

Los Alamos National Laboratory Federal Facility Compliance Order Annual Site Treatment Plan Update for Fiscal Year 2024, Revision 35.0



Newport News Nuclear BWXT-Los Alamos, LLC (N3B), under the U.S. Department of Energy Office of Environmental Management Contract No. 89303318CEM000007 (the Los Alamos Legacy Cleanup Contract), has prepared this document. The public may copy and use this document without charge, provided that this notice and any statement of authorship are reproduced on all copies.

CONTENTS

ACRONYMS	VII
INTRODUCTION	1
PART I BACKGROUND UPDATE	2
1.0 INTRODUCTION.....	2
2.0 AMOUNT OF EACH COVERED WASTE STORED AT LANL.....	2
2.1 Mixed Low-Level Waste Inventory	2
2.2 Mixed Transuranic Inventory Summary.....	3
3.0 TREATMENT PROGRESS.....	5
3.1 Off-site Treatment.....	5
3.2 Off-site Recycling	5
3.3 On-site Treatment and Recycling.....	5
3.4 On-site Lead Decontamination.....	5
3.5 Treatability Studies	5
3.6 Administrative Adjustments and Corrections.....	5
3.6.1 Adjustments to MLLW Inventory.....	5
3.6.2 Adjustments to MTRU Inventory	5
4.0 TREATMENT TECHNOLOGY DEVELOPMENT	6
4.1 Treatment Technologies Being Evaluated/Developed	6
4.1.1 Off-site Commercial Treatment Facilities.....	6
4.1.2 Off-site DOE Treatment Facilities	6
5.0 DOE FUNDING FOR STP-RELATED ACTIVITIES.....	6
6.0 TREATMENT VARIANCES	6
6.1 WIPP No-Migration Variance Petition/Land Withdrawal Act Amendments.....	6
6.2 Other Treatment Variance(s).....	7
7.0 WIPP FACILITY CAPABILITIES	7
7.1 Characterization Capabilities at WIPP	7
7.2 MTRU Treatment Capabilities and Plans.....	7
PART II COMPLIANCE PLAN UPDATE.....	8
1.0 INTRODUCTION.....	8
2.0 CHANGES AND REVISIONS TO THE CP OCCURRING SINCE THE PREVIOUS ANNUAL UPDATE	8
2.1 Activities Completed During FY 2024.....	8
2.2 Expedited Shipment Letters	8
2.3 Correspondence.....	8
3.0 DESCRIPTION OF DELETED WASTE	8
4.0 DOCUMENTATION OF NEW COVERED WASTE.....	8
5.0 PROPOSED CHANGES TO THE COMPLIANCE PLAN SCHEDULE	9
6.0 DETAILED DESCRIPTION OF THE PROPOSED REVISION	9
6.1 Addition of New Covered Waste	10
6.1.1 MLLW Additions.....	10
6.1.2 MTRU Waste Additions	10
6.2 Deletion of Covered Waste	11

6.2.1	Deletion of MLLW	11
6.2.2	Other Deletions of MLLW	11
6.2.3	Deletion of MTRU Waste	11
6.3	Adjustments to the Original (October 4, 1995) STPCovered MLLW Inventory	11
6.4	Adjustments to MTRU Waste Inventory	11
6.5	Establishment of New Milestone Activity Dates	11
6.6	Additional Revisions	11
7.0	RATIONALE FOR THE PROPOSED REVISION.....	12
7.1	Establishment of New Proposed Milestone.....	12
7.2	Addition of New Covered Waste	12
7.3	Deletion of Covered Waste	12
7.4	Adjustments to the Original (October 4, 1995) STP-Covered Waste Inventory	13
8.0	ANTICIPATED LENGTH OF ANY DELAY IN PERFORMANCE	13
9.0	PLAN AND SCHEDULE FOR IMPLEMENTING ALL REASONABLE MEASURES	13
PART III	COMPLIANCE PLAN – PROPOSED REVISION 35.0.....	14
1.0	PURPOSE AND SCOPE OF THE COMPLIANCE PLAN.....	14
1.1	Introduction	14
1.2	STP Revisions and Amendments	14
2.0	COMPLIANCE SCHEDULES	14
2.1	Categories of Activities for Compliance Dates	14
2.1.1	Plans Where Treatment Technology Exists	14
2.1.2	Plans Where Technology Must Be Developed.....	14
2.2	Primary Preferred Treatment.....	15
2.3	Plans for Mixed Waste to be Shipped Off-site for Treatment	15
2.3.1	Specific Site Requirements for Noncommercial Treatment Facilities	16
2.4	Requirements Pertaining to Radionuclide Separation	16
2.5	Plans Related to Other Mixed Waste Activities	17
2.6	Recycling/Re-Use.....	17
2.7	On-site Radiological Decontamination	18
3.0	MIXED LOW-LEVEL WASTE STREAMS.....	18
3.1	Mixed Waste Streams.....	19
3.1.1	Industrial Isopropyl Alcohol (IPA) Wastes and Scintillation Fluids.....	19
3.1.2	Lead Blankets, Soil with Heavy Metals, Environmental Restoration (ER) Soils	19
3.1.3	Aqueous Organic Liquids	19
3.1.4	Organic-Contaminated Combustible Solids.....	20
3.1.5	Combustible Debris, Activated or Inseparable Lead, Noncombustible Debris.....	20
3.1.6	Aqueous Wastes with Heavy Metals, Corrosive Solutions, Aqueous Cyanides, Nitrates, Chromates, and Arsenates.....	21
3.1.7	Water-Reactive Metal	21
3.1.8	Compressed Gases Requiring Scrubbing	21
3.1.9	Compressed Gases Requiring Oxidation.....	22
3.1.10	Elemental Mercury.....	22
3.1.11	Halogenated Organic Liquids, Nonhalogenated Organic Liquids, Bulk Oils, Polychlorinated Biphenyl (PCB) Wastes with RCRA Components, Liquid and Solid Oxidizers	22

3.2	Mixed Waste Requiring Further Characterization or for Which Technology Assessment Has Not Been Done	23
3.3	Plans for Other Types of Activities	24
3.3.1	Lead Decontamination	24
3.3.2	Sorting, Surveying, and Decontamination	25
3.3.3	Lead Requiring Sorting	25
3.3.4	10–100 nCi/g Waste	26
3.4	Management of “Missing” Items	27
4.0	MIXED TRANSURANIC WASTE	28
4.1	Management of “Missing” Items	28
APPENDIX A	CURRENT YEAR MLLW INVENTORY DETAIL	31
APPENDIX B	CURRENT YEAR MLLW SHIPMENT DETAIL	35
APPENDIX C	CURRENT YEAR MLLW ADMINISTRATIVE ADJUSTMENTS	36
APPENDIX D	PREVIOUS YEAR MLLW INVENTORY DETAIL	37
APPENDIX E	CURRENT YEAR MTRU INVENTORY DETAIL	41
APPENDIX F	CURRENT YEAR MTRU WASTE SHIPMENTS TO WIPP	44
APPENDIX G	CURRENT YEAR MTRU INVENTORY ADMINISTRATIVE ADJUSTMENTS	46
APPENDIX H	MLLW TREATMENT FACILITIES	49
APPENDIX I	CORRESPONDENCE	50
APPENDIX J	HISTORY OF CHANGES TO THE CP AND FFCO	54
REFERENCES		59

TABLES

Table 2.1-1	STP-Covered MLLW Inventory Summary	3
Table 2.2-1	STP-Covered MTRU Inventory Summary	4
Table 6.1.1-1	Proposed Addition of New Covered MLLW	10
Table 6.1.2-1	Proposed Addition of New Covered MTRU Waste	10
Table 6.1.2-2	Proposed Addition of Waste Newly Characterized as MTRU	10
Table 2.1.1-1	Categories of Activities for Compliance for Mixed Waste with Existing Treatment Technologies	14
Table 2.1.2-1	Categories of Activities for Compliance Dates for Mixed Waste Without Existing Treatment Technologies	15
Table 2.3-1	Activities for Off-site Shipment for Treatment or Recycling at a Commercial Facility	15
Table 2.3-2	Activities for Shipment Off-site for Treatment or Recycling at a Noncommercial Facility	16
Table 2.4-1	Activities for Radionuclide Separation	17
Table 2.6-1	Requirements for Recycling	17
Table 2.7-1	Activities for Radiological Decontamination	18
Table 3.1.1-1	Treatability Groups for IPA Wastes and Scintillation Fluids	19
Table 3.1.2-1	Treatability Groups for Lead Blankets, Soil with Heavy Metals, ER Soils	19
Table 3.1.3-1	Treatability Groups for Aqueous Organic Liquids	19
Table 3.1.4-1	Treatability Groups for Organic-Contaminated Combustible Solids	20
Table 3.1.4-2	Treatability Groups for Organic-Contaminated Noncombustible Solids	20
Table 3.1.5-1	Treatability Groups for Combustible Lead, Activated or Inseparable Lead, and Noncombustible Debris	20

Table 3.1.6-1	Treatability Groups for Aqueous Wastes with Heavy Metals, Corrosive Solutions, Aqueous Cyanides, Nitrates, Chromates, and Arsenates	21
Table 3.1.7-1	Treatability Groups for Water-Reactive Metal	21
Table 3.1.8-1	Treatability Groups for Compressed Gases Requiring Scrubbing.....	21
Table 3.1.8-2	Activities and Compliance Dates for Compressed Gases Requiring Scrubbing	21
Table 3.1.9-1	Treatability Groups for Compressed Gases Requiring Oxidation	22
Table 3.1.10-1	Treatability Groups for Elemental Mercury	22
Table 3.1.11-1	Treatability Groups for Halogenated Organic Liquids, Nonhalogenated Organic Liquids, Bulk Oils, PCB Wastes with RCRA Components	22
Table 3.1.11-2	Additional Treatability Groups	22
Table 3.2-1	Treatability Groups for Waste Requiring Characterization or Assessment.....	23
Table 3.2-2	Activities and Compliance Dates for Wastes Requiring Characterization or Assessment	23
Table 3.3.1-1	Treatability Groups for Lead Decontamination.....	24
Table 3.3.2-1	Treatability Groups for Sorting, Surveying, and Decontamination	25
Table 3.3.3-1	Treatability Groups for Lead Requiring Sorting	25
Table 3.3.4-1	Treatability Groups for 10–100 nCi/g Waste	26
Table 3.3.4-2	Activities and Compliance Dates for 10–100 nCi/g Waste	27
Table 3.4-1	Waste Category for “Missing Waste”	27
Table 4.0-1	Activities and Compliance Dates for N3B MTRU Inventory	28
Table 4.1-2	Waste Category for “Missing Waste”	28
Table A-1	FY 2024 N3B MLLW Inventory Detailed Update by Treatability Group	31
Table A-2	FY 2024 Triad MLLW Inventory Detailed Update by Treatability Group	33
Table B-1	FY 2024 LANL MLLW Shipped Off-site for Treatment and Disposal	35
Table C-1	FY 2024 N3B MLLW Inventory Administrative Adjustments.....	36
Table C-2	FY 2024 Triad MLLW Inventory Administrative Adjustments.....	36
Table D-1	FY 2023 N3B MLLW Inventory Detailed Update by Treatability Group	37
Table D-2	FY 2023 Triad MLLW Inventory Detailed Update by Treatability Group	39
Table E-1	FY 2024 N3B MTRU Inventory by Treatability Group.....	41
Table E-2	FY 2024 Triad MTRU Inventory by Treatability Group.....	42
Table E-3	FY 2024 3706 Aboveground EM Legacy MTRU Inventory by Treatability Group.....	43
Table F-1	FY 2024 MTRU Shipments to WIPP.....	44
Table F-2	FY 2014 MTRU Shipments to WCS.....	44
Table F-3	FY 2014 MTRU Shipments to AMWTP (INL)	45
Table F-4	FY 2014 On-Hold MTRU Shipments to WCS and then to WIPP ¹	45
Table G-1	FY 2024 N3B MTRU Inventory Administrative Adjustments	46
Table G-2	FY 2024 Triad MTRU Inventory Administrative Adjustments	47
Table G-3	FY 2024 3706 MTRU Inventory Administrative Adjustments	48
Table H-1	Commercial Facilities Contacted for Waste Treatment Capabilities.....	49
Table I-1	FY 2024 Expedited Shipment Letters	50
Table I-2	FY 2024 Correspondence from DOE/NNSA/Triad	50
Table I-3	FY 2024 Correspondence from DOE EM-LA/N3B.....	51
Table J-1	Summary of Changes to the CP and the FFCO	54

ACRONYMS

40 CFR	Title 40 of the Code of Federal Regulations
AMWTP	Advanced Mixed Waste Treatment Plant
ASD	Accumulation Start Date
CCA	Compliance Certification Application
CMR	Chemistry and Metallurgy Research (Building)
CP	Compliance Plan
CVD	Confinement Vessel Disposition (Project)
DOE	U.S. Department of Energy
DOE EM	U.S. Department of Energy Environmental Management
DSA	documented safety analysis
EM	Environmental Management
EM-LA	Environmental Management Los Alamos Field Office (DOE)
EPA	U.S. Environmental Protection Agency
ER	Environmental Restoration
FFCA	Federal Facility Compliance Act
FFCO	Federal Facility Compliance Order
FTWC	flanged tritium waste container
FY	fiscal year
HWA	Hazardous Waste Act
HWB	Hazardous Waste Bureau
HWN	hazardous waste number
IPA	industrial isopropyl alcohol
INL	Idaho National Laboratory
LANL	Los Alamos National Laboratory
LANS	Los Alamos National Security, LLC
LDR	Land Disposal Restrictions (RCRA)
LLW	low-level waste
LWAA	Land Withdrawal Act Amendments
MLLW	mixed low-level waste
MTRU	mixed transuranic (waste)

MWIR	Mixed Waste Inventory Report
N3B	Newport News Nuclear BWXT-Los Alamos, LLC
NA-LA	National Nuclear Security Administration Los Alamos Field Office (DOE)
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NNSA	National Nuclear Security Administration (DOE)
PCB	polychlorinated biphenyl
RCRA	Resource Conservation and Recovery Act
STP	Site Treatment Plan
SWB	standard waste box
TA	Technical Area
TBD	to be determined
TBV	to be verified
Triad	Triad National Security, LLC
TRU	transuranic (waste)
TSCA	Toxic Substances Control Act
TWF	Transuranic Waste Facility
UC	University of California
WCRRF	Waste Characterization, Reduction, and Repacking Facility
WCATS	Waste Compliance and Tracking System
WCS	Waste Control Specialists, LLC
WETF	Weapons Engineering Tritium Facility
WIPP	Waste Isolation Pilot Plant

INTRODUCTION

On October 6, 1992, Congress passed the Federal Facility Compliance Act (FFCA) to address compliance by the U.S. Department of Energy (DOE) with the Land Disposal Restrictions (LDR) for the storage of mixed waste set forth in Section 3004(j) of the Resource Conservation and Recovery Act (RCRA). The FFCA requires DOE to submit a Site Treatment Plan (STP) for developing treatment capacities and technologies to treat all the facility's mixed waste, regardless of the time generated, to the standards promulgated pursuant to Section 3004(m) of the RCRA. The FFCA provides that the appropriate regulatory authority, the New Mexico Environment Department (NMED), may approve, approve with modifications, or disapprove the submittal of the STP. Prior to making such a determination, the FFCA requires NMED to provide public notice, consider public comments, and consult with the U.S. Environmental Protection Agency (EPA) and any other state in which a facility affected by the STP is located.

On October 4, 1995, NMED issued a Federal Facility Compliance Order (FFCO) to DOE and the management and operating contractor, the University of California (UC) Regents. On June 1, 2006, Los Alamos National Security, LLC (LANS) replaced UC as operating contractor of Los Alamos National Laboratory (LANL). LANS then assumed responsibility for FFCO compliance. On April 30, 2018, Newport News Nuclear BWXT-Los Alamos, LLC (N3B) became the prime contractor for the DOE Environmental Management Los Alamos Field Office (EM-LA) and is responsible for LANL site-wide cleanup as well as waste management and shipping of legacy STP and remediation wastes at Technical Area 54 (TA-54), Areas G and L. Per the LANS/N3B Service Agreement/Work Authorizations signed April 30, 2018, N3B became the lead contractor for FFCO compliance. As of November 1, 2018, Triad National Security, LLC (Triad) became the new prime contractor for DOE National Nuclear Security Administration Los Alamos Field Office (NA-LA), replacing LANS. Triad is responsible for the mixed-waste management reporting in those areas managed by Triad.

At present, N3B is responsible for all quarterly and annual FFCO STP reporting requirements, working closely with Triad to fulfill FFCO requirements for all LANL STP requirements. N3B and Triad, as well as EM-LA and NA-LA, will collectively be referred to as "the Respondents."

The FFCO requires the Respondents to implement an STP for the treatment of mixed waste at LANL. The STP is intended to fulfill the FFCA requirements and establish an enforceable framework to allow the Respondents to achieve full compliance with LDR requirements under the New Mexico Hazardous Waste Act (HWA) and RCRA. The compliance dates set forth in the STP are enforceable time periods in which Respondents are required to treat or otherwise meet the requirements set forth for LDR under the HWA and RCRA.

On March 31, 1995, DOE submitted its proposed STP, which addressed treatment capacities and technologies to treat all LANL's mixed waste, regardless of the time it was generated, to NMED. On April 17, 1995, the public was provided an opportunity to comment to NMED on DOE's draft STP. After considering public comment and otherwise complying with the FFCA, NMED approved the draft STP with modifications on October 4, 1995.

Section VII of the FFCO requires the Respondents to submit an Annual STP Update to NMED each year on or before March 31. The FFCO requires that the Annual Update bring the information in both the Background and the Compliance Plan (CP) current to the end of the previous federal fiscal year (FY). Part I of this Annual Update constitutes the update to the Background. Part II contains the changes that have occurred since the last Annual Update and identifies proposed revisions and amendments to the CP. Part III incorporates the changes in Part II into the proposed CP revision (Revision 35.0).

PART I BACKGROUND UPDATE

1.0 INTRODUCTION

The Background (Part I) provides the following information:

- The estimated volume of covered waste in storage at the end of the previous FY and anticipated to be placed in storage for the next five FY's.
- A progress report from the end of the previous federal FY describing treatment progress and treatment technology development for each treatment facility and activity scheduled in the STP.
- A description, if applicable, of current or anticipated alternative treatment technology that is being evaluated for use instead of treatment technologies or capacities identified in the STP.
- A description of DOE's funding for STP-related activities and any funding issues that may affect the schedule.
- The status of the "No-Migration Variance Petition" or any treatability variances.
- A progress report on characterization and/or treatment capabilities or plans for mixed transuranic (MTRU) waste related to the waste treatment standards, if any, for the DOE Waste Isolation Pilot Plant (WIPP) facility near Carlsbad, New Mexico.

The STP-covered waste inventory is verified during quality control activities. Inconsistencies in treatability group or volume between the original inventory and the current inventory may exist. These inconsistencies are reconciled within the Annual Update. To correct these inconsistencies and streamline the STP reporting process, the Respondents will work on incorporating the STP report data function utilizing the Waste Compliance and Tracking System (WCATS).

2.0 AMOUNT OF EACH COVERED WASTE STORED AT LANL

2.1 Mixed Low-Level Waste Inventory

During FY 2024 the STP-covered mixed low-level waste (MLLW) inventory decreased from 170.355 m³ to 155.226 m³. This decrease was due to the shipment of 25.029 m³. There were contributions from administrative adjustments (Tables C-1 and C-2) of 7.178 m³ and new covered MLLW of 2.722 m³. Table 2.1-1 summarizes changes to the estimated FY 2024 STP-covered MLLW inventory.

The transuranic (TRU)/MTRU waste recharacterization process will continue to produce 10–100 nCi/g waste (LA-W935). The TRU/MTRU waste recharacterization process was due to a backlog of waste as a result of previous shipping pauses, limited shipments to WIPP, and past restrictions on-site at TA-54, Areas G and L. These restrictions delayed the final confirmation, characterization, certification, and shipment for off-site treatment and disposal of these containers.

Appendix A provides the detailed changes to the previous year's STP-covered MLLW inventory by treatability group, which includes the inventory for N3B in Appendix A, Table A-1, and the inventory for Triad in Table A-2. Appendix B, Table B-1, lists the current year's MLLW shipments. Administrative adjustments to the MLLW inventory are categorized in Appendix C, Table C-1, for the N3B-managed inventory and Table C-2 for the Triad-managed inventory. The MLLW inventory reported in the previous Annual Update is included as Appendix D, Table D-1, for N3B-managed inventory and Table D-2 for the Triad-managed inventory.

Table 2.1-1 STP-Covered MLLW Inventory Summary

Contribution	Volume (m ³)
N3B MLLW Inventory Reported in FY 2023	168.274
Triad MLLW Inventory Reported in FY 2023	2.081
Proposed Revision 35.0	
N3B New Covered Waste	1.984
Triad New Covered Waste	0.738
N3B Administrative Adjustments	7.386
Triad Administrative Adjustments	-0.208
N3B Off-site Shipment	-23.156
Triad Off-site Shipment	-1.873
Off-site Treatment/Recycle	0
On-site Decontamination	0
Treatability Study Use	0
MLLW Inventory Reported in FY 2024 Annual Update	155.226

Note: Calculations have been rounded to three places after the decimal point.

2.2 Mixed Transuranic Inventory Summary

During FY 2024, STP-covered MTRU inventories decreased from 1138.338 m³ to 1120.176 m³. The decrease was due to shipments of 96.990 m³ to WIPP. There were administrative adjustments of -38.668 m³ and new covered MTRU waste of 117.496 m³.

Table 2.2-1 summarizes changes to the estimated FY 2024 MTRU STP-covered waste inventory. Appendix E contains additional detail for the MTRU inventory; Table E-1 covers the N3B inventory; Table E-2 covers the inventory for Triad; and Table E-3 covers the remaining original population of the Framework Agreement volume of STP-covered MTRU waste that is part of the “non-cemented above-ground Environmental Management (EM) Legacy TRU” (MTRU waste only). The Framework Agreement volume (discussed in Part 3, Section 4.0 of the CP) is now detailed in Table E-3; therefore, it is no longer summarized in Table E-1. Table E-3 is a subset of the data that was originally presented in Table E-1 as the volumes in Table E-3 do not contribute to the volumes in Table E-1. Separating the “Framework Agreement” volumes into individual tables allows a detailed representation in Table E-1 of the remaining MTRU volume on-site. Appendix F, Table F-1, provides a summary of MTRU shipments to WIPP. In Appendix G, Tables G-1, G-2, and G-3 describe the administrative adjustments that were made to resolve differences in the N3B inventory data, Triad inventory data, and Framework Agreement MTRU inventory data, respectively. More explanation of Table E-3 and Table G-3 is given in Part III, “Mixed Transuranic Waste,” Section 4.0, Disposal.

Administrative adjustments typically represent the following types of activities:

- Respondents may correct database entries so that waste items not previously listed as STP waste are now identified and included as STP waste.
- Respondents may correct waste data, such as volume or EPA codes, through quality control activities. Under DOE Standards, waste that was formerly classified as MTRU because it had radioactivity greater than 10 nCi/g has been reclassified to MLLW (LA-W935) if its activity is less than 100 nCi/g.
- New analytical data may also require that waste streams previously managed as TRU waste should be reclassified and managed as MTRU waste.
- During repacking or other quality control activities, TRU waste may be recharacterized as MTRU waste when previously unidentified hazardous contents, such as lead, are determined to be present.
- During repacking, treatability groups are frequently reassigned to be consistent with current management and shipping criteria, to include intra-site transfer of containers between Triad and N3B.
- Containers of waste are occasionally determined not to belong to mixed waste streams and are reclassified as TRU waste; removal of WIPP-prohibited items, if they are the only hazardous constituent, will result in the remaining waste being classified as non-mixed.
- Addition or removal of overpacks does not change the inner container volume of the waste in the inventory.
- Rounding container volumes to three decimal places may change the inventory volume.

Table 2.2-1 STP-Covered MTRU Inventory Summary

Contribution	Volume (m ³)
N3B MTRU Inventory Reported in FY 2023	1018.148
Triad MTRU Inventory Reported in FY 2023	120.190
Proposed Revision 35.0	
N3B New Covered MTRU Waste	49.172
Triad New Covered MTRU Waste	68.324
MTRU Waste Removed from Inventory (Shipped to WIPP)	-96.990
MTRU inventory volume reported in FY 2023 at WCS (FY 2014 on hold) is referenced in Appendix F, Tables F-2 and F-4	NA
MTRU waste volume shipped from WCS to WIPP in FY 2024 (FY 2014 on hold) is referenced in Appendix F, Tables F-2 and F-4	NA
MTRU inventory reported in FY 2024 at WCS (FY 2014 on hold) is referenced in Appendix F, Tables F-2 and F-4.	NA
N3B Administrative Adjustments	-4.214
Triad Administrative Adjustments	-34.454
MTRU Inventory Reported in FY 2024 Annual Update	1120.176

Note: Calculations have been rounded to three places after the decimal point.

Appendix G includes administrative adjustment changes to the MTRU waste inventory that resulted from repackaging and reclassification of waste activities. MTRU waste is documented in the inventory as the volume of the container, for example, when waste is repacked, the STP inventory volume of any given

treatability group may either increase or decrease as the waste contents are sometimes split into two or more new containers to meet shipping and waste acceptance criteria or to meet characterization criteria (e.g., nondestructive analysis calibration limits). In addition, the waste may be assigned to different treatability groups depending on the contents of each drum. Therefore, the volume of the original container may increase to two containers, for example, repacking one container of *Cemented Sludge* (0.208 m³) may result in one container of *Combustible-Noncombustible Waste* (0.208 m³) and one container of *Noncombustible Waste* (0.208 m³). Therefore, there is a potential change in the waste volume in the STP inventory.

3.0 TREATMENT PROGRESS

3.1 Off-site Treatment

During FY 2024, covered MLLW streams were shipped for treatment and/or disposal to the following off-site commercial treatment facilities: Perma-Fix Northwest Inc., Waste Control Specialists, LLC and Energy Solutions, LLC. See Appendix H, Table H-1 for commercial facilities contacted for waste treatment capabilities. Appendix B summarizes LANL's off-site shipments for treatment and/or disposal of covered MLLW.

3.2 Off-site Recycling

Respondents did not recycle any STP-covered waste off-site.

3.3 On-site Treatment and Recycling

Respondents did not treat or recycle any STP-covered waste on-site.

3.4 On-site Lead Decontamination

No LANL STP-covered waste was decontaminated on-site.

3.5 Treatability Studies

Respondents conducted no treatability studies.

3.6 Administrative Adjustments and Corrections

Administrative adjustments and corrections are due to discrepancies found during quality control activities related to preparing waste for treatment, inventory, and disposal or when preparing the Annual Update. A data quality review is conducted annually to compare shipment notifications and shipping manifests with database updates, and intra-site transfer of containers between Triad and N3B.

3.6.1 Adjustments to MLLW Inventory

Appendix C (Tables C-1 and C-2) details the administrative adjustments to the MLLW inventory. The principal adjustment reflects the transfer of MTRU waste to MLLW (LA-W935, 10–100 nCi/g). A substantial volume of LANL's STP-covered MTRU waste has been determined to no longer meet the criteria for MTRU waste and has been reclassified as MLLW. If previously unidentified hazardous waste constituents, such as lead, are revealed during repacking or other quality control activities, low-level waste (LLW) may be recharacterized as MLLW (Appendix C).

3.6.2 Adjustments to MTRU Inventory

During the preparation of the FY 2024 Annual Update, Respondents identified a few adjustments to the MTRU inventory volume (Appendix G, Tables G-1, G-2, and G-3), including additions of newly identified STP-covered waste, recharacterization of waste, and reclassification of MTRU waste to

MLLW. Other adjustments were needed to account for volume changes due to repacking of waste and transfers of waste from one treatability group to another, or intra-site transfer of containers between Triad and N3B, or to correct database entries (Appendix G).

4.0 TREATMENT TECHNOLOGY DEVELOPMENT

During FY 2024, the availability of commercial and federal facility off-site treatment and disposal capacity for MLLW remained stable. As a result of DOE's increasing reliance on commercial treatment and disposal for mixed wastes, nearly all funding for on-site technology development has been prioritized to support off-site treatment and disposal of mixed wastes. DOE treatment technology development initiatives are generally limited to specific technologies or technology adaptations in response to specific needs that cannot be addressed through commercial facilities.

4.1 Treatment Technologies Being Evaluated/Developed

Respondents continue to monitor the development of potential treatment technologies that may become available in the future. Some of these technologies are being developed at LANL and at other DOE sites. Respondents developed a treatment method to address the type of TRU waste associated with the February 14, 2014, release of radioactivity at WIPP. The treatment process was approved and was utilized to address remediated nitrate salt and above ground un-remediated nitrate salt waste in 2017 and 2018, as required by the January 22, 2016, Settlement Agreement and Stipulated Final Order, 14-20 Consent Order between DOE/LANS and NMED's Hazardous Waste Bureau (HWB).

4.1.1 Off-site Commercial Treatment Facilities

Respondents continue to monitor the availability and capabilities of off-site commercial facilities for treatment technologies and permitting that are appropriate to LANL waste. These facilities are listed in Appendix H (Table H-1).

4.1.2 Off-site DOE Treatment Facilities

Respondents continue to monitor the availability and capabilities of off-site DOE facilities for treatment technologies and permitting that are appropriate to LANL waste.

5.0 DOE FUNDING FOR STP-RELATED ACTIVITIES

Funding to implement the LANL STP for mixed waste during FY 2024 was sufficient to meet all compliance dates as required by the CP of the STP. Should funding reductions occur that would affect STP compliance dates, DOE will notify NMED to address compliance schedules and activities.

6.0 TREATMENT VARIANCES

RCRA allows certain case-by-case variances from LDR standards. Variances that may be sought under RCRA relate to requests for substitution of an alternative treatment technology in place of the LDR-required treatment technology. This section discusses any potential treatment variances related to LANL's covered waste, as described below.

6.1 WIPP No-Migration Variance Petition/Land Withdrawal Act Amendments

WIPP, located near Carlsbad, New Mexico, is a DOE repository for TRU waste generated by the nation's defense-related activities. Some of the TRU waste contains hazardous waste constituents regulated under the RCRA.

The WIPP repository is a deep geologic repository rather than a shallow landfill. It is wholly sited 2,100 ft below the land surface in a salt bed. Because salt has the advantageous characteristic of slow

plastic deformation, it is predicted that the salt will entomb the waste and seal it from the human environment, making potential release of hazardous constituents a low-probability event.

The WIPP Land Withdrawal Act Amendments of 1996 (LWAA) (Public Law 104-201, Section 3188) exempted waste designated by the Secretary of Energy for disposal at WIPP from RCRA's LDRs. Following passage of the LWAA, the EPA terminated its review of the No-Migration Variance Petition submitted by DOE to EPA in May 1995. EPA formalized its withdrawal by letter to George Dials, DOE/Carlsbad Area Office Manager, dated December 29, 1997.

On October 29, 1996, DOE submitted its Compliance Certification Application (CCA) to EPA. The CCA is intended to demonstrate to EPA that WIPP meets the requirements of Title 40 of the Code of Federal Regulations (40 CFR) Part 191 and 40 CFR Part 194. On October 23, 1997, EPA announced its proposed decision to issue a Certification of Compliance, subject to a number of specified conditions, and to a public comment period of 120 days. On May 18, 1998, EPA published in the Federal Register (63 FR 27354) its final rule certifying that WIPP will comply with the requirements of Subparts B and C of 40 CFR Part 191 and amending the WIPP compliance criteria in 40 CFR Part 194. The final rule became effective June 17, 1998. On March 25, 1999, WIPP received its first shipment of non-mixed (radioactive only) TRU waste from LANL. Other facilities have also shipped non-mixed TRU waste to WIPP. NMED issued a hazardous waste permit for WIPP on October 27, 1999, authorizing DOE to manage, store, and dispose of contact-handled MTRU waste at the facility.

6.2 Other Treatment Variance(s)

No treatment variances were requested or granted in FY 2024.

7.0 WIPP FACILITY CAPABILITIES

As discussed above, DOE is disposing its defense TRU waste, both mixed and nonhazardous, in its deep geologic repository at the WIPP near Carlsbad, New Mexico. This facility is a receiving and disposal facility without the capability of routinely opening and repackaging waste. TRU waste will already be containerized when received at the WIPP. The WIPP is not a generator of TRU waste and, therefore, will receive all waste in shipments from off-site DOE facilities. In February 2014, NMED received notice of a release at the WIPP nuclear waste repository. A LANL container sent to WIPP experienced an energetic chemical reaction that ultimately led to the release of radioactive material. In light of these events, and the potential need to re-remediate all nitrate salt-bearing waste, NMED determined that the removal of MTRU from the STP be deferred until more information became available; NMED also determined that the remaining above grade waste stored at the Waste Control Specialists, LLC (WCS) facility and WIPP would not be returned to LANL until approval to relocate below grade waste was obtained. All shipments of MTRU covered waste inventory to WIPP were suspended between May 2014 and July 2018, due to the WIPP shutdown. WIPP resumed operations in July 2018.

7.1 Characterization Capabilities at WIPP

Wastes proposed for shipment to WIPP are characterized and certified at LANL by the Central Characterization Project, a contractor to DOE's Carlsbad Field Office.

7.2 MTRU Treatment Capabilities and Plans

WIPP is not required to treat MTRU waste to meet the LDR standards. As described above in Section 6.1, the LWAA exempted wastes designated by the Secretary of Energy for disposal at the WIPP from this requirement.

PART II COMPLIANCE PLAN UPDATE

1.0 INTRODUCTION

This update to the CP contains:

- Changes to the CP occurring since the previous Annual Update:
 - correspondence, including notices of shipments; and
 - new covered and deleted waste;
- Proposed revisions and amendments, including:
 - description of waste deleted in accordance with the requirements in FFCO Section IX, *Deletion of Waste*; and
 - documentation of new covered waste in accordance with the requirements in FFCO Section VIII, *Addition of New Covered Waste*.

2.0 CHANGES AND REVISIONS TO THE CP OCCURRING SINCE THE PREVIOUS ANNUAL UPDATE

This section describes revisions, amendments, or other changes to the LANL CP.

2.1 Activities Completed During FY 2024

There were no CP activity milestones completed.

2.2 Expedited Shipment Letters

During FY 2024, there were no expedited shipment letters. (Appendix I, Table I-1)

2.3 Correspondence

Between October 1, 2023, and September 30, 2024, Respondents communicated with NMED on issues related to the following:

- FY 2024 waste shipment notifications and quarterly reports
- Extension request for a 45-working-day notice

The correspondence is listed in Appendix I (Tables I-1, I-2, and I-3). Previously listed correspondence can be found in the previous FY Annual Updates.

3.0 DESCRIPTION OF DELETED WASTE

A proposal for deletion of STP waste items is included with this update as Proposed Revision 35.0 in accordance with FFCO Section IX, *Deletion of Waste*. These deletions are proposed because the wastes were shipped off-site for treatment, disposal, or recycling or were otherwise determined not to be mixed wastes. These covered wastes are included in Appendix B, Appendix C, Appendix F, and Appendix G.

4.0 DOCUMENTATION OF NEW COVERED WASTE

A proposal for addition of STP waste items is included with this update in accordance with FFCO Section VIII, *Addition of Waste*. These additions consist of wastes placed in storage during FY 2023 and were proposed to become covered wastes in FY 2024. These covered wastes are included in

Appendices A and E. Addition of new covered and newly characterized as MTRU waste to be added to the STP is identified in Section 6.1.

5.0 PROPOSED CHANGES TO THE COMPLIANCE PLAN SCHEDULE

Funding to implement the LANL STP for mixed waste during FY 2024 was sufficient to meet all compliance dates as required by the CP of the STP. Should funding reductions occur that would affect STP compliance dates, Respondents will notify NMED to address compliance schedules and activities.

In this FY 2024 Annual STP Update, Revision 35.0, submittal to NMED, DOE/N3B/Triad are not proposing any milestone changes.

6.0 DETAILED DESCRIPTION OF THE PROPOSED REVISION

The purpose of this revision request is to reflect changes in the STP inventories in the LANL CP of the STP in accordance with FFCO Section X.C.2.a. The changes proposed by this revision to the CP will allow the added covered wastes to be treated or otherwise managed in accordance with the Activities and Compliance Dates pertaining to each treatability group, as adopted or revised herein. The CP text changes are indicated in the redlined version provided to NMED.

NMED has approved the FY 2023 Annual STP Update, Revision 34.0.

- **Activity Table 3.1.8-1 (A) and (B)** to “complete shipping of existing wastes to an off-site treatment facility or complete parallel options” and “provide documentation to NMED that waste was received at the off-site facility or provide notification of parallel option” of the LA-W917, Compressed Gases Requiring Scrubbing.

Revision 34.0 compliance date: September 30, 2026

- **Activity Table 3.2-2 (A) and (B)** to “complete shipping of wastes to an off-site treatment facility or submit documentation assigning waste items to applicable treatability groups or complete parallel option” and “provide documentation to NMED that waste was received at an off-site facility or provide notification of parallel option” of the LA-W928, Dewatered Treatment Sludge.

Revision 34.0 compliance date: September 30, 2026

- **Activity Table 3.2-2 (A) and (B)** to “complete shipping of wastes to an off-site treatment facility or submit documentation assigning waste items to applicable treatability groups or complete parallel option” and “provide documentation to NMED that waste was received at an off-site facility or provide notification of parallel option” of the LA-W934, High Activity Waste, specifically the Flanged Tritium Waste Containers (FTWCs).

Revision 34.0 compliance date: September 30, 2026

- **Activity Table 3.3.4-2 (A) and (B)** to “complete radiological characterization” of the LA-W935, 10–100 nCi/g Waste” and to “complete shipment of existing waste to off-site facility for treatment or complete parallel options” of the LA-W935, 10–100 nCi/g Waste.

Revision 34.0 compliance date: September 30, 2026

- **Activity Table 4.0-1 (A)** is to complete transfer of existing waste to Dome 375, a (TA-54) permitted facility, or WIPP, which constitutes the remaining original population of the Framework Agreement of “non-cemented above ground EM Legacy TRU” and “above-ground cemented EM Legacy TRU” that is MTRU waste only.

Revision 34.0 compliance date: November 30, 2026

6.1 Addition of New Covered Waste

Respondents are requesting that the following waste be added to the STP as covered waste.

6.1.1 MLLW Additions

The total volume of MLLW requested for addition as new covered is 2.722 m³ (Table 6.1.1-1).

Table 6.1.1-1 Proposed Addition of New Covered MLLW

CP Section	MWIR* Waste ID	Treatability Group	Volume (m ³)
3.1.5	LA-W921	Activated Or Inseparable Lead	0.322
3.1.5	LA-W922	Noncombustible Debris	1.246
3.3.4	LA-W935	10–100 nCi/g Waste	0.416
Total N3B New Covered Waste			1.984
3.3.4	LA-W935	10–100 nCi/g Waste	0.738
Total Triad New Covered Waste			0.738
Total New Covered Waste			2.722

* MWIR is Mixed Waste Inventory Report.

6.1.2 MTRU Waste Additions

The volume of new covered MTRU waste requested for addition is 117.496 m³ (Table 6.1.2-1).

Table 6.1.2-2 identifies waste that is proposed for addition following activities that identified waste in the TRU inventory as MTRU either through review of waste characteristics or as a result of identifying potentially hazardous constituents during repacking TRU waste.

Table 6.1.2-1 Proposed Addition of New Covered MTRU Waste

CP Section	Treatability Group	Volume (m ³)
4.0	Cemented Sludge Waste	46.950
4.0	Combustible-Noncombustible Waste	2.222
Total N3B New Covered Waste		49.172
4.0	Combustible-Noncombustible Waste	68.324
Total Triad New Covered Waste		68.324
Total New Covered Waste		117.496

Table 6.1.2-2 Proposed Addition of Waste Newly Characterized as MTRU

CP Section	Treatability Group	Volume (m ³)
4.0	<i>Combustible-Noncombustible Waste</i> (identification of potentially hazardous constituents based on investigation of characterization of TRU nitrate salt waste, debris containers with aerosol cans, and empty containers not meeting the RCRA empty criteria.)	0.000
4.0	<i>Solidified Inorganic and Organic Waste</i> (identification of potentially hazardous constituents based on investigation and characterization of TRU nitrate salt waste, cemented containers with free liquids, and empty containers not meeting the RCRA empty criteria.)	0.000
Total Newly Characterized MTRU		0.000

6.2 Deletion of Covered Waste

MLLW is shipped off-site for treatment and/or disposal, recycling, or are otherwise proposed as deleted waste. MTRU is shipped to WIPP for disposal.

6.2.1 Deletion of MLLW

Respondents are requesting that the covered MLLW identified in Appendix B be deleted from the STP. These covered wastes were shipped off-site for treatment and disposal or recycling. The total volume of covered MLLW that is requested for deletion under this revision to the CP is 25.029 m³ (Appendix B, Table B-1).

6.2.2 Other Deletions of MLLW

No waste was proposed for deletion due to recycling or on-site treatment. No waste was shipped off-site for treatability studies.

6.2.3 Deletion of MTRU Waste

Respondents are requesting that the covered MTRU waste identified in Appendix F be deleted from the STP. These covered wastes from N3B and Triad were shipped off-site to WIPP for disposal. The total volume of STP MTRU that is requested for deletion from inventory under this revision to the CP is 96.990 m³ (Appendix F, Table F-1).

6.3 Adjustments to the Original (October 4, 1995) STP Covered MLLW Inventory

Respondents are requesting adjustments to the original (October 4, 1995) STP covered MLLW inventory as listed in Appendix C (Tables C-1 and C-2). Most administrative adjustments are due to reclassification of MTRU waste to MLLW treatability groups and to quality control activities related to preparing waste for treatment and disposal. These adjustments may result in additions of newly identified covered waste or transfers of waste to other treatability groups.

6.4 Adjustments to MTRU Waste Inventory

Respondents are requesting adjustments (Appendix G, Tables G-1, G-2, and G-3) to the original (October 4, 1995) STP covered MTRU waste inventory. Most administrative adjustments are due to reclassification of MTRU waste to MLLW treatability groups or to other MTRU treatability groups and reclassification of TRU to MTRU as a result of quality control activities related to preparing waste for treatment and disposal. These adjustments may result in additions of newly identified covered waste or transfers of waste to other treatability groups or intra-site transfer of containers between Triad and N3B.

6.5 Establishment of New Milestone Activity Dates

Respondents are not requesting new compliance milestone dates.

6.6 Additional Revisions

No other revisions are requested.

7.0 RATIONALE FOR THE PROPOSED REVISION

This information is provided in accordance with FFCO Section X.C.2.a.

7.1 Establishment of New Proposed Milestone

The newly proposed compliance dates that were approved by NMED, “Approval Site Treatment Plan, Fiscal Year 2023 Annual Update & Proposed Rev. 34.0, Federal Facility Compliance Order, October 4, 1995, Los Alamos National Laboratory, EPA ID#NM0890010515, HWB-LANL-24-008,” Dated June 17, 2024:

- **Activity Table 3.1.8-1 (A) and (B)** to “complete shipping of existing wastes to an off-site treatment facility or complete parallel options” and “provide documentation to NMED that waste was received at the off-site facility or provide notification of parallel option” of the LA-W917, Compressed Gases Requiring Scrubbing, by September 30, 2026.
- **Activity Table 3.2-2 (A) and (B)** to “complete shipping of wastes to an off-site treatment facility, or submit documentation assigning waste items to applicable treatability groups or complete parallel option” and “provide documentation to NMED that waste was received at an off-site facility or provide notification of parallel option” of the LA-W928, Dewatered Treatment Sludge, by September 30, 2026.
- **Activity Table 3.2-2 (A) and (B)** to “complete shipping of wastes to an off-site treatment facility or submit documentation assigning waste items to applicable treatability groups or complete parallel option” and “provide documentation to NMED that waste was received at an off-site facility or provide notification of parallel option” of the LA-W934, High Activity Waste, specifically the Flanged Tritium Waste Containers (FTWCs), by September 30, 2026.
- **Activity Table 3.3.4-2 (A) and (B)** to “complete radiological characterization” of the LA-W935, 10–100 nCi/g Waste” and to “complete shipment of existing waste to off-site facility for treatment or complete parallel options” of the LA-W935, 10–100 nCi/g Waste, by September 30, 2026.
- **Activity Table 4.0-1 (A)** is to complete transfer of existing waste to Dome 375, a (TA-54) permitted facility, or WIPP, which constitutes the remaining original population of the Framework Agreement of “non-cemented above ground EM Legacy TRU” and “above-ground cemented EM Legacy TRU” that is MTRU waste only by November 30, 2026.

7.2 Addition of New Covered Waste

Waste that was newly generated in FY 2023, which was not treated within 12 months of generation, became new covered waste during FY 2024. In addition, TRU wastes, re-evaluated during repacking and quality control activities as having previously unidentified RCRA constituents, were also added to the STP inventory (Appendix G). Approval of these proposed additions to the STP inventory will allow the added covered wastes to be treated or otherwise managed in accordance with the activities and compliance dates pertaining to each treatability group, as adopted or revised herein.

7.3 Deletion of Covered Waste

Decreases in covered waste inventory reflect the treatment and disposal or recycling of covered waste at off-site commercial facilities during FY 2024. Deletion of this covered waste is proposed to more accurately reflect the LANL STP inventory as of the end of FY 2024.

7.4 Adjustments to the Original (October 4, 1995) STP-Covered Waste Inventory

Administrative adjustments result from quality control activities related to preparing waste for treatment and disposal. These adjustments result in additions of newly identified covered waste and transfers of waste to other treatability groups. The adjustments to the original (October 4, 1995) STP-covered waste inventory is proposed to more accurately reflect the LANL STP inventory as of the end of FY 2024.

8.0 ANTICIPATED LENGTH OF ANY DELAY IN PERFORMANCE

In accordance with FFCO Section X.C.2.c, Respondents cannot confidently predict the anticipated delay in performance for shipping covered STP MTRU waste for which the only currently allowed deletion pathway is disposal at WIPP.

9.0 PLAN AND SCHEDULE FOR IMPLEMENTING ALL REASONABLE MEASURES

All other measures proposed could be implemented within the framework of the existing plan and schedule for the STP (FFCO Section X.C.2.d).

PART III COMPLIANCE PLAN – PROPOSED REVISION 35.0

1.0 PURPOSE AND SCOPE OF THE COMPLIANCE PLAN

1.1 Introduction

Part III of this document identifies changes that require NMED approval as a revision under Section X, *Revisions*, or an amendment under Section XI, *Other Amendments to the STP*.

The CP includes a schedule for off-site transportation for treatment, or completion of parallel options as defined in each Treatability Group Section, and the treatment of mixed wastes in full compliance with the HWA and the implementing regulations at 20 New Mexico Administrative Code (NMAC) 4.1, that incorporates by reference 40 CFR Parts 260 through 270. Part I, Background, contains progress reports as required in the FFCO. Respondents shall carry out the activities described in the STP, including the CP, in accordance with the schedules and requirements set forth in the STP and the FFCO.

1.2 STP Revisions and Amendments

The STP CP has been modified several times since it was originally issued, in accordance with the provisions of Section X, *Revisions*, and Section XI, *Other Amendments to the STP*, of the October 4, 1995, FFCO, as amended and revised. The history of revisions is provided in Appendix J.

2.0 COMPLIANCE SCHEDULES

The STP provides overall schedules for achieving compliance with LDR storage and treatment requirements for mixed waste at LANL. The schedules include those activities required to process backlogged and currently generated waste and include schedules required to establish an overall timeframe for achieving compliance with the LDR requirements under the HWA and 20 NMAC 4.1.

2.1 Categories of Activities for Compliance Dates

The categories of activities for which compliance dates will be provided for different types of treatment approaches in the STP are listed in the tables below. The categories of activities are based on Section 3021(b)(1)(B)(i), (ii), and (iii) of the RCRA, to the extent appropriate.

2.1.1 Plans Where Treatment Technology Exists

For most of the mixed waste, treatment technologies were identified and developed. For the waste that will be treated on-site, the categories of activities for compliance dates identified in Table 2.1.1-1 shall apply.

Table 2.1.1-1 Categories of Activities for Compliance for Mixed Waste with Existing Treatment Technologies

A.	Submit permit applications to NMED.
B.	Initiate construction as specified in the NMED permit.
C.	Complete system testing and commence operation.
D.	Begin treating mixed waste.
E.	Complete treatment of existing wastes to applicable regulatory standards.

2.1.2 Plans Where Technology Must Be Developed

For some mixed waste, no treatment technologies were identified and developed, or the treatment technology must be modified or adapted to apply to such waste. For the waste that will be treated on-site, the categories of activities for compliance dates are identified in Table 2.1.2-1 and shall apply.

Table 2.1.2-1 Categories of Activities for Compliance Dates for Mixed Waste Without Existing Treatment Technologies

A.	Identify and develop technology.
B.	Submit permit application to NMED; or
C.	Submit a Notification of Intent to perform treatability study to NMED a minimum of 45 working days prior to commencement of the study.
D.	Initiate construction as specified in the NMED permit.
E.	Commence systems testing.
F.	Begin treating mixed waste.
G.	Complete treatment of existing wastes to applicable regulatory standards.

2.2 Primary Preferred Treatment

Off-site treatment at a commercial or noncommercial mixed waste treatment facility is the primary preferred treatment option applicable to all mixed waste streams in the STP inventory unless otherwise indicated in the descriptions of individual waste treatability groups. DOE may also pursue parallel treatment options, such as recycling/re-use or radiological decontamination. Requirements for waste shipped off-site for recycling are discussed under Part III, Section 2.6. All activities and compliance dates related to the construction, permitting, and operation of on-site treatment skids were removed from this document. This change was due to the increased availability of off-site treatment and disposal capacity for mixed waste. Respondents will continue evaluating new commercial and DOE off-site treatment facilities as potential options for managing mixed waste, as they become available.

2.3 Plans for Mixed Waste to be Shipped Off-site for Treatment

Should Respondents decide to treat or recycle waste at a commercial off-site facility (Table 2.3-1), Respondents will notify the NMED STP Manager in writing as soon as possible and in any event within 45 working days of receipt of waste at the treatment/recycling facility.

Table 2.3-1 Activities for Off-site Shipment for Treatment or Recycling at a Commercial Facility

A.	Meet all regulatory requirements for shipment.
B.	Provide documentation to NMED that waste has been received at an off-site facility for treatment or recycling within 45 working days of receipt of waste at the treatment facility.

DOE shall notify the NMED STP Manager in writing as soon as possible if mixed waste is planned to be sent to a noncommercial facility. Notification should be made, if possible, when DOE is first considering such an option to allow NMED and the state to address any state issues or concerns with other states. The NMED STP Manager shall approve in writing the proposed off-site noncommercial treatment option proposed by DOE prior to any shipment by DOE. DOE will notify the NMED STP Manager in writing as soon as possible and in any event within 45 working days of receipt of waste at the treatment/recycling facility. Activities for mixed waste to be shipped off-site for treatment/recycling at a noncommercial facility are identified in Table 2.3-2.

Table 2.3-2 Activities for Shipment Off-site for Treatment or Recycling at a Noncommercial Facility

A.	Request necessary approval from NMED for shipment of waste by category before shipping.
B.	Meet all regulatory requirements for off-site shipment.
C.	Provide documentation to NMED of confirmation of shipment date within 14 working days prior to sending waste to an off-site facility for treatment, or recycling, or storage pending treatment, or recycling.
D.	Provide documentation to NMED that waste has been received at an off-site facility for treatment within 45 working days of receipt of waste at the off-site facility.
E.	Meet all regulatory requirements to include RCRA Permit modifications for residual or newly generated waste streams after treatment or recycling.
F.	Provide documentation to NMED within 30 working days after receipt of residual or newly generated waste streams upon return to LANL.

2.3.1 Specific Site Requirements for Noncommercial Treatment Facilities

Shipment to Idaho National Laboratory

Prior to shipment, Idaho National Laboratory (INL) and Idaho Division of Environmental Quality shall be notified of any pending shipments of waste should DOE ship MLLW to INL. Proper procedures including additional approvals (if necessary) and documentation shall be completed prior to the shipment of wastes to INL. Management of post-treatment waste residuals or newly generated waste streams will be in accordance with the requirements of DOE, the State of Idaho, and that state where they will be disposed. A modification to LANL's RCRA permit providing for the return of such wastes and/or residues to LANL must be approved by NMED prior to any such return of wastes and/or residuals to LANL. DOE will notify the NMED STP Manager in writing as soon as possible and in any event within 30 working days after receipt of shipment of treatment residuals or newly generated waste streams from INL.

Shipments of MLLW to planned facilities (not yet existing) will occur only after treatment and schedules are approved by the DOE Idaho Field Office and the State of Idaho. Upon approval of the planned treatment facilities, the applicable protocol from the paragraph above will be implemented for mixed wastes to be treated at planned facilities.

Shipment to Oak Ridge Reservation

If Oak Ridge Reservation cannot dispose of mixed-waste residues or new waste streams generated from off-site treatment, and they cannot be sent to another facility for disposal, then the residues may return to LANL. Should residual or newly generated waste streams be returned to LANL, the proper permits for the State of New Mexico must exist. DOE will notify the NMED STP Manager in writing as soon as possible and in any event within 30 working days after receipt of shipment of treatment residuals or newly generated waste streams from the Oak Ridge Reservation.

2.4 Requirements Pertaining to Radionuclide Separation

The FFCA sets additional requirements in cases where DOE intends to conduct radionuclide separation of mixed waste. Should DOE determine to do radionuclide separation of such mixed waste, DOE will schedule specific compliance dates based on category activities identified in Table 2.4-1. "Radionuclide separation" shall mean segregating the radioactive portion of the mixed waste from the hazardous portion of the mixed waste.

Table 2.4-1 Activities for Radionuclide Separation

A.	Complete an estimate of the volume of waste generated by each case of radionuclide separation.
B.	Complete an estimate of the volume of waste that would exist or be generated without radionuclide separation.
C.	Complete an estimate of the costs of waste treatment and disposal if radionuclide separation is used compared with the estimated costs if it is not used.
D.	Provide the assumptions underlying such estimates of waste volumes and cost estimates.
E.	Provide characterization methodologies for determining waste type.
F.	Submit a plan for treating or managing hazardous waste residues, accompanied by an NMED permit application.

2.5 Plans Related to Other Mixed Waste Activities

Activities other than the types of activities specifically called for in the FFCA as requiring schedules are described in this STP. Some of these activities may be associated with schedules that may contain compliance dates related to treatment of DOE's mixed waste.

For mixed waste, which is not sufficiently characterized to allow identification of appropriate treatment, notification of the characterization of such waste shall be in accordance with the annual update process described in the FFCO. If such characterization results in the addition or deletion of a treatability group or an increase in volume in a treatability group, a revision would be required pursuant to Section X of the FFCO.

Respondents will notify NMED when off-site treatability studies are conducted on STP waste. Treatability studies are used to explore alternative treatment options that may be practical for any or all the STP mixed waste streams. When preparing waste for shipment for an off-site treatability study, Respondents will evaluate the potential for incidental waste treatment or secondary waste generation, which are often associated with treatability studies.

2.6 Recycling/Re-Use

Respondents will pursue on-site or off-site recycling/re-use as a parallel preferred option.

Should DOE elect to use recycling facilities in lieu of (or in combination with) treatment, it will follow requirements as if the waste were shipped off-site for treatment. All requirements by the recycling facility and all state, federal, or other regulatory requirements applicable at the recycling site shall be met by Respondents.

Respondents shall notify the NMED STP Manager in writing as soon as possible if mixed waste is planned to be sent to an off-site noncommercial recycling facility. Notification should be made, if possible, when DOE is first considering such an option to allow NMED and the state to address any state issues or concerns with other states. The NMED STP Manager shall approve in writing the proposed off-site noncommercial recycling option prior to any shipment by Respondents. Respondents will notify the NMED STP Manager in writing as soon as possible and in any event within 45 working days of receipt of waste at the recycling facility. Activities for mixed waste to be recycled are identified in Table 2.6-1.

Table 2.6-1 Requirements for Recycling

A.	Meet all regulatory requirements for recycling/re-use.
B.	Provide documentation to NMED that waste has been received within 45 working days of receipt of waste at the recycling facility.

Should DOE elect to use recycling/re-use facilities in lieu of (or in combination with) treatment, it will follow the requirements as if the waste were shipped off-site for treatment. Respondents will submit a notification letter to NMED within 45 working days, in place of documentation, that waste was received at a recycling facility.

2.7 On-site Radiological Decontamination

Respondents will pursue on-site radiological surface or external decontamination as a preferred option. No volumetric or internal decontamination processes will be considered or performed. Surface radiological decontamination includes activities such as sand blasting, hand-scrubbing, or electrolytic decontamination. These decontamination activities could result in reducing or removing the radiological contaminant from the waste such that the waste could be recycled in accordance with CP Section 2.6 *Recycling/Re-Use* or be proposed for deletion in accordance with Section IX *Deletion of Waste* of the FFCO.

Activities for mixed waste to be radiologically decontaminated are identified in Table 2.7-1.

Table 2.7-1 Activities for Radiological Decontamination

A.	Meet all DOE requirements for radiological decontamination.
B.	Provide documentation to NMED that waste has been received within 45 working days of receipt of waste at the recycling facility; or
C.	Propose waste for deletion in accordance with Section IX of the FFCO.

3.0 MIXED LOW-LEVEL WASTE STREAMS

This section presents the preferred options to treat MLLW at LANL. Options not described below must be approved by NMED in accordance with the revision process pursuant to the FFCO.

The original October 4, 1995, STP inventory in each MLLW treatability group was modified through the revision process in the FFCO. The tables in the STP Background (Part I) Appendices A–M of the FY 2009 Annual Update provide a comprehensive summary of changes to the CP covered waste inventories (additions, deletions, and shifts of waste between treatability groups) occurring as of the date of that revision. In Part III, the original STP inventory in each MLLW treatability group is denoted as subgroup 0 of that treatability group (e.g., the original volume of STP treatability group LA-W906 became LA-W906-0). Each revision that has since added volumes to individual treatability groups has resulted in creation of an additional subgroup, having the same number as the revision (e.g., LA-W906-4 was created in Revision 4.0, and LA-W906-5 was created in Revision 5.0).

In most subsections of this section, the subgroups of the treatability groups are not shown. In those cases, the Activities and Compliance Dates are applicable to the entire net volume of that treatability group. However, when subgroups of a treatability group were assigned Activities and Compliance Dates unique to that subgroup, those subgroups are detailed in the text. Activities and Compliance Dates that were met in previous years are not shown in this document.

3.1 Mixed Waste Streams

The following subsections summarize MLLW treatability groups.

3.1.1 Industrial Isopropyl Alcohol (IPA) Wastes and Scintillation Fluids

Table 3.1.1-1 Treatability Groups for IPA Wastes and Scintillation Fluids

Treatability Group	MWIR* Waste ID	RCRA Codes	Volume (m ³)
IPA Wastes	LA-W901	D001, D009, F002, F003, F005	0.000
Scintillation Fluids	LA-W902	D001, F003, F005	0.000
Totals			0.000

*MWIR is Mixed Waste Inventory Report.

Treatment: The waste will be treated at an off-site facility that combusts organic liquid waste.

3.1.2 Lead Blankets, Soil with Heavy Metals, Environmental Restoration (ER) Soils

Table 3.1.2-1 Treatability Groups for Lead Blankets, Soil with Heavy Metals, ER Soils

Treatability Group	MWIR* Waste ID	RCRA Codes	Volume (m ³)
Lead Blankets	LA-W903	D007, D008	0.000
Soil With Heavy Metals	LA-W904 LA-W904-31 LA-W904-32 LA-W904-33 LA-W904-34	D004, D005, D006, D007, D008, D009, D010, D011	0.000
ER Soils	LA-W905	D028, D029, F001, F005 D010, D011	0.000
Totals			0.000

*MWIR is Mixed Waste Inventory Report.

Treatment: The waste will be treated at an off-site facility that stabilizes or macroencapsulates wastes.

3.1.3 Aqueous Organic Liquids

Table 3.1.3-1 Treatability Groups for Aqueous Organic Liquids

Treatability Group	MWIR* Waste ID	RCRA Codes	Volume (m ³)
Aqueous Organic Liquids	LA-W906-0 LA-W906-4 LA-W906-5 LA-W906-6 LA-W906-9 LA-W906-10 LA-W906-15 LA-W906-31 LA-W906-32 LA-W906-33 LA-W906-34	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D027, D028, D030, D032, D033, D034, D036, D037, D038, D039, D041, D042, D043, F001, F002, F003, F004, F005	0.000
Totals			0.000

*MWIR is Mixed Waste Inventory Report.

3.1.4 Organic-Contaminated Combustible Solids

Table 3.1.4-1 Treatability Groups for Organic-Contaminated Combustible Solids

Treatability Group	MWIR* Waste ID	RCRA codes	Volume (m ³)
Organic-Contaminated Combustible Solids	LA-W911	D001, D004, D008, D009, F001, F002, F003, F005	0.000
Totals			0.000

*MWIR is Mixed Waste Inventory Report.

Table 3.1.4-2 Treatability Groups for Organic-Contaminated Noncombustible Solids

Treatability Group	MWIR* Waste ID	RCRA Codes	Volume (m ³)
Organic-Contaminated Noncombustible Solids	LA-W919	D001, D003, D004, D005, D006, D007, D008, D009, D010, D011, D012, D015, D018, D019, D020, D022, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D042, D043, F001, F002, F003, F004, F005	0.000
Totals			0.000

*MWIR is Mixed Waste Inventory Report.

3.1.5 Combustible Debris, Activated or Inseparable Lead, Noncombustible Debris

Table 3.1.5-1 Treatability Groups for Combustible Lead, Activated or Inseparable Lead, and Noncombustible Debris

Treatability Group	MWIR* Waste ID	RCRA Codes	Volume (m ³)
Combustible Debris	LA-W912 LA-W912-31 LA-W912-32 LA-W912-33 LA-W912-34	D001, D002, D003, D005, D006, D007, D008, D009, D011, D035, F001, F002, F003, F005	120.840
Activated Or Inseparable Lead	LA-W921 LA-W921-33	D008	0.000
Noncombustible Debris	LA-W922 LA-W922-17 LA-W922-22 LA-W922-23 LA-W922-24 LA-W922-25 LA-W922-31 LA-W922-32 LA-W922-33 LA-W922-34 LA-W922-35	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011	20.000
Totals			140.840

*MWIR is Mixed Waste Inventory Report.

3.1.6 Aqueous Wastes with Heavy Metals, Corrosive Solutions, Aqueous Cyanides, Nitrates, Chromates, and Arsenates

Table 3.1.6-1 Treatability Groups for Aqueous Wastes with Heavy Metals, Corrosive Solutions, Aqueous Cyanides, Nitrates, Chromates, and Arsenates

Treatability Group	MWIR* Waste ID	RCRA Codes	Volume (m ³)
Aqueous Wastes with Heavy Metals	LA-W913	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011	0.000
Corrosive Solutions	LA-W914	D001, D002	0.000
Aqueous Cyanides, Nitrates, Chromates, and Arsenates	LA-W915	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, F007, P029, P098	0.000
Totals			0.000

*MWIR is Mixed Waste Inventory Report.

3.1.7 Water-Reactive Metal

Table 3.1.7-1 Treatability Groups for Water-Reactive Metal

Treatability Group	MWIR* Waste ID	RCRA Codes	Volume (m ³)
Water-Reactive Metal	LA-W916	D001, D003, D004, D005, D007, D008, D010, D011	0.000
Totals			0.000

*MWIR is Mixed Waste Inventory Report.

3.1.8 Compressed Gases Requiring Scrubbing

Table 3.1.8-1 Treatability Groups for Compressed Gases Requiring Scrubbing

Treatability Group	MWIR* Waste ID	RCRA Codes	Volume (m ³)
Compressed Gases Requiring Scrubbing	LA-W917 LA-W917-21 LA-W917-24 LA-W917-25 LA-W917-26 LA-W917-27 LA-W917-28 LA-W917-29 LA-W917-35	D001, D002, D003, D008, D009, P056	0.208
Totals			0.208

*MWIR is Mixed Waste Inventory Report.

Table 3.1.8-2 Activities and Compliance Dates for Compressed Gases Requiring Scrubbing

Activity	Compliance Dates
A. Complete shipping of existing wastes to an off-site treatment facility or complete parallel option.	September 30, 2026
B. Provide documentation to NMED that waste was received at off-site facility or provide notification of parallel option.	Within 45 working days of receipt of waste at treatment facility or within 45 working days after completion of parallel option.

3.1.9 Compressed Gases Requiring Oxidation

Table 3.1.9-1 Treatability Groups for Compressed Gases Requiring Oxidation

Treatability Group	MWIR* Waste ID	RCRA Codes	Volume (m ³)
Compressed Gases Requiring Oxidation	LA-W918	D001, U226	0.000
Totals			0.000

*MWIR is Mixed Waste Inventory Report.

3.1.10 Elemental Mercury

Table 3.1.10-1 Treatability Groups for Elemental Mercury

Treatability Group	MWIR* Waste ID	RCRA Codes	Volume (m ³)
Elemental Mercury	LA-W920 LA-W920-16	D006, D009, F005	0.000
Totals			0.000

*MWIR is Mixed Waste Inventory Report.

3.1.11 Halogenated Organic Liquids, Nonhalogenated Organic Liquids, Bulk Oils, Polychlorinated Biphenyl (PCB) Wastes with RCRA Components, Liquid and Solid Oxidizers

Table 3.1.11-1 Treatability Groups for Halogenated Organic Liquids, Nonhalogenated Organic Liquids, Bulk Oils, PCB Wastes with RCRA Components

Treatability Group	MWIR* Waste ID	RCRA Codes	Volume (m ³)
Halogenated Organic Liquids	LA-W907	D001, D002, D003, D007, D009, D010, D011, D018, D019, D022, D028, D029, D035, D043, F001, F002, F003, F004, F005, U077, U080, U226, U227, U228, U236	0.000
Nonhalogenated Organic Liquids	LA-W908 LA-W908-18	D001, D002, D003, D004, D007, D008, D009, D011, D018, D038, D040, F002, F003, F004, F005, U002, U019, U154, U169, U188, U220, U246	0.000
Bulk Oils	LA-W909 LA-W909-15 LA-W909-16 LA-W909-17	D002, D004, D005, D006, D007, D008, D009, D010, D011, D021, D027, D039, F001, F002, F003, F005	0.000
PCB Wastes with RCRA Components	LA-W910 LA-W910-16	D004, D005, D006, D007, D008, D009, D010, D011, D012, D015, D019, D027, D028, D030, D031, D032, D033, D034, D036, D039, D042, D043, F002, F003, F004, F005	0.000
Totals			0.000

*MWIR is Mixed Waste Inventory Report.

Table 3.1.11-2 Additional Treatability Groups

Treatability Group	MWIR* Waste ID	RCRA Codes	Volume (m ³)
Liquid And Solid Oxidizers	LA-W923	D001, D003, D005	0.000
Totals			0.000

*MWIR is Mixed Waste Inventory Report.

3.2 Mixed Waste Requiring Further Characterization or for Which Technology Assessment Has Not Been Done

Table 3.2-1 Treatability Groups for Waste Requiring Characterization or Assessment

Treatability Group	MWIR* Waste ID	RCRA Codes	Volume (m ³)
Lead Wastes – to be determined (TBD)	LA-W924 LA-W924-15 LA-W924-16 LA-W924-17	D003, D008	0.000
Mercury Wastes - TBD	LA-W925 LA-W925-4 LA-W925-5 LA-W925-6 LA-W925-15 LA-W925-16 LA-W925-17 LA-W925-18	D007, D008, D009, F001	0.000
Compressed Gases - TBD	LA-W926	D001, D007, D009, D022, P056, U080, U226	0.000
Biochemical Laboratory Wastes	LA-W927	D001, D003	0.000
Dewatered Treatment Sludge	LA-W928 LA-W928-31 LA-W928-35	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D028, D037, D038, D039, D040, F001, F002, F003, F004, F005, F006, F007, F009	1.268
Explosives	LA-W932	D003	0.000
Labpacks	LA-W933 LA-W933-17	D001, D002, D003, D004, D005, D006, D007, D008, D010, F003, F005, D011, P012, P029, P098, P106, P113, P120, U131, U144, U145, U188, U190, U204, U216, U219	0.000
High Activity Waste	LA-W934 LA-W934-16 LA-W934-19 LA-W934-20 LA-W934-24 LA-W934-27	D001, D003, D008, D009	1.477
Totals			2.745

*MWIR is Mixed Waste Inventory Report.

Table 3.2-2 Activities and Compliance Dates for Wastes Requiring Characterization or Assessment

Activity	Compliance Dates
A. Complete shipping of wastes to an off-site treatment facility or submit documentation assigning waste items to applicable treatability groups or complete parallel option.	September 30 , 2026
B. Provide documentation to NMED that waste was received at off-site facility or provide notification of parallel option.	Within 45 working days of receipt of waste at off-site facility or within 45 working days after completion of parallel option.

LANL's inventory of *High Activity Waste, LA-W934* consists of five containers with a combined volume of 1.477 m³.

Triad proposed an extension for the FTWCs to September 30, 2026 and NMED approved the compliance date on June 17, 2024 (NMED letter HWB-LANL-24 -008, *Site Treatment Plan, Fiscal Year 2023 Annual Update and Proposed Revision 34.0, Federal Facility Compliance Order, October 4, 1995, Los Alamos National Laboratory*).

The LA-W934, High Activity Waste, consists of five containers. Four of these five containers (specifically the FTWCs) are owned by Triad and composed of molecular sieves and squib assemblies containing lead with tritium. N3B owns the fifth container, composed of tritium traps. All five containers are stored at TA-54, Area G. The FTWCs require treatment by venting, storage, sorting, segregation, and repackaging before being shipped to an off-site disposal facility. These activities will be conducted at TA-54 Weapons Engineering Tritium Facility (WETF) under the revised Temporary Authorization (LA-UR-20-22103), submitted to NMED on March 9, 2020. In response to public inquiries, EPA has requested additional information from the Permittees on the venting process. The expanded public outreach has entailed multiple meetings and additional formal requests. Furthermore, the management of these four containers requires a rigorous safety implementation. DOE and Triad are continually assessing conditions that may impact the safety of the operation, human health, and the environment and will proceed through readiness activities to address all these areas. The Respondents will not perform activities specified in the temporary authorization request until after the readiness and authorization activities are completed, and the NMED-HWB Temporary Authorization decision has been received.

The fifth container (owned by N3B) is also under the same compliance date of September 30, 2026, and will require further discussion and planning toward options for a path forward. Therefore, the Respondents proposed, and NMED approved, the extension to September 30, 2026, to accommodate the four FTWC containers, as well as to allow for planning for the disposition of the fifth container. For the time being, the fifth container remains within the same compliance date and treatability group as the FTWCs. DOE/Triad/N3B will continue to diligently pursue all possible options to ship the waste off-site.

3.3 Plans for Other Types of Activities

The following subsection summarizes plans for other types of activities:

3.3.1 Lead Decontamination

Table 3.3.1-1 Treatability Groups for Lead Decontamination

Treatability Group	MWIR* Waste ID	First Category Volume (m ³)	Second Category Volume (m ³)	Total Volume (m ³)
Lead For Surface Decontamination	LA-W930-0	0.000	0.000	0.000
	LA-W930-5			
	LA-W930-6			
Totals		0.000	0.000	0.000

*MWIR is Mixed Waste Inventory Report.

Treatment: Any lead not acceptable for on-site or off-site lead decontamination, and any lead unsuccessfully decontaminated, will be designated in the following two categories: (1) for treatment and disposal at an off-site facility or (2) for recycle through an off-site capability, such as metal melting to create shielding blocks or a DOE lead bank. Non-conforming items will be reassigned to appropriate treatability groups in accordance with the FFCO.

3.3.2 Sorting, Surveying, and Decontamination

Table 3.3.2-1 Treatability Groups for Sorting, Surveying, and Decontamination

Treatability Group	MWIR* Waste ID	To Be Surveyed Volume (m ³)	To Receive RCRA and Radiological Characterization Volume (m ³)	That Cannot or Should Not Be Sampled Volume (m ³)	Total Volume (m ³)
Nonradioactive or Suspect Waste Items	LA-W929 LA-W929-5	0.000	0.000	0.000	0.000
Totals		0.000	0.000	0.000	0.000

*MWIR is Mixed Waste Inventory Report.

3.3.3 Lead Requiring Sorting

Table 3.3.3-1 Treatability Groups for Lead Requiring Sorting

Treatability Group	MWIR* Waste ID	RCRA Codes	Volume (m ³)
Lead Requiring Sorting	LA-W931	D008	0.000
Totals			0.000

*MWIR is Mixed Waste Inventory Report.

Treatment: Wastes in this treatability group will require different treatment processes. Drums will be opened, the contents removed, and the waste repackaged based on appropriate treatment requirements. Wastes in this treatability group are primarily lead pieces, lead shot, and lead-contaminated soils that were packaged in the same drum.

The wastes will be reclassified as the applicable treatability group after physical separation and repackaging. The wastes will be treated by appropriate technology.

3.3.4 10–100 nCi/g Waste

Table 3.3.4-1 Treatability Groups for 10–100 nCi/g Waste

Treatability Group	MWIR* Waste ID	RCRA Codes	Volume (m ³)
10–100 nCi/g	LA-W935 LA-W935-19 LA-W935-20 LA-W935-21 LA-W935-22 LA-W935-23 LA-W935-24 LA-W935-25 LA-W935-26 LA-W935-27 LA-W935-28 LA-W935-29 LA-W935-30 LA-W935-31 LA-W935-32 LA-W935-33 LA-W935-34 LA-W935-35	D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D026, D027, D028, D029, D030, D035, D036, D037, D038, D039, D040, D043, F001, F002, F004, F005, F006, F007, F009	11.433
Totals			11.433

*MWIR is Mixed Waste Inventory Report.

Treatment: Wastes in this treatability group consist of a population of legacy drums packaged and managed as MTRU (>100 nCi/g) but, after assay, were determined to be MLLW (<100 nCi/g). Once confirmed, these drums are segregated from other TRU waste and stored in a designated MLLW storage area. Waste Profiles are prepared to allow acceptance into the LLW population, and drums are relabeled appropriately and reclassified from TRU to MLLW in the database.

LANL maintains a MTRU inventory with accumulation start dates from previous years on each MTRU container. The container reclassified from MTRU to LA-W935 MLLW will inherit the accumulation start date set forth by the parent. Since MLLW is created throughout the fiscal year up to the compliance date, this situation can challenge the ability to ship before the compliance due date. Therefore, the Respondents proposed an extension to September 30, 2026, since this is an ongoing waste stream controlled by the accumulation start date set by the original MTRU parent.

When a MTRU parent waste container is remediated, the waste contents are removed, WIPP waste acceptance criteria prohibited items are addressed, and the remaining waste is placed into one or more new containers. After this process is complete, the original parent waste container remains radiologically contaminated and usually can be managed as LLW. Empty containers are managed as “RCRA empty” containers if they meet the “RCRA empty” criteria in 40 CFR 261.7. Empty containers that have lead liners must carry an EPA hazardous waste number (HWN) for lead (D008) and be managed as MLLW. If after real-time radiography assay, empty containers are still found to contain residual amounts of waste material that do not meet the “RCRA empty” criteria, the containers are to be labeled with the EPA HWN assigned to the original parent container, as indicated by the parent’s waste stream profile.

Table 3.3.4-2 Activities and Compliance Dates for 10–100 nCi/g Waste

Activity	Compliance Dates
A. Complete radiological characterization.	September 30, 2026
B. Complete shipment of existing waste to off-site facility for treatment, or complete parallel options.	September 30, 2026
C. Provide documentation to NMED that waste was received at off-site facility or provide notification of parallel option.	Within 45 working days of receipt of waste at treatment facility or within 45 working days after completion of parallel option.

The MLLW drums are prepared for treatment and disposal to an off-site facility using waste generator acceptable knowledge documentation, real-time radiography, and nondestructive assay data. The estimated waste volumes will be subtracted from the MTRU STP inventory and added to the MLLW STP inventory as the waste is reclassified as MLLW. However, because of the repacking process, the apparent volume of waste will reflect the number of additional containers needed to repackage the waste into compliant configurations for transportation and disposal. Empty TRU containers, which includes a population of empty TRU parent containers that previously contained nitrate salts will also undergo recharacterization and may be reclassified as LLW or if determined to not meet the definition of RCRA-empty, reclassified as MLLW.

The recharacterization process resumed in FY 2016 for waste to be accepted at off-site treatment and disposal facilities and will continue to produce 10–100 nCi/g Waste (LA-W935). In 2018, N3B took over the operational responsibility of TA-54. Operational start-up included purchasing and installing treatment equipment and repairing existing deficiencies.

3.4 Management of “Missing” Items

Table 3.4-1 Waste Category for “Missing Waste”

Category	MWIR* Waste ID	Container ID	Volume (m ³)
Missing/Nonexistent/To be verified (TBV)			0.000
Totals			0.000

*MWIR is Mixed Waste Inventory Report.

Treatment: During visual inspections and sampling activities in support of STP waste work-off, occasionally an item cannot be found, or it is not located in the expected containers, according to the LANL data files for the waste item. In some instances, such items cannot be verified as having been received in storage at LANL, and follow-up investigations of the record files reveal that although the items were included in the original STP inventory, the waste items were never generated.

Some waste items were determined not to exist after visual inspection and document review. When Respondents determine that an STP-covered waste item does not exist, transfer of the item to the category called “Missing/nonexistent/TBV (to be verified)” is requested through this revision Annual Update.

If, at any time, any of these items is discovered in the inventory, NMED would be notified and approval would be requested for assignment of the rediscovered items to the appropriate treatability group. If necessary, discovered items would be assigned new Activities and Compliance Dates in accordance with the terms of the FFCO.

4.0 MIXED TRANSURANIC WASTE

Treatment Group(s): Assorted MTRU Waste

Off-site Disposal: MTRU waste at LANL will be shipped for disposal at WIPP, located in Carlsbad, New Mexico.

Disposal: Waste volumes listed in Appendix E, Table E-3, constitute the remaining original population of the Framework Agreement of “non-cemented above-ground EM Legacy TRU” and “above-ground cemented EM Legacy TRU” that is MTRU waste only. Volume adjustments noted in Appendix G, Table G-3, are due to corrections of database entries, treatability groups, EPA codes, overpacks removed/added, containers repacked and shipped/held for waste items identified as the non-cemented and cemented above-ground EM Legacy TRU for MTRU STP waste.

Table 4.0-1 Activities and Compliance Dates for N3B MTRU Inventory

Activity	Compliance Dates
A. Complete transfer of existing waste to Dome 375 , a TA-54-permitted facility, for shipments to WIPP	November 30, 2026

Transfer of Covered MTRU Inventory: In the FY 2024 reported waste volume for STP-covered MTRU inventory is 1120.176 m³ (Table 2.2-1 in Part 1).

Triad’s MTRU covered waste will be either shipped directly from TA-55 or transported to the Radioassay and Nondestructive Testing (RANT) facility for shipment to WIPP.

The de-inventory of N3B’s MTRU waste at TA-54 Area G will take multiple years. The MTRU waste inventory will require management at a LANL remediation facility and recharacterization as the waste acceptance criteria for WIPP has changed since the waste was generated. TA-54 will not receive any programmatic newly generated waste. The LANL Hazardous Waste Permit specifies that MTRU waste generated prior to April 21, 2011, cannot be stored at the TWF. Respondents resumed shipment of MTRU waste to WIPP in October 2018.

4.1 Management of “Missing” Items

Table 4.1-2 Waste Category for “Missing Waste”

Category	Treatability Groups	Volume (m ³)
Missing/Nonexistent/TBV	Cemented Sludge	0.000
	Combustible-Noncombustible Waste	0.000
	Combustible Waste	0.000
Totals		0.000

Treatment: During visual inspections in support of STP waste work-off, occasionally an item cannot be found, or it is not located in the expected containers, according to WCATs. In some instances, such items cannot be verified as having been received in storage at LANL and follow-up investigations within WCATs reveal that although the items were included in the original STP inventory, the waste items were never generated.

Some items were determined not to exist after visual inspection and document review. When Respondents determine that an STP-covered waste item does not exist, transfer of the item to the category called “Missing/nonexistent/TBV” is requested through this revision Annual Update.

If, at any time, any of these items is discovered in the inventory, NMED would be notified and approval requested for assignment of the rediscovered items to the appropriate treatability group.

APPENDICES

APPENDIX A CURRENT YEAR MLLW INVENTORY DETAIL

Table A-1 FY 2024 N3B MLLW Inventory Detailed Update by Treatability Group

CP ¹ Section Part III	MWIR ¹ Waste ID	Treatability Group/Category	FY 2023 Annual Update (m ³) ²	Proposed Revision 35.0 (m ³) ²	Comments	FY 2024 Annual Update (m ³) ²	Projection FY 2025 - FY 2030 (m ³)
3.1.1	LA-W901	IPA Wastes	0	0		0	0
3.1.1	LA-W902	Scintillation Fluids	0	0		0	0
3.1.2	LA-W903	Lead Blankets	0	0		0	0
3.1.2	LA-W904	Soil with Heavy Metals	0	0		0	0
3.1.2	LA-W905	ER Soils	0	0		0	0
3.1.3	LA-W906	Aqueous Organic Liquids	0	0		0	0
3.1.4	LA-W911	Organic-Contaminated Combustible Solids	0	0		0	0
3.1.4	LA-W919	Organic-Contaminated Noncombustible Solids	0	0		0	0
3.1.5	LA-W912	Combustible Debris	120.840	0	New covered	120.840	0
				0	Shipped off-site for treatment/disposal		
3.1.5	LA-W921	Activated or Inseparable Lead	0	0.322	New covered	0	0
				-0.322	Shipped off-site for treatment/disposal		
3.1.5	LA-W922	Noncombustible Debris	20.624	0	Administrative adjustments	20.000	0
				1.246	New covered		
				-1.870	Shipped off-site for treatment/disposal		
3.1.6	LA-W913	Aqueous Wastes with Heavy Metals	0	0		0	0
3.1.6	LA-W914	Corrosive Solutions	0	0		0	0
3.1.6	LA-W915	Aqueous Cyanides, Nitrates, Chromates, and Arsenates	0	0		0	0
3.1.7	LA-W916	Water-Reactive Wastes	0	0		0	0
3.1.8	LA-W917	Compressed Gases Requiring Scrubbing	0.624	0	Administrative adjustments	0.208	0
				-0.416	Shipped off-site for treatment/disposal		
3.1.9	LA-W918	Compressed Gases Requiring Oxidation	0	0		0	0
3.1.10	LA-W920	Elemental Mercury	0	0		0	0
3.1.11	LA-W907	Halogenated Organic Liquids	0	0		0	0

Table A-1 continued

CP ¹ Section Part III	MWIR ¹ Waste ID	Treatability Group/Category	FY 2023 Annual Update (m³) ²	Proposed Revision 35.0 (m³) ²	Comments	FY 2024 Annual Update (m³) ²	Projection FY 2025 - FY 2030 (m³)
3.1.11	LA-W908	Nonhalogenated Organic Liquids	0	0		0	0
3.1.11	LA-W909	Bulk Oils	0	0		0	0
3.1.11	LA-W910	PCB Wastes with RCRA Components	0	0		0	0
3.1.11	LA-W923	Liquid and Solid Oxidizers	0	0		0	0
3.2	LA-W924	Lead Wastes – TBD	0	0		0	0
3.2	LA-W925	Mercury Wastes – TBD	0	0		0	0
3.2	LA-W926	Compressed Gases – TBD	0	0		0	0
3.2	LA-W927	Biochemical Laboratory Wastes	0	0		0	0
3.2	LA-W928	Dewatered Treatment Sludge	1.476	−0.208	Shipped off-site for treatment/disposal	1.268	0
3.2	LA-W932	Explosives	0	0		0	0
3.2	LA-W933	Labpacks	0	0		0	0
3.2	LA-W934	High Activity Waste ³	1.477	0	Administrative adjustments	1.477	0
				0	Shipped off-site for treatment/disposal		
3.3.1	LA-W930	Lead for Surface Decontamination	0	0		0	0
3.3.2	LA-W929	Nonradioactive or Suspect Waste Items to be Surveyed	0	0		0	0
3.3.3	LA-W931	Lead Requiring Sorting	0	0		0	0
3.3.4	LA-W935	10–100 nCi/g Waste	23.233	7.386	Administrative adjustments	10.695	50
				0.416	New covered		
				−20.340	Shipped off-site for treatment/disposal		
Totals			168.274	−13.786		154.488	50

¹ CP is Compliance Plan; MWIR is Mixed Waste Inventory Report.

² Values were rounded to three significant figures after the decimal point.

³ High activity waste (FTWCs and cryotaps) is located at TA-54 Area G but is managed by Triad.

Table A-2 FY 2024 Triad MLLW Inventory Detailed Update by Treatability Group

CP ¹ Section Part III	MWIR ¹ Waste ID	Treatability Group/Category	FY 2023 Annual Update (m ³) ²	Proposed Revision 35.0 (m ³) ²	Comments	FY 2024 Annual Update (m ³) ²	Projection FY 2025 - FY 2030 (m ³)
3.1.1	LA-W901	IPA Wastes	0	0		0	0
3.1.1	LA-W902	Scintillation Fluids	0	0		0	0
3.1.2	LA-W903	Lead Blankets	0	0		0	0
3.1.2	LA-W904	Soil with Heavy Metals	0	0		0	0
3.1.2	LA-W905	ER Soils	0	0		0	0
3.1.3	LA-W906	Aqueous Organic Liquids	0	0		0	0
3.1.4	LA-W911	Organic-Contaminated Combustible Solids	0	0		0	0
3.1.4	LA-W919	Organic-Contaminated Noncombustible Solids	0	0		0	0
3.1.5	LA-W912	Combustible Debris	0	0		0	0
3.1.5	LA-W921	Activated or Inseparable Lead	0	0		0	0
3.1.5	LA-W922	Noncombustible Debris	0	0		0	0
3.1.6	LA-W913	Aqueous Wastes with Heavy Metals	0	0		0	0
3.1.6	LA-W914	Corrosive Solutions	0	0		0	0
3.1.6	LA-W915	Aqueous Cyanides, Nitrates, Chromates, and Arsenates	0	0		0	0
3.1.7	LA-W916	Water-Reactive Wastes	0	0		0	0
3.1.8	LA-W917	Compressed Gases Requiring Scrubbing	0	0		0	0
3.1.9	LA-W918	Compressed Gases Requiring Oxidation	0	0		0	0
3.1.10	LA-W920	Elemental Mercury	0	0		0	0
3.1.11	LA-W907	Halogenated Organic Liquids	0	0		0	0
3.1.11	LA-W908	Nonhalogenated Organic Liquids	0	0		0	0
3.1.11	LA-W909	Bulk Oils	0	0		0	0
3.1.11	LA-W910	PCB Wastes with RCRA Components	0	0		0	0
3.1.11	LA-W923	Liquid and Solid Oxidizers	0	0		0	0
3.2	LA-W924	Lead Wastes – TBD	0	0		0	0
3.2	LA-W925	Mercury Wastes – TBD	0	0		0	0
3.2	LA-W926	Compressed Gases – TBD	0	0		0	0
3.2	LA-W927	Biochemical Laboratory Wastes	0	0		0	0

Table A-2 continued

CP ¹ Section Part III	MWIR ¹ Waste ID	Treatability Group/Category	FY 2023 Annual Update (m³) ²	Proposed Revision 35.0 (m³) ²	Comments	FY 2024 Annual Update (m³) ²	Projection FY 2025 - FY 2030 (m³)
3.2	LA-W928	Dewatered Treatment Sludge	0	0		0	0
3.2	LA-W932	Explosives	0	0		0	0
3.2	LA-W933	Labpacks	0	0		0	0
3.2	LA-W934	High Activity Waste	0	0		0	0
3.3.1	LA-W930	Lead for Surface Decontamination	0	0		0	0
3.3.2	LA-W929	Nonradioactive or Suspect Waste Items to be Surveyed	0	0		0	0
3.3.3	LA-W931	Lead Requiring Sorting	0	0		0	0
3.3.4	LA-W935	10–100 nCi/g Waste	2.081	–0.208	Administrative adjustments	0.738	50
				0.738	New covered		
				–1.873	Shipped off-site for treatment/disposal		
Totals			2.081	–1.343		0.738	50

¹ CP is Compliance Plan; MWIR is Mixed Waste Inventory Report.

² Values were rounded to three significant figures after the decimal point.

APPENDIX B CURRENT YEAR MLLW SHIPMENT DETAIL

Table B-1 FY 2024 LANL MLLW Shipped Off-site for Treatment and Disposal

CP ¹ Section Part III	MWIR ¹ Waste ID	Treatability Group	Manifest Number	Destination	Date Shipped	Total Volume (m ³) ²
3.1.5	LA-W921	Activated Or Inseparable Lead	014574034FLE	PermaFix FL	10/23/2023	0.322
3.1.5	LA-W922	Noncombustible Debris	014574035FLE	PermaFix FL	11/6/2023	0.208
3.1.5	LA-W922	Noncombustible Debris	014574044FLE	PermaFix FL	1/29/2024	1.454
3.1.5	LA-W922	Noncombustible Debris	014574045FLE	PermaFix FL	3/11/2024	0.208
3.1.8	LA-W917	Compressed Gases Requiring Scrubbing	014574044FLE	PermaFix FL	1/29/2024	0.208
3.1.8	LA-W917	Compressed Gases Requiring Scrubbing	014574045FLE	PermaFix FL	3/11/2024	0.208
3.2	LA-W928	Dewatered Treatment Sludge	014574044FLE	PermaFix FL	1/29/2024	0.208
3.3.4	LA-W935	10–100 nCi/g Waste	014574034FLE	PermaFix FL	10/23/2023	9.224
3.3.4	LA-W935	10–100 nCi/g Waste	014574035FLE	PermaFix FL	11/6/2023	1.932
3.3.4	LA-W935	10–100 nCi/g Waste	014574043FLE	PermaFix FL	1/29/2024	3.864
3.3.4	LA-W935	10–100 nCi/g Waste	014574044FLE	PermaFix FL	1/29/2024	1.610
3.3.4	LA-W935	10–100 nCi/g Waste	014574045FLE	PermaFix FL	3/11/2024	3.502
3.3.4	LA-W935	10–100 nCi/g Waste	014574048FLE	PermaFix FL	4/29/2024	0.208
N3B Shipped Off-site						23.156
3.3.4	LA-W935	10–100 nCi/g Waste	013905720FLE	Waste Control Specialists TX	1/18/2024	1.873
Triad Shipped Off-site						1.873
Total Shipped Off-site						25.029

¹ CP is Compliance Plan; MWIR is Mixed Waste Inventory Report.

² Values were rounded to three significant figures after the decimal point.

APPENDIX C CURRENT YEAR MLLW ADMINISTRATIVE ADJUSTMENTS

Table C-1 FY 2024 N3B MLLW Inventory Administrative Adjustments

CP ¹ Section Part III	MWIR ¹ Waste ID	Treatability Group	Administrative Adjustment	Volume (m ³) ²
3.3.4	LA-W935	10–100 nCi/g Waste	Reclassified from MTRU Cemented Sludge Waste	0.322
3.3.4	LA-W935	10–100 nCi/g Waste	Reclassified from MTRU Combustible-Noncombustible Waste	3.428
3.3.4	LA-W935	10–100 nCi/g Waste	Reclassified from MTRU Solidified Inorganic Noncombustible Waste	2.992
3.3.4	LA-W935	10–100 nCi/g Waste	Reclassified from MTRU Solidified Inorganic Particulate Waste	0.644
10–100 nCi/g Waste Adjustment				7.386
Total Adjustments				7.386

¹ CP is Compliance Plan; MWIR is Mixed Waste Inventory Report.

² Values were rounded to three significant figures after the decimal point.

Table C-2 FY 2024 Triad MLLW Inventory Administrative Adjustments

CP ¹ Section Part III	MWIR ¹ Waste ID	Treatability Group	Administrative Adjustment	Volume (m ³) ²
3.3.4	LA-W935	10–100 nCi/g Waste	Reclassified to MTRU Combustible-Noncombustible Waste	–0.208
10–100 nCi/g Waste Adjustment				–0.208
Total Adjustments				–0.208

¹ CP is Compliance Plan; MWIR is Mixed Waste Inventory Report.

² Values were rounded to three significant figures after the decimal point.

APPENDIX D PREVIOUS YEAR MLLW INVENTORY DETAIL

Table D-1 FY 2023 N3B MLLW Inventory Detailed Update by Treatability Group

CP ¹ Section	MWIR ¹ Waste ID	Treatability Group/Category	FY 2022 Annual Update (m ³) ²	Proposed Revision 34.0 (m ³) ²	Comments	FY 2023 Annual Update (m ³) ²	Projection FY 2024– FY 2029 (m ³)
3.1.1	LA-W901	IPA Wastes	0	0		0	0
3.1.1	LA-W902	Scintillation Fluids	0	0		0	0
3.1.2	LA-W903	Lead Blankets	0	0		0	0
3.1.2	LA-W904	Soil with Heavy Metals	0.550	–0.550	Shipped off-site for treatment/disposal	0	0
3.1.2	LA-W905	ER Soils	0	0		0	0
3.1.3	LA-W906	Aqueous Organic Liquids	3.812	–1.900	Administrative adjustments	0	0
				–1.912	Shipped off-site for treatment/disposal		
3.1.4	LA-W911	Organic-Contaminated Combustible Solids	0	0		0	0
3.1.4	LA-W919	Organic-Contaminated Noncombustible Solids	0	0		0	0
3.1.5	LA-W912	Combustible Debris	0.208	120.840	New covered	120.840	0
				–0.208	Shipped off-site for treatment/disposal		
3.1.5	LA-W921	Activated or Inseparable Lead	0	0		0	0
3.1.5	LA-W922	Noncombustible Debris	20.946	0	Administrative adjustments	20.624	0
				0	New covered		
				–0.322	Shipped off-site for treatment/disposal		
3.1.6	LA-W913	Aqueous Wastes with Heavy Metals	0	0		0	0
3.1.6	LA-W914	Corrosive Solutions	0	0		0	0
3.1.6	LA-W915	Aqueous Cyanides, Nitrates, Chromates, and Arsenates	0	0		0	0
3.1.7	LA-W916	Water-Reactive Wastes	0	0		0	0
3.1.8	LA-W917	Compressed Gases Requiring Scrubbing	0.624	0	Administrative adjustments	0.624	0
				0	Shipped off-site for treatment/disposal		
3.1.9	LA-W918	Compressed Gases Requiring Oxidation	0	0		0	0
3.1.10	LA-W920	Elemental Mercury	0	0		0	0
3.1.11	LA-W907	Halogenated Organic Liquids	0	0		0	0
3.1.11	LA-W908	Nonhalogenated Organic Liquids	0	0		0	0

Table D-1 (continued)

CP ¹ Section	MWIR ¹ Waste ID	Treatability Group/Category	FY 2022 Annual Update (m³) ²	Proposed Revision 34.0 (m³) ²	Comments	FY 2023 Annual Update (m³) ²	Projection FY 2024 - FY 2029 (m³)
3.1.11	LA-W909	Bulk Oils	0	0		0	0
3.1.11	LA-W910	PCB Wastes with RCRA Components	0	0		0	0
3.1.11	LA-W923	Liquid and Solid Oxidizers	0	0		0	0
3.2	LA-W924	Lead Wastes – TBD	0	0		0	0
3.2	LA-W925	Mercury Wastes – TBD	0	0		0	0
3.2	LA-W926	Compressed Gases – TBD	0	0.208	Administrative adjustments	0	0
				–0.208	Shipped off-site for treatment/disposal		
3.2	LA-W927	Biochemical Laboratory Wastes	0	0		0	0
3.2	LA-W928	Dewatered Treatment Sludge	1.476	0	Administrative adjustments	1.476	0
3.2	LA-W932	Explosives	0	0		0	0
3.2	LA-W933	Labpacks	0	0		0	0
3.2	LA-W934	High Activity Waste ³	1.477	0	Administrative adjustments	1.477	0
				0	Shipped off-site for treatment/disposal		
3.3.1	LA-W930	Lead for Surface Decontamination	0	0		0	0
3.3.2	LA-W929	Nonradioactive or Suspect Waste Items to be Surveyed	0	0		0	0
3.3.3	LA-W931	Lead Requiring Sorting	0	0		0	0
3.3.4	LA-W935	10–100 nCi/g Waste	68.411	2.598	Administrative adjustments	23.233	50
				0.966	New covered		
				–48.742	Shipped off-site for treatment/disposal		
Totals			97.504	70.770		168.274	50

¹ CP is Compliance Plan and MWIR is Mixed Waste Inventory Report.

² Values were rounded to three significant figures after the decimal point.

³ High activity waste (FTWCs and cryotrap) is located at TA-54 Area G but is managed by Triad.

Table D-2 FY 2023 Triad MLLW Inventory Detailed Update by Treatability Group

CP ¹ Section	MWIR ¹ Waste ID	Treatability Group/Category	FY 2022 Annual Update (m ³) ²	Proposed Revision 34.0 (m ³)	Comments	FY 2023 Annual Update (m ³) ²	Projection FY 2024 - FY 2029 (m ³)
3.1.1	LA-W901	IPA Wastes	0	0		0	0
3.1.1	LA-W902	Scintillation Fluids	0	0		0	0
3.1.2	LA-W903	Lead Blankets	0	0		0	0
3.1.2	LA-W904	Soil with Heavy Metals	0	0		0	0
3.1.2	LA-W905	ER Soils	0	0		0	0
3.1.3	LA-W906	Aqueous Organic Liquids	0	0		0	0
3.1.4	LA-W911	Organic-Contaminated Combustible Solids	0	0		0	0
3.1.4	LA-W919	Organic-Contaminated Noncombustible Solids	0	0		0	0
3.1.5	LA-W912	Combustible Debris	0	0		0	0
3.1.5	LA-W921	Activated or Inseparable Lead	0	0	New covered	0	0
				0	Shipped off-site for treatment/disposal		
3.1.5	LA-W922	Noncombustible Debris	0	0	Shipped off-site for treatment/disposal	0	0
3.1.6	LA-W913	Aqueous Wastes with Heavy Metals	0	0		0	0
3.1.6	LA-W914	Corrosive Solutions	0	0		0	0
3.1.6	LA-W915	Aqueous Cyanides, Nitrates, Chromates, and Arsenates	0	0		0	0
3.1.7	LA-W916	Water-Reactive Wastes	0	0		0	0
3.1.8	LA-W917	Compressed Gases Requiring Scrubbing	0	0		0	0
3.1.9	LA-W918	Compressed Gases Requiring Oxidation	0	0		0	0
3.1.10	LA-W920	Elemental Mercury	0	0		0	0
3.1.11	LA-W907	Halogenated Organic Liquids	0	0		0	0
3.1.11	LA-W908	Nonhalogenated Organic Liquids	0	0		0	0
3.1.11	LA-W909	Bulk Oils	0	0		0	0
3.1.11	LA-W910	PCB Wastes with RCRA Components	0	0		0	0
3.1.11	LA-W923	Liquid and Solid Oxidizers	0	0		0	0
3.2	LA-W924	Lead Wastes – TBD	0	0		0	0
3.2	LA-W925	Mercury Wastes – TBD	0	0		0	0

Table D-2 (continued)

CP ¹ Section	MWIR ¹ Waste ID	Treatability Group/Category	FY 2022 Annual Update (m³) ²	Proposed Revision 34.0 (m³)	Comments	FY 2023 Annual Update (m³) ²	Projection FY 2024 - FY 2029 (m³)
3.2	LA-W926	Compressed Gases – TBD	0	0		0	0
3.2	LA-W927	Biochemical Laboratory Wastes	0	0		0	0
3.2	LA-W928	Dewatered Treatment Sludge	0	0		0	0
3.2	LA-W932	Explosives	0	0		0	0
3.2	LA-W933	Labpacks	0	0		0	0
3.2	LA-W934	High Activity Waste	0	0		0	0
3.3.1	LA-W930	Lead for Surface Decontamination	0	0		0	0
3.3.2	LA-W929	Nonradioactive or Suspect Waste Items to be Surveyed	0	0		0	0
3.3.3	LA-W931	Lead Requiring Sorting	0	0		0	0
3.3.4	LA-W935	10–100 nCi/g Waste	0.208	0.624	Administrative adjustments	2.081	50
				1.249	New covered		
				0	Shipped off-site for treatment/disposal		
Totals			0.208	1.873		2.081	50

¹ CP is Compliance Plan; MWIR is Mixed Waste Inventory Report.

² Values were rounded to three significant figures after the decimal point.

APPENDIX E CURRENT YEAR MTRU INVENTORY DETAIL

Table E-1 FY 2024 N3B MTRU Inventory by Treatability Group

Treatability Group	FY 2023 Annual Update (m ³) ¹	Proposed Revision 35.0 (m ³) ¹	Comments ²	FY 2024 Annual Update (m ³) ¹	Projection FY 2025 – FY 2030 (m ³)
Cemented Sludge Waste	373.101	2.588	Administrative adjustments	374.955	100
		46.950	New covered		
		–47.684	Removed from inventory (shipped to WIPP)		
Combustible Waste	0	0	Administrative adjustments	0	0
		0	New covered		
		0	Removed from inventory (shipped to WIPP)		
Combustible-Noncombustible Waste	463.967	–5.628	Administrative adjustments	429.559	0
		2.222	New covered		
		–31.002	Removed from inventory (shipped to WIPP)		
Glass Waste	0	0	Administrative adjustments	0	0
		0	New covered		
		0	Removed from inventory (shipped to WIPP)		
Leaded Glovebox Waste	0	0	Administrative adjustments	0	0
		0	New covered		
		0	Removed from inventory (shipped to WIPP)		
Metallic Waste	0.208	0	Administrative adjustments	0.208	0
		0	New covered		
		0	Removed from inventory (shipped to WIPP)		
Noncombustible Waste	1.570	0	Administrative adjustments	0.946	0
		0	New covered		
		–0.624	Removed from inventory (shipped to WIPP)		
Solidified Inorganic and Organic Waste	1.778	0	Administrative adjustments	0.946	0
		0	New covered		
		–0.832	Removed from inventory (shipped to WIPP)		
Solidified Inorganic Noncombustible Waste	89.848	–1.992	Administrative adjustments	83.488	0
		0	New covered		
		–4.368	Removed from inventory (shipped to WIPP)		
Solidified Inorganic Particulate Waste	87.676	0.818	Administrative adjustments	88.494	0
		0	New covered		
		0	Removed from inventory (shipped to WIPP)		
Totals	1018.148	–39.552		978.596	100

¹ Values were rounded to three significant figures after the decimal point.

² Shipping details are found in Appendix F and administrative adjustments are found in Appendix G.

Table E-2 FY 2024 Triad MTRU Inventory by Treatability Group

Treatability Group	FY 2023 Annual Update (m ³) ¹	Proposed Revision 35.0 (m ³) ¹	Comments ²	FY 2024 Annual Update (m ³) ¹	Projection FY 2025 – FY 2030 (m ³)
Cemented Sludge Waste	0	0	Administrative adjustments	0	0
		0	New covered		
		0	Shipped to WIPP		
Combustible Waste	0	0	Administrative adjustments	0	0
		0	New covered		
		0	Shipped to WIPP		
Combustible-Noncombustible Waste	119.772	-34.036	Administrative adjustments	141.580	100
		68.324	New covered		
		-12.480	Shipped to WIPP		
Glass Waste	0	0	Administrative adjustments	0	0
		0	New covered		
		0	Shipped to WIPP		
Leaded Glovebox Waste	0	0	Administrative adjustments	0	0
		0	New covered		
		0	Shipped to WIPP		
Metallic Waste	0	0	Administrative adjustments	0	0
		0	New covered		
		0	Shipped to WIPP		
Noncombustible Waste	0.418	-0.418	Administrative adjustments	0	0
		0	New covered		
		0	Shipped to WIPP		
Solidified Inorganic and Organic Waste	0	0	Administrative adjustments	0	0
		0	New covered		
		0	Shipped to WIPP		
Solidified Inorganic Noncombustible Waste	0	0	Administrative adjustments	0	0
		0	New covered		
		0	Shipped to WIPP		
Solidified Inorganic Particulate Waste	0	0	Administrative adjustments	0	0
		0	New covered		
		0	Shipped to WIPP		
Totals	120.190	21.390		141.580	100

¹ Values were rounded to three significant figures after the decimal point.

² Shipping details are found in Appendix F and administrative adjustments are found in Appendix G.

Table E-3 FY 2024 3706 Aboveground EM Legacy MTRU Inventory by Treatability Group

Treatability Group	FY 2023 Annual Update (m ³) ¹	Proposed Revision 35.0 (m ³) ¹	Comments ²	FY 2024 Annual Update (m ³) ¹	Projection FY 2025 – FY 2030 (m ³)
Cemented Sludge Waste	51.730	0	Administrative adjustments	42.132	0
		0	New covered		
		-9.598	Removed from inventory (shipped to WIPP)		
Combustible Waste	0	0	Administrative adjustments	0	0
		0	New covered		
		0	Removed from inventory (shipped to WIPP)		
Combustible-Noncombustible Waste	134.595	-2.576	Administrative adjustments	111.221	0
		0	New covered		
		-20.798	Removed from inventory (shipped to WIPP)		
Glass Waste	0	0	Administrative adjustments	0	0
		0	New covered		
		0	Removed from inventory (shipped to WIPP)		
Leaded Glovebox Waste	0	0	Administrative adjustments	0	0
		0	New covered		
		0	Removed from inventory (shipped to WIPP)		
Metallic Waste	0	0	Administrative adjustments	0	0
		0	New covered		
		0	Removed from inventory (shipped to WIPP)		
Noncombustible Waste	0.530	0	Administrative adjustments	0.530	0
		0	New covered		
		0	Removed from inventory (shipped to WIPP)		
Solidified Inorganic and Organic Waste	1.040	0	Administrative adjustments	0.416	0
		0	New covered		
		-0.624	Removed from inventory (shipped to WIPP)		
Solidified Inorganic Noncombustible Waste	10.942	0	Administrative adjustments	10.942	0
		0	New covered		
		0	Removed from inventory (shipped to WIPP)		
Solidified Inorganic Particulate Waste	81.826	1.026	Administrative adjustments	82.852	0
		0	New covered		
		0	Removed from inventory (shipped to WIPP)		
Totals	280.663	-32.570		248.093	0

¹ Values were rounded to three significant figures after the decimal point.

² Shipping details are found in Appendix F and administrative adjustments are found in Appendix G.

APPENDIX F CURRENT YEAR MTRU WASTE SHIPMENTS TO WIPP

Table F-1 FY 2024 MTRU Shipments to WIPP

Quarter	Treatability Group	Inventory Volume Shipped (m ³)	New Covered Volume (m ³)	Total Volume Removed from STP Inventory (m ³)	FY 2024 Total Volume Shipped (m ³)
Q1	Cemented Sludge Waste	5.634	0	5.634	5.700
	Combustible-Noncombustible Waste	9.568	0	9.568	9.568
	Solidified Inorganic and Organic Waste	0.832	0	0.832	0.832
	Solidified Inorganic Noncombustible Waste	1.248	0	1.248	1.248
Q2	Cemented Sludge Waste	26.708	0	26.708	27.016
	Combustible-Noncombustible Waste	1.456	0	1.456	1.456
	Solidified Inorganic and Organic Waste	0	0	0	0
	Solidified Inorganic Noncombustible Waste	0.416	0	0.416	0.416
Q3	Cemented Sludge Waste	13.256	0	13.256	13.300
	Combustible-Noncombustible Waste	16.254	0	16.254	16.364
	Solidified Inorganic and Organic Waste	0	0	0	0
	Solidified Inorganic Noncombustible Waste	0	0	0	0
Q4	Cemented Sludge Waste	2.086	0	2.086	2.108
	Combustible-Noncombustible Waste	16.204	0	16.204	16.204
	Noncombustible Waste	0.624	0	0.624	0.624
	Solidified Inorganic Noncombustible Waste	2.704	0	2.704	2.704
Grand Total		96.990	0	96.990	97.540

Table F-2 FY 2014 MTRU Shipments to WCS

FY 2014 Quarter	Treatability Group	Existing FY 2014 Inventory Volume (m ³) ¹	New Covered Volume (m ³)	Inventory on Hold in FY 2023 (m ³)	Volume Removed from Inventory in FY 2024 (m ³)	Inventory Remaining on Hold in FY 2024 (m ³)
Q3 ²	Cemented Sludge Waste	22.256	0	10.400	0	10.400
	Combustible-Noncombustible Waste	99.954	0	6.240	0	6.240
	Noncombustible Waste	0.832	0	0.208	0	0.208
	Solidified Inorganic Noncombustible Waste	9.380	0	4.274	0	4.274
	Solidified Inorganic Particulate Waste	23.296	0	23.296	0	23.296
Grand Total		155.718	0	44.418	0	44.418

¹ Volumes shipped in FY 2014 but not removed from the STP inventory.

² All shipment dates of MTRU containers to WCS were in FY 2014 Q3.

Table F-3 FY 2014 MTRU Shipments to AMWTP (INL)

FY 2014 Quarter	Treatability Group	Existing FY 2014 Inventory Volume (m ³) ¹	New Covered Volume (m ³)	Total Inventory on Hold (m ³)	Total Volume Shipped (m ³)	Total Disposed in FY 2024 (m ³)
Q1	Combustible-Noncombustible Waste Total	0	0	0	0	0
Q2	Combustible-Noncombustible Waste Total	0	0	0	0	0
Q3	Combustible-Noncombustible Waste Total	0	0	0	0	0
Q4	Combustible-Noncombustible Waste Total	0	0	0	0	0
Grand Total		0	0	0	0	0

¹ Volumes shipped in FY 2014 but not removed from the STP inventory.

Table F-4 FY 2014 On-Hold MTRU Shipments to WCS and then to WIPP¹

Treatability Group	FY 2014 on Hold Shipped to WCS in FY 2014 Q3 (m ³)	FY 2014 on Hold New Covered at WCS from FY 2015–FY 2024 (m ³)	FY 2014 on Hold Remaining at WCS in FY 2023 (m ³)	FY 2014 on Hold Removed from Inventory (Shipped from WCS to WIPP in FY 2024 by Quarter) (m ³)		FY 2014 on Hold Remaining at WCS in FY 2024 (m ³)
Cemented Sludge Waste	22.256	0	10.400	Q1	0	10.400
				Q2	0	
				Q3	0	
				Q4	0	
Combustible-Noncombustible Waste	99.954	0	6.240	Q1	0	6.240
				Q2	0	
				Q3	0	
				Q4	0	
Noncombustible Waste	0.832	0	0.208	Q1	0	0.208
				Q2	0	
				Q3	0	
				Q4	0	
Solidified Inorganic Noncombustible Waste	9.380	0	4.274	Q1	0	4.274
				Q2	0	
				Q3	0	
				Q4	0	
Solidified Inorganic Particulate Waste	23.296	0	23.296	Q1	0	23.296
				Q2	0	
				Q3	0	
				Q4	0	
Grand Total	155.718	0	44.418		0	44.418

¹ Volumes shipped in FY 2014 but not removed from the STP inventory.

APPENDIX G CURRENT YEAR MTRU INVENTORY ADMINISTRATIVE ADJUSTMENTS

Table G-1 FY 2024 N3B MTRU Inventory Administrative Adjustments

Treatability Group	Administrative Adjustment	Volume (m ³)
Cemented Sludge Waste	Container Overpacked	1.279
	Container Repackaged	0.094
	Recharacterized into Solidified Inorganic Noncombustible Waste	-0.416
	Reclassified into MLLW MWIR* LA-W935	-0.322
	Volume Change from 0.019 m ³ to 1.878 m ³	1.859
	Volume Change from 0.322 m ³ to 0.416 m ³	0.094
Cemented Sludge Waste Adjustment		2.588
Combustible Waste		0
Combustible Waste Adjustment		0
Combustible-Noncombustible Waste	Container Repackaged	0.094
	EPA Codes Removed	-1.878
	Recharacterized into Solidified Inorganic Noncombustible Waste	-0.416
	Reclassified into MLLW MWIR LA-W935	-3.428
Combustible-Noncombustible Waste Adjustment		-5.628
Glass Waste		0
Glass Waste Adjustment		0
Leaded Glovebox Waste		0
Leaded Glovebox Waste Adjustment		0
Metallic Waste		0
Metallic Waste Adjustment		0
Noncombustible Waste		0
Noncombustible Waste Adjustment		0
Solidified Inorganic and Organic Waste		0
Solidified Inorganic and Organic Waste Adjustment		0
Solidified Inorganic Noncombustible Waste	Container Repackaged	0.282
	Recharacterized from Cemented Sludge Waste	0.416
	Recharacterized from Combustible-Noncombustible Waste	0.416
	Reclassified into MLLW MWIR LA-W935	-2.992
	Volume Change from 0.322 m ³ to 0.208 m ³	-0.114
Solidified Inorganic Noncombustible Waste Adjustment		-1.992
Solidified Inorganic Particulate Waste	Container Overpacked	1.462
	Reclassified into MLLW MWIR LA-W935	-0.644
Solidified Inorganic Particulate Waste Adjustment		0.818
Total N3B Adjustments		-4.214

* MWIR = Mixed Waste Inventory Report

Table G-2 FY 2024 Triad MTRU Inventory Administrative Adjustments

Treatability Group	Administrative Adjustment	Volume (m ³)
Cemented Sludge Waste		0
Cemented Sludge Waste Adjustment		0
Combustible Waste		0
Total Combustible Waste Adjustment		0
Combustible-Noncombustible Waste	Recharacterized from Noncombustible Waste	0.418
	Reclassified into LLW	-13.564
	Reclassified from MLLW MWIR* LA-935	0.208
	STP Volume Adjustment from SWB Overpacks	-21.098
Total Combustible-Noncombustible Waste Adjustment		-34.036
Glass Waste		0
Glass Waste Adjustment		0
Leaded Glovebox Waste		0
Leaded Glovebox Waste Adjustment		0
Metallic Waste		0
Metallic Waste Adjustment		0
Noncombustible Waste	Recharacterized to Combustible-Noncombustible Waste	-0.418
Noncombustible Waste Adjustment		-0.418
Solidified Inorganic and Organic Waste		0
Solidified Inorganic and Organic Waste Adjustment		0
Solidified Inorganic Noncombustible Waste		0
Solidified Inorganic Noncombustible Waste Adjustment		0
Solidified Inorganic Particulate Waste		0
Solidified Inorganic Particulate Waste Adjustment		0
Total Triad Adjustments		-34.454

* MWIR = Mixed Waste Inventory Report

Table G-3 FY 2024 3706 MTRU Inventory Administrative Adjustments

Treatability Group	Administrative Adjustments	Volume (m ³)
Cemented Sludge Waste	Reclassified into MLLW MWIR* LA-W935	-2.576
Cemented Sludge Waste Adjustment		-2.576
Combustible Waste		0
Combustible Waste Adjustment		0
Combustible-Noncombustible Waste		0
Combustible-Noncombustible Waste Adjustment		0
Glass Waste		0
Glass Waste Adjustment		0
Leaded Glovebox Waste		0
Leaded Glovebox Waste Adjustment		0
Metallic Waste		0
Metallic Waste Adjustment		0
Noncombustible Waste		0
Noncombustible Waste Adjustment		0
Solidified Inorganic and Organic Waste		0
Solidified Inorganic and Organic Waste Adjustment		0
Solidified Inorganic Noncombustible Waste		0
Solidified Inorganic Noncombustible Waste Adjustment		0
Solidified Inorganic Particulate Waste	Container Overpacked	1.670
	Reclassified into MLLW MWIR LA-W935	-0.644
Solidified Inorganic Particulate Waste Net Adjustment		1.026
Total 3706 Adjustments		-1.550

* MWIR = Mixed Waste Inventory Report

APPENDIX H MLLW TREATMENT FACILITIES

Table H-1 Commercial Facilities Contacted for Waste Treatment Capabilities

Commercial Facility	Location
<p>Perma-Fix (including Material & Energy Corporation in Tennessee; Diversified Scientific Services, Inc. in Tennessee; and Perma-Fix North West in Washington; and Perma-Fix Florida in Gainesville, Florida)</p> <p>Perma-Fix has permitted treatment facilities for the treatment of low-level radioactive and low-level mixed waste. The facilities can perform to include thermal treatment, compaction, macroencapsulation, neutralization, and stabilization. All are licensed within their respective State of location under the Nuclear Regulatory Commission regulations and permitted under the RCRA regulations</p>	Florida, Washington and Tennessee
<p>Waste Control Specialists (WCS)</p> <p>WCS, located in Andrews, Texas, is a permitted treatment facility for the treatment and disposal of LLW and MLLW. The site has regulatory authorization for industrial solid waste and hazardous waste storage, processing, and land disposal under RCRA permit # HW-50358 granted by the state of Texas. EPA has authorized the site for treatment, storage, and land disposal of Toxic Substances Control Act (TSCA) wastes (TXD988088464). The facility can process waste that requires compaction, microencapsulation, macroencapsulation, neutralization, deactivation, chemical oxidation, chemical reduction and stabilization.</p>	Texas
<p>Energy Solutions of Utah (including Bear Creek Operations in Tennessee)</p> <p>Energy Solutions, located in Clive, Utah, is a permitted treatment facility for the treatment and disposal of LLW and MLLW. The site houses both a low-level radioactive waste treatment facility and a low-level mixed waste treatment facility, which are licensed under state of Utah Department of Environmental Quality, License Number UT2300249 and by the EPA hazardous waste permit number UT0982598898.</p>	Utah
NSSI Houston- Nuclear Sources & Services, Inc.	Texas

APPENDIX I CORRESPONDENCE

Table I-1 FY 2024 Expedited Shipment Letters

Letter Date	Description	Letter Number	Revision Reference
—*	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

* — = Not applicable

Note: In Table 1-2 and I-3, insert in the first column the date that is on the NMED correspondence.

Table I-2 FY 2024 Correspondence from DOE/NNSA/Triad

Letter Date	Description	Letter Number	Revision Reference
11/15/2023	Notice of Completion of Off-Site Waste Shipment for Final Disposal, per the Federal Facility Compliance Order, Compliance Plan (Part III), Site Treatment Plan, Los Alamos National Laboratory	EPC-DO-23-330	35
12/5/2023	Notice of Completion of Off-Site Waste Shipment for Final Disposal, per the Federal Facility Compliance Order, Compliance Plan (Part III), Site Treatment Plan, Los Alamos National Laboratory	EPC-DO-23-342	35
1/3/2024	Notice of Completion of Off-Site Waste Shipment for Final Disposal, per the Federal Facility Compliance Order, Compliance Plan (Part III), Site Treatment Plan, Los Alamos National Laboratory	EPC-DO-23-372	35
2/5/2024	Notice of Completion of Off-Site Waste Shipment for Final Disposal, per the Federal Facility Compliance Order, Compliance Plan (Part III), Site Treatment Plan, Los Alamos National Laboratory	EPC-DO-24-035	35
2/8/2024	Notice of Completion of Off-Site Waste Shipment for Final Disposal, Activity 4.0, Compliance Plan, Site Treatment Plan, Federal Facility Compliance Order, Los Alamos National Laboratory	EPC-DO-24-043	35
5/2/2024	Notice of Completion of Off-Site Waste Shipment for Final Disposal, Activity 4.0, Compliance Plan, Site Treatment Plan, Federal Facility Compliance Order, Los Alamos National Laboratory	EPC-DO-24-114	35
6/18/2024	Notice of Completion of Off-Site Waste Shipment for Final Disposal, Activity 4.0, Compliance Plan, Site Treatment Plan, Federal Facility Compliance Order, Los Alamos National Laboratory	EPC-DO-24-151	35
7/23/2024	Notice of Completion of Off-Site Waste Shipment for Final Disposal, Activity 4.0, Compliance Plan, Site Treatment Plan, Federal Facility Compliance Order, Los Alamos National Laboratory	EPC-DO-24-182	35

Table I-2 (continued)

Letter Date	Description	Letter Number	Revision Reference
8/13/2024	Notice of Completion of Off-Site Waste Shipment for Final Disposal, Activity 4.0, Compliance Plan, Site Treatment Plan, Federal Facility Compliance Order, Los Alamos National Laboratory	EPC-DO-24-212	35
9/16/2024	Notice of Completion of Off-Site Waste Shipment for Final Disposal, Activity 4.0, Compliance Plan, Site Treatment Plan, Federal Facility Compliance Order, Los Alamos National Laboratory	EPC-DO-24-263	35

Table I-3 FY 2024 Correspondence from DOE EM-LA/N3B

Letter Date	Description	Letter/Document Number	Revision Reference
11/27/2023	Notice of Completion of Off-Site Waste Shipments for the Fourth Quarter of Fiscal Year 2023 for Los Alamos National Laboratory as Required by the Federal Facilities Compliance Order Site Treatment Plan Compliance Plan Section 4.0	N3B-2023-0418	35
12/11/2023	Notice of Completion of Off-Site Waste Shipment for Final Disposal, Activity 4.0, Compliance Plan, Site Treatment Plan, Federal Facility Compliance Order, Los Alamos National Laboratory (October 5, 2023, LA230039, and October 12, 2023, LA230040)	N3B-2023-0413	35
12/13/2023	Notice of Completion of Off-Site Waste Shipment for Final Disposal, Activities 3.1.5, and 3.3.4 Compliance Plan, Site Treatment Plan, Federal Facility Compliance Order, Los Alamos National Laboratory (October 23, 2023 PF1954585)	N3B-2023-0450	35
1/12/2024	Notice of Completion of Off-Site Waste Shipment for Final Disposal, Activities 3.1.5, and 3.3.4 Compliance Plan, Site Treatment Plan, Federal Facility Compliance Order, Los Alamos National Laboratory (November 6, 2023 PF1955125)	N3B-2023-0471	35
1/29/2024	Notice of Completion of Off-Site Waste Shipment for Final Disposal, Activity 4.0, Compliance Plan, Site Treatment Plan, Federal Facility Compliance Order, Los Alamos National Laboratory (November 21, 2023, LA230049)	N3B-2024-0003	35
2/6/2024	Extension Request for the Notice of Completion of Off-Site Waste Shipment for Final Disposal, Activity 4.0, Compliance Plan, Site Treatment Plan, Federal Facility Compliance Order, Los Alamos National Laboratory (November 21, 2023, LA230049)	N/A Email	35
2/14/2024	Notice of Completion of Off-Site Waste Shipments for the First Quarter of Fiscal Year 2024 for Los Alamos National Laboratory as Required by the Federal Facilities Compliance Order Site Treatment Plan Compliance Plan Section 4.0	N3B-2024-0022	35

Table I-3 (continued)

Letter Date	Description	Letter/Document Number	Revision Reference
3/6/2024	Notice of Completion of Off-Site Waste Shipment for Final Disposal, Activity 4.0, Compliance Plan, Site Treatment Plan, Federal Facility Compliance Order, Los Alamos National Laboratory (November 21, 2023, LA230049) Revision 1	N3B-2024-0070	35
3/11/2024	Notice of Completion of Off-Site Waste Shipment for Final Disposal, Activity 4.0, Compliance Plan, Site Treatment Plan, Federal Facility Compliance Order, Los Alamos National Laboratory (January 11, 2023, LA240001, and January 16, 2024 LA240002)	N3B-2024-0062	35
3/19/2024	Site Treatment Plan Fiscal Year 2023 Annual Update and Proposed Revision 34.0, Federal Facilities Compliance Order	N3B-2024-0006	35
3/25/2024	Notice of Completion of Off-Site Waste Shipment for Final Disposal, Activities 3.1.5, 3.1.8, 3.2, 3.3.4, and 4.0, Compliance Plan, Site Treatment Plan, Federal Facility Compliance Order, Los Alamos National Laboratory (January 23, 2024 LA240004, January 29, 2024 PF1960023 & PF1959880)	N3B-2024-0091	35
5/6/2024	Notice of Completion of Off-Site Waste Shipment for Final Disposal, Activities 3.1.5, 3.1.8, and 3.3.4 Compliance Plan, Site Treatment Plan, Federal Facility Compliance Order, Los Alamos National Laboratory (Shipment March 11, 2024, PF1962728)	N3B-2024-0136	35
5/23/2024	Notice of Completion of Off-Site Waste Shipments for the Second Quarter of Fiscal Year 2024 for Los Alamos National Laboratory as Required by the Federal Facilities Compliance Order Site Treatment Plan Compliance Plan Section 4.0 and 3.3.4	N3B-2024-0144	35
5/29/2024	Notice of Completion of Off-Site Waste Shipment for Final Disposal, Activities 3.1.5, 3.1.8, 3.2, and 3.3.4 Compliance Plan, Site Treatment Plan, Federal Facility Compliance Order, Los Alamos National Laboratory (Shipment March 26, 2024, and March 28, 2024)	N3B-2024-0146	35
5/31/2024	Requesting Approval of Accumulation Start Date for the Corrugated Metal Pipes at Technical Area 54	N3B-2024-0177	35
6/13/2024	Notice of Completion of Off-Site Waste Shipment for Final Disposal, Activity 4.0 Compliance Plan, Site Treatment Plan, Federal Facility Compliance Order, Los Alamos National Laboratory (Shipment April 11, 2024, LA240010 and April 25, 2024, LA240014)	N3B-2024-0181	35
7/1/2024	Notice of Completion of Off-Site Waste Shipment for Final Disposal, Activities 3.3.4, and 4.0 Compliance Plan, Site Treatment Plan, Federal Facility Compliance Order, Los Alamos National Laboratory (Shipment April 29, 2024, PF1966555 and May 2, 2024, LA240016)	N3B-2024-0208	35

Table I-3 (continued)

Letter Date	Description	Letter/Document Number	Revision Reference
8/12/2024	Notice of Completion of Off-Site Waste Shipment for Final Disposal, Activity 4.0 Compliance Plan, Site Treatment Plan, Federal Facility Compliance Order, Los Alamos National Laboratory (Shipment June 6, 2024, LA240019)	N3B-2024-0236	35
8/16/2024	Notice of Completion of Off-Site Waste Shipment for Final Disposal, Activity 4.0 Compliance Plan, Site Treatment Plan, Federal Facility Compliance Order, Los Alamos National Laboratory (Shipment June 27, 2024, LA240024)	N3B-2024-0261	35
8/28/2024	Notice of Completion of Off-Site Waste Shipments for the Third Quarter of Fiscal Year 2024 for Los Alamos National Laboratory as Required by the Federal Facilities Compliance Order Site Treatment Plan Compliance Plan Activities 3.3.4 and 4.0	N3B-2024-0277	35
9/20/2024	Notice of Completion of Off-Site Waste Shipment for Final Disposal, Activity 4.0 Compliance Plan, Site Treatment Plan, Federal Facility Compliance Order, Los Alamos National Laboratory (Shipment July 18, 2024, LA240024)	N3B-2024-0312	35

APPENDIX J HISTORY OF CHANGES TO THE CP AND FFCO

As discussed in Part III (CP), Section 1.2, the STP CP has been modified several times since it was originally issued, in accordance with the provisions of Section X, *Revisions*, and Section XI, *Other Amendments to the STP*, of the October 4, 1995, FFCO, as amended and revised. This appendix provides a summary of these CP changes and of modifications to the FFCO since its issuance.

To date, there have been 34 revisions, revision 35.0 is pending NMED approval, and three amendments to the CP. In addition, the FFCO was amended once on May 20, 1997. Table J-1 provides a summary of these changes. More detailed descriptions can be found in the CP Update portion of each year's STP *Annual Update* and the original correspondence requesting each change.

Table J-1 Summary of Changes to the CP and the FFCO

Action	Document Modified	Effective Date	Effect on FFCO/STP
Rev. 1.0	STP/CP	6/12/1996	Added off-site treatment as a parallel preferred option for most MLLW treatability groups.
Rev. 2.0	STP/CP	12/9/1996	Reduced volume of LA-W928 by approving reclassification of sludge as LLW.
Amendment 1.0	STP/CP	10/30/1996	Divided original volume of LA-W929 into three subgroups, and added new Activities and Compliance Dates.
Rev. 3.0	STP/CP	1/27/1997	Divided original volume of LA-W929 into three subgroups, and added new Activities and Compliance Dates.
Amendment 1.0	FFCO	5/20/1997	Modified FFCO Sections IV, V, IX, and X to streamline waste transfers and deletions.
Amendment 2.0	STP/CP	9/4/1997	Extended CP Activity 3.1.2B Compliance Date to 12/29/97.
Rev. 4.0	STP/CP	12/29/1997	Transferred original volume of LA-W929 from three subgroups to other treatability groups, added treatability groups, and deleted treated items.
Rev. 5.0	STP/CP	12/29/1997	Added volumes reported in FY 1995 and FY 1996 <i>Annual Updates</i> (and certain other items) to several treatability groups, added Activities and Compliance Dates, added CP Appendices, and deleted treated items.
Rev. 6.0	STP/CP	7/31/1998	Added volumes reported in FY 1997 <i>Annual Update</i> to several treatability groups, added certain Activities and Compliance Dates, adjusted several original inventory volumes, transferred one LA-W929 item to a new treatability group, and deleted treated items.
Rev. 7.0	STP/CP	11/30/1998	Removed on-site treatment skids, added STP inventory items, added on-site recycling/re-use and radiological decontamination, added notification for off-site treatability studies.
Rev. 8.0	STP/CP	12/3/1998	Extended compliance dates for treatment of MTRU waste.
Rev. 9.0	STP/CP	6/7/2000	Added and deleted volumes reported in FY 1998 <i>Annual Update</i> to certain treatability groups.
Amendment 3.0	STP/CP	8/30/1999	Transferred three items to MTRU, transferred one item to subgroup within same treatability group.
Rev. 10.0	STP/CP	12/18/2000	Added and deleted volumes reported in FY 1999 <i>Annual Update</i> to certain treatability groups.
Rev. 11.0	STP/CP	4/18/2001	Added and deleted volumes reported in FY 2000 <i>Annual Update</i> .

Table J-1 (continued)

Action	Document Modified	Effective Date	Effect on FFCO/STP
Rev. 12.0	STP/CP	3/13/2002	Added and deleted volumes reported in FY 2001 <i>Annual Update</i> . Extended CP Activity 3.1.5A Compliance Date to 8/25/2003. Extended CP Activity 3.1.11A to 2/01/04. Removed the requirement to develop treatment technologies and the associated compliance schedule in CP Activity 4.0 and added language specifying that MTRU waste would be shipped off-site to WIPP for disposal.
Rev 13.0	STP/CP	7/14/2003	Added and deleted volumes reported in FY 2002 <i>Annual Update</i> .
Rev 14.0	STP/CP	1/5/2005	Added and deleted volumes reported in FY 2003 <i>Annual Update</i> .
Rev 15.0	STP/CP	8/16/2005	Added and deleted volumes reported in FY 2004 <i>Annual Update</i> .
Rev 16.0	STP/CP	12/12/2006	Added and deleted volumes reported in FY 2005 <i>Annual Update</i> . Extended CP Activity 3.1.8(A) Compliance Date to 8/09/2007. Extended CP Activity 3.1.9(A) Compliance Date to 8/09/2007. Extended CP Activity 3.1.10(A) Compliance Date to 8/31/2007. Extended CP Activity 3.1.11(A) Compliance Date to 12/31/2007. Extended CP Activity 3.2(J) Compliance Date to 12/31/2007. Reclassified 0.2082 m ³ of LA-W934 High Activity MLLW waste to MTRU waste.
Rev 17.0	STP/CP	6/26/2008	Added and deleted volumes reported in FY 2006 <i>Annual Update</i> . Extended CP Activity 3.1.5(A) Compliance Date to 12/31/2008. Extended CPV Activity 3.1.8(A) Compliance Date to 8/28/2008. Extended CP Activity 3.1.9(A) Compliance Date to 8/28/2008. Extended CP Activity 3.2(J) Compliance Date to 12/31/08.
Rev 18.0	STP/CP	1/9/2009	Added and deleted volumes reported in FY 2007 <i>Annual Update</i> . Extended CP Activity 3.1.8(A) Compliance Date to 8/28/2009. Extended CP Activity 3.1.9(A) Compliance Date to 8/28/2009. Proposed a new Section 3.3.4 for Treatability Group, LA-W935 10–100 nCi/g Waste with new CP Activity 3.3.4 (A) Compliance Date 12/01/2013 and CP Activity 3.3.4 (B) Compliance Date 12/31/2013. Extended CP Activity 3.2(J) Compliance Date to 12/31/2010.
Rev 19.0	STP/CP	2/5/2010	Added and deleted volumes reported in FY 2008 Annual Update. Extended compliance date for CP Activities 3.1.8(A) and 3.1.9(A) to 8/28/12. Proposed a new milestone of 12/31/2010 for 3.1.4(A) and a new milestone 3.3.4(C) for 10–100 nCi/g Waste.
Rev 20.0	STP/CP	11/8/2010	Added and deleted volumes reported in FY 2009 Annual Update. Proposed an extended compliance date for CP Activity 3.2(J).
Rev 21.0	STP/CP	3/21/2012	Added and deleted volumes reported in FY 2010 Annual Update. Proposed new compliance date for CP Activity 3.1.8(A).
Rev 22.0	STP/CP	12/10/2012	Added and deleted volumes reported in FY 2011 Annual Update.
Rev 23.0	STP/CP	8/26/2015	Added and deleted volumes reported in FY 2012 Annual Update. Added Table 4.0-1 Treatability Groups for the Framework Agreement MTRU Waste.
Rev 24.0	STP/CP	8/26/2015	Added and deleted volumes reported in FY 2013 Annual Update. Proposed compliance date for CP Activity 3.1.5(A). Proposed compliance date for CP Activity 3.1.8(A). Extended CP Activity 3.2(J) Compliance Date to 6/30/2018. Proposed compliance date for CP Activity 3.3.4 (A and B).

Table J-1 (continued)

Action	Document Modified	Effective Date	Effect on FFCO/STP
Rev 25.0	STP/CP	TBD	Added and deleted volumes reported in FY 2014 Annual Update. On Hold volumes reported shipped in FY 2014 Annual Update. Proposed compliance date for CP Activity 3.1.8(A). Proposed compliance date for CP Activity 3.3.4 (A and B).
Rev 26.0	STP/CP	1/30/2017	Added and deleted volumes reported in FY 2015 Annual Update. On Hold volumes reported shipped in FY 2014 Annual Update. Proposed compliance date for CP Activity 4.0-2 (C).
Rev 27.0	STP/CP	3/21/2017	Added and deleted volumes reported in FY 2016 Annual Update. On Hold volumes reported shipped in FY 2014 Annual Update. Proposed compliance date for CP Activities 4.0-2(a), and 4.0-2(c).
Rev 28.0	STP/CP	5/9/2019	Added and deleted volumes reported in FY 2017 Annual Update. On Hold volumes reported shipped in FY 2014 Annual Update. Proposed compliance date for CP Activities 3.1.8-2(A), and 3.3.4-2 (A and B).
Rev 29.0	STP/CP	4/9/2020	Added and deleted volumes reported in FY 2018 Annual Update using volume information spreadsheets supplied from TA-55, CMR and TWF and other databases for volume information at TA-54. Updated Tables and Appendices throughout document. Updated Part III, Section 3.2, FTWCs compliance date extension request and NMED approval. Updated Part III, Section 4.0, "Transfer of Covered MTRU Inventory" for CVDs. Appendix A was split into two tables: A-1 for N3B and A-2 for LANS. Appendix E was split into two tables: E-1 for N3B and E-2 for LANS. Appendix G was split into two tables: G-1 for N3B and G-2 for LANS.
Rev 30.0	STP/CP	9/22/2020	Updated volumes reported in FY 2019 Annual Update using data from WCATS. Updated tables and appendices throughout document. Table 2.2-1: Revised lines involved with information for "FY 2014 on Hold" to reflect current up-to-date information and clarity. Table 4.0-1: Updated the title of each column for clarity. Updated information throughout the report, either to remove redundancies and /or add information to keep the report up-to-date and consistent. Split Appendix D into two tables: D-1 for N3B and D-2 for Triad. Reconstructed all tables in Appendix F for clarity and purpose. Table F-1: Removed column "Total FY 2014 Inventory (abovegrade on Hold [m ³])" as this information is captured in F-2 and F-4 tables. Table F-4: Reworded the title for clarity.

Table J-1 (continued)

Action	Document Modified	Effective Date	Effect on FFCO/STP
Rev. 31.0	STP/CP	7/12/2021	<p>Updated volumes reported in FY 2019 Annual Update using data from WCATS. Updated information throughout the report, either to remove redundancies and/or add information to keep the report up-to-date and consistent. Updated tables and appendices throughout document. Changed title of Table 2.1-1 from “FY 2019 MLLW Inventory Summary” to “STP-Covered MLLW Inventory Summary.” Changed title of Table 2.2-1 from “Covered MTRU Inventory Summary” to “STP-Covered MTRU Inventory Summary.” Removed Table 4.0-1, “Treatability Groups for The Framework Agreement - 3706 MTRU Waste Campaign (remaining containers at TA-54 and WCS on hold),” and replaced with Appendix E-3 and Appendix G-3. Relabeled Table 4.0-2 to Table 4.0-1, “Activities and Compliance Dates for MTRU Inventory for TA-54 and TA-55.” Changed title of Table A-2 from “FY 2019 MLLW Inventory at CMR, TA-55, and TWF, Detailed Update by Treatability Group” to “FY 2020 Triad MLLW Inventory Detailed Update by Treatability Group.” Revised Table C-1 title, “Administrative Adjustments,” to “FY 2020 MLLW Administrative Adjustments to TA-54 Inventory.” Updated Table C-1 from a combined administrative adjustments table to a N3B-only administrative adjustments table. Updated title of Table C-2 to “FY 2020 Triad MLLW Inventory Administrative Adjustments.” Updated Table C-2 from a detailed combined administrative adjustments table to a Triad-only administrative adjustments table. Revised title of Table E-1 from “TA-54 MTRU Covered Inventory (by Treatability Group)” to “TA-54 MTRU Inventory (by Treatability Group).” Updated Triad Table E-2 to be consistent with N3B Table E-1 in terms of treatability group and formatting. Changed title of E-2 from “Triad MTRU Inventory at TA-55, CMR, and TWF” to “FY 2020 Triad TA-55, CMR, and TWF MTRU Inventory Update by Treatability Group.” Updated Appendix G, Table G-2, to be consistent with N3B Table G-1 in terms of treatability group and formatting. Changed title of Table G-2 from “FY 2019 MTRU Administrative Adjustments for TA-55, CMR Inventory” to “FY 2020 Triad TA-55, CMR, and TWF MTRU Inventory Administrative Adjustments.” Alphabetized in the comments column in Appendices A and E.</p>

Table J-1 (continued)

Action	Document Modified	Effective Date	Effect on FFCO/STP
Rev. 32.0	STP/CP	8/4/2022	Updated volumes reported in FY 2020 Annual Update using data from WCATS. Updated information throughout the report, either to remove redundancies and/or add information to keep the report up-to-date and consistent. Updated tables and appendices throughout document. Consolidated due to duplication "Table 3.2-1 Treatability Groups for Waste Requiring Characterization or Assessment" and "Table 3.2-2 Additional Wastes Requiring Characterization or Assessment" into single table and removed "Table 3.2-2 Additional Wastes Requiring Characterization or Assessment." Relabeled "Table 3.2-3 Activities and Compliance Dates for Wastes Requiring Characterization or Assessment" to "Table 3.2-2 Activities and Compliance Dates for Wastes Requiring Characterization or Assessment" Consolidated due to duplication "Table 3.3.1-1 Treatability Groups for Lead Decontamination" and "Table 3.3.1-2 Additional Wastes for Lead Decontamination" into single table and removed "Table 3.3.1-2 Additional Wastes for Lead Decontamination." Consolidated due to duplication "Table 3.3.2-1 Treatability Groups for Sorting, Surveying, and Decontamination" and "Table 3.3.2-2 Additional Wastes for Sorting, Surveying, and Decontamination" into single table and removed "Table 3.3.2-2 Additional Wastes for Sorting, Surveying, and Decontamination."
Rev. 33.0	STP/CP	8/9/2023	Updated volumes reported in FY 2021 Annual Update using data from WCATS. Updated information throughout the report, either to remove redundancies and/or add information to keep the report up-to-date and consistent. Updated tables and appendices throughout document.
Rev. 34.0	STP/CP	6/17/2024	Updated volumes reported in FY 2022 Annual Update using data from WCATS. Updated information throughout the report, either to remove redundancies and/or add information to keep the report up-to-date and consistent. Updated tables and appendices throughout document.
Rev. 35.0	STP/CP	TBD	<ul style="list-style-type: none"> – Updated volumes reported in FY 2023 Annual Update using data from WCATS. – Updated information throughout the report, either to remove redundancies and/or add information to keep the report up-to-date and consistent. – Updated tables and appendices throughout document.

REFERENCES

1. *Federal Facility Compliance Order (Los Alamos National Laboratory)*, New Mexico Environment Department (October 4, 1995).
2. Congress, 1996. Text of Public Law 104-201, Congressional Record dated September 23, 1996, Amendment to Public Law 102-579, 1992 *Waste Isolation Pilot Plant Land Withdrawal Act* (106 Stat. 4777).
3. 40 CFR Part 194, Criteria for the Certification of the Waste Isolation Pilot Plant's Compliance with the 40 CFR Part 191 Disposal Regulations: Certification Decision; Proposed Rule (Federal Register V.62, No. 210, Oct. 30, 1997, pp. 58792–58838).