Los Alamos National Laboratory

Federal Facility Compliance Order

Annual Site Treatment Plan Update for Fiscal Year 2009

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NATIONAL LABORATORY

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ACRONYMS

AK	Acceptable Knowledge
CCA	Compliance Certification Application
CCP	Central Characterization Project
40 CFR	Title 40 of the Code of Federal Regulations
CMR	Chemistry and Metallurgy Research
CP	Compliance Plan
DOE	U.S. Department of Energy
DSSI	Diversified Scientific Services, Inc.
EPA	U.S. Environmental Protection Agency
ER	Environmental Restoration
FFCA	Federal Facility Compliance Act
FFCO	Federal Facility Compliance Order
FR	Federal Register
FY	Fiscal Year
HWA	Hazardous Waste Act
INL	Idaho National Laboratory
LANL	Los Alamos National Laboratory
LANS	Los Alamos National Security, LLC
LASO	Los Alamos Site Office
LDR	Land Disposal Restrictions (RCRA)
LLNL	Lawrence Livermore National Laboratory
LWAA	Land Withdrawal Act Amendments
M&EC	Materials and Energy Corporation
MLLW	Mixed Low-Level Waste
MTRU	Mixed Transuranic (Waste)
MWIR	Mixed Waste Inventory Report
NNSA	National Nuclear Security Administration
NMED	New Mexico Environment Department
NRC	Nuclear Regulatory Commission
ORR	Oak Ridge Reservation
PCB	Polychlorinated Biphenyl
RCRA	Resource Conservation and Recovery Act
STP	Site Treatment Plan
TA	Technical Area
TBD	To be determined
TBV	To be verified
TRU	Transuranic
UC	University of California
WIPP	Waste Isolation Pilot Plant

INTRODUCTION

On October 6, 1992, Congress passed the Federal Facility Compliance Act (FFCA) to address compliance by the United States 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 of the facility's mixed waste, regardless of the time generated, to the standards promulgated pursuant to Section 3004(m) of RCRA. The FFCA provides that the appropriate regulatory authority, the New Mexico Environment Department (NMED), may approve, approve with modifications, or disapprove 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, the NMED issued a Federal Facility Compliance Order (FFCO) to DOE and its then 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) at which time LANS assumed responsibility for compliance with the FFCO.

The FFCO required LANL to implement an STP for the treatment of mixed waste at LANL. The STP is intended to fulfill the requirements of the FFCA and establish an enforceable framework to allow DOE and LANS (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 of 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.

Section VII of the FFCO requires LANL to submit an Annual STP Update to the 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 also identifies proposed revisions and amendments to the CP. Part III incorporates the changes in Part II into the proposed CP revision (Revision 20).

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 FYs;
- 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; and
- 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 annually with the STP update.

2.0 AMOUNT OF EACH COVERED WASTE STORED AT LANL

2.1 MIXED LOW LEVEL WASTE (MLLW) INVENTORY

During FY09, STP-covered MLLW inventories decreased from approximately 59 m^3 to 46 m^3. Table 2.1-1 summarizes changes to the estimated STP-covered MLLW inventory for FY09. A total of 9.1286 m^3 of newly generated waste became covered during FY09 and 217.7716 m^3 of covered MLLW waste was treated, recycled, or disposed of, or otherwise deleted, during FY09.

Appendix A provides the detailed changes to the FY09 covered MLLW inventory by treatability group, including the inventory at Technical Area (TA) 55 and the Chemistry and Metallurgy Research Building (CMR). Appendix B (Table B-1) lists the MLLW shipments in FY09. Table B-2 identifies other deleted waste. Administrative adjustments to the MLLW inventory are shown in Appendix C (Table C-1). The MLLW inventory reported in the FY08 Annual Update is included as Appendix D.

Table 2.1-1: FY09 MLLW Inventory Summary

Contribution	Volume (m^3)[1]
Estimated MLLW Inventory Reported in FY08 Annual Update	**58.5520**[2]
Proposed Revision 20.0	
New Covered Waste (0.0379 m^3 LA-W908; 9.0907 m^3 LA-W934)	9.1286
Administrative adjustments[3]	196.0042
Offsite Treatment	-217.7616
Offsite Recycle	NA
Onsite Decontamination	NA
Treatability Study Use	NA
Proposed Deletion under FFCO Section V.B (Appendix B, Table B-2)	-0.0010
Estimated MLLW Inventory Reported in FY08 FY09 Annual Update	**45.9222**

[1] MLLW volumes are calculated using the conversion: 55 gallon container = 0.2082 m^3
[2] NA = No Activity
[3] Includes transfers of MTRU and other wastes into MLLW categories

2.2 MIXED TRANSURANIC (MTRU) INVENTORY SUMMARY

During FY09 STP-covered MTRU inventories decreased from approximately 3590 m^3 to 3217 m^3. Table 2.2-1 summarizes changes to the estimated MTRU covered waste inventory for FY09. The total volume of MTRU waste in Table 2.2-1 includes the CMR and TA-55 MTRU volumes, which are maintained in a separate inventory from the MTRU inventory at TA-54. Appendix E contains additional detail for the MTRU inventory; Table E-1 covers the TA-54 inventory and Table E-2 covers the inventory at CMR and TA-55. Appendix F (Table F-1) provides the history of MTRU shipments to WIPP. Tables G-1 and G-2, respectively, in Appendix G describe the administrative adjustments that were made to resolve differences in the TA-54 and the CMR/TA-55 MTRU inventory data.

Administrative adjustments typically represent the following types of activities:

- LANL may correct database entries so that waste items that previously were not listed as STP waste are now identified as STP waste.
- MTRU waste that was formerly classified as transuranic (TRU) 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 under new DOE standards.

- New analytical data may also require that waste streams previously managed as TRU waste should, as a prudent measure, 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.
- Containers of waste are occasionally determined not to belong to mixed waste streams and are reclassified as TRU waste.
- Addition or removal of 85-gallon overpacks changes the volume of waste in the inventory.

Appendix G includes changes to the MTRU waste inventory that resulted from repacking activities. MTRU waste volumes in the STP inventory reflect the volume of the container rather than the volume of the contents. When containers are repacked, the STP inventory volume of any given treatability group may either increase or decrease. When a container is repacked, the 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 new containers may be assigned to different treatability groups depending on the contents of each drum. Therefore, the volume of a single drum may 'multiply' into more volume than the original container. For example, repacking one container of *Cemented Sludge* (0.2080 m^3) resulted in one drum of *Combined Combustible-Noncombustible Waste* (0.2080 m^3) and one drum of *Noncombustible Waste* (0.2080 m^3). Likewise, repacking 20 drums of *Metallic Waste* (4.1600 m^3) produced 20 drums of *Combined Combustible-Noncombustible Waste* (4.1600 m^3) and one drum of *Noncombustible Waste* (0.2080 m^3). In addition, changes in the waste volume in the STP inventory occur when an 85-gallon 'overpack' is removed from, or added to, a 55-gallon drum during repackaging. Removal of overpacks decreases the volume of waste in the STP inventory. Adding an overpack to a 55-gallon drum increases the volume of waste shown in the STP inventory.

Table 2.2-1: Covered MTRU Inventory Summary

Description	Volume (m^3)
Covered MTRU Inventory Reported in FY08 (41.3078 m^3 at CMR/TA-55 and 3548.5197 m^3 at TA-54)	3589.8275
New Covered MTRU Waste at TA-54	32.6560
New Covered MTRU Waste at TA-55/CMR	2.5618[1]
Covered MTRU Waste Shipped to WIPP	-300.7085

Description	Volume (m^3)
Administrative Adjustments for TA-54 FY09	-107.6406
Administrative Adjustments for CMR/TA-55	-0.6165
Covered MTRU Inventory At End of FY09	**3216.4557**

[1] Includes 0.4160 m^3 of new covered waste transferred from TA-55 in FY09

3.0 TREATMENT PROGRESS

3.1 OFFSITE TREATMENT

During FY09, covered MLLW streams were shipped for treatment to the following offsite commercial treatment facilities: Perma-Fix in Gainesville, Florida, Perma-Fix/Material and Energy Corporation (M&EC) in Oak Ridge, Tennessee, Perma-Fix Northwest in the State of Washington, and EnergySolutions in Clive, Utah. Perma-Fix also owns Diversified Scientific Services, Inc. (DSSI) in Kingston, Tennessee.

- **Perma-Fix/Florida**

Perma-Fix in Gainesville, Florida, is a RCRA-permitted facility with a Radioactive Materials License for processing scintillation cocktail vials and other mixed waste fluids for blending and shipment to an energy recovery facility. Perma-Fix services include the decommissioning of labpacks, thermal treatment of organics, stabilization and solidification of inorganics, and distillation of halogenated organics. The facility also performs chemical treatments such as demulsification/precipitation/flocculation, solvent extraction, chelation, oxidation-reduction, ion exchange, absorption/adsorption, amalgamation, and chemical decontamination.

- **Perma-Fix/Material and Energy Corporation (M&EC)**

M&EC, located in the East Tennessee Technology Park in Oak Ridge, Tennessee, is a permitted treatment facility for low-level radioactive and mixed waste. The facility installed six treatment processes and has the capability of treating organic and inorganic mixed waste to meet the LDR criteria. These processes include stabilization/solidification, chemical extraction, chemical fixation, metals precipitation, neutralization, and debris treatment. M&EC became operational in September 2001.

- **Perma-Fix Northwest**

Perma-Fix Northwest, located in Richland, Washington, is a permitted treatment facility for the treatment of low-level radioactive and low-level mixed waste. The site houses both a low-level radioactive waste treatment facility and a low-level mixed waste treatment facility, which are licensed under Nuclear Regulatory Commission (NRC) regulations (State of Washington licenses WN-I00393-1 & WN-I00508-

1) and permitted under RCRA regulations through the State of Washington. The facility can perform thermal treatment, compaction, macroencapsulation, neutralization, and stabilization.

- **EnergySolutions**

EnergySolutions (formerly Envirocare), located in Clive, Utah, is a RCRA facility that is licensed by the State of Utah and the EPA to receive, possess, use, treat, and dispose of mixed radioactive materials. EnergySolutions has a mixed waste treatment facility that incorporates treatment technologies designed to reduce the toxicity of waste materials prior to disposal. Current mixed waste treatment technologies used at EnergySolutions include stabilization, deactivation, neutralization, reduction/oxidation, chemical fixation, and polymer encapsulation. Disposal of the treated residue at EnergySolutions occurs after verification that the material meets applicable treatment standards.

Appendix B summarizes LANL's offsite shipments for treatment and/or disposal of covered MLLW in FY09. Approximately 218 m^3 of MLLW STP-covered waste was shipped offsite for treatment and/or disposal.

3.2 OFFSITE RECYCLING

LANL did not recycle MLLW offsite in FY09.

3.3 ONSITE TREATMENT AND RECYCLING

LANL did not treat or recycle MLLW onsite in FY09.

3.4 ONSITE LEAD DECONTAMINATION

No LANL STP-covered MLLW was decontaminated onsite during FY09.

3.5 TREATABILITY STUDIES

LANL conducted no treatability studies in FY09.

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 STP Annual Update. A data quality review is conducted annually to compare shipment notifications and shipping manifests with database updates.

3.6.1 Adjustments to MLLW Inventory

Appendix C (Table C-1) details the administrative adjustments to the MLLW inventory. The principal adjustment reflects the transfer of MTRU waste to MLLW (LA-W935, *10-100nCi/g*). A substantial volume of LANL's STP-covered MTRU waste has been determined to no longer meet the criteria for TRU waste and has thus been reclassified as MLLW.

3.6.2 Adjustments to MTRU Inventory

During the preparation of the FY09 STP Annual Update, LANL identified a number of adjustments to the MTRU inventory volume (Appendix G, Tables G-1 and G-2), including additions of newly identified STP-covered waste, recharacterization of waste, and reclassification of MLLW to MTRU waste. Other adjustments were needed to account for volume changes due to repacking of waste and transfers of waste from one treatability group to another.

3.7 OTHER TYPES OF MIXED WASTE ACTIVITIES

One MLLW item (LA-W934) with a volume of 0.0100 m^3 was sent for local analysis. The analysis expended the waste. This item is shown in Part II, Section 6.2, and in Appendix B, Table B-2.

4.0 TREATMENT TECHNOLOGY DEVELOPMENT

During FY09, the availability of commercial and federal facility offsite treatment and disposal capacity for MLLW remained stable. As a result of DOE's increasing reliance on commercial treatment/disposal for mixed wastes, nearly all funding for onsite technology development has been prioritized to support offsite 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

LANL continues to monitor the development of other potential treatment technologies that may become available in the future. Some of these technologies are being developed at LANL and at other DOE sites. Numerous other commercially developed treatment processes exist which have not been demonstrated on mixed wastes.

4.1.1 Offsite Commercial Treatment Facilities

LANL continues to monitor the availabililty and capabilities of offsite 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 Offsite DOE Treatment Facilities

In the past LANL staff considered Lawrence Livermore National Laboratory (LLNL) for treatability studies for MLLW gas cylinders. LANL has successfully shipped these wastes offsite for treatment, storage, and disposal. LLNL does not have treatment capabilities for treatment, storage, or disposal appropriate to any of LANL's remaining MLLW.

5.0 DOE FUNDING FOR STP-RELATED ACTIVITIES

Funding to implement the LANL STP for mixed waste during FY09 was sufficient to meet all compliance dates as required by the STP issued on October 4, 1995. As stated in previous updates to the STP, funding is no longer available for development of mobile treatment units at LANL, but funding was provided in all years between FY98 and FY05 and between FY07 and FY09 for shipment of mixed waste offsite for treatment and disposal at DOE and commercial facilities. Funding during FY10 is also sufficient to meet all FY10 compliance dates established in the STP. Should funding reductions occur that would affect STP compliance dates, the DOE and LANS will so notify the NMED to address compliance schedules and activities.

The DOE Assistant Secretary for Environmental Management initiated a long-range plan for its cleanup and waste management activities, with a goal of accelerating cleanup progress as much as possible before 2006. The plan, *Accelerating Cleanup: Paths to Closure*, includes sections for the LANL site that address MLLW and TRU wastes that are currently in storage (legacy waste). Funding targets for waste management in the draft *LANL Accelerating Cleanup: Paths to Closure* plan should allow LANS Staff at LANL to continue to meet all compliance dates in the STP; the plan assumes that MTRU waste is not required to be treated to meet LDR before shipment to WIPP for disposal, as provided for in the WIPP Land Withdrawal Act Amendments of 1996 (LWAA).

Beginning in FY99, all newly generated MLLW with a disposal path was planned to be treated and disposed of within one year if a treatment/disposal capability and capacity was available for the waste. MLLW placed into storage before FY99 is planned to be treated and disposed of before the end of FY13 if treatment/disposal capability and capacity is available.

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 WITHDRAWL ACT AMENDMENTS

WIPP is a DOE facility located near Carlsbad, New Mexico, as a repository for the TRU waste that was 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 considered to be 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 LWAA (PL 104-201, Section 3188) exempts 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 Los Alamos. Other facilities have also shipped non-mixed TRU waste to WIPP. The NMED issued a hazardous waste permit for WIPP on October 27, 1999, authorizing the 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 FY09.

7.0 WIPP FACILITY CAPABILITIES

As discussed above, the DOE is disposing of its defense TRU waste, both mixed and nonhazardous, in its deep geologic depository 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 facility. The WIPP facility is not a generator of TRU waste, and, therefore, will receive all of the waste in shipments from offsite.

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, 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, including
  - milestones completed in FY09;
  - correspondence, including notices of shipments; and
  - new covered and deleted waste;
- proposed revisions and amendments, including
  - compliance date changes;
  - description of waste deleted in accordance with the requirements in FFCO Section IX *Deletion of Waste*;
  - documentation of new covered waste in accordance with the requirements in Section VIII *Addition of New Covered Waste*; and
  - proposed changes to the overall schedule in the CP.

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 FY09

During FY09, DOE and LANS completed CP Activities on or before their required Compliance Dates as described in Table 2.1-1.

TABLE 2.1-1. FY09 FFCO AND STP MILESTONES

STP or FFCO	STP/FFCO Reference	Title/Text	Treatability Group	Compliance Date	Reference
STP	3.1.8 (A)	Complete shipping of existing waste to an offsite treatment facility or complete parallel option	LA-W917	9/30/2009	ENV-RRO-09-074
STP	3.1.9 (A)	Complete shipping of existing waste to an offsite treatment facility or complete parallel option	LA-W918	12/31/2008	ENV-RRO-09-174

2.2 Expedited Shipment Letters

LANL requested expedited shipment of *Nonhalogenated Organic Liquids* (LA-W908) waste items that would be included in Revision 20 of the STP in a letter dated April 23, 2009 (ENV-RRO-09-028).

2.3 Correspondence

Between October 1, 2008, and March 31, 2010, LANL communicated with NMED on issues related to

- Revisions 18 and 19 of the Annual STP Update,
- Correspondence with NMED for previous FYs,
- FY09 waste shipments, and
- Proposed changes to Revision 20 of the Annual STP Update.

This correspondence is listed in Appendix I (Table I-1). Correspondence previously listed in Part II Table 2.1 B of Revision 19 of the STP is so noted in the appendix.

3.0 DESCRIPTION OF DELETED WASTE

A proposal for deletion of STP waste items is included with this update as Proposed Revision 20.0 in accordance with FFCO Section IX, *Deletion of Waste*. These deletions are proposed because the waste was shipped offsite for treatment, disposal, or recycling. In addition, one item was sent for analysis and was expended in the analysis. These covered wastes are included in Appendix B (Tables B-1 and B-2).

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 that were placed in storage during FY08 and were proposed to become covered wastes in FY09. These covered wastes are included in Appendix A. LANL is not requesting an extension of milestones to treat and dispose of this new covered waste.

5.0 PROPOSED CHANGES TO THE COMPLIANCE PLAN SCHEDULE

LANL is requesting an extension of a CP milestone in the STP for *High Activity Waste* (LA-W934). Activity 3.2(J) requires that LANL "*complete shipping of wastes to an offsite treatment facility, or submit documentation assigning waste items to applicable treatability groups or complete parallel option.*" *High Activity Waste* is described in Section 3.2 of the CP (Mixed Waste Requiring Further Characterization or for which Technology Assessment Has Not Been Done).

I. Compliance Dates and Waste Description

Current approved compliance date: December 31, 2010
Proposed Revision 20 compliance date: December 31, 2013

The *High Activity Waste* items in LANL's inventory as of September 30, 2009, are identified in Table 5-1.

Table 5-1: High Activity Waste in LANL's MLLW Inventory with Associated EPA Codes

Container Number	Description	Associated EPA Codes	Volume (m^3)
C08199082	Lead-lined glovebox	D008	4.9843
C08199080	Lead-lined glovebox	D008	4.1064
C05179323	Lead-lined glovebox	D008	19.3900
C00130818	Tritium traps with mercury contamination and unknown radioactivity	D009	0.0125
C00130819	Tritium traps with mercury contamination and unknown radioactivity	D009	0.0100
C00130820	Tritiated squib assemblies with unknown radioactivity	D008	0.0010
C00130821	Tritiated squib assemblies with unknown radioactivity	D008	0.0010
C01136479	Portsmouth debris	D004, D007, D008	0.2082
C01136480	Portsmouth debris	D004, D007, D008	0.2082
C05180336	Portsmouth debris	D007, D008	0.2082
C06186549	High tritium with reactive lithium	D001, D003	0.1136
C06186550	High tritium with reactive lithium	D001, D003	0.1136
C07190323	Sludges from MTRU program	D009, F001, F002	0.8496
C09203611	Mole sieves and squib assemblies with very high tritium	D008	0.3215
C09203612	Mole sieves and squib assemblies with very high tritium	D008	0.3215
C09203613	Mole sieves and squib assemblies with very high tritium	D008	0.3215
C09203614	Mole sieves and squib assemblies with very high tritium	D008	0.3215

II. Treatment Process

The preferred treatment processes for the *High Activity Waste* items include sorting and segregation, macroencapsulation, amalgamation, reaction and stabilization at commercial facilities to meet LDR.

III. Availability of Commercial Facilities

LANL contacted the facilities identified in Appendix H to determine if those facilities would accept these *High Activity Waste* items (Table 5-2). Commercial treatment facilities are available for most, but not all, of the waste items listed in Table 5-1. Perma-Fix was the only positive respondent to LANL's request for bids and treatment options for these wastes. The Perma-Fix facilities are the only commercial facilities that have the current capability to treat and dispose of LANL's *High Activity Waste.*

Table 5-2. Commercial Facilities Contacted

Commercial Facility	Location	Comments	Results
Perma-Fix	Florida		Unwilling or unable to get the necessary exceptions or changes to their RCRA Permit or NRC license.
M&EC (a Perma-Fix facility)	Tennessee	Now owned by Perma-Fix	Responded with bids and timeframes, dependant on facility upgrades and changes to their Authorization Basis; existing commitments prevent M&EC from accepting this waste until they have completed their existing commitments.
DSSI (a Perma-Fix facility)	Tennessee	Now owned by Perma-Fix	Unwilling or unable to get the necessary exceptions or changes to their RCRA Permit or NRC license.
Perma-Fix Northwest	Washington	Now owned by Perma-Fix	Unwilling or unable to get the necessary exceptions or changes to their RCRA Permit or NRC license.
Waste Control Specialists	Texas		Unwilling or unable to get the necessary exceptions or changes to their RCRA Permit or NRC license.
EnergySolutions of Utah	Utah		Unwilling or unable to get the necessary exceptions or changes to their RCRA Permit or NRC license.
Bear Creek Operations	Tennessee	Now owned by EnergySolutions	Not able to accept Class C waste; unwilling or unable to get the necessary exceptions or changes to their RCRA Permit or NRC license.
Nuclear Fuel Services	Tennessee		Unwilling or unable to get the necessary exceptions or changes to their RCRA Permit or

Commercial Facility	Location	Comments	Results
			NRC license.
Integrated Environmental Services	Tennessee		Unwilling or unable to get the necessary exceptions or changes to their RCRA Permit or NRC license.
NNSI	Texas		Unwilling or unable to get the necessary exceptions or changes to their RCRA Permit or NRC license.

IV. Justification for Extension of Activity 3.2(J)

Three items (C01136479, C01136480, and C05180336) cannot be treated until the appropriate Perma-Fix facility has sufficient capacity to accept those items. Perma-Fix representatives have stated that, due to current Authorization Basis limitations, the facility is not likely to be able to accept those items before 2012.

Due to discrepancies in the documentation associated with several of the waste containers, LANL must provide additional characterization data in order to meet Perma-Fix's acceptance criteria and to ensure proper shipping according to U.S. Department of Transportation standards. LANL intends to perform additional characterization of the waste in four containers (C09203611, C09203612, C09203613, C09203614) at the Weapons Engineering Tritium Facility at TA-16, where the waste was generated. Although TA-16 is not currently authorized or operational to perform the characterization, it already possesses the engineering controls needed to handle tritium waste.

Before TA-16 can accept the waste, it must update its Authorization Basis to ensure that the engineering and administrative controls are appropriate for the kinds of hazards present in the waste. The process for updating the safety basis includes a phased approach of testing the capabilities of the facility for handling the waste. The safety basis is then customized for the unique characteristics of the waste that would be characterized and repackaged. At least eight months will be required for an approved Authorization Basis change to allow the facility to repackage and characterize these waste containers. Once the Authorization Basis is in place, LANL must arrange the transport of each container to the characterization facility in such a way that it is not removed from a permitted treatment/storage/disposal facility for more than one day (24-hour period).

TA-16 already possesses the calorimetry capability that is needed to analyze high levels of tritium that may be present, as well as the gloveboxes to protect workers, and the monitored stack to measure any tritium emissions. TA-54 lacks the calorimetry capability, the engineering controls, and the monitored stack needed for tritium work. Although TA-54 could be modified to perform the characterization, it would take considerably longer to purchase, fabricate, install, and obtain the Authorization Basis to operate the necessary capability than it would to perform the work at TA-16.

LANL intends to perform additional characterization of four waste containers (C00130818, C00130819, C00130820, C00130821) at TA-16 (or at TA-54 or another LANL facility if they can be authorized to conduct the work in a timely fashion). The additional Authorization Basis to accept the remaining containers at TA-16 or another LANL facility may not occur until the year 2013 due to the phased approach to establish the engineering and administrative controls for the Authorization Basis discussed above.

Perma-Fix expects the appropriate characterization to be completed before any arrangements are made to transport this waste. If the additional characterization demonstrates that tritium levels are significantly different from the current information, LANL may review the disposal options to determine if the waste may be treated, stored, or disposed of at another commercial facility.

LANL proposes to manage the remaining *High Activity Waste* in order to eliminate the onsite STP inventory of the *High Activity Waste* by end of 2013. First, LANL plans to characterize and repack certain containers of *High Activity Waste* in order to confirm that the most appropriate offsite treatment and disposal alternatives have been selected. The process required to characterize the waste will delay shipment until 2013. Second, LANL will continue to ship *High Activity Waste* offsite according to the schedule in Figure 5-1. Shipment of the remaining waste is contingent upon the Perma-Fix facility and the LANL facility having the appropriate Authorization Basis or new capabilities becoming available at other facilities.

LANL requests an extension of the milestone for shipment of the *High Activity Waste* items until December 31, 2013. Although many of the remaining items can be shipped offsite once they are more accurately characterized in 2010, 2011, and 2012, the currently permitted facilities may not have the capacity to accept the final waste until 2013 due to facility license limitations on inventory. Until that capacity is available, the only option is continued onsite storage of the waste.

There are no other proposed changes to the schedule in the CP of the STP.

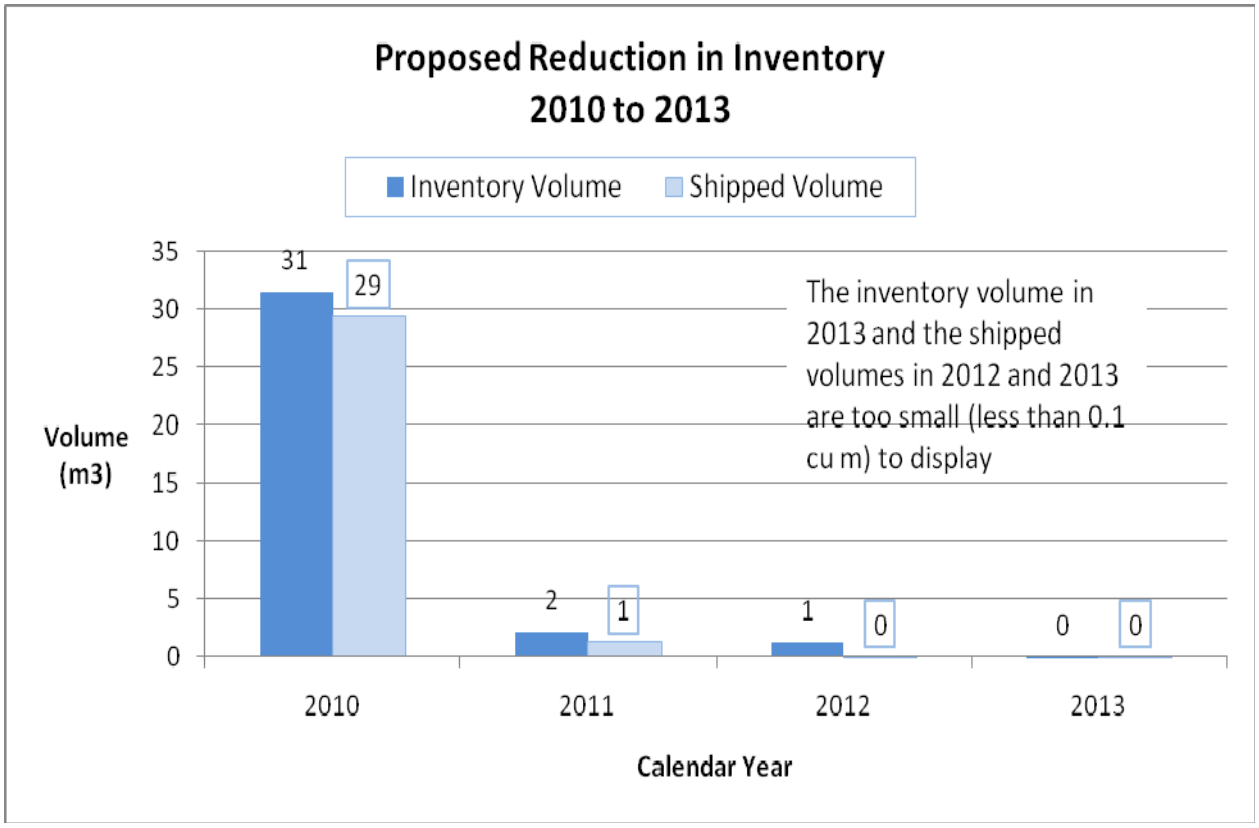

Figure 5-1: Proposed schedule for LA-W934 inventory reduction.

6.0 DETAILED DESCRIPTION OF THE PROPOSED REVISION

The purpose of this revision request is to reflect changes in the MLLW 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 redline/strikeout version provided to NMED.

LANL is proposing to revise the CP text to reflect the following changes in STP-covered MLLW inventories:

- Increases and decreases in covered mixed waste inventories due to the addition of new covered waste and offsite shipments during FY09;

- Extension of the Compliance Date for one mixed waste treatability group (LA-W934) as discussed in Part II Section 5.0

The CP changes are proposed in accordance with the applicable requirements in the FFCO, as amended: Section VIII, *Addition of New Covered Waste*; Section X.B.4, *Revisions*; and Section XI, *Deletion of Waste.*

6.1 Addition of New Covered Waste

LANL is requesting that the following waste be added to the STP as covered waste.

6.1.1 MLLW Waste Additions

The total volume of covered MLLW waste that is requested for addition is 9.2422 m^3 (9.1286 m^3 of new covered waste [Table 6.1.1-1] and 0.1136 m^3 of newly identified MLLW [Table C-1])..

Table 6.1.1-1: Proposed Addition of New Covered MLLW Waste

CP Section	MWIR Waste ID	Treatability Group	Volume (m^3)
3.1.11	LA-W908	*Nonhalogenated Organic Liquids*	0.0379
3.2	LA-W934	*High Activity Waste*	9.0907
		Total	**9.1286**

6.1.2 Mixed Transuranic (MTRU) Waste Additions

The total volume of new covered MTRU waste that is requested for addition is 35.2178 m^3 (Table 6.1.2-1).

Table 6.1.2-1: Proposed Addition of New Covered MTRU Waste

CP Section	Treatability Group	Volume (m^3)
4.0	*Combined Combustible-Noncombustible Waste*	25.7920[1]
4.0	*Metallic Waste*	2.5618[2]
4.0	*Solidified Inorganic and Organic Waste*	6.8640[1]

	Total	**35.2178**

[1] Includes new covered wastes from TA-55 that were transferred to TA-54
[2] New covered wastes at TA-55

6.2 Deletion of Covered Waste

Both MLLW and MTRU wastes were shipped offsite for treatment and disposal or recycling or otherwise proposed as deleted waste.

6.2.1 Deletion of MLLW Waste

LANL is requesting that covered MLLW waste identified in Appendix B be deleted from the STP. These covered wastes were either shipped offsite for treatment and disposal or recycling, or in one case, were expended during analysis. The total volume of covered MLLW waste that is requested for deletion under this Revision to the CP is 217.7717 m^3 (Appendix B, Tables B-1 and B-2).

6.2.2 Deletion of MTRU Waste

LANL is requesting that a total of 300.7085 m^3 of covered MTRU waste be deleted from the STP (. These covered wastes were shipped offsite for disposal at WIPP. Details of the offsite shipments are given in Appendix F.

6.2.3 Other Deletions of FY09 Waste

No waste is proposed for deletion due to recycling or onsite treatment in FY09. No waste was shipped offsite for treatability studies.

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

LANL is requesting adjustments to the original (October 4, 1995) STP-covered MLLW inventory as listed in Appendix C (Table C-1). 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

LANL is requesting adjustments (Appendix G, Tables G-1 and G-2) 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 to 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.

6.5 Extension of Milestone Activity Dates

Because treatment options are not available for all remaining waste in the LA-W934 waste stream, LANL is requesting extensions of the compliance milestones for these wastes (Table 6.5-1) as discussed in Part II, Section 5.0.

Table 6.5-1: Proposed Extensions of Milestone Activity Compliance Dates

Milestone Activity	Treatability Group	Revision 19 Compliance Date	Proposed Extended Compliance Date	Rationale For Proposed Extension
3.2(J)	*LA-W934 High Activity Waste*	12/31/2010	12/31/2013	An extension of this compliance date is requested because there is no path forward at this time for some of this waste stream and because LANL must more fully characterize some of the waste to confirm.

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 Extension of Proposed Milestones

LANL is requesting an extension of the milestone for the LA-W934 waste stream due to the lack of treatment facilities that could treat and dispose of these wastes and the need to further characterize some of the waste. Section 5.0 of Part II contains a detailed justification for the extension.

7.2 Addition of New Covered Waste

Waste that was newly generated in FY08, which was not treated within 12 months of generation, became new covered waste during FY09 (see Appendices A and E). In addition, TRU wastes, which were 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 offsite commercial facilities during FY09, and the analysis of one MLLW item, which was expended during analysis. Deletion of this covered waste is proposed in order to more accurately reflect the LANL STP inventory as of the end of FY09.

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 are proposed in order to more accurately reflect the LANL STP inventory as of the end of FY09.

8.0 ANTICIPATED LENGTH OF ANY DELAY IN PERFORMANCE

In accordance with FFCO Section X.C.2.c, LANL does not anticipate any delay in performance for any other proposals stated in this requested revision to the CP of the STP.

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 20

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 offsite 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 NMAC 4.1, which 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 have been identified and developed. For the waste that will be treated onsite, 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 the 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 have been identified and developed, or the treatment technology must be modified or adapted to apply to such waste. For the waste that will be treated onsite, the categories of activities for compliance dates are identified in Table 2.1.2-1 and shall apply. Compliance dates for the activities identified in Table 2.1.2-1 may be found in Part III, Section 3.1.

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 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

Offsite 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 offsite for recycling are discussed under Part III, Section 2.6. All activities and compliance dates related to the construction, permitting, and operation of onsite treatment skids were removed from this document. This change was due to the increased availability of offsite treatment and disposal capacity for mixed waste. Respondents will continue evaluating new commercial and DOE offsite treatment facilities as potential options for managing mixed waste, as they become available.

2.3 Plans for Mixed Waste to be Shipped Offsite for Treatment

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

DOE shall notify the NMED Project 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 Project Manager shall approve in writing the proposed offsite noncommercial treatment option proposed by DOE prior to any shipment by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment/recycling facility. Activities for mixed waste to be shipped offsite for treatment/recycling at a noncommercial facility are identified in Table 2.3-2.

Table 2.3-1: Activities for Offsite 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 offsite facility for treatment or recycling within 45 working days of receipt of waste at the treatment facility.

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 prior to shipment should DOE ship mixed low-level waste (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 Project Manager in writing as soon as possible, and in any event within thirty (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 that treatment and schedules are approved by DOE-ID 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

In the case that Oak Ridge Reservation (ORR) may not dispose of mixed-waste residues or new waste streams generated from offsite 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 Project Manager in writing as soon as possible, and in any event within thirty (30) working days after receipt of shipment of treatment residuals or newly generated waste streams from ORR.

Table 2.3-2: Activities for Shipment Offsite 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 offsite shipment.
C.	Provide documentation to NMED of confirmation of shipment date within 14 working days prior to sending waste to an offsite facility for treatment, disposal, or recycling, or storage pending treatment, disposal, or recycling.
D.	Provide documentation to NMED that waste has been received at an offsite facility for treatment within 45 working days of receipt of waste at the offsite 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.

2.4 Requirements Pertaining to Radionuclide Separation

The FFCA sets additional requirements in cases in which DOE intends to conduct radionuclide separation of mixed waste. Should the 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 a 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 which may contain compliance dates related to treatment of the 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.

DOE will notify the NMED when offsite treatability studies are conducted on STP waste. Treatability studies are used to explore alternative treatment options that may be practical for any or all of the STP mixed waste streams. When preparing waste for shipment for an offsite treatability study, DOE will

evaluate the potential for incidental waste treatment or secondary waste generation, which are often associated with treatability studies.

2.6 Recycling/Re-Use

Respondent will pursue onsite or offsite 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 offsite for treatment. Any and all requirements by the recycling facility and state regulatory, federal regulatory, or other regulatory requirements applicable at the recycling site shall be met by Respondents.

DOE shall notify the NMED Project Manager in writing as soon as possible if mixed waste is planned to be sent to an offsite 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 Project Manager shall approve in writing the proposed offsite noncommercial recycling option prior to any shipment by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (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.

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 offsite for treatment. DOE will provide a notification letter to the NMED within forty-five days, in place of documentation, that waste was received at a recycling facility.

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 at recycling facility within 45 working days of receipt of waste at the recycling facility.

2.7 Onsite Radiological Decontamination

DOE will pursue onsite 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 at recycling facility 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 (formerly known as LLMW) at LANL. All preferred 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 has been modified through the revision process in the FFCO. The tables in the STP Background (Part I) Appendices A–M of the FY09 STP 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 this 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 have been assigned Activities and Compliance Dates unique to that subgroup, those subgroups are detailed in the text. Activities and Compliance Dates that have been 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 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	Net volume (m^3)
IPA wastes	LA-W901	D001, D009, F002, F003, F005	0.00
Scintillation fluids	LA-W902	D001, F003, F005	0.00
Totals			**0.00**

*MWIR is Mixed Waste Inventory Report

Treatment:
The waste will be treated at an offsite 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	Net volume (m^3)
Lead Blankets	LA-W903	D007, D008	0.00
Soil With Heavy Metals	LA-W904	D004, D005, D006, D007, D008, D009, D010, D011	0.00
ER Soils	LA-W905	D028, D029, F001, F005 D010, D011	0.00
Totals			**0.00**

Treatment:
The waste will be treated at an offsite 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	Net volume (m^3)
Aqueous Organic Liquids	LA-W906-0 LA-W906-4 LA-W906-5	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	0.00

Totals			**0.00**

Table 3.1.3-2: Additional Treatability Groups for Aqueous Organic Liquids

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
Aqueous Organic Liquids	LA-W906-6 LA-W906-9 LA-W906-10 LA-W906-15	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	0.00
Totals			**0.00**

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	Net volume (m^3)
Organic-Contaminated Combustible Solids	LA-W911	D001, D004, D008, D009, F001, F002, F003, F005	0.00
Totals			**0.00**

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

Treatability group	MWIR waste ID	RCRA codes	Net 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	0.2082[1]
Totals			**0.2082**

[1] This waste was previously covered MTRU waste in the CMR/TA-55 Inventory; it was reclassified as MLLW.

Table 3.1.4-3: Activities and Compliance Dates for Organic-Contaminated Solids

Activity	Compliance Dates
A. Complete shipping of existing wastes to an offsite treatment facility or complete parallel option	12/31/10

B.	Provide documentation to NMED that waste was received at offsite facility or provide notification of parallel option	Within 45 days of receipt of waste at treatment facility or within 45 days after completion of parallel option

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	Net volume (m^3)
Combustible Debris	LA-W912	D001, D002, D003, D005, D006, D007, D008, D009, D011, D035, F001, F002, F003, F005	0.00
Activated Or Inseparable Lead	LA-W921	D008	0.00
Noncombustible Debris	LA-W922 LA-W922-17	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011	0.00 0.00
Totals			**0.00**

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	Net volume (m^3)
Aqueous Wastes With Heavy Metals	LA-W913	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011	0.00
Corrosive Solutions	LA-W914	D001, D002	0.00
Aqueous Cyanides, Nitrates, Chromates, And Arsenates	LA-W915	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, F007, P029, P098	0.00
Totals			**0.00**

3.1.7 Water-Reactive Metal

Table 3.1.7-1: Treatability Groups for Water-Reactive Metal

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
Water-Reactive Wastes	LA-W916	D001, D003, D004, D005, D007, D008, D010, D011	0.00
Totals			**0.00**

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	Net volume (m^3)
Compressed Gases Requiring Scrubbing	LA-W917	D001, D002, P056	0.00
Totals			**0.0000**

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	Completed 9/30/09
B. Provide documentation to NMED that waste was received at offsite facility or provide notification of parallel option	Within 45 days of receipt of waste at treatment facility or within 45 days after completion of parallel option

3.1.9 Compressed Gases Requiring Oxidation

Table 3.1.9-1: Treatability Groups Requiring Oxidation

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
Compressed Gases Requiring Oxidation	LA-W918	D001, U226	0.00
Totals			**0.00**

Table 3.1.9-2: Activities and Compliance Dates for Compressed Gases Requiring Oxidation

Activity	Compliance Dates
A. Complete shipping of existing wastes to an offsite treatment facility or complete parallel option	Completed 9/30/09
B. Provide documentation to NMED that waste was received at offsite facility or provide notification of parallel option	Within 45 days of receipt of waste at treatment facility or within 45 days after completion of parallel option

3.1.10 Elemental Mercury

Table 3.1.10-1: Treatability Groups for Elemental Mercury

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
Elemental Mercury	LA-W920 LA-W920-16	D006, D009, F005	0.00 0.00
Totals			**0.00**

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, Liquid and Solid Oxidizers

Treatability Group	MWIR waste ID	*RCRA codes*	Net 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	0.00

Treatability Group	MWIR waste ID	*RCRA codes*	Net volume (m^3)
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	0.00
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	0.00 0.00 0.00 0.00
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	0.00 0.00
Totals			**0.00**

Table 3.1.11-2: Additional Treatability Groups

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
Liquid And Solid Oxidizers	LA-W923	D001, D003, D005	0.00

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*	Net volume (m^3)
Lead Wastes - TBD	LA-W924	D003, D008	0.00
Mercury Wastes - TBD	LA-W925-0	D007, D008, D009, F001	0.00
Compressed Gases - TBD	LA-W926	D001, D007, D009, D022, P056, U080, U226	0.00

Treatability group	MWIR waste ID	*RCRA codes*	Net volume (m^3)
Biochemical Laboratory Wastes	LA-W927	D001, D003	0.00
Dewatered Treatment Sludge	LA-W928		0.00
Totals			**0.00**

Table 3.2-2: Additional Wastes Requiring Characterization or Assessment

Treatability Group	MWIR Waste ID	RCRA Codes	Net Volume (m3)
Lead Wastes - TBD	LA-W924-15 LA-W924-16 LA-W924-17	D003, D008	0.00 0.00 0.00
Mercury Wastes – TBD	LA-W925-4 LA-W925-5 LA-W925-6 LA-W925-15 LA-W925-16 LA-W925-17 LA-W925-18	D003, D007, D008, D009 F001, F002, F005	0.00
Explosives	LA-W932	D003	0.00
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	0.00
High Activity Waste	LA-W934 LA-W934-16 LA-W934-19 LA-W934-20	D001, D003, D008, D009	31.5012
Totals			31.5012

Table 3.2-3: Activities and Compliance Dates for Wastes Requiring Characterization or Assessment

Activity	Compliance Dates
G. Complete sampling and analysis plan	1/30/99
H. Complete sampling and analysis	9/30/01

Activity	Compliance Dates
I. Complete determination of treatment options	12/20/01
J. Complete shipping of wastes to an offsite treatment facility, or submit documentation assigning waste items to applicable treatability groups or complete parallel option	12/31/13
K. Provide documentation to NMED that waste was received at offsite facility or provide notification of parallel option	Within 45 days of receipt of waste at offsite facility or within 45 days after completion of parallel option

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 Net volume (m^3)	Second Category Net volume (m^3)	Totals Net volume (m^3)
Lead For Surface Decontamination	LA-W930-0 LA-W930-5	0.00	0.00	0.00
Totals		**0.00**	**0.00**	**0.00**

Treatment:

Any lead not acceptable for onsite or offsite lead decontamination, plus any lead unsuccessfully decontaminated, will be designated in the following two categories: 1) for treatment and disposal at an offsite facility or 2) for recycle through an offsite 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.

Table 3.3.1-2: Additional Wastes for Lead Decontamination

Treatability group	MWIR waste ID	First Category Net volume (m^3)	Second Category Net volume (m^3)	Totals Net volume (m^3)
Lead For Surface Decontamination	LA-W930-6	0.00	0.00	0.00
Totals		**0.00**	**0.00**	**0.00**

3.3.2 Sorting, Surveying, and Decontamination

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

Treatability group	MWIR waste ID	Net volume (m^3)
Nonradioactive Or Suspect Waste Items To Be Surveyed	LA-W929-0(1)	0.00
Nonradioactive Or Suspect Waste Items To Receive RCRA And Radiological Characterization	LA-W929-0(2)	0.00
Nonradioactive Or Suspect Waste Items That Cannot Or Should Not Be Sampled	LA-W929-0(3)	0.00
Totals		**0.00**

Table 3.3.2 - 2: Additional Wastes for Sorting, Surveying, and Decontamination

Treatability group	MWIR waste ID	Net volume (m^3)
Nonradioactive Or Suspect Waste Items	LA-W929-5	0.00
Totals		**0.00**

3.3.3 Lead Requiring Sorting

Table 3.3.3-1: Treatability Groups for Lead Requiring Sorting

Treatability Group	MWIR waste ID	RCRA Codes	Net Volume (m^3)
Lead Requiring Sorting	LA-W931	D008	0.00
Totals			0.00

Treatment:

Wastes in this treatability group are generally heterogeneous and 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 have been 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 3.3.4-2: Treatability Groups for 10-100 nCi/g Waste

Treatability Group	MWIR waste ID	RCRA Codes	Net Volume (m^3)
10-100 nCi/g	LA-W935 LA-W935-19 LA-W935-20	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	**14.2128**
Totals			**14.2128**

Treatment:

Wastes in this treatability group are a population of legacy drums packaged and managed as MTRU (>100 nCi g) but, after assay, are 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 low-level waste population and drums are relabeled appropriately. A Chemical Waste Disposal Request is prepared to transfer the drums from the TRU database to the ChemLL database. TRU programs will be notified of the drums reclassified from TRU to MLLW for evaluation of possible other drums based on waste stream. Central Characterization Project (CCP) will be notified for removal of drums from Acceptable Knowledge (AK).

The drum numbers will be submitted to Production Control for retrieval and staging as MLLW prior to offsite disposal. The MLLW drums are prepared for treatment and disposal to an offsite facility using CCP-AK documentation and onsite and offsite profiles generated for debris or sludge drums.

Table 3.3.4-3: Activities and Compliance Dates for 10-100 nCi/g Waste

Activity	Compliance Dates
A. Complete assaying	12/01/13
B. Complete shipment of existing waste to offsite facility for treatment, or complete parallel options.	12/31/13
C. Provide documentation to NMED that waste was received at offsite facility or provide notification of parallel option	Within 45 days of receipt of waste at treatment facility or within 45 days after completion of parallel option

3.4 Management of "Missing" Items

Table 3.4-1: Waste Category for "Missing Waste"

Category	MWIR waste ID	Net volume (m^3)
Missing/Nonexistent/TBV	None	0.00
Totals		**0.00**

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 containers in which it is expected to be, according to the LANL data files for the waste item. In some instances, such items cannot be verified as having ever been received in storage at LANL, and follow-up investigations of the record files reveal that for various reasons, the waste items were never in fact generated, although on paper they were included in the original STP inventory.

Some items were determined not to exist after visual inspection and document review. When LANL determines 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 the revision process associated with the next Annual Update.

DOE will verify the absence of all "*Missing/nonexistent/TBV*" items container-by-container, as each STP waste item is being sampled, repackaged, or otherwise prepared for on- or offsite treatment. The final verification of all "*Missing/nonexistent/TBV*" items will be completed by April 21, 2004, at which time all remaining MLLW items in the original STP inventory will have been treated. At that time, LANL will request deletion of all missing or nonexistent items from the STP.

At any time during the re-verification process, should any of these items be discovered to exist, NMED will be notified, and approval will be requested for assignment of the rediscovered items to the appropriate treatability group. If necessary, they will 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

Offsite Disposal:

MTRU waste at LANL will be shipped for disposal at the WIPP located in Carlsbad, New Mexico. The schedule for characterization and subsequent offsite shipment to WIPP will be dependent on the annual DOE budget allocation specific to this activity.

APPENDIX A. CURRENT YEAR MLLW INVENTORY DETAIL

TABLE A-1: FY09 MLLW Inventory[1] Detailed Update by Treatability Group

CP* Sec.	MWIR* Waste ID and Treatability Group/Category	FY08 Annual Update (m^3) [1]	Proposed Revision 20.0 (m^3)	Comments[2]	FY09 Annual Update (m^3)	Projection FY10-FY14 (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	0.1136	Administrative Adjustment - reclassified from LLW inventory	0	0
			-0.1136	Shipped offsite for treatment/disposal		
3.1.4	LA-W919 *Organic-Contaminated Noncombustible Solids*	0.2082	0		0.2082	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

CP* Sec.	MWIR* Waste ID and Treatability Group/Category	FY08 Annual Update (m^3) [1]	Proposed Revision 20.0 (m^3)	Comments[2]	FY09 Annual Update (m^3)	Projection FY10-FY14 (m^3)
3.1.7	LA-W916 *Water-Reactive Wastes*	0	0		0	
3.1.8	LA-W917 *Compressed Gases Requiring Scrubbing*	0.0080	-0.0080	Shipped offsite for treatment/disposal	0	0
3.1.9	LA-W918 *Compressed Gases Requiring Oxidation*	0.0602	-0.0602	Shipped offsite for treatment/disposal	0	0
3.1.10	LA-W920 *Elemental Mercury*	0	0		0	
3.1.11	LA-W907 *Halogenated Organic Liquids*	0	0		0	0
3.1.11	LA-W908 *Nonhalogenated Organic Liquids*	0	0.0379	New Covered[3]	0	0
			-0.0379	Shipped offsite for treatment/disposal		
3.1.11	LA-W909 *Bulk Oils*	0	0		0	0
3.1.11	LA-W910 *Polychlorinated Biphenyl (PCB) Wastes with Resource Conservation and Recovery Act (RCRA) Components*	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	
3.2	LA-W925 *Mercury Wastes – TBD*	0.4732	-0.3787	Shipped offsite for treatment/disposal	0	0
			-0.0945	Administrative Adjustment		
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	
3.2	LA-W933 *Lab Packs*	0	0		0	0

CP* Sec.	MWIR* Waste ID and Treatability Group/Category	FY08 Annual Update (m^3) [1]	Proposed Revision 20.0 (m^3)	Comments[2]	FY09 Annual Update (m^3)	Projection FY10-FY14 (m^3)
3.2	LA-W934 *High Activity Waste*[3]	43.4366	-0.2082	Administrative Adjustment	31.5012	0.1000
			9.0907	New Covered[2]		
			-20.8169	Shipped offsite for treatment/disposal		
			-0.0010	Analyzed and expended in analysis		
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*[3]	14.3658	196.1933	Administrative Adjustment	14.2128	625.0000[3]
			-196.3463	Shipped offsite for treatment/disposal		
3.4	*Missing/ nonexistent/ TBV category*	0	0		0	N/A
	TOTALS	**58.5520**			**45.9222**	

[*] CP is Compliance Plan; MWIR is Mixed Waste Inventory Report
[1] MLLW waste volumes are calculated using the conversion: 55-gallon container = 0.2082 m^3; 85-gallon container = 0.3215 m^3
[2] New covered waste is mixed waste that was newly generated in the previous FY and became subject to the STP in the current FY.
[3]
[3] Shipment details are in Appendix B; Administrative adjustments are in Appendix C.
[4] LANL anticipates that a large volume of formerly TRU and MTRU waste will be retrieved beginning in FY10 and will be reclassified to LA-W935. As a conservative measure, the reclassified TRU waste will be assigned hazardous waste codes and will be managed as mixed STP waste.

APPENDIX B. CURRENT YEAR MLLW SHIPMENT DETAIL

Table B-1. MLLW Shipped Offsite for Treatment and Disposal in FY09

CP Section	MWIR No.	Treatability Group	Manifest Number	Destination	Date Shipped	Date NMED Notified	Volume (m^3)
3.1.4	LA-W911	*Organic-Contaminated Combustible Solids*	000364126JJK	Perma-Fix/FL	4/16/2009	5/29/2009 (ENV-RRO-09-041)	0.1136
						LA-W911 Total	**0.1136**
3.1.8	LA-W917	*Compressed Gases Requiring Scrubbing*	000364336JJK	Perma-Fix/M&EC	9/24/2009	10/26/2009 (ENV-RRO-09-074)	0.0080
						LA-W917 Total	**0.0080**
3.1.9	LA-W918	*Compressed Gases Requiring Oxidation*	000364336JJK	Perma-Fix/M&EC	9/24/2009	10/26/2009 (ENV-RRO-09-074)	0.0602
						LA-W918 Total	**0.0602**
3.1.11	LA-W908	*Nonhalogenated Organic Liquids*	000364082JJK	Perma-Fix/Florida	3/12/2009	4/8/2009 (email) and 4/23/2009 (ENV-RRO-09-028)	0.0379
						LA-W908 Total	**0.0379**
3.2	LA-W925	*Mercury Wastes*	000364336JJK	Perma-Fix/M&EC	9/24/2009	10/22/2009 (RRO-09-076)	0.0379
3.2	LA-W925	*Mercury Wastes*	000364207JJK	EnergySolutions	9/29/2009	11/6/2009 (ENV-RRO-09-080)	0.3408
						LA-W925 Total	**0.3787**
3.2	LA-W934	*High Activity Waste*	000364123JJK	Perma-Fix/Florida	4/16/2009	5/29/2009 (ENV-RRO-09-040)	0.2082
3.2	LA-W934	*High Activity Waste*	000364178JJK	Perma-Fix/M&EC	6/18/2009	7/24/2009 (ENV-RRO-09-048)	0.3408
3.2	LA-W934	*High Activity Waste*	000364197JJK	Perma-Fix/NW	7/13/2009	8/17/2009 (ENV-RRO-09-057)	19.7378
3.2	LA-W934	*High Activity Waste*	000364338JJK	Perma-Fix/M&EC	9/24/2009	10/22/2009 (ENV-RRO-075)	0.3408
3.2	LA-W934	*High Activity Waste*	000364207JJK	EnergySolutions	9/30/2009	11/9/2009 (ENV-RRO-09-082)	0.1893
						LA-W934 Total	**20.8169**
3.3.4	LA-W935	*10-100 nCi/g Waste*	00036034JJK	Perma-Fix/NW	1/15/2009	2/25/2009 (ENV-RRO-09-013	1.2676[1]
3.3.4	LA-W935	*10-100 nCi/g Waste*	000364085JJK	Perma-Fix/NW	3/12/2009	4/28/2009 (ENV-RRO-09-029)	3.1230
3.3.4	LA-W935	*10-100 nCi/g Waste*	000364091JJK	Perma-Fix/NW	3/26/2009	5/7/2009 (ENV-RRO-09-030)	1.0410
3.3.4	LA-W935	*10-100 nCi/g Waste*	000364102JJK	Perma-Fix/NW	4/9/2009	5/14/2009 (ENV-RRO-09-031)	1.9106[1]
3.3.4	LA-W935	*10-100 nCi/g Waste*	000364109JJK	Perma-Fix/NW	4/23/2009	5/29/2009 (ENV-RRO-09-039)	1.4574
3.3.4	LA-W935	*10-100 nCi/g Waste*	000364131JJK	Perma-Fix/NW	5/7/2009	6/15/2009 (ENV-RRO-09-043)	1.2492
3.3.4	LA-W935	*10-100 nCi/g Waste*	000364159JJK	Perma-Fix/M&EC	6/4/2009	6/30/2009 (ENV-RRO-044)	17.6205

CP Section	MWIR No.	Treatability Group	Manifest Number	Destination	Date Shipped	Date NMED Notified	Volume (m^3)
3.3.4	LA-W935	*10-100 nCi/g Waste*	000364154JJK	Perma-Fix/NW	6/11/2009	7/24/2009 (ENV-RRO-09-046)	2.0239
3.3.4	LA-W935	*10-100 nCi/g Waste*	000364180JJK	Perma-Fix/M&EC	6/18/2009	7/24/2009 (ENV-RRO-09-047)	19.1854
3.3.4	LA-W935	*10-100 nCi/g Waste*	000364183JJK	Perma-Fix/M&EC	6/25/2009	8/11/2009 (ENV-RRO-09-056)	18.647
3.3.4	LA-W935	*10-100 nCi/g Waste*	000364209JJK	Perma-Fix/M&EC	7/16/2009	8/17/2009 (ENV-RRO-09-058)	18.647
3.3.4	LA-W935	*10-100 nCi/g Waste*	000364215JJK	Perma-Fix/M&EC	7/23/2009	8/17/2009 (ENV-RRO-09-059)	14.5711[1]
3.3.4	LA-W935	*10-100 nCi/g Waste*	000364243JJK	Perma-Fix/FL	8/6/2009	9/18/2009 (ENV-RRO-09-063)	18.6983
3.3.4	LA-W935	*10-100 nCi/g Waste*	000364256JJK	Perma-Fix/M&EC	8/20/2009	9/18/2009 (ENV-RRO-09-064)	17.0724
3.3.4	LA-W935	*10-100 nCi/g Waste*	000364264JJK	Perma-Fix/M&EC	9/2/2009	10/1/2009 (ENV-RRO-09-068)	15.2112
3.3.4	LA-W935	*10-100 nCi/g Waste*	000364362JJK	Perma-Fix/M&EC	9/17/2009	10/19/2009 (ENV-RRO-09-072)	20.0308
3.3.4	LA-W935	*10-100 nCi/g Waste*	000364364JJK	Perma-Fix/M&EC	9/24/2009	10/19/2009 (ENV-RRO-09-073)	21.6383
3.3.4	LA-W935	*10-100 nCi/g Waste*	000364378JJK	Perma-Fix/NW	9/28/2009	11/9/2009 (ENV-RRO-09-079)	2.9516
						LA-W935 Total	**196.3463**
						Grand Total	**217.7617**

[1] Volumes shipped are different from volumes reported in the referenced notification letter.

Table B-2. Other Deleted MLLW

CP Section	MWIR No.	Treatability Group	Disposition	Date of Action	Date NMED Notified	Volume (m^3)
3.2	LA-W934	*High Activity Waste*	Sent for analysis and expended in analysis process	12/2/2008	Revision 20 STP Annual Update	**0.0100**

APPENDIX C. CURRENT YEAR MLLW ADMINISTRATIVE ADJUSTMENTS

Table C-1. Administrative Adjustments

CP Section	MWIR Number	Administrative Adjustment	Volume (m^3)
3.1.4	LA-W911	LLW reclassified as MLLW (LA-W911)	0.1136
		Total Net Adjustments for LA-W911	**0.1136**
3.2	LA-W925	Volume of item (0.1136 m^3) reported in FY08 as (0.2082 m^3)	-0.0946
	LA-W925	Rounding adjustment	0.0001
		Total Net Adjustments for LA-W925	**-0.0945**
3.2	LA-W934	Database correction - transferred to MTRU STP Inventory in a prior year	-0.2082
		Total Net Adjustments for LA-W934	**-0.2082**
3.3.4	LA-W935	Recharacterized as MLLW (LA-W935) from LLW inventory	0.2082
3.3.4	LA-W935	Transferred into LA-W935 from MTRU STP Inventory	195.9851[1]
		Total Net Adjustments for LA-935	**196.1933**
		Total Net Adjustments	**196.0042**

[1] Volume of waste transferred to MLLW (LA-W934) calculated using the MLLW convention of converting gallons to cubic meters (55 gallons = 0.2082 m^3**; 85 gallons = 0.3215 m^3**); the equivalent volume removed from the MTRU Inventory was 195.8935 **m^3**

APPENDIX D. PREVIOUS YEAR MLLW INVENTORY DETAIL

TABLE D-1: FY08 MLLW Inventory Detailed Update by Treatability Group

CP* Sec.	MWIR* Waste ID and Treatability Group/Category	FY07 Annual Update (m^3)	Proposed Revision 19.0 (m^3)[1]	Comments[2]	FY08 Annual Update (m^3)	Projection FY09-FY13 (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	0.2082	Administrative Adjustment: reclassified from Covered MTRU Inventory at CMR/TA-55 to MLLW Inventory LA-W919	0.2082	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*	0.0015	-0.0015	Shipped to Perma-Fix (FL) – 9/22/2008	0	2.0000
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	

CP* Sec.	MWIR* Waste ID and Treatability Group/Category	FY07 Annual Update (m^3)	Proposed Revision 19.0 (m^3)[1]	Comments[2]	FY08 Annual Update (m^3)	Projection FY09-FY13 (m^3)
3.1.8	LA-W917 *Compressed Gases Requiring Scrubbing*	0.0080	0		0.0080	0
3.1.9	LA-W918 *Compressed Gases Requiring Oxidation*	0.0602	0		0.0602	0
3.1.10	LA-W920 *Elemental Mercury*	0	0		0	
3.1.11	LA-W907 *Halogenated Organic Liquids*	0	0		0	0
3.1.11	LA-W908 *Nonhalogenated Organic Liquids*	0.0009	-0.0009	Shipped to Perma-Fix (FL) – 9/22/2008	0	0
3.1.11	LA-W909 *Bulk Oils*	0	0		0	0
3.1.11	LA-W910 *Polychlorinated Biphenyl (PCB) Wastes with Resource Conservation and Recovery Act (RCRA) Components*	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	
3.2	LA-W925 *Mercury Wastes – TBD*	0.6814	-0.2082	Shipped to M&EC – 3/17/2008	0.4732	1.5000
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	
3.2	LA-W933 *Lab Packs*	0	0		0	2.0000

CP* Sec.	MWIR* Waste ID and Treatability Group/Category	FY07 Annual Update (m^3)	Proposed Revision 19.0 (m^3)[1]	Comments[2]	FY08 Annual Update (m^3)	Projection FY09-FY13 (m^3)
3.2	LA-W934 *High Activity Waste*[3]	42.1506	7.8167 1.2860 7.0788 -14.8955[5]	Administrative Adjustment (reclassified from Covered MTRU Inventory) New Covered[4] Administrative Adjustment (reclassified from LA-W935 to LA-W934) Shipped to M&EC - 8/4/2008 (7.8167 m^3 reclassified from MTRU and 7.0788 reclassified from LA-W935; no existing waste shipped)	43.4366	0.1000
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*[3]	13.1166	23.5266	Administrative Adjustment (reclassified from LA-W935 from Covered MTRU Inventory)	14.3658	251.0000
			-16.0314	Shipped to M&EC -4/14/2008 (11.6592 m^3 existing waste and 4.3722 m^3 waste reclassified from covered MTRU)		
			-7.0788	Administrative Adjustment (Decreased inventory through reclassification of waste as LA-W934 from LA-W935)		
			0.8328	Administrative Adjustment (Waste scheduled to ship in FY07 was returned to inventory in FY08)		
3.4	*Missing/ nonexistent/ TBV category*	0	0		0	N/A
	TOTALS	**56.0192**[6]			**58.5520**	

[*] CP is Compliance Plan; MWIR is Mixed Waste Inventory Report
[1] MLLW waste volumes are calculated using the conversion: 55 gallon container = 0.2082 m^3
[2] Unless otherwise noted, shipment volumes refer to existing waste
[3] Some of the MTRU waste that was reclassified to MLLW in FY08 was assigned to LA-W934 because the status of LA-W935 had not been fully resolved by approval of the annual update. For the same reason, some waste that was initially reclassified as LA-935 was reassigned to LA-W934.
[4] New covered waste is mixed waste that was newly generated in the previous FY and became subject to the STP in the current FY.
[5] Shipped volume in the *Completion of Shipment* notice dated September 8, 2008 (ENV-RCRA-08-185) was reported as 14.78 m^3, rather than 14.8955 m^3; one container was actually 0.3215 m^3, rather than the reported volume of 0.2082 m^3
[6] Table 2.1-1 contains an adjustment of -0.0008 m^3, which is not necessary in Table 2.1-2 because the total volume in Table 2.1-2 is already expressed to four decimal places.

APPENDIX E. CURRENT MTRU INVENTORY DETAIL

Table E-1. TA-54 MTRU Covered Inventory (by Treatability Group[1, 2])

Treatability Group	FY08 Annual Update (m^3)	Proposed Revision 20.0 (m^3)	Comments[3]	FY09 Annual Update (m^3)[3]	Projection FY10-FY14 (m^3)
Cemented Sludge	**1321.9267**				
		0	New Covered[4]		
		-153.7025	Shipped Offsite		
		-177.6820	Administrative Adjustments		
			FY09 Subtotal *Cemented Sludge*	**990.5422 (90.542)**	**0**
Combustible - Noncombustible Waste	**1838.0604**				
		25.7920	New Covered		
		-116.6880	Shipped Offsite		
		90.824	Administrative Adjustments		
			FY09 Subtotal *Combustible-Noncombustible Waste*	**1837.9884 (1837.988)**	
Combustible Waste	**60.1212**				
		0	New Covered		
		-1.4560	Shipped Offsite		
		-21.5002	Administrative Adjustments		
			FY09 Subtotal *Combustible Waste*	**37.1650 (37.165)**	
Glass Waste	**1.4560**				
		0	New Covered		
		0	Shipped Offsite		
		-0.6240	Administrative Adjustments		
			FY09 Subtotal *Glass Waste*	**0.8320 (0.832)**	
Leaded Glovebox Waste	**10.4000**				
		0	New Covered		
		-0.2080	Shipped Offsite		
		-4.1600	Administrative Adjustments		
			FY09 Subtotal *Leaded Glovebox Waste*	**6.0320 (6.032)**	

Treatability Group	FY08 Annual Update (m^3)	Proposed Revision 20.0 (m^3)	Comments[3]	FY09 Annual Update (m^3)[3]	Projection FY10-FY14 (m^3)
Metallic Waste	**59.1499**				
		0	New Covered		
		-1.1980	Shipped Offsite		
		-1.8949	Administrative Adjustments		
			FY09 Subtotal *Metallic Waste*	**56.0570 (56.057)**	
Non-combustible Waste	**83.2470**				
		23.5040	New Covered		
		-3.9520	Shipped Offsite		
		7.3935	Administrative Adjustments		
			FY09 Subtotal *Noncombustible Waste*	**86.6885 (86.689)**	
Solidified Inorganic and Organic Waste	**174.1585**				
		6.8640	New Covered		
		-23.5040	Shipped Offsite		
		0.0030	Administrative Adjustments		
			FY09 Subtotal *Solidified Inorganic and Organic Waste*	**157.5215 (157.522)**	
TOTAL	**3548.5197**		**Total FY09 Inventory**	**3172.8266 (3172.826)[5]**	

[1] MTRU waste volumes are calculated using the conversion: 55 gallon container = 0.2080 m^3.
[2] FY09 volumes are also represented to three decimal places to facilitate reporting waste volumes in FY10 in accordance with an agreement with NMED to report MTRU volumes to three decimal places.
[3] Shipping details are found in Appendix F and Administrative Adjustments are found in Appendix G
[4] New covered includes new covered waste transferred from TA-55; therefore, the transferred volumes are not included in administrative adjustments.
[5] The total can be expressed as 3172.826 m^3 by summing the rounded 3 decimal place subtotals for each treatability group or 3172.827 m^3 by rounding the original 4 decimal place total volume.

Table E-2: MTRU Inventory at TA-55 and CMR[1]

Location	FY08 MTRU Inventory (m^3)[1]	Treatability Group	Proposed Revision 20 (m^3)	Comments[2]	FY09 MTRU Inventory (m^3)
CMR	**2.7607**	*Combustible-Noncombustible Waste*	0.1793	Administrative Adjustment	**2.9400**
TA-55	**0.2080**	*Combustible-Noncombustible Waste*	0.2080	New Covered	**0**
		Combustible-	-0.4160	Administrative	

Location	FY08 MTRU Inventory (m^3)[1]	Treatability Group	Proposed Revision 20 (m^3)	Comments[2]	FY09 MTRU Inventory (m^3)
		Noncombustible Waste		Adjustment	
TA-55	**1.2480**	*Combustible Waste*	0		**1.2480**
TA-55	**34.2413**	*Metallic Waste*	2.5618	New Covered	**36.8031**
TA-55	**1.9000**	*Noncombustible Waste*	0		**1.9000**
TA-55	**0.9498**	*Solid Organic and Inorganic Waste*	0.2080	New Covered	**0.7380**
		Solid Organic and Inorganic Waste	-0.4198	Administrative Adjustment	
Total CMR/TA-55 Inventory	**41.3078**[3]				**43.6291**

[1] The CMR and TA-55 MTRU inventory was not separated into treatability groups in the FY08 Annual Update; in this annual update, the treatability groups have been broken out to provide consistency with the TA-54 Inventory in Table E-1.

[2] Shipping details are found in Appendix F and Administrative Adjustments are found in Appendix G. Since all waste is shipped from TA-54, there is no shipping data for CMR/TA-55, only transfers to TA-54.

[3] The total CMR/TA-55 volume at the end of FY08 was not explicitly stated in the FY08 Annual Report. The total volume shown is the sum of the inventory volume at the beginning of FY08 (45.5 m^3) and the adjustments (-4.1922 m^3) from Part I Table 2.2-1 of the FY08 Update.

APPENDIX F. FY09 MTRU WASTE SHIPMENTS TO WIPP

Table F-1: FY09 MTRU Shipments to WIPP

Treatability Group	Shipment Date	Existing Inventory Volume (m^3)	New Covered Volume (m^3)	Total Volume Removed from Inventory (Existing + New Covered) (m^3)	Total Volume Shipped (m^3)
Cemented Sludge	10/7/08	2.6095	0	2.6095	2.4960
	10/9/08	1.9855	0	1.9855	1.8720
	10/16/08	5.3135	0	5.3135	5.2000
	10/21/08	4.6140	0	4.6140	4.1600
	10/23/08	6.1650	0	6.1650	4.5760
	10/28/08	5.7110	0	5.7110	4.5760
	10/30/08	6.5810	0	6.5810	4.9920
	11/3/08	3.4230	0	3.4230	2.2880
	11/13/08	3.7445	0	3.7445	2.4960
	1/20/09	4.4815	0	4.4815	4.3680
	1/21/09	4.9355	0	4.9355	4.3680
	1/29/09	5.2760	0	5.2760	4.3680
	2/3/09	2.9500	0	2.9500	2.4960
	2/4/09	2.4395	0	2.4395	1.8720
	3/3/09	2.4960	0	2.4960	2.4960
	3/4/09	2.4960	0	2.4960	2.4960
	3/6/09	4.992	0	4.9920	4.9920
	3/10/09	4.9920	0	4.9920	4.9920
	3/11/09	4.9920	0	4.9920	4.9920
	3/12/09	4.9920	0	4.9920	4.9920
	3/18/09	9.9840	0	9.9840	9.9840
	3/24/09	2.4960	0	2.4960	2.4960
	3/30/09	3.3280	0	3.3280	3.3280
	4/14/09	5.7870	0	5.7870	3.7440
	4/21/09	4.8225	0	4.8225	3.1200
	4/28/09	7.4890	0	7.4890	4.9920
	6/2/09	5.6735	0	5.6735	3.7440
	6/3/09	7.7160	0	7.7160	4.9920
	6/9/09	3.2715	0	3.2715	2.7040
	6/17/09	5.1250	0	5.1250	3.5360
	6/23/09	2.8175	0	2.8175	2.7040
	7/8/09	5.2000	0	5.2000	5.2000
	7/10/09	3.1390	0	3.1390	2.9120
	7/14/09	1.6640	0	1.6640	1.6640

Treatability Group	Shipment Date	Existing Inventory Volume (m^3)	New Covered Volume (m^3)	Total Volume Removed from Inventory (Existing + New Covered) (m^3)	Total Volume Shipped (m^3)
Total Cemented Sludge		**153.7025**	**0**	**153.7025**	**130.2080**
Combustible-Noncombustible Waste	10/7/08	1.2480	0	1.2480	1.2480
	10/9/08	1.4560	0	1.4560	1.4560
	11/3/08	1.2480	0	1.2480	1.2480
	11/6/08	2.0800	0	2.0800	2.0800
	11/10/08	1.4560	0.4160	1.8720	1.8720
	11/13/08	1.0400	0	1.0400	1.0400
	1/20/09	1.4560	0	1.4560	1.4560
	1/21/09	1.4560	0.2080	1.6640	1.6640
	1/29/09	1.2480	0.4160	1.6640	1.6640
	2/3/09	2.4960	0	2.4960	2.4960
	2/4/09	3.9520	0.6240	4.5760	4.5760
	2/5/09	0.4160	0	0.4160	0.4160
	2/11/09	1.0400	0.2080	1.2480	1.2480
	2/12/09	1.8720	0	1.8720	1.8720
	2/13/09	1.4560	0.2080	1.6640	1.6640
	2/18/09	0.6240	0.4160	1.0400	1.0400
	2/19/09	0.4160	0.6240	1.0400	1.0400
	3/2/09	0.6240	0.2080	0.8320	0.8320
	3/3/09	0.4160	0.4160	0.8320	0.8320
	3/4/09	2.2880	0	2.2880	2.2880
	3/5/09	1.6640	0.4160	2.0800	2.0800
	3/9/09	1.6640	0.4160	2.0800	2.0800
	3/16/09	0.8320	0.2080	1.0400	1.0400
	3/23/09	0.2080	0.2080	0.4160	0.4160
	3/30/09	0.6240	0	0.6240	0.6240
	4/1/09	0.4160	0.4160	0.8320	0.8320
	4/6/09	0.2080	0.4160	0.6240	0.6240
	4/13/09	1.0400	0	1.0400	1.0400
	4/14/09	1.0400	0	1.0400	1.0400
	4/16/09	0.4160	0	0.4160	0.4160
	4/20/09	0.4160	0	0.4160	0.4160
	4/21/09	3.5360	0.4160	3.9520	3.9520
	4/22/09	1.2480	0.2080	1.4560	1.4560
	4/27/09	2.2880	0.2080	2.4960	2.4960
	6/1/09	0.8320	0.4160	1.2480	1.2480

Treatability Group	Shipment Date	Existing Inventory Volume (m^3)	New Covered Volume (m^3)	Total Volume Removed from Inventory (Existing + New Covered) (m^3)	Total Volume Shipped (m^3)
	6/2/09	1.4560	0	1.4560	1.4560
	6/3/09	0.8320	0	0.8320	0.8320
	6/8/09	0.0000	0.2080	0.2080	0.2080
	6/9/09	2.7040	0	2.7040	2.7040
	6/10/09	1.2480	0	1.2480	1.2480
	6/11/09	2.0800	0	2.0800	2.0800
	6/16/09	0.6240	0.2080	0.8320	0.8320
	6/17/09	2.7040	0	2.7040	2.7040
	6/18/09	0.8320	0	0.8320	0.8320
	6/19/09	0.8320	0.4160	1.2480	1.2480
	6/23/09	2.2880	0	2.2880	2.2880
	6/26/09	1.0400	0	1.0400	1.0400
	6/29/09	1.4560	0	1.4560	1.4560
	6/30/09	0.6240	0.2080	0.8320	0.8320
	7/1/09	1.0400	0.4160	1.4560	1.4560
	7/2/09	0.6240	0	0.6240	0.6240
	7/6/09	1.6640	0	1.6640	1.6640
	7/7/09	1.6640	0	1.6640	1.6640
	7/8/09	1.0400	0	1.0400	1.0400
	7/9/09	0.4160	0.4160	0.8320	0.8320
	7/10/09	0.2080	0.4160	0.6240	0.6240
	7/13/09	1.8720	0	1.8720	1.8720
	7/14/09	1.0400	0.2080	1.2480	1.2480
	7/15/09	1.0400	0	1.0400	1.0400
	7/16/09	2.2880	0.4160	2.7040	2.7040
	7/17/09	0.6240	0	0.6240	0.6240
	7/22/09	1.0400	0.4160	1.4560	1.4560
	7/28/09	1.6640	0.4160	2.0800	2.0800
	7/31/09	6.0320	0	6.0320	6.0320
	8/11/09	0.4160	0	0.4160	0.4160
	8/14/09	0.2080	0	0.2080	0.2080
	8/19/09	2.7040	0	2.7040	2.7040
	8/20/09	1.6640	0	1.6640	1.6640
	8/26/09	1.2480	0	1.2480	1.2480
	8/27/09	3.9520	0.2080	4.1600	4.1600
	9/1/09	0.2080	0	0.2080	0.2080
	9/3/09	5.2000	0	5.2000	5.2000
	9/11/09	0.4160	0	0.4160	0.4160

Treatability Group	Shipment Date	Existing Inventory Volume (m^3)	New Covered Volume (m^3)	Total Volume Removed from Inventory (Existing + New Covered) (m^3)	Total Volume Shipped (m^3)
	9/16/09	2.9120	0	2.9120	2.9120
	9/22/09	0.2080	0	0.2080	0.2080
	9/23/09	0.4160	0	0.4160	0.4160
	9/25/09	0.4160	0	0.4160	0.4160
Total Combustible-Noncombustible Waste		**105.6640**	**11.0240**	**116.6880**	**116.6880**
Combustible Waste	11/3/08	0.4160	0	0.4160	0.4160
	2/4/09	0.2080	0	0.2080	0.2080
	3/3/09	0.2080	0	0.2080	0.2080
	7/16/09	0.2080	0	0.2080	0.2080
	7/17/09	0.2080	0	0.2080	0.2080
	7/28/09	0.2080	0	0.2080	0.2080
Total Combustible Waste		**1.4560**	**0**	**1.4560**	**1.4560**
Leaded Glovebox Waste	9/16/09	0.2080	0	0.2080	0.2080
Total Leaded Glovebox Waste		**0.2080**	**0**	**0.2080**	**0.2080**
Metallic Waste	4/21/09	0.2080	0	0.2080	0.2080
	6/2/09	0.9900	0	0.9900	0.9900
Total Metallic Waste		**1.1980**	**0.6240**	**1.1980**	**1.1980**
Noncombustible Waste	2/11/09	0.2080	0	0.2080	0.2080
	6/8/09	0.8320	0	0.8320	0.8320
	6/30/09	1.2480	0	1.2480	1.2480
	7/10/09	1.4560	0	1.4560	1.4560
	7/14/09	0.2080	0	0.2080	0.2080
Total Noncombustible Waste		**3.9520**	**0**	**3.9520**	**3.9520**
Solidified Organic and Inorganic Waste	10/7/08	0.2080	0	0.2080	0.2080
	10/9/08	0.4160	0	0.4160	0.4160
	10/16/08	3.3280	0	3.3280	3.3280
	11/10/08	0.2080	0	0.2080	0.2080
	11/13/08	0.2080	0	0.2080	0.2080
	1/20/09	0.2080	0	0.2080	0.2080
	1/29/09	0.2080	0	0.2080	0.2080
	2/3/09	0.4160	0	0.4160	0.4160
	2/5/09	1.2480	0	1.2480	1.2480
	2/13/09	0.4160	0	0.4160	0.4160

Treatability Group	Shipment Date	Existing Inventory Volume (m^3)	New Covered Volume (m^3)	Total Volume Removed from Inventory (Existing + New Covered) (m^3)	Total Volume Shipped (m^3)
	2/18/09	0.4160	0	0.4160	0.4160
	2/19/09	0.4160	0	0.4160	0.4160
	3/2/09	0.2080	0	0.2080	0.2080
	3/3/09	0.2080	0	0.2080	0.2080
	3/4/09	0.2080	0	0.2080	0.2080
	3/5/09	0.4160	0	0.4160	0.4160
	3/16/09	0.2080	0	0.2080	0.2080
	3/23/09	0.2080	0	0.2080	0.2080
	4/1/09	0.6240	0	0.6240	0.6240
	4/13/09	0.2080	0	0.2080	0.2080
	4/20/09	0.2080	0	0.2080	0.2080
	4/22/09	0.0000	0	0.2080	0.2080
	4/27/09	0.0000	0.2080	0.2080	0.2080
	6/1/09	0.2080	0	0.2080	0.2080
	6/8/09	0.2080	0	0.2080	0.2080
	6/9/09	0.4160	0	0.4160	0.4160
	6/10/09	0.6240	0	0.6240	0.6240
	6/16/09	0.4160	0.2080	0.6240	0.6240
	6/17/09	0.2080	0	0.2080	0.2080
	6/18/09	0.0000	0.2080	0.2080	0.2080
	6/19/09	0.4160	0	0.4160	0.4160
	6/23/09	0.0000	0.2080	0.2080	0.2080
	6/26/09	0.4160	0	0.4160	0.4160
	6/29/09	0.6240	0	0.6240	0.6240
	6/30/09	0.8320	0	0.8320	0.8320
	7/6/09	0.2080	0	0.2080	0.2080
	7/7/09	0.2080	0.8320	1.0400	1.0400
	7/9/09	0.2080	0	0.2080	0.2080
	7/13/09	0.2080	0	0.2080	0.2080
	7/14/09	0.2080	0	0.2080	0.2080
	7/15/09	0.2080	0.2080	0.4160	0.4160
	7/16/09	0.2080	0	0.2080	0.2080

Treatability Group	Shipment Date	Existing Inventory Volume (m^3)	New Covered Volume (m^3)	Total Volume Removed from Inventory (Existing + New Covered) (m^3)	Total Volume Shipped (m^3)
	7/17/09	0.2080	0	0.2080	0.2080
	7/28/09	0.2080	0	0.2080	0.2080
	7/31/09	0.8320	0	0.8320	0.8320
	8/11/09	0.4160	0	0.4160	0.4160
	8/13/09	0.4160	0	0.4160	0.4160
	8/19/09	0.0000	0.2080	0.2080	0.2080
	8/26/09	1.6640	0.4160	2.0800	2.0800
	9/23/09	0.6240	0	0.6240	0.6240
	9/25/09	0.2080	0	0.2080	0.2080
	9/28/09	0.2080	0	0.2080	0.2080
Total Solidified Organic and Inorganic Waste		**21.0080**	**2.4960**	**23.5040**	**23.5040**
Total Waste Shipped to WIPP		**287.1885**	**13.5200**	**300.7085**	**277.2140**
Grand Total MTRU Waste (Existing Inventory + New Covered) Shipped to WIPP			**300.7085**		

APPENDIX G. CURRENT YEAR MTRU INVENTORY – ADMINISTRATIVE ADJUSTMENTS

Table G-1: FY09 MTRU Administrative Adjustments to TA-54 Inventory

Treatability Group	Administrative Adjustment	Volume (m^3)
Cemented Sludge	Reclassified as MLLW (LA-W935)[1]	-180.9735
	Repacked into 0.2080 m^3 *Combustible-Noncombustible Waste* and 0.2080 m^3 *Noncombustible Waste*	-0.2080
	Recharacterized as *Combustible Waste*	-0.3215
	Volume changes resulting from removal or addition of overpacks	3.8210
	Cemented Sludge Net Adjustment	**-177.6820**
Combustible-Noncombustible Waste	Reclassified as MLLW (LA-W935)[1]	-7.7345
	Volume change due to removal or addition of overpack	0.1135
	Added as a result of recharacterizing TRU inventory as MTRU during repacking	44.5120
	Added as a result of recharacterizing TRU waste as MTRU during quality control activities	3.5830
	Repacked into 55.536 m^3 Combustible-Noncombustible Waste and 1.456 m^3 Noncombustible Waste	-53.8720
	Additional covered inventory transferred from TA-55 covered inventory	0.2080
	Added as a result of repacking Cemented Sludge waste	0.2080
	Added as a result of repacking Combustible-Noncombustible Waste	55.1200
	Added as a result of repacking Combustible Waste	17.2640
	Added as a result of repacking Glass Waste	0.4160
	Added as a result of repacking Leaded Glovebox Waste	4.1600
	Added as a result of repacking Metallic Waste	4.1600
	Added as a result of repacking Non-Combustible Waste	0.4160
	Added as a result of correcting database waste codes for four containers (three oversize)	22.4780
	Waste transferred to TA-55	-0.2080
	***Combustible-Noncombustible* Net Adjustment**	**90.8240**
Combustible Waste	Reclassified as MLLW (LA-W935)	-4.8975
	Repacked into 17.4537 m^3 *Combustible-Noncombustible Waste* and 0.4160 m^3	-17.4537

Treatability Group	Administrative Adjustment	Volume (m^3)
	Noncombustible Waste	
	Added as a result of recharacterizing TRU as MTRU	0.5295
	Added from recharacterizing *Cemented Sludge* as *Combustible Waste*	0.3215
	***Combustible Waste* Net Adjustment**	**-21.5002**
Glass Waste	Reclassified as MLLW (LA-W935)	-0.4160
	Repacked into 0.4160 m^3 *Combustible-Noncombustible Waste*	-0.4160
	Recharacterized as MTRU from TRU inventory	0.2080
	***Glass Waste* Net Adjustment**	**-0.6240**
Leaded Glovebox Waste	Repacked into 4.1600 m^3 *Combustible-Noncombustible Waste*	-4.1600
	***Leaded Glovebox Waste* Net Adjustment**	**-4.1600**
Metallic Waste	Reclassified as MLLW (LA-W935)	-0.6240
	Repacked into 4.1600 m^3 *Combustible-Noncombustible Waste* and 0.2080 m^3 *Noncombustible Waste*	-4.1600
	Newly retrieved shaft waste recharacterized as MTRU (*Metallic Waste*)	0.9900
	Recharacterized as MTRU from TRU inventory	1.8991
	***Metallic Waste* Net Adjustment**	**-1.8949**
Noncombustible Waste	Reclassified as MLLW (LA-W935)	-1.0400
	Repacked into 0.4160 m^3 *Combustible-Noncombustible Waste*	-0.4160
	Added as a result of recharacterizing TRU waste as MTRU waste	0.9455
	Added as a result of repacking *Cemented Sludge*	0.2080
	Added as a result of repacking *Combustible-Noncombustible Waste*	1.4560
	Added as result of repacking *Combustible Waste*	0.4160
	Added as a result of repacking *Metallic Waste*	0.2080
	Added as a result of recharacterizing TRU waste as MTRU waste during repacking	5.6160
	Noncombustible Waste net adjustment	**7.3935**
Solidified Inorganic and Organic Waste	Recharacterized as TRU from MTRU inventory	-0.4160
	Recharacterized as MTRU (*Solid Inorganic and Organic Waste*) from TRU inventory	0.2080
	Additional covered inventory transferred from TA-55 covered inventory	0.6240
	Added as a result of recharacterizing TRU waste during quality control activities	0.2080
	Removed as a result of recharacterizing MTRU waste as TRU during quality control activities	-0.4160
	Database entry corrected	0.0030
	Transferred to TA-55 covered MTRU inventory	-0.2080

Treatability Group	Administrative Adjustment	Volume (m^3)
***Solidified Inorganic and Organic Waste* Net Adjustment**		**0.0030**
Total net adjustment		**-107.6406**

[1] The MTRU volume removed from the STP inventory was calculated using the MTRU standard conversion (55 gal = 0.208 m^3); when that volume is recalculated in the MLLW inventory using the MLLW conversion (55 gal = 0.2082 m^3), the total volume transferred increases from 195.8935 m^3 to 195.9851 m^3 (as shown in Appendix C).

Table G-2: FY09 MTRU Administrative Adjustments for CMR and TA-55 Inventory

Location	**Treatability Group**	**Administrative Adjustment**	**Volume (m^3)**
CMR	*Combustible-Noncombustible Waste*	Adjustment for updated FY09 inventory data	0.2080
		Rounding Adjustment	-0.0287
		Net adjustments CMR Inventory	**0.1793**
TA-55	*Combustible-Noncombustible Waste*	New covered waste transferred to TA-54[1]	-0.2080
	Combustible-Noncombustible Waste	Existing waste transferred to TA-54	-0.2080
		Net adjustments TA-55 *Combustible-Noncombustible Waste*	**-0.4160**
TA-55	*Metallic Waste*	Rounding adjustment	0.0020
		Net adjustments TA-55 *Combustible-Noncombustible Waste*	**0.0020**
TA-55	*Solid Organic and Inorganic Waste*	1 gal (0.0038 m^3) waste container repacked	-0.0038
		Repacking 1 gal container into a 55 gal container	0.2080
	Solid Organic and Inorganic Waste	New covered waste transferred to TA-54[1]	-0.2080
	Solid Organic and Inorganic Waste	Existing waste transferred to TA-54	-0.6240
	Solid Organic and Inorganic Waste	Waste transferred from TA-54 to TA-55	0.2080
		Net Adjustments TA-55 *Solid Organic and Inorganic Waste*	**-0.4198**
		Total Net Adjustments	**-0.6545**

[1] TRANSFERS OF NEW COVERED WASTE TO TA-54 ARE INCLUDED IN TABLE E-1 UNDER NEW COVERED WASTE AND, THEREFORE, DO NOT HAVE EQUIVALENT ENTRIES AS ADMINISTRATIVE ADJUSTMENTS IN TABLE G-1.

APPENDIX H. MLLW TREATMENT FACILITIES

Table H-1: Commercial Facilities Contacted for Waste Treatment Capabilities

Commercial Facility	Location
Perma-Fix (including Material & Energy Corporation in TN; Diversified Scientific Services, Inc. in TN; and Perma-Fix North West in WA)	Florida
Waste Control Specialists	Texas
EnergySolutions of Utah (including Bear Creek Operations)	Utah
Bear Creek Operations	Tennessee
Nuclear Fuel Services (NFS)	Tennessee
Integrated Environmental Services	Tennessee
NSSI	Texas

APPENDIX I. CORRESPONDENCE

Table I-1: Expedited Shipment Letters

Request for Expedited Shipment Letter Date	STP Section	MWIR* Waste ID	Treatability Group	Volume Proposed to be Shipped (m^3)	Reference
4/23/2009	3.1.11	LA-W908	*Nonhalogenated Organic Liquids*	0.0379	ENV-RRO-09-028

*MWIR is Mixed Waste Inventory Report

Table I-2: Correspondence

Letter Date	Description	Letter Number	Revision Reference	Listed in Revision 19 (Table 2.1B)
10/20/2008	Information Requested at the 10/14/08 Meeting by the NMED on FY07 Update and Revision 18	ENV-RCRA-08-207	Revision 18	Yes
10/22/2008	Notice of Completion of Offsite Waste Shipment Activities, CP, STP, LANL (Activities 3.1.5 and 3.1.11)	ENV-RCRA-08-216	Revision 19	Yes
10/27/52008	Response to NMED's October 23, 2008 Disapproval of the LANL FY07 STP Annual Update	ENV-RCRA-08-220	Revision 18	Yes
11/10/2008	Notice of Completion of Offsite Waste Shipment Activity 4.0 in the Compliance Plan Volume, STP, LANL, FFCO, FY08 4th Q WIPP Shipment	ENV-RCRA-08-222	Revision 19	Yes
11/21/2008	Request for Withdrawal of Proposed Extension Date for Milestone Activity 3.1.5 (A) in the LANL FY07 Compliance Plan Volume, STP	ENV-RCRA-08-234	Revision 18	Yes
1/29/2009	Federal Facility Compliance Order – Notice of Change of Project Leader	ENV-DO-09-001	NA	No

Letter Date	Description	Letter Number	Revision Reference	Listed in Revision 19 (Table 2.1B)
2/9/2009	Federal Facility Compliance Order – Notice of Change of Project Manager	NNSA/LASO 17GH-01	NA	No
2/10/2009	Notice of Completion of Offsite Waste Shipment, FY09, 1st Q, Activity 4.0, Compliance Plan Volume, STP, FFCO, LANL	ENV-RRO-09-011	Revision 20	No
2/17/2009	Resubmittal of Notice of Completion of Offsite Waste Shipment, FY09, 1stQ, Activity 4.0, Compliance Plan, STP, FFCO, LANL	ENV-RRO-09-011R	Revision 20	No
2/25/2009	Notice of Completion of Offsite Waste Shipment, Activity 3.3.4, Compliance Plan Volume, STP, LANL	ENV-RRO-09-013	Revision 20	No
3/25/2009	Request for Extension of Compliance Dates for Milestone Activities (3.18 and 3.19), LANL, FFCO, STP, Revision 18	ENV-RRO-09-017	Revision 18	Yes
3/26/2009	Proposed Administrative Adjustments for the FY08 STP, Revision 19	ENV-RRO-09-015	Revision 19	Yes
3/30/2009	Submittal of STP, FY08 Update, LANL, FFCO, October 4, 1995	ENV-RRO-09-018	Revision 19	Yes
4/3/2009	Correction of Information in the Proposed Extension of Milestones in the STP, FFCO, LANL, Letter Dated March 13, 2008 (ENV-RCRA-08-213)	ENV-RRO-09-021	Revision 18	Yes
4/8/2009	Notice of Expedited Shipment of Waste	Email to Rebecca Kay	Revision 20	No
4/23/2009	Notice of Completion of Expedited Offsite Waste Shipment Activity (3.1.11) in the Compliance Plan, STP, LANL	ENV-RRO-09-028	Revision 20	No

Letter Date	Description	Letter Number	Revision Reference	Listed in Revision 19 (Table 2.1B)
4/28/2009	Notice of Completion of Offsite Waste Shipment Activities (3.3.4) in the Compliance Plan, STP, FFCO, LANL	ENV-RRO-09-029	Revision 20	No
4/30/2009	Correction of FY08 Q3 and Q4 MTRU Shipments	ENV-RRO-09-020	Revision 19	Yes
5/7/2009	Notice of Completion of Offsite Waste Shipment Activities (3.3.4) in the Compliance Plan, STP, FFCO, LANL	ENV-RRO-09-030	Revision 20	No
5/14/2009	Notice of Completion of Offsite Waste Shipment Activities (3.3.4) in the Compliance Plan, STP, FFCO, LANL	ENV-RRO-09-031	Revision 20	No
5/14/2009	Notice of Completion of Offsite Waste Shipment, FY09 2nd Q, Activity 4.0, CP, STP, FFCO, LANL	ENV-RRO-09-033	Revision 20	No
5/20/2009	Correction of Information in Notice of Completion Letters (ENV-RCRA-08-103, 08-015, and 08-197), STP, FFCO, LANL	ENV-RRO-09-034	Revision 18	Yes
5/20/2009	Correction of Information in Proposed Extension of Milestones (ENV-RRO-09-017), STP, FFCO, LANL	ENV-RRO-036	Revision 19	Yes
5/20/2009	Certification of Information in Previous Correspondence Relating to the STP, FFCO, LANL	ENV-RRO-09-037	Revision 18 and 19	Yes
5/20/2009	Resubmittal of STP, FY 08 Update, LANL, FFCO, October 4, 1995	ENV-RRO-09-038	Revision 19	Yes
5/29/2009	Notice of Completion of Offsite Waste Shipment Activities (3.3.4) in the CP, STP, FFCO, LANL	ENV-RRO-09-039	Revision 20	No

Letter Date	Description	Letter Number	Revision Reference	Listed in Revision 19 (Table 2.1B)
5/29/2009	Notice of Completion of Offsite Waste Shipment Activities (3.2) in the CP, STP, FFCO, LANL	ENV-RRO-09-040	Revision 20	No
5/29/2009	Notice of Completion of Offsite Waste Shipment Activities (3.1.4) in the CP, STP, FFCO, LANL	ENV-RRO-09-041	Revision 20	No
6/15/2009	Notice of Completion of Offsite Waste Shipment Activities (3.3.4) in the CP, STP, FFCO, LANL	ENV-RRO-09-043	Revision 20	No
6/30/2009	Notice of Completion of Offsite Waste Shipment Activities (3.3.4) in the CP, STP, FFCO, LANL	ENV-RRO-09-044	Revision 20	No
7/24/2009	Notice of Completion of Offsite Waste Shipment Activities (3.3.4) in the CP, STP, FFCO, LANL	ENV-RRO-09-046	Revision 20	No
7/24/2009	Notice of Completion of Offsite Waste Shipment Activities (3.3.4) in the CP, STP, FFCO, LANL	ENV-RRO-09-047	Revision 20	No
7/24/2009	Notice of Completion of Offsite Waste Shipment Activities (3.2) in the CP, STP, FFCO, LANL	ENV-RRO-09-048	Revision 20	No
8/5/2009	Notice of Completion of Offsite Waste Shipment, FY09 3rd Q, Activity 4.0, CP, STP, FFCO, LANL	ENV-RRO-09-049	Revision 20	No
8/11/2009	Notice of Completion of Offsite Waste Shipment Activities (3.3.4) in the CP, STP, FFCO, LANL	ENV-RRO-09-056	Revision 20	No
8/17/2009	Notice of Completion of Offsite Waste Shipment Activities (3.2) in the CP, STP, FFCO, LANL	ENV-RRO-09-057	Revision 20	No
8/17/2009	Notice of Completion of Offsite Waste Shipment Activities (3.3.4) in the CP, STP, FFCO, LANL	ENV-RRO-09-058	Revision 20	No

Letter Date	Description	Letter Number	Revision Reference	Listed in Revision 19 (Table 2.1B)
8/17/2009	Notice of Completion of Offsite Waste Shipment Activities (3.3.4) in the CP, STP, FFCO, LANL	ENV-RRO-09-059	Revision 20	No
9/8/2009	Proposed Deletion of Waste from the STP, FFCO, LANL	ENV-RRO-09-061	NA	No
9/18/2009	Notice of Completion of Offsite Waste Shipment Activities (3.3.4) in the CP, STP, FFCO, LANL	ENV-RRO-09-063	Revision 20	No
9/18/2009	Notice of Completion of Offsite Waste Shipment Activities (3.3.4) in the CP, STP, FFCO, LANL	ENV-RRO-09-064	Revision 20	No
10/1/2009	Notice of Completion of Offsite Waste Shipment Activities (3.3.4) in the CP, STP, FFCO, LANL	ENV-RRO-09-068	Revision 20	No
10/9/2009	Response to the September 16, 2009, Notice of Disapproval of the STP, FY08 Update, and Revision 19.0 Proposal for LANL's FFCO Submitted May 20, 2009	ENV-RRO-09-069	Revision 19	Yes
10/19/2009	Notice of Completion of Offsite Waste Shipment Activities (3.3.4) in the CP, STP, FFCO, LANL	ENV-RRO-09-072	Revision 20	No
10/19/2009	Notice of Completion of Offsite Waste Shipment Activities (3.3.4) in the CP, STP, FFCO, LANL	ENV-RRO-09-073	Revision 20	No
10/22/2009	Notice of Completion of Offsite Waste Shipment Activities (3.2K) in the CP, STP, FFCO, LANL	ENV-RRO-09-075	Revision 20	No
10/26/2009	Notice of Completion of Offsite Waste Shipment Activities (3.1.8 and 3.1.9) in the CP, STP, FFCO, LANL	ENV-RRO-09-074	Revision 20	No

Letter Date	Description	Letter Number	Revision Reference	Listed in Revision 19 (Table 2.1B)
10/26/2009	Notice of Completion of Offsite Waste Shipment Activities (3.2K) in the CP, STP, FFCO, LANL	ENV-RRO-09-076	Revision 20	No
11/6/2009	Notice of Completion of Offsite Waste Shipment Activities (3.2 K) in the CP, STP, FFCO, LANL	ENV-RRO-09-080	Revision 20	No
11/9/2009	Notice of Completion of Offsite Waste Shipment Activities (3.3.4) in the CP, STP, FFCO, LANL	ENV-RRO-09-079	Revision 20	No
11/9/2009	Notice of Completion of Off-Site Waste Shipment Activities (3.2 K) in the CP, STP, FFCO, LANL	ENV-RRO-09-082	Revision 20	No
11/10/2009	Notice of Completion of Offsite Waste Shipment, FY09 4th Q, Activity 4.0, CP, STP, FFCO, LANL	ENV-RRO-09-078	Revision 20	No
2/4/2010	Correction of Waste Volumes in Notices of Completion of Offsite Waste Shipment Activities (3.3.4) (Letters ENV-RRO-09-073, 072 and 059)	ENV-RRO-10-008	Revision 20	No
3/18/10	Proposed Extension of Milestones for LA-W934 High Activity Waste, CP, STP, FFCO, LANL	ENV-RRO-10-014	Revision 20	No
3/31/2010	Submittal of FY09 Update and Revision 20, STP, FFCO, LANL	ENV-RRO-10-015	Revision 20	No
4/2/2010	Correction of Waste Volumes in Notices of Completion of Offsite Waste Shipment Activities (3.3.4) (Letters ENV-RRO-09-013, 031, 059, and 10-11) and (4.0) (Letter ENV-RRO-09-011)	ENV-RRO-10-016	Revision 20	No

Letter Date	Description	Letter Number	Revision Reference	Listed in Revision 19 (Table 2.1B)
4/8/2010	Additional Correspondence Information for Proposed Extension of Compliance Date for Activity 3.2(J)	ENV-RRO-10-017	Revision 20	No
6/25/2010	Clarification and Correction of Off-Site Waste Shipment Notifications, FY09 1st and 2nd Q, Activity 4.0, CP, STP, FFCO, LANL (Letters ENV-RRO–011R and 09-033)	ENV-ES-10-119	20	No
6/30/2010	Response to the June 3, 2010, Notice of Disapproval of the STP, FY09 Update and Revision 20 Proposal for LANL's FFCO Submitted March 31, 2010, and Correction to Letter ENV-RRO-09-080	ENV-ES-10-	20	No

APPENDIX J. HISTORY OF CHANGES TO THE CP AND FFCO

As discussed in Part III (CP), Section 1.2, the STP Compliance Plan 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 19 revisions and three amendments to the CP. In addition, the FFCO was amended once, on May 20, 1997. The following 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	6/12/96	Added offsite treatment as a parallel preferred option for most MLLW treatability groups
Rev. 2.0	STP/CP	12/9/96	Reduced volume of LA-W928 by approving reclassification of sludges as LLW
Amendment 1.0	STP/CP	10/30/96	Divided original volume of LA-W929 into three subgroups, and added new Activities and Compliance Dates
Rev. 3.0	STP/CP	1/27/97	Divided original volume of LA-W929 into three subgroups, and added new Activities and Compliance Dates
Amendment 1.0	FFCO	5/20/97	Modified FFCO Sections IV, V, IX, and X to streamline waste transfers and deletions
Amendment 2.0	STP/CP	9/4/97	Extended CP Activity 3.1.2B Compliance Date to 12/29/97
Rev. 4.0	STP/CP	*12/29/97*	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	*12/29/97*	Added volumes reported in FY95 and FY96 *Annual Updates* (and certain other items) to several treatability groups, added Activities and Compliance Dates, added CP Appendices, and deleted treated items

Action	Document Modified	Effective Date	Effect on FFCO/STP
Rev. 6.0	STP/CP	*7/31/98*	Added volumes reported in FY97 *Annual Update* 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	*11/30/98*	Removed onsite treatment skids, added STP inventory items, added onsite recycling/re-use and radiological decontamination, added notification for offsite treatability studies,
Rev. 8.0	STP/CP	*12/3/98*	Extended compliance dates for treatment of MTRU waste.
Rev. 9.0	STP/CP	*6/7/00*	Added and deleted volumes reported in FY98 *Annual Update* to certain treatability groups.
Amendment 3.0	STP/CP	*8/30/99*	Transferred three items to MTRU, transferred one item to subgroup within same treatability group.
Rev. 10.0	STP/CP	*12/18/00*	Added and deleted volumes reported in FY99 *Annual Update* to certain treatability groups.
Rev. 11.0	STP/CP	*4/18/01*	Added and deleted volumes reported in FY00 *Annual Update.*
Rev. 12.0	STP/CP	*3/13/02*	Added and deleted volumes reported in FY01 *Annual Update*. Extended CP Activity 3.1.5A Compliance Date to 8/25/03. 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 offsite to WIPP for disposal.
Rev 13.0	STP/CP	7/14/03	Added and deleted volumes reported in FY02 *Annual Update*
Rev 14.0	STP/CP	1/5/05	Added and deleted volumes reported in FY03 *Annual Update*
Rev 15.0	STP/CP	8/16/05	Added and deleted volumes reported in FY04 *Annual Update*

Action	Document Modified	Effective Date	Effect on FFCO/STP
Rev 16.0	STP/CP	12/12/06	Added and deleted volumes reported in FY05 *Annual Update.* Extended CP Activity 3.1.8(A) Compliance Date to 8/09/07. Extended CP Activity 3.1.9(A) Compliance Date to 8/09/07. Extended CP Activity 3.1.10(A) Compliance Date to 8/31/07. Extended CP Activity 3.1.11(A) Compliance Date to 12/31/07. Extended CP Activity 3.2(J) Compliance Date to 12/31/07. 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 FY06 *Annual Update.* Extended CP Activity 3.1.5(A) Compliance Date to 12/31/08. Extended CPV Activity 3.1.8(A) Compliance Date to 8/28/08. Extended CP Activity 3.1.9(A) Compliance Date to 8/28/08. 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 FY07 *Annual Update.* Extended CP Activity 3.1.8(A) Compliance Date to 8/28/09. Extended CP Activity 3.1.9(A) Compliance Date to 8/28/09. 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 12/01/13 and CP Activity 3.3.4 (B) Compliance Date 12/31/13. Extended CP Activity 3.2(J) Compliance Date to 12/31/10.
Rev 19.0	STP/CP	2/5/2010	Added and deleted volumes reported in FY08 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	TBD	Added and deleted volumes reported in FY09 Annual Update. Propsed an extended compliance date for CP Activity 3.2(J)

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)