	
Other Inorganic Materials	0.00E+00	
Cellulose	0.00E+00	
Rubber	0.00E+00	
Plastic	0.00E+00	
Cement	0.00E+00	
Solidified Inorganic Material	3.47E+05	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	0.00E+00	
Packaging Material, Rubber	1.85E+02	
Packaging Material, Steel	4.26E+04	
Packaging Material, Lead	0.00E+00	

Final Form Radionuclides

Isotope Am-241

Cs-137

Np-237

Pu-238

Pu-239

Pu-240

Pu-241

Pu-242

Sr-90

U-233

U-234

U-235

U-236

U-238

Total Activity (Ci)

3.88E+01

5.37E+01

5.24E-04

3.59E+00

5.01E+02

4.17E+01

6.98E+01

1.59E-03

1.09E+03

4.01E-08

5.79E-02

2.34E-03

5.66E-04

5.30E-02

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.

Annual Transuranic Waste Inventory Report - 2023 Waste Stream ID: RP-W755

Appendix B

Waste Profile Report

Site	Hanford (River Protection) Site	Summary Category S3000 Defense Determin	nation Defense-Related	Handling CH
Source Cat.	Materials Production/Recovery Effluents	Waste Matrix Code Group Solidified Inorganics	Inventory D	Date 12/31/2022
Stream Name	Bismuth Phosphate Process TRU Solids		Activition	es as of CY 2004

Waste Volume Detail (m 3)	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

waste Material Parameters		
	Total	
	Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	0.00E+00	
Aluminum-based Metal/Alloys	0.00E+00	
Other Metal/Alloys	0.00E+00	
Other Inorganic Materials	0.00E+00	
Cellulose	0.00E+00	
Rubber	0.00E+00	
Plastic	0.00E+00	
Cement	0.00E+00	
Solidified Inorganic Material	8.78E+05	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	0.00E+00	
Packaging Material, Rubber	4.55E+02	
Packaging Material, Steel	1.05E+05	
Packaging Material, Lead	0.00E+00	

Final Form Radionuclides

Isotope Am-241

Cs-137

Np-237

Pu-238 Pu-239

Pu-240

Pu-241

Pu-242

Sr-90

U-233

U-234

U-235

U-236

U-238

Total Activity (Ci)

1.12E+02

2.63E+02

6.38E-02 2.36E+00

4.29E+02

3.48E+01

5.41E+01

4.37E-04

9.52E+03

2.47E-06

2.86E+00

1.27E-01

2.30E-02

2.91E+00

Haz. Waste No(s).
D002, D004, D005,
D006, D007, D008,
D009, D010, D011,
D018, D019, D022,
D028, D029, D030,
D033, D034, D035,
D036, D038, D039,
D040, D041, D043,
F001, F002, F003,
F004, F005
No TRUCON

Codes Provided

Waste Stream Description

Solidified aqueous waste slurry

Waste Stream ID: SR-KAC-HET-2

Appendix B

Waste Profile Report

Site	Savannah River Site	Summary Category S	Defense Determi	nation Defense	-Related	Handling	СН
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Gro	up Heterogeneous Deb	ris Waste	Inventory Da	te 12/31	1/2022
Stream Name	CH TRU Heterogeneous debris from the K-Area downblend of 26.9 MT mate	rial			Activities	as of CY	2032

|--|

Final Form Volumes			
Container Type	Stored	Proj.	Total
55-gal Drum Dir Ld w/o Liner	0.0	21.4	21.4
Final Form Total	0.0	21.4	21.4

Waste Material Parame	1
	Total
	Mass
Material Parameter	(kg)
Iron-based Metal/Alloys	5.22E+02
Aluminum-based Metal/Alloys	0.00E+00
Other Metal/Alloys	0.00E+00
Other Inorganic Materials	0.00E+00
Cellulose	4.83E+01
Rubber	4.47E+02
Plastic	3.36E+03
Cement	0.00E+00
Solidified Inorganic Material	0.00E+00
Solidified Organic Material	0.00E+00
Soil	0.00E+00
Vitrified	0.00E+00
Packaging Material, Cellulose	0.00E+00
Packaging Material, Plastic	0.00E+00
Packaging Material, Rubber	1.20E+01
Packaging Material, Steel	2.77E+03

0.00E+00

Final Form	Radionuclides
	Total
	Activity
Isotope	(Ci)
Am-241	1.52E+01
Np-237	1.00E-04
Pu-238	5.07E+00
Pu-239	4.19E+01
Pu-240	1.09E+01
Pu-241	1.16E+02
Pu-242	3.58E-03
U-235	7.96E-05
U-238	2.80E-06

No Hazardous
Waste Numbers
Provided
TRUCON Code(s)
TRUCON Code(s) 125/225

Waste Stream Description

This waste stream consists of plutonium contaminated debris resulting from downblend and packaging Pu oxide.

Packaging Material, Lead

Waste Stream ID: SR-KAC-PuOx-2

Appendix B

Waste Profile Report

Site	Savannah River Site	Summary Category S50	000 Defense Determi	nation Defense	-Related	Handling	СН
Source Cat.	Discarding Excess/Expired Materials	Waste Matrix Code Grou	Heterogeneous Debi	ris Waste	Inventory Dat	te 12/31,	/2022
Stream Name	K-Area Pu Oxide waste associated with 26.9 MT material				Activities	as of CY	2032

Waste	Volume	Detail	(m ³)
-------	--------	--------	-------

Final Form Volumes				
Container Type Stored Proj. Total				
55-gal CCO w/ Liner 0.0 118.5 118				
Final Form Total 0.0 118.5 118				

Waste Material Parameters

Iron-based Metal/Alloys		Total
Iron-based Metal/Alloys		Mass
Aluminum-based Metal/Alloys 0.00E+00 Other Metal/Alloys 9.58E+03 Other Inorganic Materials 1.92E+04 Cellulose 0.00E+00 Rubber 0.00E+00 Plastic 2.13E+03 Cement 0.00E+00 Solidified Inorganic Material 0.00E+00 Soil 0.00E+00 Vitrified 0.00E+00 Packaging Material, Cellulose 2.14E+05 Packaging Material, Plastic 7.14E+04 Packaging Material, Rubber 1.09E+03	Material Parameter	(kg)
Other Metal/Alloys 9.58E+03 Other Inorganic Materials 1.92E+04 Cellulose 0.00E+00 Rubber 0.00E+00 Plastic 2.13E+03 Cement 0.00E+00 Solidified Inorganic Material 0.00E+00 Soil 0.00E+00 Vitrified 0.00E+00 Packaging Material, Cellulose 2.14E+05 Packaging Material, Plastic 7.14E+04 Packaging Material, Rubber 1.09E+03	Iron-based Metal/Alloys	7.56E+04
Other Inorganic Materials 1.92E+04 Cellulose 0.00E+00 Rubber 0.00E+00 Plastic 2.13E+03 Cement 0.00E+00 Solidified Inorganic Material 0.00E+00 Soil 0.00E+00 Vitrified 0.00E+00 Packaging Material, Cellulose 2.14E+05 Packaging Material, Rubber 7.14E+04 Packaging Material, Rubber 1.09E+03	Aluminum-based Metal/Alloys	0.00E+00
Cellulose 0.00E+00 Rubber 0.00E+00 Plastic 2.13E+03 Cement 0.00E+00 Solidified Inorganic Material 0.00E+00 Soil 0.00E+00 Vitrified 0.00E+00 Packaging Material, Cellulose 2.14E+05 Packaging Material, Plastic 7.14E+04 Packaging Material, Rubber 1.09E+03	Other Metal/Alloys	9.58E+03
Rubber 0.00E+00 Plastic 2.13E+03 Cement 0.00E+00 Solidified Inorganic Material 0.00E+00 Soil 0.00E+00 Vitrified 0.00E+00 Packaging Material, Cellulose 2.14E+05 Packaging Material, Plastic 7.14E+04 Packaging Material, Rubber 1.09E+03	Other Inorganic Materials	1.92E+04
Plastic 2.13E+03 Cement 0.00E+00 Solidified Inorganic Material 0.00E+00 Soil 0.00E+00 Vitrified 0.00E+00 Packaging Material, Cellulose 2.14E+05 Packaging Material, Plastic 7.14E+04 Packaging Material, Rubber 1.09E+03	Cellulose	0.00E+00
Cement 0.00E+00 Solidified Inorganic Material 0.00E+00 Solidified Organic Material 0.00E+00 Soil 0.00E+00 Vitrified 0.00E+00 Packaging Material, Cellulose 2.14E+05 Packaging Material, Plastic 7.14E+04 Packaging Material, Rubber 1.09E+03	Rubber	0.00E+00
Solidified Inorganic Material Solidified Organic Material O.00E+00 Soil O.00E+00 Vitrified Packaging Material, Cellulose Packaging Material, Plastic Packaging Material, Rubber 1.09E+03	Plastic	2.13E+03
Solidified Organic Material 0.00E+00 Soil 0.00E+00 Vitrified 0.00E+00 Packaging Material, Cellulose 2.14E+05 Packaging Material, Plastic 7.14E+04 Packaging Material, Rubber 1.09E+03	Cement	0.00E+00
Soil 0.00E+00 Vitrified 0.00E+00 Packaging Material, Cellulose 2.14E+05 Packaging Material, Plastic 7.14E+04 Packaging Material, Rubber 1.09E+03	Solidified Inorganic Material	0.00E+00
Vitrified 0.00E+00 Packaging Material, Cellulose 2.14E+05 Packaging Material, Plastic 7.14E+04 Packaging Material, Rubber 1.09E+03	Solidified Organic Material	0.00E+00
Packaging Material, Cellulose 2.14E+05 Packaging Material, Plastic 7.14E+04 Packaging Material, Rubber 1.09E+03	Soil	0.00E+00
Packaging Material, Plastic 7.14E+04 Packaging Material, Rubber 1.09E+03	Vitrified	0.00E+00
Packaging Material, Rubber 1.09E+03	Packaging Material, Cellulose	2.14E+05
,	Packaging Material, Plastic	7.14E+04
Packaging Material, Steel 7.50E+05	Packaging Material, Rubber	1.09E+03
	Packaging Material, Steel	7.50E+05

0.00E+00

Final Form	Radionuclides
Total	
	Activity
Isotope	(Ci)
Am-241	3.47E+04
Pu-238	6.75E+03
Pu-239	1.58E+05
Pu-240	3.48E+04
Pu-241	1.50E+05
Pu-242	4.85E+00

No Hazardous **Waste Numbers Provided**

TRUCON Code(s) 125/225

Waste Stream Description

The plutonium oxide material is being blended and packaged specifically for disposal at WIPP.

Packaging Material, Lead

Waste Stream ID: WV-M010a

Appendix B

Waste Profile Report

Site	West Valley Demonstration Project	Summary Category S3000 Defense Determination	Unknown Handling CH
Source Cat.	Facility/Equipment Operation and Maintenance Waste	Waste Matrix Code Group Solidified Organics	Inventory Date 12/31/2022
Stream Name	TRU Spent Absorbents CH		Activities as of CY 2018

Waste	Volume	Detail	(m ³)
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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		
Total		
	Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	0.00E+00	
Aluminum-based Metal/Alloys	0.00E+00	
Other Metal/Alloys	0.00E+00	
Other Inorganic Materials	5.75E+03	
Cellulose	0.00E+00	
Rubber	0.00E+00	
Plastic	0.00E+00	
Cement	0.00E+00	
Solidified Inorganic Material	0.00E+00	
Solidified Organic Material	1.92E+03	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	0.00E+00	
Packaging Material, Rubber	3.38E+00	
Packaging Material, Steel	4.91E+03	
Packaging Material, Lead	0.00E+00	

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	2.73E+00		
Am-243	1.28E-01		
Cs-137	1.67E-01		
Np-237	5.83E-05		
Pu-238	9.55E-01		
Pu-239	1.07E+00		
Pu-240	8.21E-01		
Pu-241	1.19E+01		
Pu-242	4.23E-02		
Sr-90	1.22E-01		
U-233	7.28E-04		
U-234	3.48E-04		
U-235	7.67E-05		
U-238	6.26E-04		

No Hazardous Waste Numbers Provided

No TRUCON
Codes Provided

Waste Stream Description

This waste stream consists of spent absorbents (not cement) generated from site operations. The media absorbed is an organic liquid for this waste stream. This does not contain hazardous waste.

Waste Stream ID: WV-T004a

Wasta Valuma Datail (m 3)

Appendix B

Waste Profile Report

Site	West Valley Demonstration Project	Summary Category S3000 Defense Determination	Jnknown Handling CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Solidified Inorganics	Inventory Date 12/31/2022
Stream Name	CH TRU Liquids/Absorbed Liquids		Activities as of CY 2018

waste volume betail (iii)			
Final Form Volum	ies		
Container Type	Stored	Proj.	Total

 55-gal Drum Dir Ld w/o Liner
 2.3
 0.0
 2.3

 Final Form Total
 2.3
 0.0
 2.3

Waste Material Parameters		
Total		
	Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	0.00E+00	
Aluminum-based Metal/Alloys	0.00E+00	
Other Metal/Alloys	0.00E+00	
Other Inorganic Materials	0.00E+00	
Cellulose	0.00E+00	
Rubber	0.00E+00	
Plastic	0.00E+00	
Cement	2.01E+02	
Solidified Inorganic Material	4.39E+02	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	0.00E+00	
Packaging Material, Rubber	1.30E+00	
Packaging Material, Steel	2.99E+02	
Packaging Material, Lead	0.00E+00	

	Total
	Activity
Isotope	(Ci)
Am-241	8.06E+00
Am-243	2.20E-03
Cm-244	1.11E-02
Cs-137	4.71E-02
Np-237	1.99E-05
Pu-238	1.41E+01
Pu-239	6.25E+00
Pu-240	4.80E+00
Pu-241	3.48E+01
Pu-242	1.06E-03
Sr-90	1.68E-01
U-233	3.82E-03
U-234	1.82E-03
U-235	8.53E-05
U-238	1.12E-03

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.

Waste Stream ID: WV-T004b

Appendix B

Waste Profile Report

Site	West Valley Demonstration Project	Summary Category S3000 Defense Determination	on Unknown Handling R	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Solidified Inorganics	Inventory Date 12/31/20	022
Stream Name	RH TRU Liquids/Absorbed Liquids		Activities as of CY 20	015

Waste Volume	Detail ((m ³)
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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		
	Total Mass	
Material Parameter	(kg)	
Iron-based Metal/Alloys	0.00E+00	
Aluminum-based Metal/Alloys	0.00E+00	
Other Metal/Alloys	0.00E+00	
Other Inorganic Materials	0.00E+00	
Cellulose	0.00E+00	
Rubber	0.00E+00	
Plastic	0.00E+00	
Cement	2.24E+03	
Solidified Inorganic Material	1.25E+03	
Solidified Organic Material	0.00E+00	
Soil	0.00E+00	
Vitrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	3.26E+01	
Packaging Material, Rubber	2.12E+00	
Packaging Material, Steel	3.49E+03	
Packaging Material, Lead	0.00E+00	

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	2.68E+00		
Am-243	4.53E-02		
Cm-244	3.14E-02		
Cs-137	1.00E+01		
Np-237	2.73E-04		
Pu-238	1.95E+00		
Pu-239	7.49E-01		
Pu-240	5.52E-01		
Pu-241	9.97E+00		
Pu-242	1.50E-02		
Sr-90	1.86E+01		
U-233	4.29E-03		
U-234	2.01E-03		
U-235	1.10E-05		
U-238	2.34E-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.

Waste Stream ID: WV-T006a

Appendix B

Waste Profile Report

Site	West Valley Demonstration Project	Summary Category S5000 Defense Determin	nation Unknown	Ha	ndling	СН
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Heterogeneous Debr	is Waste	Inventory Date	12/31/	/2022
Stream Name	CH TRU General Waste		_	Activities as	of CY	2010

Waste	Volume	Detail	(m ³)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
55-gal Drum Dir Ld w/o Liner	111.5	0.0	111.5	
SWB Dir Ld w/o Liner	150.4	5.6	156.0	
Final Form Total	Final Form Total 261.9 5.6 267.6			

Waste Material Parameters				
Total				
	Mass			
Material Parameter	(kg)			
Iron-based Metal/Alloys	0.00E+00			
Aluminum-based Metal/Alloys	0.00E+00			
Other Metal/Alloys	1.40E+04			
Other Inorganic Materials	1.46E+04			
Cellulose	1.35E+04			
Rubber	5.61E+03			
Plastic	8.41E+03			
Cement	0.00E+00			
Solidified Inorganic Material	0.00E+00			
Solidified Organic Material	0.00E+00			
Soil	0.00E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	0.00E+00			
Packaging Material, Rubber	9.28E+01			
Packaging Material, Steel	3.85E+04			
Packaging Material, Lead	0.00E+00			

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	9.23E+01		
Am-243	1.31E+00		
Cm-244	3.17E-01		
Cs-137	1.42E+00		
Np-237	1.26E-03		
Pu-238	5.26E+01		
Pu-239	2.38E+01		
Pu-240	1.94E+01		
Pu-241	4.61E+02		
Pu-242	7.03E-01		
Sr-90	3.99E+00		
U-233	5.33E-02		
U-234	2.67E-02		
U-235	7.68E-04		
U-238	5.47E-03		

No Hazardous Waste Numbers Provided

No TRUCON Codes Provided

Waste Stream Description

This waste stream consists of radiologically contaminated solid waste generated from various site activities. The specific contents include but are not limited to Anti-C clothing, hoses, glovebags, tools, pre-filters, HEPA filters, Roughing filters, other filters, sweeping compound, glove boxes, tools, evaporators, dissolver tanks, condensers, piping DAW, plastic bags, bottles, and cell floor debris etc.

Waste Stream ID: WV-T006b

Appendix B

Waste Profile Report

Site	West Valley Demonstration Project	Summary Category S5000 Defense Determin	nation Unknown	Ha	ndling	RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Heterogeneous Debr	ris Waste	Inventory Date	12/31/	/2022
Stream Name	RH TRU General Waste		_	Activities as	of CY	2021

Waste Volume D	Detail (m ³)
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Final Form Volumes						
Container Type Stored Proj. Total						
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	236.9	0.6	237.5			
Final Form Total	236.9	0.6	237.5			

Waste Material Parameters				
	Total Mass			
Material Parameter	(kg)			
Iron-based Metal/Alloys	0.00E+00			
Aluminum-based Metal/Alloys	0.00E+00			
Other Metal/Alloys	2.61E+04			
Other Inorganic Materials	2.60E+04			
Cellulose	2.60E+04			
Rubber	1.04E+04			
Plastic	1.56E+04			
Cement	0.00E+00			
Solidified Inorganic Material	0.00E+00			
Solidified Organic Material	0.00E+00			
Soil	0.00E+00			
Vitrified	0.00E+00			
Packaging Material, Cellulose	0.00E+00			
Packaging Material, Plastic	2.05E+03			
Packaging Material, Rubber	1.33E+02			
Packaging Material, Steel	2.19E+05			
Packaging Material, Lead	0.00E+00			

Final Form Radionuclides			
	Total		
	Activity		
Isotope	(Ci)		
Am-241	3.71E+02		
Am-243	8.91E-01		
Cm-244	5.80E+00		
Cs-137	3.60E+03		
Np-237	1.03E-01		
Pu-238	1.16E+02		
Pu-239	8.81E+01		
Pu-240	6.68E+01		
Pu-241	9.04E+02		
Pu-242	2.21E-01		
Sr-90	3.32E+03		
U-233	1.06E+00		
U-234	4.99E-01		
U-235	1.38E-02		
U-238	9.17E-02		

No Hazardous Waste Numbers Provided

No TRUCON
Codes Provided

Waste Stream Description

This waste stream consists of radiologically contaminated solid waste generated from various site activities. The specific contents include but are not limited to Anti-C clothing, hoses, glovebags, tools, pre-filters, HEPA filters, Roughing filters, other filters, sweeping compound, glove boxes, tools, evaporators, dissolver tanks, condensers, piping DAW, plastic bags, bottles, and cell floor debris etc.

Waste Stream ID: WV-T017b

Appendix B

Waste Profile Report

Site	West Valley Demonstration Project	Summary Category S5000 Defense Determination	Jnknown Handling RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Heterogeneous Debris Waste	Inventory Date 12/31/2022
Stream Name	RH TRU Spent Filter Media		Activities as of CY 2008

Waste	Volume	Detail	(m ³)
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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

Waste Material Parameters		Fillali
	Total Mass	
Material Parameter	(kg)	Isotope
ron-based Metal/Alloys	0.00E+00	Am-241
Aluminum-based Metal/Alloys	0.00E+00	Cs-137
Other Metal/Alloys	0.00E+00	Np-237
Other Inorganic Materials	1.88E+03	Pu-238
Cellulose	0.00E+00	Pu-239
Rubber	0.00E+00	Pu-240
Plastic	0.00E+00	Pu-241
Cement	0.00E+00	Sr-90
Solidified Inorganic Material	0.00E+00	U-235
Solidified Organic Material	0.00E+00	U-238
Soil	0.00E+00	
/itrified	0.00E+00	
Packaging Material, Cellulose	0.00E+00	
Packaging Material, Plastic	6.52E+01	
Packaging Material, Rubber	4.25E+00	
Packaging Material, Steel	6.97E+03	

0.00E+00

Final Form Radionuclides No Hazardous **Waste Numbers** Total **Provided** Activity

(Ci)

2.84E-01

1.35E+02

5.58E-04

1.27E-01

3.07E-01

2.35E-01

2.30E+00

4.44E+00

6.92E-04

1.09E-03

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.

Packaging Material, Lead

Waste Stream ID: WV-W024a

Appendix B

Waste Profile Report

Site	West Valley Demonstration Project	Summary Category S5000 Defense Determin	nation Unknown	На	andling CH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Heterogeneous Debr	ris Waste	Inventory Date	12/31/2022
Stream Name	CH TRU Mixed Waste			Activities as	of CY 2018

Waste Volume	Detail ((m ³)
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Final Form Volumes				
Container Type	Stored	Proj.	Total	
55-gal Drum Dir Ld w/o Liner	2.	5 0.0	2.5	
SLB2 Dir Ld	7.4	4 0.0	7.4	
SWB Dir Ld w/o Liner	7.	0.0	7.5	
Final Form Total	17.4	1 0.0	17.4	

Waste Material Parameters		Final Form	Radionuclides
	Total		Total
	Mass		Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	0.00E+00	Am-241	1.71E+00
Aluminum-based Metal/Alloys	0.00E+00	Am-243	3.24E-02
Other Metal/Alloys	0.00E+00	Cm-244	1.86E-02
Other Inorganic Materials	1.94E+03	Cs-137	8.12E-01
Cellulose	1.94E+03	Np-237	1.55E-05
Rubber	7.75E+02	Pu-238	2.72E+00
Plastic	1.16E+03	Pu-239	7.44E-01
Cement	0.00E+00	Pu-240	5.69E-01
Solidified Inorganic Material	0.00E+00	Pu-241	1.29E+01
Solidified Organic Material	0.00E+00	Pu-242	1.01E-01
Soil	0.00E+00	Sr-90	1.39E+01
Vitrified	0.00E+00	U-233	5.96E-02
Packaging Material, Cellulose	0.00E+00	U-234	2.84E-02
Packaging Material, Plastic	0.00E+00	U-235	1.52E-04
Packaging Material, Rubber	3.68E+00	U-238	1.18E-03
Packaging Material, Steel	2.71E+03		
Packaging Material, Lead	0.00E+00		

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

No TRUCON **Codes Provided**

Waste Stream Description

Contains hazardous constituents from D&D activities and Laboratory Waste generated onsite in solid forms such as filters, vacuum cans, glove box debris, piping, hoses, pumps, anti C clothing, bags, wipes, and floor debris. If any liquids are found, then the liquid would be solidified and not expected to be TRU.

Waste Stream ID: WV-W024b

Appendix B

Waste Profile Report

Waste Volume	Detail (m ³)	Waste Material Parameters	Final Form Radion	uclides Haz. \	Waste No	o(s).
Stream Name	RH TRU Mixed Waste			Activities as	of CY 2	2021
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Heterogeneous De	bris Waste	Inventory Date	12/31/2	2022
Site	West Valley Demonstration Project	Summary Category S5000 Defense Determ	ination Unknown	Ha	ndling	RH

Final Form Volumes					
Container Type	Stored	Proj.	Total		
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	32.1	0.0	32.1		
Final Form Total 32.1 0.0 32.1					

Waste Material Parame	arameters Final Form		m Radionuclides	Haz. Waste No(s).
	Total		Total	D006, D007, D008,
	Mass		Activity	D009, D010, D011
Material Parameter	(kg)	Isotope	(Ci)	
Iron-based Metal/Alloys	6.08E+03	Am-241	4.31E+02	
Aluminum-based Metal/Alloys	0.00E+00	Am-243	1.01E+00	No TRUCON
Other Metal/Alloys	0.00E+00	Cm-244	6.74E+00	Codes Provided
Other Inorganic Materials	7.60E+03	Cs-137	8.19E+03	
Cellulose	0.00E+00	Np-237	1.14E-01	
Rubber	1.52E+03	Pu-238	1.27E+02	
Plastic	2.28E+03	Pu-239	1.33E+02	
Cement	0.00E+00	Pu-240	1.01E+02	
Solidified Inorganic Material	0.00E+00	Pu-241	1.46E+03	
Solidified Organic Material	0.00E+00	Pu-242	6.71E-01	
Soil	0.00E+00	Sr-90	5.27E+03	
Vitrified	0.00E+00	U-233	1.01E+00	
Packaging Material, Cellulose	0.00E+00	U-234	4.83E-01	
Packaging Material, Plastic	2.77E+02	U-235	7.54E-02	
Packaging Material, Rubber	1.81E+01	U-238	3.08E-01	
Packaging Material, Steel	2.96E+04			
Packaging Material, Lead	0.00E+00			

Waste Stream Description

Contains hazardous constituents from D&D activities and Laboratory Waste generated onsite in solid forms such as filters, vacuum cans, glove box debris, piping, hoses, pumps, anti C clothing, bags, wipes, and floor debris. If any liquids are found, then the liquid would be solidified and not expected to be TRU.

Waste Stream ID: WV-W050a

Appendix BWaste Profile Report

Site West Valley Demonstration Project Summary Category S3000 Defense Determination Unknown Handling CH
Source Cat. Remediation/D&D Waste Waste Matrix Code Group Solidified Inorganics Inventory Date 12/31/2022
Stream Name CH TRU Mixed Liquids/Absorbed Liquids

CH TRU Mixed Liquids/Absorbed Liquids

Summary Category S3000 Defense Determination Unknown Handling CH
Waste Matrix Code Group Solidified Inorganics Inventory Date 12/31/2022

Activities 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	4.0	0.0	4.0	
Final Form Total	4.0	0.0	4.0	

Waste Material Parameters		Final Form Radionuclides	
	Total Mass		Total Activity
Material Parameter	(kg)	Isotope	(Ci)
Iron-based Metal/Alloys	0.00E+00	Am-241	1.46E-01
Aluminum-based Metal/Alloys	0.00E+00	Am-243	1.53E-03
Other Metal/Alloys	0.00E+00	Cm-244	3.51E-03
Other Inorganic Materials	0.00E+00	Cs-137	5.35E-01
Cellulose	0.00E+00	Np-237	5.27E-03
Rubber	0.00E+00	Pu-238	2.03E-01
Plastic	0.00E+00	Pu-239	6.45E-02
Cement	1.18E+03	Pu-240	4.92E-02
Solidified Inorganic Material	1.48E+03	Pu-241	7.51E-01
Solidified Organic Material	0.00E+00	Pu-242	3.01E-04
Soil	0.00E+00	Sr-90	1.50E+01
Vitrified	0.00E+00	U-233	4.16E-02
Packaging Material, Cellulose	0.00E+00	U-234	1.99E-02
Packaging Material, Plastic	0.00E+00	U-235	9.69E-04
Packaging Material, Rubber	2.24E+00	U-238	4.67E-03
Packaging Material, Steel	5.17E+02		
Packaging Material, Lead	0.00E+00		

No TRUCON Codes Provided

Haz. Waste No(s).

Waste Stream Description

This waste stream consists of RCRA hazardous liquid, absorbed liquid, and/or solidified liquid waste with associated fissile material generated from decontamination and decommissioning activities.

Waste Stream ID: WV-W050b

Final Form Total

Appendix B

Waste Profile Report

Site	West Valley Demonstration Project	Summary Category S3000 Defense Determination	Unknown Handling RH
Source Cat.	Remediation/D&D Waste	Waste Matrix Code Group Solidified Inorganics	Inventory Date 12/31/2022
Stream Name	RH TRU Mixed Liquids/Absorbed Liquids		Activities as of CY 2017

Waste Volume Detail (m ³)			
Final Form Volum	nes		
Container Type	Stored	Proj.	Total
RH Can w/ Remov Lid w/ 3 - 55-gal w/o Liner	6.9	0.0	6.9

6.9

0.0

6.9

Waste Material Parameters			
	Total		
	Mass		
Material Parameter	(kg)		
Iron-based Metal/Alloys	0.00E+00		
Aluminum-based Metal/Alloys	0.00E+00		
Other Metal/Alloys	0.00E+00		
Other Inorganic Materials	0.00E+00		
Cellulose	0.00E+00		
Rubber	0.00E+00		
Plastic	0.00E+00		
Cement	7.38E+03		
Solidified Inorganic Material	3.69E+03		
Solidified Organic Material	0.00E+00		
Soil	0.00E+00		
Vitrified	0.00E+00		
Packaging Material, Cellulose	0.00E+00		
Packaging Material, Plastic	5.97E+01		
Packaging Material, Rubber	3.89E+00		
Packaging Material, Steel	6.39E+03		
Packaging Material, Lead	0.00E+00		

Final Form Radionuclides		Haz. Waste No(s)
	Total	D007, D008, D009
	Activity	
Isotope	(Ci)	
Am-241	9.27E-01	
Am-243	1.07E-02	No TRUCON
Cm-244	2.25E-02	Codes Provided
Cs-137	3.66E+00	1
Np-237	3.27E-02	1
Pu-238	1.27E+00	1
Pu-239	4.06E-01	1
Pu-240	3.09E-01	1
Pu-241	4.63E+00	1
Pu-242	2.06E-03	1
Sr-90	9.26E+01	1
U-233	2.59E-01	1
U-234	1.23E-01	1
U-235	6.02E-03	1
U-238	2.91E-02	1

Waste Stream Description

This waste stream consists of RCRA hazardous liquid, absorbed liquid, and/or solidified liquid waste with associated fissile material generated from decontamination and decommissioning activities.

	DOE/TRU-23	3-3425,	Rev. 0
Annual Transuranic	Waste Inventory	Report	- 2023

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 low-level waste). This appendix contains a crosswalk that maps current ATWIR-2023 TRU waste generator site waste streams to the ATWIR-2022 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-2023 waste stream to its respective ATWIR-2022 waste stream(s). Table C-2 shows the inverse of Table C-1. Table C-2 displays the association of each ATWIR-2022 waste stream to its respective ATWIR-2023 waste stream(s).

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-2023 to ATWIR-2022 Waste Streams

Site	ATWIR-2023 Waste	ATWIR-2022 Waste Streams
Code	Streams	
AE	AE-T001	AE-T001
AE	AE-T009	AE-T001, 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-AGHC-02	IN-AE-AGHC-02
IN	IN-AW-T031.1322	IN-AW-T031.1322
IN	IN-BN-501	IN-BN-501
IN	IN-BN-522	IN-BN-522
IN	IN-BN-599	IN-BN-599
IN	IN-BN-602	IN-BN-602
IN	IN-BN-RF003	IN-BN-RF003
IN	IN-BN-RF290	IN-BN-RF290
IN	IN-BN-RF311	IN-BN-RF311
IN	IN-BN-RF420	IN-BN-RF420
IN	IN-BN-RF432	IN-BN-RF432
IN	IN-BN-RF801	IN-BN-RF801
IN	IN-BN-SRP-RF123	IN-BN650
IN	IN-BN004	IN-BN004
IN	IN-BN222	IN-BN222
IN	IN-BN510.4	IN-BN-500, IN-BN510, IN-BN510.1, IN-BN510.2,
		IN-BN510.3, IN-BN510.4, IN-IW-609, IN-RF-750
IN	IN-BN538	IN-BN538
IN	IN-BN539	IN-BN539
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-DD-001	IN-DD-001
IN	IN-IC-603	IN-IC-603
IN	IN-ID-ANLE-BIN	IN-ID-ANLE-BIN
IN	IN-ID-ANLW-W269-RH	IN-ID-ANLW-W269-RH
IN	IN-ID-Bettis-Pu8Li14B	IN-ID-Bettis-Pu8Li14B
IN	IN-ID-BTO-030	IN-ID-BTO-030
IN	IN-ID-EBR-S5000	IN-ID-EBR-S5000

Table C-1. Crosswalk of ATWIR-2023 to ATWIR-2022 Waste Streams
Continued

ATWID-2023 Weste	Continued
	ATWIR-2022 Waste Streams
	IN-ID-HFEF-S3000-RP
	IN-ID-HFEF-S5000-RP
	IN-ID-INL-152M
	IN-ID-MFC-SOLID
	IN-ID-MISC-RH
	IN-ID-RF-S5000-RH
	IN-ID-Sample Fuel
IN-ID-SDA-Debris	IN-ID-SDA-Debris
IN-ID-SDA-Sludge	IN-ID-SDA-Sludge
IN-ID-SDA-Soil	IN-ID-SDA-Soil
IN-ID-Source Material	IN-ID-Source Material
IN-ID-TRA-W345-RH	IN-ID-TRA-W345-RH
IN-ID-TRU-RHNH	IN-ID-TRU-RHNH
IN-IW-603	IN-IW-603
IN-IW-608	IN-IW-608
IN-MD-811	IN-MD-811
IN-MO-545	IN-MO-545
IN-NRF-OMC	New Waste Stream
IN-NRF-SPC-103	IN-NRF-SPC-103
IN-RF-806	IN-RF-806
IN-RF-SOURCE-RH	New Waste Stream
IN-SBW-01A	IN-SBW-01A
IN-SBW-01B	IN-SBW-01B
KA-T001	KA-T001
KA-T002	KA-T002
KA-T003	KA-T003
KA-W016	KA-W016
LA-CIN01.001	LA-CIN01.001
LA-CIN02.001	LA-CIN02.001
LA-CIN03.001	LA-CIN03.001
LA-CIN04.001	LA-TA-21-13, LA-TA-21-16
LA-LA225D	LA-LA225D
LA-LANHD01	LA-LANHD01
LA-MHD01-Pits	LA-MHD01-Pits
LA-MHD01.001	LA-CIN01.001, LA-MHD01.001, LA-MHD01-Pits, LA-TA-55-04
LA-MHD03 001	LA-MHD03.001, LA-TA-03-29
	LA-MHD04.001
	LA-MHD05-ITRI.001
	LA-MHD08.001
	LA-MHD09.001
	IN-ID-SDA-Sludge IN-ID-SDA-Soil IN-ID-Source Material IN-ID-TRA-W345-RH IN-ID-TRU-RHNH IN-IW-603 IN-IW-608 IN-MD-811 IN-MO-545 IN-NRF-OMC IN-NRF-SPC-103 IN-RF-806 IN-RF-SOURCE-RH IN-SBW-01A IN-SBW-01B KA-T001 KA-T002 KA-T003 KA-W016 LA-CIN01.001 LA-CIN02.001 LA-CIN03.001 LA-CIN04.001 LA-LA225D LA-LANHD01 LA-MHD01-Pits

Table C-1. Crosswalk of ATWIR-2023 to ATWIR-2022 Waste Streams Continued

Site	ATWIR-2023 Waste	Continued
Code	Streams	ATWIR-2022 Waste Streams
LA	LA-MIN02-V.001	LA-MIN02-V.001, LA-MIN04-S.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-MIN06-NS.001	LA-MHD01.001, LA-MIN06-NS.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-03-14	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-03-29	LA-TA-03-29
LA	LA-TA-03-30	LA-TA-03-30
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-55-04	LA-TA-55-04
LA	LA-TA-55-19	LA-TA-55-19
LA	LA-TA-55-21	LA-TA-55-21
LA	LA-TA-55-30	LA-TA-55-30
LA	LA-TA-55-38	LA-TA-55-38
LA	LA-TA-55-400	New Waste Stream
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
LA	LA-TRU-Empty-SWB	LA-TRU-Empty-SWB
LB	LB-T001	LB-T001
LB	LB-T002	LB-T002
LL	LL-M001	LL-M001
LL	LL-T004	LL-T004

Table C-1. Crosswalk of ATWIR-2023 to ATWIR-2022 Waste Streams
Continued

Site	ATWIR-2023 Waste	Continued
Code	Streams	ATWIR-2022 Waste Streams
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-CHEM-RH-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-GRSC-CH-HET	OR-GRSC-RH-HOM
OR	OR-GRSC-RH-HOM	OR-GRSC-RH-HOM
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-LWT-CH-HET	OR-LWT-CH-HET
OR	OR-MRF-CH-HET	OR-MRF-CH-HET
OR	OR-MRF-RH-HET	OR-MRF-RH-HET
OR	OR-MSRE-CH-HET	OR-TBD-CH-HET
OR	OR-MSRE-RH-HET	OR-TBD-RH-HET
OR	OR-NBL-CH-HET	OR-NBL-CH-HET
OR	OR-NFS-CH-HET-A	OR-NFS-CH-HET-A
OR	OR-NFS-CH-HOM-A	OR-NFS-CH-HOM-A
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-PUBE-CH-HOM	OR-PUBE-CH-HOM
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-RH-HET	OR-RF-RH-HET
OR	OR-RF-RH-HET-A	OR-RF-CH-HET
OR	OR-SOURCE-CH-HET	OR-SOURCE-CH-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

Table C-1. Crosswalk of ATWIR-2023 to ATWIR-2022 Waste Streams Continued

Site	ATWIR-2023 Waste	Continued
Code	Streams	ATWIR-2022 Waste Streams
OR	OR-TDYN-CH-HET	OR-TBD-CH-HET
OR	OR-W1A-CH-SOIL	OR-W1A-CH-SOIL
OR	OR-W1A-RH-SOIL	OR-W1A-RH-SOIL
OR	OR-WC14-RH-HET	OR-WC14-RH-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
RL	RL209E-08	RL209E-08
RL	RL216Z-02	RL216Z-02
RL	RL221T-01	RL221T-01
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	RL300-08	RL300-08
RL	RL300-11	RL300-11
RL	RL308-01	RL308-01
RL	RL308-03	RL308-03
RL	RL308-08	RL308-08
RL	RL325-01	RL325-01
RL	RL325-03	RL325-03
RL	RL325-08	RL325-08
RL	RL325-09	RL325-09
RL	RL618-01	RL618-01
RL	RL618-08	RL618-08

Table C-1. Crosswalk of ATWIR-2023 to ATWIR-2022 Waste Streams
Continued

Site	ATWIR-2023 Waste	Continued
Code	Streams	ATWIR-2022 Waste Streams
RL	RLALE-02	RLALE-02
RL	RLALPHA-08	RLALPHA-08
RL	RLARG-01	RLARG-01
RL	RLBART-07	RLBART-07
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
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	RLESG-09	RLESG-09
RL	RLEXX-01	RLEXX-01
RL	RLFFTF-01	RLFFTF-01
RL	RLFFTF-08	RLFFTF-08
RL	RLGEV-01	RLGEV-01
RL	RLGEV-03	RLGEV-03
RL	RLGEV-08	RLGEV-08
RL	RLHAN-01	RLHAN-01
RL	RLHAN-08	RLHAN-08
RL	RLIAEA-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-01A	RLPFP-01A
RL	RLPFP-02	RLPFP-02
RL	RLPFP-03	RLHAN-03, RLPFP-03
RL	RLPFP-04	RLPFP-04

Table C-1. Crosswalk of ATWIR-2023 to ATWIR-2022 Waste Streams
Continued

Site	ATWIR-2023 Waste	ATWIR-2022 Waste Streams
Code	Streams	
RL	RLPFP-08	RLPFP-08
RL	RLPFP-09	RLPFP-09
RL	RLPRC-01	RLPRC-01
RL	RLPURX-01	RLPURX-01
RL	RLPURX-08	RLPURX-08
RL	RLRFET-01	RLRFET-01
RL	RLSAN-01	RLSAN-01
RL	RLSWO-01	RLSWO-01
RL	RLWAR-01	RLWAR-01
RL	RLWAR-03	RLWAR-03
RL	RLWTP-08	RLWTP-08
RP	RP-TFC001	RP-TFC001
RP	RP-W754	RP-W754
RP	RP-W755	RP-W755
SA	SA-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-AGNS-HOM	SR-AGNS-HOM
SR	SR-BCLDP-HET	SR-BCLDP-HET
SR	SR-BCLDP.003	SR-BCLDP.003
SR	SR-BCLDP.004.004	SR-BCLDP.004.004
SR	SR-CH-PP	SR-CH-PP
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-2	SR-KAC-HET-2
SR	SR-KAC-HET-A	SR-KAC-HET-A
SR	SR-KAC-HET-B	SR-KAC-HET
SR	SR-KAC-PuOx	SR-KAC-PuOx
SR	SR-KAC-PuOx-2	SR-KAC-PuOx-2
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

Table C-1. Crosswalk of ATWIR-2023 to ATWIR-2022 Waste Streams Continued

Site	ATWIR-2023 Waste	Continued
Code	Streams	ATWIR-2022 Waste Streams
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
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-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-W027-321-322M-HET	SR-W027-321-322M-HET
SR	SR-W027-773A-HET	SR-W027-773A-HET
SR	SR-W027-773A-HET-A	New Waste Stream
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

Table C-1. Crosswalk of ATWIR-2023 to ATWIR-2022 Waste Streams Continued

Site Code	ATWIR-2023 Waste Streams	ATWIR-2022 Waste Streams
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.22.01.33 (LANL-CO 2023). Note: This table contains data for WIPP-bound and potential waste streams only.

Table C-2. Crosswalk of ATWIR-2022 to ATWIR-2023 Waste Streams

Site Code	ATWIR-2022 Waste Streams	ATWIR-2023 Waste Streams
AE	AE-T001	AE-T001, AE-T009
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-AGHC-02	IN-AE-AGHC-02
IN	IN-AW-T031.1322	IN-AW-T031.1322
IN	IN-BN-500	IN-BN510.4
IN	IN-BN-501	IN-BN-501
IN	IN-BN-522	IN-BN-522
IN	IN-BN-599	IN-BN-599
IN	IN-BN-602	IN-BN-602
IN	IN-BN-RF003	IN-BN-RF003
IN	IN-BN-RF290	IN-BN-RF290
IN	IN-BN-RF311	IN-BN-RF311
IN	IN-BN-RF420	IN-BN-RF420
IN	IN-BN-RF432	IN-BN-RF432
IN	IN-BN-RF801	IN-BN-RF801
IN	IN-BN-RF990	Depleted Waste Stream - Determined to not be TRU
IN	IN-BN004	IN-BN004
IN	IN-BN222	IN-BN222
IN	IN-BN510	IN-BN510.4
IN	IN-BN510.1	IN-BN510.4
IN	IN-BN510.2	IN-BN510.4
IN	IN-BN510.3	IN-BN510.4
IN	IN-BN510.4	IN-BN510.4
IN	IN-BN538	IN-BN538
IN	IN-BN539	IN-BN539
IN	IN-BN600	IN-BN600
IN	IN-BN650	IN-BN650, IN-BN-SRP-RF123
IN	IN-BN835	IN-BN835
IN	IN-BN836	IN-BN836
IN	IN-BNINW216	IN-BNINW216
IN	IN-BNINW218	IN-BNINW218
IN	IN-DD-001	IN-DD-001
IN	IN-IC-603	IN-IC-603
IN	IN-ID-ANLE-BIN	IN-ID-ANLE-BIN

Table C-2. Crosswalk of ATWIR-2022 to ATWIR-2023 Waste Streams
Continued

Site	ATWIR-2022 Waste	Continued
Code	Streams	ATWIR-2023 Waste Streams
IN	IN-ID-ANLW-W269-RH	IN-ID-ANLW-W269-RH
IN	IN-ID-Bettis-Pu8Li14B	IN-ID-Bettis-Pu8Li14B
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-S5000-RH	IN-ID-RF-S5000-RH
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	Depleted Waste Stream - Shipped to WIPP
IN	IN-ID-TRA-W345-RH	IN-ID-TRA-W345-RH
IN	IN-ID-TRU-RHNH	IN-ID-TRU-RHNH
IN	IN-IW-603	IN-IW-603
IN	IN-IW-608	IN-IW-608
IN	IN-IW-609	IN-BN510.4
IN	IN-MD-811	IN-MD-811
IN	IN-MO-545	IN-MO-545
IN	IN-NRF-SPC-103	IN-NRF-SPC-103
IN	IN-RF-750	IN-BN510.4
IN	IN-RF-806	IN-RF-806
IN	IN-SBW-01A	IN-SBW-01A
IN	IN-SBW-01B	IN-SBW-01B
KA	KA-T001	KA-T001
KA	KA-T002	KA-T002
KA	KA-T003	KA-T003
KA	KA-W016	KA-W016
KN	KN-B234TRU	Depleted Waste Stream - Shipped off site
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-LANHD01	LA-LANHD01
LA	LA-MHD01-Pits	LA-MHD01.001, LA-MHD01-Pits
LA	LA-MHD01.001	LA-MHD01.001, LA-MIN06-NS.001
LA	LA-MHD03.001	LA-MHD03.001

Table C-2. Crosswalk of ATWIR-2022 to ATWIR-2023 Waste Streams
Continued

Site	ATWIR-2022 Waste	Continued
Code	Streams	ATWIR-2023 Waste Streams
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-MIN02-V.001, LA-MIN04-S.001
LA	LA-MIN05-V.001	LA-MIN05-V.001
LA	LA-MIN06-NS.001	LA-MIN06-NS.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-03-14	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-03-29	LA-MHD03.001, LA-TA-03-29
LA	LA-TA-03-30	LA-TA-03-30
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-CIN04.001, LA-TA-21-13
LA	LA-TA-21-15	LA-TA-21-15
LA	LA-TA-21-16	LA-CIN04.001, 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-55-04	LA-MHD01.001, LA-TA-55-04
LA	LA-TA-55-19	LA-TA-55-19
LA	LA-TA-55-21	LA-TA-55-21
LA	LA-TA-55-30	LA-TA-55-30
LA	LA-TA-55-38	LA-TA-55-38
LA	LA-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
LA	LA-TRU-Empty-SWB	LA-TRU-Empty-SWB
LB	LB-T001	LB-T001

Table C-2. Crosswalk of ATWIR-2022 to ATWIR-2023 Waste Streams

Continued

Site	ATWIR-2022 Waste	Continued
Code	Streams	ATWIR-2023 Waste Streams
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-CH-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-GRSC-RH-HOM	OR-GRSC-CH-HET, OR-GRSC-RH-HOM
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-LWT-CH-HET	OR-LWT-CH-HET
OR	OR-MRF-CH-HET	OR-MRF-CH-HET
OR	OR-MRF-RH-HET	OR-MRF-RH-HET
OR	OR-NBL-CH-HET	OR-NBL-CH-HET
OR	OR-NFS-CH-HET-A	OR-NFS-CH-HET-A
OR	OR-NFS-CH-HOM-A	OR-NFS-CH-HOM-A
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-PUBE-CH-HOM	OR-PUBE-CH-HOM
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-RF-RH-HET-A
OR	OR-RF-RH-HET	OR-RF-RH-HET
OR	OR-SOURCE-CH-HET	OR-SOURCE-CH-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-MSRE-CH-HET, OR-TBD-CH-HET, OR-
1		TDYN-CH-HET
OR	OR-TBD-RH-HET	OR-MSRE-RH-HET, OR-TBD-RH-HET

Table C-2. Crosswalk of ATWIR-2022 to ATWIR-2023 Waste Streams Continued

Site	ATWIR-2022 Waste	Continued
Code	Streams	ATWIR-2023 Waste Streams
OR	OR-W1A-CH-SOIL	OR-W1A-CH-SOIL
OR	OR-W1A-RH-SOIL	OR-W1A-RH-SOIL
OR	OR-WC14-RH-HET	OR-WC14-RH-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
RL	RL209E-08	RL209E-08
RL	RL216Z-02	RL216Z-02
RL	RL221T-01	RL221T-01
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	RL300-08	RL300-08
RL	RL300-11	RL300-11
RL	RL308-01	RL308-01
RL	RL308-03	RL308-03
RL	RL308-08	RL308-08
RL	RL325-01	RL325-01
RL	RL325-03	RL325-03
RL	RL325-08	RL325-08
RL	RL325-09	RL325-09
RL	RL618-01	RL618-01
RL	RL618-08	RL618-08
RL	RLALE-02	RLALE-02

Table C-2. Crosswalk of ATWIR-2022 to ATWIR-2023 Waste Streams
Continued

Site	ATWIR-2022 Waste	Continued
Code	Streams	ATWIR-2023 Waste Streams
RL	RLALPHA-08	RLALPHA-08
RL	RLARG-01	RLARG-01
RL	RLBART-07	RLBART-07
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
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	RLESG-09	RLESG-09
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	RLPFP-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-01A	RLPFP-01A
RL	RLPFP-02	RLPFP-02
RL	RLPFP-03	RLPFP-03
RL	RLPFP-04	RLPFP-04

Table C-2. Crosswalk of ATWIR-2022 to ATWIR-2023 Waste Streams
Continued

Site	ATWIR-2022 Waste	Continued
Code	Streams	ATWIR-2023 Waste Streams
RL	RLPFP-08	RLPFP-08
RL	RLPFP-09	RLPFP-09
RL	RLPRC-01	RLPRC-01
RL	RLPURX-01	RLPURX-01
RL	RLPURX-08	RLPURX-08
RL	RLRFET-01	RLRFET-01
RL	RLSAN-01	RLSAN-01
RL	RLSWO-01	RLSWO-01
RL	RLWAR-01	RLWAR-01
RL	RLWAR-03	RLWAR-03
RL	RLWTP-08	RLWTP-08
RP	RP-TFC001	RP-TFC001
RP	RP-W754	RP-W754
RP	RP-W755	RP-W755
SA	SA-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	Depleted Waste Stream - Shipped to WIPP
SR	SR-AGNS-HOM	SR-AGNS-HOM
SR	SR-BCLDP-HET	SR-BCLDP-HET
SR	SR-BCLDP.003	SR-BCLDP.003
SR	SR-BCLDP.004.004	SR-BCLDP.004.004
SR	SR-CH-PP	SR-CH-PP
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-B
SR	SR-KAC-HET-2	SR-KAC-HET-2
SR	SR-KAC-HET-A	SR-KAC-HET-A
SR	SR-KAC-PuOx	SR-KAC-PuOx
SR	SR-KAC-PuOx-2	SR-KAC-PuOx-2
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

Table C-2. Crosswalk of ATWIR-2022 to ATWIR-2023 Waste Streams
Continued

Site	ATWIR-2022 Waste	Continued
Code	Streams	ATWIR-2023 Waste Streams
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
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-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-W027-321-322M-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 ATWIR-2022 to ATWIR-2023 Waste Streams Continued

Site Code	ATWIR-2022 Waste Streams	ATWIR-2023 Waste Streams
WV	WV-W050a	WV-W050a
WV	WV-W050b	WV-W050b
WV	WV-Z001	WV-Z001

Data Source: CID Data Version D.22.01.33 (LANL-CO 2023). Note: This table contains data for WIPP-bound and potential waste streams only.