DOE/ID-10559
Revision 16-A

Annual Site Treatment Plan Report

November 2016

DOE/ID-10559
Revision 16-A

Annual Site Treatment Plan Report

November 2016

Prepared for the
U.S. Department of Energy
DOE Idaho Operations Office

CONTENTS

TABLES

ACRONYMS

AMWTP	Advanced Mixed Waste Treatment Project
CH	contact-handled
CWI	CH2M♦WG Idaho, LLC
DEQ	Idaho Department of Environmental Quality
DOE	U.S. Department of Energy
DOE-ID	U.S. Department of Energy Idaho Operations Office
EPA	U.S. Environmental Protection Agency
FY	fiscal year
INL	Idaho National Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
ITG	Idaho Treatment Group, LLC
LLW	low-level waste
MLLW	mixed low-level waste
NNSS	Nevada National Security Site
Q	quarter
RCRA	Resource Conservation and Recovery Act
RH	remote-handled
RWDP	Remote-Handled Waste Disposition Project
SBW	sodium-bearing waste
SCMS	Sodium Components Maintenance Shop
STP	Site Treatment Plan
TRU	transuranic contaminated waste
WIPP	Waste Isolation Pilot Plant

Annual Site Treatment Plan Report

1. ANNUAL REPORT REQUIREMENTS

The U.S. Department of Energy (DOE) is required to submit an annual Site Treatment Plan (STP) update to the Idaho Department of Environmental Quality (DEQ). Section 2.3.4 of the STP states: "At the same time and along with the annual update to the STP, DOE shall submit to the DEQ an annual STP report to the STP for review and comment. The annual STP report:

(a) Shall include and collate information from the quarterly project manager meetings and provide the DEQ with information to track progress on milestones and planning dates

(b) May include any proposed extensions, revisions (including proposed waste treatment plans for new waste streams), or other changes to the STP

(c) Shall include information on DOE's funding for the STP and identify any funding issues that may impact the STP schedules

(d) May include notification of planning date extensions and changes in covered waste volumes

(e) May be used as a vehicle for input from the public, affected states, and U.S. Environmental Protection Agency (EPA) if revisions to the STP are proposed."

2. BACKGROUND

2.1 Federal Facility Compliance Act

Some federal facilities were generating and storing mixed hazardous and radioactive waste (mixed waste) without any available treatment or disposal capacity. Since the generated waste did not meet the requirements for mixed waste under the Land Disposal Restrictions (40 CFR 268), Congress passed the Federal Facility Compliance Act. The Federal Facility Compliance Act amended the Resource Conservation and Recovery Act (RCRA)—the law that sets forth the requirements for management of hazardous waste—to clearly require federal facility compliance with RCRA.

2.2 Idaho National Laboratory Site Treatment Plan Finalization

The STP is comprised of administrative provisions and technical provisions. Section 1 provides background information related to the development and statutory and regulatory requirements of the STP. Section 2 contains the administrative provisions necessary to implement the STP. Section 2 includes an array of requirements, including: the requirements for the quarterly meetings, annual updates, and this annual report. In addition, Section 2 covers the addition of new waste streams, the process for extending milestones or planning dates, the process for making revisions to the STP, submittal and review of deliverables, and other related administrative requirements. Section 3 describes the treatment facilities, both on-Site and off-Site, that DOE plans to use to treat mixed waste. Section 4 lists both the on-Site and off-Site waste streams that are covered under the STP. Section 5 details the milestones and planning dates for treating or developing the treatment capacity necessary to treat the mixed waste covered in Section 4. Section 6 lists all the covered waste streams that will be treated at each of the facilities and includes detailed treatment plans for each.

2.2.1 Idaho National Laboratory Site Treatment Plan Quarterly Meetings and Updates

Sections 2.3.2 and 2.10.2 of the STP require project managers from DOE and DEQ to meet quarterly to discuss progress and problems relating to work under the STP. Routine agenda items discussed at the quarterly meetings include progress and status of milestones and planning dates, changes in waste stream information (i.e., volume changes, deletions, or additions), modifications to treatment plans, status on the treatment of off-Site waste, and any potential DEQ issues or problems regarding STP compliance.

To facilitate the quarterly meetings, DOE provides the DEQ project manager with the requisite information and agenda one week prior to the meeting. After the meeting, DOE prepares draft meeting minutes and provides them to DEQ within 10 days. DEQ approves, disapproves, or approves with comments the items presented in the meeting minutes that are not considered revisions to the STP. DEQ disapproves, conditionally approves, or conditionally approves with modification, pending public comment and consultation with affected states and the EPA, all proposed revisions. Section 7 of this Annual STP Report lists the items that constitute revisions that DEQ has conditionally approved to the STP this fiscal year.

DEQ's approval, conditional approval, or agreement is required before the STP can be modified. The STP is modified annually and distributed to DEQ and DOE personnel. Distribution ensures that interested parties obtain current information regarding the status of Idaho National Laboratory (INL) mixed waste treatment activities outlined in the STP.

During Fiscal Year (FY) 2016, DOE and DEQ held quarterly meetings in January 2016 (first quarter), April 2016 (second quarter), July 2016 (third quarter), and October 2016 (fourth quarter).

3. PURPOSE OF THE ANNUAL SITE TREATMENT PLAN REPORT

The purpose of this Annual STP Report is to provide the status of DOE's progress in treating and developing treatment capacity for the INL and off-Site mixed waste identified in the STP. Specifically, this Annual STP Report summarizes and describes DOE's progress toward meeting the requirements of the STP and collates the information provided to DEQ as part of the STP quarterly meetings.

This Annual STP Report also provides DEQ with information regarding anticipated funding and planned activities for fulfilling the requirements of the STP. The public and other interested parties can review and comment on DOE's activities and progress made pursuant to the STP.[a] Revisions to the STP are identified in Section 7 of this Annual STP Report.

a. Any revision to the STP requires publication of a notice of availability to the public and consultation with affected states and the EPA regarding the revision.

4. TREATMENT ACTIVITIES SUMMARY

DOE has aggressively pursued treatment as outlined under the STP. Table 1 identifies the treatment units and the amount of INL waste treated in FY 2016.

Table 1. Site Treatment Plan-covered mixed waste treated, processed, or dispositioned during Fiscal Year 2016.

Waste Treated	Volume (m^3)
Commercial Backlog Treatment/Disposal	14.89
SCMS Backlog Treatment/Disposal	2.57
Original Volume TRU Waste Shipped to WIPP	0
Original Volume TRU Waste Volume Reduction Due to Processing	468.84
Original Volume TRU Waste Reclassified to MLLW to Off-Site Treatment/Disposal	934.11
Original Volume TRU Waste Certified for WIPP	506.48
Total	**1,926.89**

MLLW mixed low-level waste
SCMS Sodium Components Maintenance Shop
TRU transuranic
WIPP Waste Isolation Pilot Plant

5. MILESTONE SUMMARY

5.1 Introduction

The STP provides overall schedules for achieving compliance with the RCRA land disposal restriction requirements for mixed wastes at the INL. The schedules include those activities required to bring existing waste treatment facilities or technologies into operation, and those required to develop new facilities and capacity for treatment. The STP schedules show milestones and planning dates for treatment technologies and facilities for covered wastes.

The STP identifies milestones as specific dates in a 3-year rolling period. These consist of the current fiscal year, plus two additional fiscal years (FY+1 and FY+2), by which a certain activity (including an event such as submittal of a deliverable) is scheduled to occur and which will be enforceable as set forth in the STP. Planning dates are dates beyond the 3-year rolling periods (e.g., FY+3 and FY+4) that are unenforceable, estimated schedule dates.

After a fiscal year, FY+1 milestones are converted to current fiscal year milestones, FY+2 milestones are converted to FY+1 milestones, and FY+3 planning dates are converted to FY+2 milestones. All conversions are automatic and remain in effect unless DOE notifies DEQ of any proposed changes. Milestones and planning dates are identified by reference to quarters, as outlined in the STP. The corresponding date for the first quarter is December 31, for the second quarter is March 31, for the third quarter is June 30, and for the fourth quarter is September 30.

5.2 Milestones

5.2.1 Completion of Site Treatment Plan Fiscal Year 2016 Milestones

During FY 2016, four STP milestones were met. DOE submitted documentation verifying completion of the milestones to DEQ as part of the quarterly meetings. DEQ conditionally approved completion of the following milestones during FY 2016:

- Commercial Backlog Treatment/Disposal—10 m^3 (14.89 m^3 treated)
- Sodium Components Maintenance Shop (SCMS) Backlog Treatment—0 m^3 (2.57 m^3 treated)
- Original Volume Transuranic-Contaminated Waste Backlog Treatment/Processing—4,500 m^3
- Remote-Handled Waste Disposition Project (sodium-contaminated waste), Schedule for System Backlog, Milestone P-6 (submitted December 2015, conditionally approved by DEQ 4/27/16).

NOTE: *DEQ conditionally approved the proposed RWDP backlog schedule during the April 27, 2016, STP quarterly meeting, and agreed to incorporate the treatment milestone in the 2017 annual update, which would be made available to the public, affected states, and EPA for comment. If there are significant comments regarding the backlog schedule, DEQ will re-evaluate the backlog schedule.*

The volume identified for each waste treated is the identified milestone volume on Table 1 of this report.

5.2.2 Upcoming Fiscal Year 2017 Milestones

DOE is committed to completing the FY 2017 milestones on or before the scheduled completion dates. The FY 2017 STP milestones are as follows:

- Commercial Backlog Treatment/Disposal—Treat 75 m^3 of mixed waste (by 9/30/2017)
- Sodium Components Maintenance Shop (SCMS) Backlog Treatment—2 m^3 (by 9/30/2017)
- Original Volume Transuranic-Contaminated Waste Backlog Treatment/Processing—4,500 m^3 transuranic (TRU) waste processed through the Advanced Mixed Waste Treatment Project (by 9/30/2017)
- Remote-Handled Waste Disposition Project Treatment Milestone— 0 m^3 (by 9/30/2017)

  NOTE: *This milestone is part of a cumulative milestone to complete 24 m^3 by the end of FY-18.*

- Sodium-Bearing Waste Treatment Facility Milestone-P-5, Commence Operations (by 9/30/2016).

  NOTE: *DOE requested an extension for the P-5 milestone to commence operations at the SBW on September 30, 2016, replacing the date with a "TBD" (to be determined). DEQ responded to that request, stating that the state of Idaho favors no change at this time.*

6. STATUS OF WASTE STREAMS

6.1 Introduction

The STP and Consent Order address land disposal restriction requirements pertaining to storage and treatment of covered wastes, whether such wastes were generated or accumulated in the past, present, or future during the pendency of the STP and implementing Consent Order. Covered wastes are mixed wastes, as identified in Section 4 of the STP. New waste streams become covered wastes, in accordance with the STP provisions.

6.2 Volume Changes for Individual Waste Streams

Volumes changed for 28 waste streams. Several activities contributed to the volume changes, from treatment activities to routine generation, the deletion of five waste streams, and the addition of eight waste streams. The following Table 2 contains the information on these waste streams, including volume changes and a general explanation for the changes.

Table 2. Volume changes for Site Treatment Plan Tables 4-1, 4-2, and 4-2a mixed low-level and transuranic waste streams.

STP Waste Stream	Beginning FY-16 Volume (m^3)	Ending FY-16 Volume (m^3)	Change (m^3)	Justification
Mixed Low-Level Waste Streams Requiring Treatment				
CH-ANL-180CH	17.74	15.17	-2.57	Decreases 2QTR–Processed 1 container and shipped off-Site for disposal 3QTR–Processed, re-categorized to LLW, and decommissioned 1 container
CH-ANL-533	2.97	1.91	-1.06	Decreases 1QTR–Treated and decommissioned 4 containers 4QTR–Treated and decommissioned 1 container
CH-ANL-716CH	0.00	2.55	+2.55	Increases 4QTR–Processed and reclassified 1 container, previously tracked as RH MTRU, as MLLW Processed and reclassified 1 container from newly generated TRU, CH-ANL-505Ta, to MLLW, and shipped the container to Commercial Treatment Facility for disposal
ID-AMWTP-100	32.40	159.60	+127.20	Decreases 1QTR–Treated 1.17 m^3 2QTR–Shipped 5.63 m^3, processed 7.65 m^3, and reclassified 0.21 m^3 3QTR–Processed 0.42 m^3 Increases 1QTR–Reclassified 4.03 m^3 to MLLW; routine generation of 2.97 m^3 2QTR–Routine generation of 2.60 m^3 3QTR–Routine generation of 0.74 m^3 4QTR–Routine generation of 20.82 m^3, and reclassified 108.92 m^3 Consolidated 2.20 m^3

Table 2. (continued).

STP Waste Stream	Beginning FY-16 Volume (m^3)	Ending FY-16 Volume (m^3)	Change (m^3)	Justification
ID-INL-806	1.43	1.43	0.00	Decreases 2QTR–Shipment of 6 containers off-Site for disposal Increases 1QTR–Movement of 6 containers previously reported as TRU to MLLW 3QTR–Addition of 1 container
ID-TEC-175	47.7	48.83	+1.13	Increases 4QTR–Transferred 1.13 m^3 of evaporator tank bottoms to liquid waste system
Transuranic-Contaminated Waste Streams Designated for WIPP				
CH-ANL-180T	0.82	0.67	-0.15	Decreases 1QTR–Moved 6 containers to ID-SDS-TRU, and decommissioned 1 container 2QTR–Shipped 1 container off-Site for disposal 3QTR–Treated and moved 1 container to ID-SDS-TRU Increases 1QTR–Addition of 5 containers from RWDP treatment
CH-ANL-182T	0.78	0.00	-0.78	Deleted waste stream 3QTR Decreases 1QTR–Treated and decommissioned 3 containers Increases 1QTR–Moved 11 containers to ID-SDS-TRU
ID-ANL-163T	1.27	0.00	-1.27	Deleted waste stream 3QTR Decreases 3QTR–Compacted and repackaged 6 containers and moved to BN510
ID-BWX-500T	Not reported	15.58	+15.58	Waste stream added 2QTR Increases 2QTR–Added waste stream inadvertently left off Table 4-2, part of original 65,000 m^3 of TRU waste
ID-MCO-500T	Not reported	19.83	+19.83	Waste stream added 2QTR Increases 2QTR–Added waste stream inadvertently left off Table 4-2, part of original 65,000 m^3 of TRU waste
ID-MDO-838	0.21	0.00	-0.21	Deleted waste stream 3QTR Decreases 3QTR–Treatment and shipment of 1 container to WIPP

Table 2. (continued).

STP Waste Stream	Beginning FY-16 Volume (m^3)	Ending FY-16 Volume (m^3)	Change (m^3)	Justification
ID-MXA-142	Not reported	55.88	+55.88	Waste stream added 2QTR Increases 2QTR–Added waste stream inadvertently left off Table 4-2, part of original 65,000 m^3 of TRU waste
ID-RFO-990	Not reported	99.64	+99.64	Waste stream added 2QTR Increases 2QTR–Added waste stream inadvertently left off Table 4-2, part of original 65,000 m^3 of TRU waste
ID-SDS-TRU	8.55	11.17	+2.62	Decreases 4QTR–Decommissioning of 4 containers Increases 1QTR–Addition of 15 containers from RWDP treatment 3QTR– Addition of 1 container from RWDP treatment 4QTR–Addition of 10 containers from RWDP treatment
ID-TAN-200T	0.21	0.00	-0.21	Deleted waste stream 3QTR Decreases 3QTR–Treatment and shipment of 1 container to WIPP
ID-TEC-151T	0.23	0.00	-0.23	Deleted waste stream 3QTR Decreases 3QTR–Treatment and shipment of 1 container to WIPP
ID-TRU-RHNH	0.00	0.98	+0.98	Decreases 3QTR–Movement of 4 containers to ID-BTO-030T and 1 to ID-SDS-TRU 4QTR–Treatment and decommissioning of 1 container Increases 1QTR–Addition of 6 containers from RWDP treatment 2QTR–Addition of 1 container from RWDP treatment 3QTR– Addition of 1 container from RWDP treatment 4QTR–Addition of 4 containers from RWDP treatment

Table 2. (continued).

STP Waste Stream	Beginning FY-16 Volume (m^3)	Ending FY-16 Volume (m^3)	Change (m^3)	Justification
ID-SDS-TRU	8.55	11.17	+2.62	Decreases 4QTR–Decommissioning of 4 containers Increases 1QTR–Addition of 15 containers from RWDP treatment 3QTR– Addition of 1 container from RWDP treatment 4QTR–Addition of 10 containers from RWDP treatment
Newly Generated Transuranic-Contaminated Waste Streams Designated for WIPP				
CH-ANL-180Ta	0.51	0.11	-0.4	Decreases 1QTR–Decommissioned 1 container Increases 1QTR–Addition of 1 container from RWDP treatment
CH-ANL-241Ta	1.43	0.21	-1.22	Decreases 2QTR–Movement of 3 containers to CH-ANL-241Ta1 4QTR–Repackaged and decommissioned 2 containers, reclassified repackaged containers as MLLW and moved to CH-ANL-716CH Increases 3QTR–Increased with terminating of safeguards of 1 container
CH-ANL-241Ta1	0.00	1.1	+1.1	Waste stream added 2QTR Increases 2QTR– Addition of 3 containers moved from CH-ANL-241Ta
CH-ANL-505Ta	0.63	0.42	-0.21	Decreases 4QTR–-Repackaged and reclassified 1 container as MLLW and moved to CH-ANL-716CH

Table 2. (continued).

STP Waste Stream	Beginning FY-16 Volume (m^3)	Ending FY-16 Volume (m^3)	Change (m^3)	Justification
ID-AMWTP-100Ta	614.35	308.57	-305.78	Decreases 1QTR–Processed 34.03 m^3, reclassified 0.85 m^3 ,and backed out 93.98 m^3 from legacy treatment 2QTR–Processed 112.79 m^3, and reclassified 5.64 m^3 3QTR–Processed 65.7279 m^3, and reclassified 1.38 m^3 4QTR–Processed 1.70 m^3 Volume standardization of 6.37 m^3, and reclassification of 132.69 m^3 Increases 1QTR–Reclassified 0.53 m^3, and routine generation of 21.54 m^3 2QTR– Reclassified 0.21 m^3, and routine generation of 36.02 m^3 3QTR–Reclassified 2.19 m^3, and routine generation of 73.39 m^3 4QTR–Reclassified 0.64 m^3, and routine generation of 14.86 m^3
ID-RWDP-RHa	0.02	0.00	-0.02	Decreases 1QTR–Treatment and decommissioning of 6 containers; treatment and movement of 13 containers to ID-TRU-RHNHa 2QTR–Decommissioned 1 container 3QTR–Decommissioned 3 containers; moved 1 container to ID-TRU-RHNH Increases 1QTR–Addition of 16 containers from RWDP treatment
ID-SDS-TRUa	0.00	0.46	+0.46	Waste stream added 1QTR Increases 1QTR–New waste stream added with addition of 5 containers
ID-TEC-172Ta	0.68	0.00	-0.68	Decreases 1QTR–Movement of 6 containers from ID-INL-806
ID-TEC-699Ta	0.00	0.32	+0.32	Waste stream added 1QTR Increases 1QTR–Movement of 1 container from pre-1995 waste stream

Table 2. (continued).

STP Waste Stream	Beginning FY-16 Volume (m^3)	Ending FY-16 Volume (m^3)	Change (m^3)	Justification
ID-TRU-RHNHa	0.00	2.51	+2.51	Waste stream added 1QTR <u>Decreases</u> 4QTR–Decommissioning of 1 container, and reclassifying of 1 container to CH <u>Increases</u> 1QTR–Addition of 19 containers from RWDP treatment 2QTR–Addition of 3 containers from RWDP treatment 4QTR–Addition of 4 containers from RWDP treatment

6.3 Volume of Transuranic Waste Processed

Table 3 identifies the original volume of TRU-contaminated waste either shipped to the Waste Isolation Pilot Plant (WIPP), reclassified as mixed low-level waste (MLLW), and shipped off-Site; or processed through the Advanced Mixed Waste Treatment Project (AMWTP) or Remote-Handled Waste Disposition Project (RWDP) and certified for WIPP. The volume of these shipments counts toward the Original Volume Transuranic-Contaminated Waste milestone of 4,500 m^3.

Table 3. Original volume transuranic-contaminated waste processed in FY 2016.

Reclassified MLLW (m^3)	Volume Reduction Due to Processing (m^3)	Certified for WIPP (m^3)	Shipped to WIPP (m^3)	Total Original Volume Processed (m^3)
934.11	468.84	506.48	0	1,909.43

6.4 New Waste Streams

During FY 2016, DOE proposed adding nine waste streams (see Table 4) to STP Tables 4-2 and 4-2a. The waste streams added were part of the volume of existing waste streams with existing treatment plans; therefore, the STP is not required to be revised.

Four of the waste streams added to STP Table 4-2 in this annual update are part of the original volume of TRU-contaminated waste. ID-BWX-500T, ID-MCO-500T, and ID-MXA-142 had inadvertently been left off Table 4-2, and ID-RFO-990 was dropped from the table as a typographical error during an annual update. These waste streams did not add additional volume, nor did they require new treatment plans, as they were always a part of the waste to be treated at AMWTP. Therefore, a revision to the STP, in accordance with Section 2.5.1 of the STP, is not required.

ID-TRU-RHNH was added to Table 4-2 to track treated waste that is no longer hazardous until dispositioned off-Site. This waste is part of the original volume TRU-contaminated waste and, therefore, its addition is not considered a revision to the STP.

Two wastes streams, ID-TRU-RHNHa and ID-SDS-TRUa, were added to Table 4-2a to track waste that is no longer hazardous waste until dispositioned off-Site. This waste is part of the existing volume of newly generated waste and, therefore, its addition is not considered a revision to the STP.

CH-ANL-241Ta1 was added to clarify treatment and characterization paths. Splitting CH-ANL-241Ta into two waste streams for tracking did not constitute a new waste stream and, therefore, did not require a revision to the STP.

One stream, ID-TEC-699Ta, was added to STP Table 4-2a to distinguish between waste generated before and after the establishment of the Idaho Settlement Agreement, which was previously tracked only as ID-TEC-699T. This did not constitute a new waste stream and, therefore, did not require a revision to the STP. It is noted that though it is not a new waste stream, the name was changed for CH-ANL-241Ta, to be MTRU Remote Handled To Be WIPP Certified in CPP-659.

Table 4. New waste streams.

STP ID	Waste Stream Name
CH-ANL-241Ta1	MTRU Remote Handled To Be Repackaged in CPP-666
ID-BWX-500T	Babcock and Wilcox
ID-MCO-500T	Monsanto Dayton Laboratory Waste
ID-MXA-142	Mexican Americium
ID-RFO-990	Dirt
ID-SDS-TRUa	TRU Waste from SDS Treatment
ID-TEC-699Ta	Mixed TRU Waste NWCF and CSSF
ID-TRU-RHNH	RH TRU, Non-hazardous Generated from RWDP Treatment
ID-TRU-RHNHa	RH TRU, Non-hazardous Generated from RWDP Treatment

6.5 Deletion of Waste Streams

During FY 2016, 167 waste streams were deleted from the STP (see Table 5). All these waste streams have been treated and are no longer generated.

Table 5. Deleted waste streams.

STP ID	Waste Stream Name
AECHDM-PK	Argonne National Laboratory-Chicago
AECHHM-PK	Argonne National Laboratory-Chicago
ANL-E (debris)	Argonne National Laboratory-Chicago
ANL-E (sludge)	Argonne National Laboratory-Chicago
CH-ANL-180	Sodium-LLW Contact Handled
CH-ANL-182	Sodium Potassium NAK
CH-ANL-182T	Sodium Potassium - NAK- TRU
CH-ANL-716	Debris and/or Solids W/Heavy Metals
GEV Debris	Debris Waste from General Electric Vallecitos Off-Site Waste
HNF Waste	Hanford Off-Site Waste
ID-AEO-100	General Plant Waste
ID-AEO-101	Cut Up Gloveboxes
ID-AEO-101T	Cut Up Gloveboxes
ID-AEO-102	Absorbed Liquids
ID-ANL-160T	ANL-W HFEF Analytical Chemistry and Metal
ID-ANL-163T	ANL-W ACL Cold-Lined Absorbed Liquid, Mis (vol. moved to BN510)
ID-BCO-201	Noncombustible Solids

Table 5. (continued).

STP ID	Waste Stream Name
ID-BCO-202	Combustible Solids
ID-BCO-203	Paper, Metals, Glass
ID-BCO-204	Solidified Solutions
ID-BTO-010	Rags, Gloves, Poly
ID-BTO-020	Noncompressible, Noncombustible
ID-BTO-030	Solidified Grinding Sludge, etc
ID-CFA-108	BA and CD Calibration Sources
ID-CPP-151T	Solidified Fuel Sludge
ID-CPP-156	Chem Cell Rip-out
ID-CPP-172	HEPA Filters
ID-INL-150	Laboratory Waste
ID-INL-155	Scrap
ID-INL-289	Misc. Laboratory Wastes
ID-INL-687	Legacy Samples
ID-INL-694	Returned Sampling Residue
ID-INL-700	PCB Contaminated Debris and Residue
ID-INL-725	Listed Debris
ID-MDO-803	Metal, Equipment, Pipes, Valves, etc.
ID-MDO-824	Noncombustible Equipment Boxes
ID-MDO-824T	Noncombustible Equipment Boxes
ID-MDO-826	Combustible Equipment Boxes or Floor Sweep
ID-MDO-834	High-Level Acid
ID-MDO-835	High-Level Caustic
ID-MDO-836	High-Level Sludge/Cement
ID-MDO-838	<10 nCi/g, Noncombustible
ID-MDO-842	Contaminated Soil
ID-MDO-842T	Contaminated Soil
ID-MDO-847	LSA <100 nCi/g Combustible
ID-MDO-848	LSA < 100 nCi/g
ID-OFS-111	Research Generated Waste Noncompactible
ID-OFS-121	Decontamination and Decommissioning Waste
ID-PBF-147	Solidified WERF Ash (Failed TCLP)
ID-PBF-297	Treatability Study Residues
ID-PBF-550	MLLW from WERF Operations

Table 5. (continued).

STP ID	Waste Stream Name
ID-RFO-000	Not Recorded – Unknown
ID-RFO-001	First Stage Sludge
ID-RFO-002	Second Stage Sludge
ID-RFO-003	Organic Setups, Oil Solids
ID-RFO-004	Special Setups (Cement)
ID-RFO-005	Evaporator Salts
ID-RFO-007	Bldg. 374 Dry Sludge
ID-RFO-112	Solidified Organics
ID-RFO-113	Solid Lab Waste
ID-RFO-114	Solidified Process Solids
ID-RFO-116	Combustible Waste
ID-RFO-117	Metal Waste
ID-RFO-118	Glass Waste
ID-RFO-119	HEPA Filter Waste
ID-RFO-122	Inorganic Solid Waste
ID-RFO-123	Leaded Rubber
ID-RFO-241	Americium Process Residue
ID-RFO-292	Cemented Sludge
ID-RFO-301	Graphite Cores
ID-RFO-302	Benelex and Plexiglass
ID-RFO-320	Heavy Nonspecial Source Metal
ID-RFO-328	Fulflo Incinerator Filters
ID-RFO-330	Dry Paper and Rags
ID-RFO-335	Absolute 8 X 8 Filters
ID-RFO-336	Moist Paper and Rags
ID-RFO-337	Plastics, Teflon, Wash, PVC
ID-RFO-338	Insulation and Chemical Warfare Service
ID-RFO-339	Leaded Rubber Gloves and Aprons
ID-RFO-360	Insulation
ID-RFO-371	Firebrick
ID-RFO-374	Blacktop, Concrete, Dirt and Sand
ID-RFO-375	Oil-Dri Residue from Incinerator
ID-RFO-376	Cemented Insulation Filter Media
ID-RFO-430	Unleached Ion Column Resin

Table 5. (continued).

STP ID	Waste Stream Name
ID-RFO-431	Leached Resin
ID-RFO-432	Leached and Cemented Resin
ID-RFO-440	Glass
ID-RFO-441	Unleached Rashig Rings
ID-RFO-442	Leached Rashig Rings
ID-RFO-463	Leaded Rubber Gloves and Aprons
ID-RFO-464	Benelex and Plexiglass
ID-RFO-480	Nonspecial Source Metal
ID-RFO-481	Leached Nonspecial Source Metal
ID-RFO-490	Chemical Warfare Service Filters
ID-RFO-900	Low Specific Activity Plastics, Paper, etc.
ID-RFO-950	Low Specific Activity Metal, Glass, etc.
ID-RFO-970	Wood
ID-RFO-976	Bldg. 776 Process Sludge
ID-RFO-978	Laundry Sludge
ID-RFO-978T	Laundry Sludge
ID-RFO-9999	Pre-73 Drums
ID-RWDP-RHa	RH MTRU Waste To Be Processed by RWDP
ID-TAN-126	HTRE-3 Spill Cleanup Material
ID-TAN-161	TAN TCLP Sludge (TCE, PCE)
ID-TAN-200T	Americium Sources
ID-TAN-559	GWTF and PWTU Waste
ID-TEC-151T	Solidified Fuel Sludge
ID-TEC-154	Radioactive Contaminated Lead
ID-TEC-156	Chem Cell Rip-Out
ID-TEC-160	PCB Contaminated Waste
ID-TEC-172	HEPA Filters
ID-TEC-302	Liquid High Chloride Corrosive MW
ID-TEC-306	D006-D011 Contaminated Solids
ID-TEC-308	LWT&D HEPA Filters
ID-TRA-291T	TRU Heavy Metal Sludge
ID-VCO-100T	VCO Generated TRU and RH TRU Waste
KEBASIN01	Hanford Off-Site Waste
KEBASIN0T.001	Hanford Off-Site Waste

Table 5. (continued).

STP ID	Waste Stream Name
LA-CIN01.001	Los Alamos National Laboratory (LANL) Off-Site Waste
LA-CIN02.001	Los Alamos National Laboratory (LANL) Off-Site Waste
LA-MIN02-V.001	Los Alamos National Laboratory (LANL) Off-Site Waste
LA-MIN03.001	Los Alamos National Laboratory (LANL) Off-Site Waste
LA-MIN03 (Lot 1)	Los Alamos National Laboratory (LANL) Off-Site Waste
LA-MIN04.001, (Lot 1)	Los Alamos National Laboratory (LANL) Off-Site Waste
LA-MIN04 (Lot 1, Set 1)	Los Alamos National Laboratory (LANL) Off-Site Waste
LA-MIN04 (Lot 1, Set 2)	Los Alamos National Laboratory (LANL) Off-Site Waste
LANL CIN03 (Lot 1)	Los Alamos National Laboratory (LANL) Off-Site Waste
LANL MIN03 (Lot 1)	Los Alamos National Laboratory (LANL) Off-Site Waste
LANL MIN04 (Lot 1 Set 1)	Los Alamos National Laboratory (LANL) Off-Site Waste
LANL MIN04 (Lot 1 Set 2)	Los Alamos National Laboratory (LANL) Off-Site Waste
LANL MSGS03 (Lot 1)	Los Alamos National Laboratory (LANL) Off-Site Waste
LANL MSGS04 (Lot 1)	Los Alamos National Laboratory (LANL) Off-Site Waste
LANL MSGS04.001 (Lot 1)	Los Alamos National Laboratory (LANL) Off-Site Waste
LANL Soils	Los Alamos National Laboratory (LANL) Off-Site Waste
LB-W111	Aqueous Liquids Off-Site Waste
LBNL WASTE (S5400)	Lawrence Berkeley National Laboratory Off-Site Waste
LLNL Debris and Sludge	Lawrence Berkeley National Laboratory Off-Site Waste
LLNL Debris and Sludge (Campaign 2)	Lawrence Berkeley National Laboratory Off-Site Waste
NAVY ASH	Ash from Incineration of Waste from Several Sites
NRD	NRD Limited Liability Corporation (NRD, LLC) (formerly known as Nuclear Radiation Development) Off-Site Waste
NR-NRF-682	Mercury Light Bulbs
NR-NRF-706	RH Particulates
NR-NRF-720	CH MLLW Particles Containing Heavy Metal
OR-NFS-CH-HOM-A	Oak Ridge National Laboratory (ORNL) Off-Site Waste
OR-NFS-CH-GROUT	Oak Ridge National Laboratory (ORNL) Off-Site Waste
PA-W003-USEC	Paint Waste Solids Off-Site Waste
RLM216Z9S	Hanford Off-Site Waste
RLM325D.002	Hanford Off-Site Waste
RLPUNIT	Hanford Off-Site Waste
SA-TG-17-B	Sandia National Laboratory Septic Tanks Residue Off-Site Waste

Table 5. (continued).

STP ID	Waste Stream Name
SNL Waste, Sandia National Laboratory	Sandia National Laboratory Off-Site Waste
SR-BCDLP.003.001 (Lot 1)	SRS Off-site Waste
SR-SDD-HOM-A	SRS Off-site Waste
SR-SDD-HOM-B	SRS Off-site Waste
SR-SDD-HOM-C	SRS Off-site Waste
SR-MD-HOM-B	SRS Off-site Waste
SR-MD-HOM-C	SRS Off-site Waste
SR-MD SOIL	SRS Off-site Waste
SR-SWMF-SOIL (Lot 1)	SRS Off-site Waste
SR-SWMF-SOIL (Lot 2)	SRS Off-site Waste
SR-W026-221F-HOM (Lot 1)	SRS Off-site Waste
SR-W027-221H-HOM (Lot 1)	SRS Off-site Waste
SR-W027-235F-HOM (Lot 1)	SRS Off-site Waste
SR-W027-773A-HOM (Lot 1)	SRS Off-site Waste
SR-W027/SR-AGNS-HOM	SRS Off-site Waste
SR-321-HOM (Lot 1)	SRS Off-site Waste

6.6 Modifications to Waste Stream Treatment Plans

During FY 2016, DOE proposed to modify the treatment plan for 16 waste streams, shown in Table 6. Treatment plans for the 16 waste streams were added to Table 6-2, "Treatment Plans of the STP" during the annual update.

Neither the modifications to existing treatment plans nor the addition of the nine waste streams required a revision to the STP. As described in Section 6.4, waste in these waste streams had existing treatment plans.

Table 6. Modified waste streams.

STP ID	Waste Stream Name	Modification
CH-ANL-180CH	Sodium – MLLW Contact Handled	Revised to include disposal at Nevada National Security Site (NNSS)
CH-ANL-182RH	Sodium Potassium Nak Remote Handled	Revised to include disposal of LLW at NNSS after treatment at the RWDP, and to include treatment of MLLW at a Commercial Treatment Facility

Table 6. (continued).

STP ID	Waste Stream Name	Modification
CH-ANL-241Ta1	MTRU Remote Handled To Be Repackaged in CPP-666	Added as a waste stream to the STP, with treatment paths included on Table 6-2
CH-ANL-716RH	MLLW Remote Handled	Revised to include disposal of LLW at NNSS after treatment at the RWDP, and to include treatment and disposal of MLLW at a Commercial Treatment Facility
ID-BTO-030T	Solidified Grinding Sludge, etc.	Revised to include disposal of LLW at NNSS after treatment at the RWDP, and to include treatment of MLLW at a Commercial Treatment Facility
ID-BTO-040T	Solid Binary Scrap Powder, etc.	Revised to include disposal of LLW at NNSS after treatment at the RWDP, and to include treatment of MLLW at a Commercial Treatment Facility
ID-BWX-500T	Babcock and Wilcox	Added as a waste stream to the STP, with treatment paths included on Table 6-2
ID-MCO-500T	Monsanto Dayton Laboratory Waste	Added as a waste stream to the STP, with treatment paths included on Table 6-2
ID-MXA-142	Mexican Americium	Added as a waste stream to the STP, with treatment paths included on Table 6-2
ID-RFO-005T	Evaporator Salts Treatment Path	Revised to include Commercial Treatment and treatment at the Subtitle C Disposal Facility (SCDF)
ID-RFO-090	Dirt	Revised to include Commercial Treatment and treatment at the SCDF
ID-RFO-990	Dirt	Added back into the STP, with original treatment paths
ID-SDS-TRUa	TRU Waste from SDS Treatment	Added as a waste stream to the STP, with treatment paths included on Table 6-2
ID-TEC-699Ta	Mixed TRU Waste NWCF and CSSF	Added as a waste stream to the STP, with treatment paths included on Table 6-2

Table 6. (continued).

STP ID	Waste Stream Name	Modification
ID-TRU-RHNH	RH TRU, Non-hazardous Generated From RWDP Treatment	Added as a waste stream to the STP, with treatment paths included on Table 6-2
ID-TRU-RHNHa	RH TRU, Non-hazardous Generated From RWDP Treatment	Added as a waste stream to the STP, with treatment paths included on Table 6-2

7. REVISIONS TO SITE TREATMENT PLAN

A revision to the STP requires publication of a notice of availability to the public and consultation with affected states and EPA pursuant to the STP and Section 3021 (b)(2) through (4) of RCRA for those affected portions of the STP. Under the STP, a revision is defined as (a) the addition of a treatment facility at the INL or technology development not previously included in the STP, (b) extension to a milestone or planning date for a period greater than one year, or (c) waste treatment plans for a new waste stream.

No revisions were required in FY 2016.

8. FUNDING

8.1 Introduction

DOE and DEQ recognize that successful implementation of the STP depends upon prudent use of resources and the effective management of those resources be considered during the work planning, budget formulation, and budget execution process. To ensure the development of responsible budget requests consistent with the STP requirements and applicable federal/state laws, regulations, and statutes, along with DOE orders, DOE and DEQ continue to work cooperatively to this end.

As outlined in the STP, DOE is required to take all necessary steps to obtain sufficient funding to comply with the provisions of the STP through consultation with DEQ and submission of timely budget requests. Furthermore, the DOE and DEQ STP project managers meet periodically to discuss projects funded in the current fiscal year and any events or new information that might cause significant changes to schedules or other issues relevant to activities performed under the STP.

8.2 Fiscal Year 2017 Idaho National Laboratory Site Treatment Plan Funding

Federal budgets will be funded under a Continuing Resolution from October 1, 2016, to December 9, 2016. It is anticipated that a bill will be signed after that date.

8.3 Fiscal Year 2018 Idaho National Laboratory Site Treatment Plan Funding

The Congressional Budget Act of 1974 requires that the President of the United States submit to Congress, on or before the first Monday in February of each year, a detailed budget request for the coming federal fiscal year, which begins on October 1. In support of the President's budget request, the Department of Energy Idaho Operations Office (DOE-ID) field budget process included the estimated funding levels required to achieve full compliance with the STP.

8.4 Outyear Site Treatment Plan Funding

Although it is prepared annually, the President's FY 2017 budget request must anticipate program needs for 5 years in the future. DOE-ID funding requests identify all STP milestones and activities as high priority. Outyear funding for STP milestones are subject to funding availability, and any shortfalls that may affect STP milestones will be identified and negotiated with DEQ as they arise.

9. TRANSURANIC-CONTAMINATED WASTE MANAGEMENT

9.1 Introduction

Per Section 5.4 of the pending update to the STP, DOE is providing information in this annual report regarding progress in management of TRU-contaminated waste at the INL.

9.2 Progress

DOE-ID announced award of the Idaho Cleanup Project Core contract to Fluor Idaho, LLC, in February 2016. This contract consolidated the work performed by Idaho Treatment Group (ITG) and CH2M-WG Idaho, LLC (CWI) under one contractor. Transition of the new contract to Fluor Idaho, LLC, was successfully completed on June 1, 2016.

No shipments were made to WIPP due to continued recovery efforts from the February 2014 fire and radiological release at that facility.

On July 5, 2016, the revised WIPP Waste Acceptance Criteria, Revision 8.0, was issued. This version of the Waste Acceptance Criteria implemented new requirements for qualification of waste for disposal at WIPP. These changes were primarily driven in response to the February 2014 radiological release that occurred at WIPP. Direction to cease certification of TRU waste for disposal at WIPP was also issued until new requirements could be implemented. Implementation of new requirements, including chemical compatibility evaluations and enhanced Acceptable Knowledge requirements, are underway, and approval to begin certification operations is anticipated in 2Q FY 2017.

In FY 2016, AMWTP continued retrieval, characterization, treatment, repackaging, and certification operations. Certification of waste ceased July 5, 2016. Equipment replacement in the Treatment Facility box line was initiated to improve operation capability in FY 2016. AMWTP certified 506 m^3 (approximately 1,500 containers) of mixed TRU waste for disposal at WIPP. This waste, along with 2,400 m^3 (approximately 14,376 containers) of previously certified waste, is stored at AMWTP awaiting shipment to WIPP. In FY 2016, 934 m^3 of historically managed mixed TRU waste and 15 m^3 of newly generated MLLW was shipped off-Site for treatment and/or disposal at Energy Solutions or at the Nevada National Security Site. The AMWTP also reduced the stored volume of mixed TRU waste by 469 m^3 due to waste processing activities.

Repackaging, treating, and characterizing stored remote-handled (RH)-TRU waste previously stored at the Radioactive Waste Management Complex, as well as processing RH-TRU waste stored or generated by other site facilities, continued. Upgrade and restart of the Sodium Distillation System was accomplished to support treatment of RH-TRU sodium-contaminated waste. Efforts continued on qualifying RH-TRU waste streams for future disposal at WIPP. The volume of previously certified RH-TRU waste is 18.35 m^3 (161 containers).

10. TREATMENT/STORAGE OF OFF-SITE MIXED WASTE

This section presents mixed waste stream information for wastes generated off-Site, which DOE proposed to ship and treat pursuant to Sections 2.2.3.5 and 2.4 of the INL STP. The INL did not receive any off-Site waste (see Table 7) and did not ship any off-Site waste (see Table 8) in FY 2016.

Table 7. Off-Site waste received at the INL.

Waste Stream ID	Off-Site Waste Receipt Date	Volume Received (m^3)
None	NA	NA

Table 8. Wastes generated off-Site and shipped off-Site.

Waste Stream ID	Off-Site Waste Shipped Date	Volume Shipped Off-Site (m^3)
None	NA	NA