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Date: **MAR 27 2013**  
Refer To: ENV-EDA-13-06  
LA-UR: 13-22082

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

Mr. Timothy Hall  
Hazardous Waste Bureau  
New Mexico Environment Department  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303



Dear Mr. Hall:

**SUBJECT: SUBMITTAL OF SITE TREATMENT PLAN, FISCAL YEAR 2012 UPDATE AND PROPOSED REVISION 23.0, LOS ALAMOS NATIONAL LABORATORY, FEDERAL FACILITY COMPLIANCE ORDER, OCTOBER 4, 1995**

This letter transmits to the New Mexico Environment Department (NMED) the Los Alamos National Laboratory (LANL) Site Treatment Plan (STP) Fiscal Year 2012 (FY11) Annual Update and requests approval of Proposed Revision 23.0 to the Compliance Plan (CP) of the STP in accordance with requirements of the Federal Facility Compliance Order (FFCO).

This update to the STP follows the format of the FY11 Annual Update. The principal changes consist of the following:

- The amount of LA-W935 waste (*10-100nCi/g Waste*) in storage increased by about 28 m<sup>3</sup>. LANL continued to reclassify transuranic (TRU) waste that met the requirements of LA-W935 as LA-W935 mixed low-level waste (MLLW) in FY12. Most of the FY12 reclassified waste, as well as some of the waste in storage from previous years, was shipped offsite for treatment and disposal. The remainder of the newly reclassified waste was placed in storage pending future shipment.
- LANL has encountered obstacles in shipping four containers of *High Activity Waste* that have an offsite shipping milestone of December 31, 2013. Additional evaluation of the waste characteristics have shown that a shipping cask with a Certificate of Compliance suitable for the current waste configuration will be difficult to obtain before the milestone is reached. LANL is continuing to review all options as the milestone approaches. If, however, no option becomes available,



LANL will propose an extension of the milestone for these containers, in consultation with NMED, by June 30, 2013.

- LANL has identified budget uncertainties for the remainder of FY13 and for FY14. Funding during FY13 may be sufficient to meet all compliance dates established in the STP; however, FY13 federal budget restrictions may impact LANL shipping schedules. Furthermore, Congress has not yet taken action on an FY14 budget. When the federal funding for FY14 becomes clearer, LANL will reevaluate the available funding. 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.
- LANL is requesting a new milestone for shipping new-covered MLLW (*Noncombustible Debris*) offsite. Currently there is no milestone for this treatability group.

Enclosure 1 contains two final copies of the FY12 Annual Update and Proposed Revision 23.0. Enclosure 2 is a compact disk with a final copy and a redlined version of the FY12 Annual Update of the FY12 Annual Update in Microsoft Word (Version 2010).

In accordance with the requirements of Section XX of the FFCO, "*Documents, Information, and Reporting Requirements*," we certify, as the project managers responsible for overseeing the implementation of the Site Treatment Plan for the Los Alamos National Laboratory and for Los Alamos Site Office/National Nuclear Security Administration, that, to the best of our knowledge and belief, the information in this document is true, accurate, and complete.

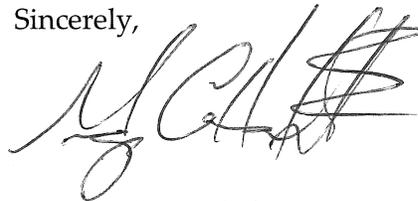
If you have any questions, please contact Peggy Powers at (505) 665-5717, or by email at [peggy.powers@lanl.gov](mailto:peggy.powers@lanl.gov), or George Henckel at (505) 606-0960, or by email at [george.henckel@nnsa.doe.gov](mailto:george.henckel@nnsa.doe.gov).

Sincerely,



Margaret A. Powers  
STP Project Manager  
Environmental Stewardship Group (ENV-ES)  
Los Alamos National Laboratory

Sincerely,



George C. Henckel, III  
STP Project Manager  
Los Alamos Field Office  
National Nuclear Security Administration

Enclosures:

1. FY12 Annual Update
2. Compact Disk

MP/MP:bb

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## Enclosure 1

FY12 Site Treatment Plan Annual Update

ENV-EDA-13-06

LA-UR # 13-22082

Barcode # N/A

Date: **MAR 27 2013**

*Los Alamos National Laboratory*

*Federal Facility Compliance Order*

*Annual Site Treatment Plan Update  
for Fiscal Year 2012*

*LA-UR- 13-22082*

*March 29, 2013*



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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
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
NMED	New Mexico Environment Department
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 U.S. Department of Energy (DOE) with the Land Disposal Restrictions (LDR) for the storage of mixed waste set forth in Section 3004(j) of the Resource Conservation and Recovery Act (RCRA). The FFCA requires DOE to submit a Site Treatment Plan (STP) for developing treatment capacities and technologies to treat all 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 22.0).

## PART I. BACKGROUND UPDATE

### 1.0 INTRODUCTION

The Background (Part I) provides the following information:

- The estimated volume of covered waste in storage at the end of the previous FY and anticipated to be placed in storage for the next five 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 FY12, STP-covered MLLW inventories increased from approximately 176 m<sup>3</sup> to 204 m<sup>3</sup>. The increase was mainly due to reclassifying more mixed transuranic (MTRU) waste to mixed low-level waste (MLLW) (LA-W935) than could be shipped offsite for treatment. The waste was reclassified because it no longer satisfied DOE criteria for TRU waste (activity more than 100 nCi/g). Because higher risk wastes were given shipment priority, less *10–100 nCi/g Waste* was shipped in FY11 and FY12 than in previous years. LANL shipped approximately 10 m<sup>3</sup> of the existing FY11 inventory and a portion of the FY12 newly reclassified *10–100 nCi/g Waste* (approximately 52 m<sup>3</sup>) in FY12. The rest of the FY12 reclassified waste (approximately 38 m<sup>3</sup>) was readied for shipment and placed in storage. LANL intends to resume shipments of *10–100nCi/g Waste* when some of the higher risk waste shipments are completed in order to meet the established STP milestone (12/31/2013) for the current *10–100 nCi/g Waste*. Table 2.1-1 summarizes changes to the estimated STP-covered MLLW inventory for FY12. Approximately 62 m<sup>3</sup> of covered MLLW was treated, recycled, disposed of, or otherwise deleted during FY12.

Appendix A provides the detailed changes to the FY12 covered MLLW inventory by treatability group, including the inventory at Technical Area (TA)-55 and the Chemistry and Metallurgy Research Building

(CMR).<sup>1</sup> Appendix B (Table B-1) lists the MLLW shipments in FY12. Table B-2 identifies other deleted waste. If any, administrative adjustments to the MLLW inventory are shown in Appendix C (Table C-1). Detailed information about the administrative adjustments in Table C-1 are shown in Table C-2. The MLLW inventory reported in the FY11 Annual Update is included as Appendix D.

*Table 2.1-1: FY12 MLLW Inventory Summary*

<b>Contribution</b>	<b>Volume (m<sup>3</sup>)<sup>1</sup></b>
Estimated MLLW Inventory Reported in FY11 Annual Update	<b>175.8610</b>
Proposed Revision 23.0	
New Covered Waste	0.2082
Administrative Adjustments <sup>2</sup>	90.2360
Offsite Treatment	-62.3556
Offsite Recycle	NA <sup>3</sup>
Onsite Decontamination	NA
Treatability Study Use	NA
<b>Estimated MLLW Inventory Reported in FY11 Annual Update</b>	<b>203.9496</b>

<sup>1</sup> MLLW volumes are calculated using the conversion: 55-gallon container = 0.2082 m<sup>3</sup>; 85-gallon container = 0.3218

<sup>2</sup> Includes transfers of MTRU and other wastes into MLLW categories

<sup>3</sup> NA = No Activity

## **2.2 Mixed Transuranic (MTRU) Inventory Summary**

During FY12, STP-covered MTRU inventories decreased from approximately 3119 m<sup>3</sup> to 2763 m<sup>3</sup>.

Table 2.2-1 summarizes changes to the estimated MTRU covered waste inventory for FY12. 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 a summary of FY12 MTRU shipments to WIPP. In Appendix G, Tables G-1 and G-2 describe the administrative adjustments that were made to resolve differences in the TA-54 and the CMR/TA-55 MTRU inventory data, respectively.

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.
- LANL may correct waste data, such as volume or EPA codes, through quality control activities. Waste that was formerly classified as MTRU because it had radioactivity greater than 10 nCi/g has been reclassified to MLLW (LA-W935) if its activity is less than 100 nCi/g under DOE standards.

<sup>1</sup> No MLLW was stored at CMR or TA-55 in FY12.

- 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; removal of WIPP-prohibited items, if they are the only hazardous constituent, will result in the remaining waste being classified as nonmixed.
- Addition or removal of 85-gallon overpacks changes the volume of waste in the inventory; rounding container volumes to three decimal places also changes the inventory volume.

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<sup>3</sup>) may result in one drum of *Combined Combustible-Noncombustible Waste* (0.2080 m<sup>3</sup>) and one drum of *Noncombustible Waste* (0.2080 m<sup>3</sup>). 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*

<b>Description</b>	<b>Volume (m<sup>3</sup>)</b>
Covered MTRU Inventory Reported in FY11 (44.713 m <sup>3</sup> at CMR/TA-55 and 3074.244 m <sup>3</sup> at TA-54)	3118.957
New Covered MTRU Waste at TA-54	11.488
New Covered MTRU Waste at TA-55/CMR	5.903
Covered MTRU Waste Shipped to WIPP in FY12	-476.020
Net Administrative Adjustments for TA-54 in FY12	111.656
Net Administrative Adjustments for CMR/TA-55 in FY12	-8.612
<b>Covered MTRU Inventory at End of FY12</b>	<b>2763.372</b>

### **3.0 TREATMENT PROGRESS**

#### **3.1 Offsite Treatment**

During FY12, 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; and Perma-Fix Northwest in the State of Washington.

##### 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 solvent extraction, demulsification/precipitation/flocculation, 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 for 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.

##### 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 regulations (State of Washington licenses WN-I00393-1 and WN-I00508-1) and permitted under RCRA regulations through the State of Washington. The facility can perform thermal treatment, compaction, macroencapsulation, neutralization, and stabilization.

Appendix B summarizes LANL's offsite shipments for treatment and/or disposal of covered MLLW in FY12. Approximately 62 m<sup>3</sup> of STP-covered MLLW was shipped offsite for treatment and/or disposal.

#### **3.2 Offsite Recycling**

LANL did not recycle any STP-covered MLLW offsite in FY12.

#### **3.3 Onsite Treatment and Recycling**

LANL did not treat or recycle any STP-covered MLLW onsite in FY12.

#### **3.4 Onsite Lead Decontamination**

No LANL STP-covered MLLW was decontaminated onsite during FY12.

### **3.5 Treatability Studies**

LANL conducted no treatability studies in FY12.

### **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, 10–100 nCi/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 (Appendices C and G).

#### ***3.6.2 Adjustments to MTRU Inventory***

During the preparation of the FY12 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 MTRU waste to MLLW. Other adjustments were needed to account for volume changes due to repacking of waste and transfers of waste from one treatability group to another or to correct database entries.

## **4.0 TREATMENT TECHNOLOGY DEVELOPMENT**

During FY12, 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 availability 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 FY12 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 FY12 for shipment of mixed waste offsite for treatment and disposal at DOE and commercial facilities. Funding during FY13 may be sufficient to meet all compliance dates established in the STP; however, FY13 federal budget restrictions may impact LANL shipping schedules. Furthermore, Congress has not yet taken action on an FY14 budget. When the federal funding for FY14 becomes clearer, LANL will reevaluate the available funding. 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 DOE's 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 was treated and disposed of before the end of FY09.

### **6.0 TREATMENT VARIANCES**

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

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

WIPP, located near Carlsbad, New Mexico, is a DOE repository for 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 FY12.

## **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 repository at the WIPP near Carlsbad, New Mexico. This facility is a receiving and disposal facility, without the capability of routinely opening and repackaging waste. TRU waste will already be containerized when received at the WIPP 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 (CCP), 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 FY12;
  - 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 FY12**

During FY12, no CP Activity milestones were scheduled.

*Table 2.1-1. FY11 FFCO and STP Milestones [Table omitted]*

#### **2.2 Expedited Shipment Letters**

There were no expedited shipment letters in FY12.

#### **2.3 Correspondence**

Between October 1, 2011, and March 31, 2013, LANL communicated with NMED on issues related to

- Revisions 21.0 and 22.0 of the Annual STP Update, and
- FY11 and FY12 waste shipments.

This correspondence is listed in Appendix I (Table I-2). Correspondence previously listed in Appendix I, Table I-2 of Revision 22.0 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 23.0 in accordance with FFCO Section IX, *Deletion of Waste*. These deletions are proposed because the waste was shipped offsite for treatment, disposal, or recycling or were otherwise determined not to be mixed wastes. These covered wastes are included in Appendix B, Appendix F, and Appendix G.

### 4.0 DOCUMENTATION OF NEW COVERED WASTE

A proposal for addition of STP waste items is included with this update in accordance with FFCO Section VIII, *Addition of Waste*. These additions consist of wastes that were placed in storage during FY11 and were proposed to become covered wastes in FY12. These covered wastes are included in Appendix E. Additional waste to be added to the STP is identified in Section 6.1.

### 5.0 PROPOSED CHANGES TO THE COMPLIANCE PLAN SCHEDULE

LANL is proposing a new milestone for *Noncombustible Debris* (LA-W922), Activity 3.1.5(A) to “*complete shipping of wastes to an offsite treatment facility or complete parallel option.*” LANL expects to be able to complete shipping of the one container of this waste by March 30, 2014.

#### I. Compliance Dates and Waste Description

LA-W922: This waste consists of noncombustible debris, such as buckets, gloves, and air pumps. The waste has been assigned an EPA code of D008.

Current approved compliance date: none  
Proposed Revision 23 compliance date: March 31, 2014

#### II. Treatment Process

The preferred treatment process for LA-W922 is shipment offsite for treatment to meet LDRs. These wastes may be treated by macroencapsulation or other RCRA treatment methods according to the standards in 40 CFR 268.40 at an offsite commercial facility.

#### III. Availability of Commercial Facilities

LANL uses the facilities identified in Appendix H for treatment and disposal of MLLW. No additional facilities are needed to treat the current inventory of *Noncombustible Debris* (LA-W922).

#### IV. Justification for Milestone

Since commercial treatment facilities are available, LANL does not anticipate any significant delays in shipping this waste offsite for treatment. The shipping date will be based on the ability of a facility to accept the waste at a given time and on the scheduling of other offsite shipments. LANL is therefore requesting a milestone of March 31, 2014 to allow for schedule

flexibility on the part of the receiving facility. LANL will schedule shipment as part of routine waste shipment.

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

## **6.0 DETAILED DESCRIPTION OF THE PROPOSED REVISION**

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

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

- Increases and decreases in covered mixed waste inventories due to the addition of new covered waste and offsite shipments during FY12 and other changes in the STP inventory.
- Establishment of new Compliance Dates for LA-W922 as discussed in Part II, Section 5.

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<sup>2</sup> Waste**

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

#### **6.1.1 MLLW Additions**

The volume of MLLW that is requested for addition is 0.2082 m<sup>3</sup> of new-covered<sup>3</sup> *Noncombustible Debris* (LA-W922).

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

<b>CP Section</b>	<b>MWIR Waste ID</b>	<b>Treatability Group</b>	<b>Volume (m<sup>3</sup>)</b>
3.1.5	LA-W922	<i>Noncombustible Debris</i>	0.2082
<b>Total</b>			<b>0.2082</b>

#### **6.1.2 MTRU Waste Additions**

The volume of new covered MTRU waste that is requested for addition is 17.391 m<sup>3</sup> (Table 6.1.2-1). LANL also requests the addition of 31.672 m<sup>3</sup> of *Combustible-Noncombustible Waste*, 51.376 m<sup>3</sup> of *Noncombustible Waste*, and 34.296 m<sup>3</sup> of *Solidified Inorganic and Organic Waste* that was previously managed in the TRU inventory (Appendix G, Table G-1). Table 6.1.2-2 identifies waste that is proposed

<sup>2</sup> Waste generated during the previous FY that was not shipped offsite within one year is termed new-covered STP waste.

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

Table 6.1.2-1: Proposed Addition of New Covered<sup>1</sup> MTRU Waste

CP Section	Treatability Group	Volume (m <sup>3</sup> )
4.0	Combustible-Noncombustible Waste	8.348
4.0	Combustible Waste	0.664
4.0	Noncombustible Waste	0.208
4.0	Solidified Inorganic and Organic Waste	2.288
	<b>Total TA-54 New Covered</b>	<b>11.488</b>
4.0	Combustible-Noncombustible Waste at CMR	0.208
4.0	Combustible-Noncombustible Waste at TA-55	2.080
	Combustible Waste at TA-55	0.019
4.0	Noncombustible Waste at TA-55	3.5960
	<b>Total CMR and TA-55 New Covered</b>	<b>5.903</b>
	<b>Total New Covered Waste</b>	<b>17.391</b>

<sup>1</sup> New covered waste in Table 6.1.2-1 refers to waste generated in the previous FY.

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

CP Section	Treatability Group	Volume (m <sup>3</sup> )
4.0	Combined Combustible-Noncombustible Waste (2.316 m <sup>3</sup> – discovery of aerosol cans in containers; 29.356 m <sup>3</sup> from identification of potentially hazardous constituents during repacking of TRU waste)	31.672
4.0	Noncombustible Waste (from identification of potentially hazardous constituents during repacking of TRU waste)	51.376
4.0	Solidified Inorganic and Organic Waste (34.296 m <sup>3</sup> – Nitrate salts determined to be potentially mixed waste)	34.296
	<b>Total Newly Characterized MTRU</b>	<b>117.344</b>

## 6.2 Deletion of Covered Waste

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

### 6.2.1 Deletion of MLLW

LANL is requesting that covered MLLW identified in Appendix B be deleted from the STP. These covered wastes were shipped offsite for treatment and disposal or recycling. The total volume of covered MLLW that is requested for deletion under this Revision to the CP is 62.3556 m<sup>3</sup> (Appendix B, Table B-1).

**6.2.2 Deletion of MTRU Waste**

LANL is requesting that a total of 476.020 m<sup>3</sup> 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 FY12 Waste**

No waste is proposed for deletion due to recycling or onsite treatment in FY12. No waste was shipped offsite for treatability studies.

**6.3 Adjustments to the Original (October 4, 1995) STP-Covered MLLW 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 Establishment of New Milestone Activity Dates**

LANL is requesting a new compliance milestone for new covered LA-W922 for which there is no current milestone.

*Table 6.5-1: Proposed Milestone Activity Compliance Dates*

Milestone Activity	Treatability Group	Revision 22 Compliance Date	Proposed Compliance Date	Rationale
3.1.5(A)	LA-W922 Noncombustible Debris	none	3/31/2014	LANL will schedule shipment as part of routine waste shipment.

**6.6 Additional Revisions**

No other revisions are requested.

**7.0 RATIONALE FOR THE PROPOSED REVISION**

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

### **7.1 Establishment of New Proposed Milestone**

LANL is requesting a milestone for the LA-W922 waste stream since there is no current milestone for shipping this waste offsite.

### **7.2 Addition of New Covered Waste**

Waste that was newly generated in FY11, which was not treated within 12 months of generation, became new covered waste during FY12 (see Appendix 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 FY12. Deletion of this covered waste is proposed in order to more accurately reflect the LANL STP inventory as of the end of FY12.

### **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 FY12.

## **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 23.0**

### **1.0 PURPOSE AND SCOPE OF THE COMPLIANCE PLAN**

#### **1.1 Introduction**

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

The CP includes a schedule for 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*

- |   |
|---|
| <ul style="list-style-type: none"><li>A. Submit permit applications to the NMED.</li><li>B. Initiate construction as specified in the NMED permit.</li><li>C. Complete system testing and commence operation.</li><li>D. Begin treating mixed waste.</li><li>E. Complete treatment of existing wastes to applicable regulatory standards.</li></ul> |
|---|

### **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.

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

- |   |
|---|
| <ul style="list-style-type: none"><li>A. Identify and develop technology.</li><li>B. Submit permit application to NMED; or</li><li>C. Submit a Notification of Intent to perform treatability study to NMED a minimum of 45 days prior to commencement of the study.</li><li>D. Initiate construction as specified in the NMED permit.</li><li>E. Commence systems testing.</li><li>F. Begin treating mixed waste.</li><li>G. Complete treatment of existing wastes to applicable regulatory standards.</li></ul> |
|---|

## **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 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 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*

- |   |
|---|
| <ul style="list-style-type: none"><li>A. Meet all regulatory requirements for shipment.</li><li>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.</li></ul> |
|---|

### ***2.3.1 Specific Site Requirements for Noncommercial Treatment Facilities***

#### *Shipment to Idaho National Laboratory*

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

Shipments of MLLW to planned facilities (not yet existing) will occur only after 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 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*

- |  |
|--|
| <ul style="list-style-type: none"><li>A. Request necessary approval from NMED for shipment of waste by category before shipping.</li><li>B. Meet all regulatory requirements for offsite shipment.</li><li>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.</li><li>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.</li><li>E. Meet all regulatory requirements to include RCRA Permit modifications for residual or newly generated waste streams after treatment or recycling.</li><li>F. Provide documentation to NMED within 30 working days after receipt of residual or newly generated waste streams upon return to LANL.</li></ul> |
|--|

## **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*

- |  |
|--|
| <ul style="list-style-type: none"><li>A. Complete an estimate of the volume of waste generated by each case of radionuclide separation.</li><li>B. Complete an estimate of the volume of waste that would exist or be generated without radionuclide separation.</li><li>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.</li><li>D. Provide the assumptions underlying such estimates of waste volumes and cost estimates.</li><li>E. Provide characterization methodologies for determining waste type.</li><li>F. Submit a plan for treating or managing hazardous waste residues, accompanied by an NMED permit application.</li></ul> |
|--|

## **2.5 Plans Related to Other Mixed Waste Activities**

Activities other than the types of activities specifically called for in the FFCA as requiring schedules are described in this STP. Some of these activities may be associated with schedules that may contain compliance dates related to treatment of 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 all state, federal, 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 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 45 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 that revision. In Part III, the original STP inventory in each MLLW treatability group is denoted as subgroup 0 of that treatability group (e.g., the original volume of STP treatability group LA-W906 became LA-W906-0). Each revision that has since added volumes to individual treatability groups has resulted in creation of an additional subgroup, having the same number as the revision (e.g., LA-W906-4 was created in Revision 4.0, and LA-W906-5 was created in Revision 5.0).

In most subsections of this section, the subgroups of the treatability groups are not shown. In those cases, the Activities and Compliance Dates are applicable to the entire net volume of that treatability group. However, when subgroups of a treatability group 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 <sup>3</sup> )
IPA Wastes	LA-W901	D001, D009, F002, F003, F005	0.00
Scintillation Fluids	LA-W902	D001, F003, F005	0.00
<b>Totals</b>			<b>0.00</b>

\*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 <sup>3</sup> )
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
<b>Totals</b>			<b>0.00</b>

**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 <sup>3</sup> )
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
<b>Totals</b>			<b>0.00</b>

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

Treatability Group	MWIR Waste ID	RCRA Codes	Net Volume (m <sup>3</sup> )
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
<b>Totals</b>			<b>0.00</b>

**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 <sup>3</sup> )
Organic-Contaminated Combustible Solids	LA-W911	D001, D004, D008, D009, F001, F002, F003, F005	0.00
<b>Totals</b>			<b>0.00</b>

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

Treatability Group	MWIR Waste ID	RCRA Codes	Net Volume (m <sup>3</sup> )
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	0.00
<b>Totals</b>			<b>0.00</b>

**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 <sup>3</sup> )
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 LA-W922-22 LA-W922-23	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011	0.2082
<b>Totals</b>			<b>0.2082</b>

Table 3.1.5-2: Activities and Compliance Dates for Noncombustible Debris

Activity	Compliance Dates
A. Complete shipping of existing wastes to an offsite treatment facility or complete parallel option	3/31/2014
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

**3.1.6 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 <sup>3</sup> )
<i>Aqueous Wastes With Heavy Metals</i>	LA-W913	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011	0.00
<i>Corrosive Solutions</i>	LA-W914	D001, D002	0.00
<i>Aqueous Cyanides, Nitrates, Chromates, And Arsenates</i>	LA-W915	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, F007, P029, P098	0.00
<b>Totals</b>			<b>0.00</b>

**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 <sup>3</sup> )
<i>Water-Reactive Metal</i>	LA-W916	D001, D003, D004, D005, D007, D008, D010, D011	0.00
<b>Totals</b>			<b>0.00</b>

**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 <sup>3</sup> )
<i>Compressed Gases Requiring Scrubbing</i>	LA-W917 LA-W917-21	D001, D002, D003, D008, D009, P056	0.8328
<b>Totals</b>			<b>0.8328</b>

*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 offsite treatment facility or complete parallel option	6/30/2014
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 for Compressed Gases Requiring Oxidation

Treatability Group	MWIR Waste ID	RCRA Codes	Net Volume (m <sup>3</sup> )
Compressed Gases Requiring Oxidation	LA-W918	D001, U226	0.00
<b>Totals</b>			<b>0.00</b>

**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 <sup>3</sup> )
Elemental Mercury	LA-W920 LA-W920-16	D006, D009, F005	0.00
<b>Totals</b>			<b>0.00</b>

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

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

Treatability Group	MWIR Waste ID	RCRA Codes	Net Volume (m <sup>3</sup> )
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
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
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
<b>Totals</b>			<b>0.00</b>

Table 3.1.11-2: Additional Treatability Groups

Treatability Group	MWIR Waste ID	RCRA Codes	Net Volume (m <sup>3</sup> )
Liquid And Solid Oxidizers	LA-W923	D001, D003, D005	0.00
<b>Totals</b>			<b>0.00</b>

### 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 <sup>3</sup> )
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
Biochemical Laboratory Wastes	LA-W927	D001, D003	0.00
Dewatered Treatment Sludge	LA-W928		0.00
<b>Totals</b>			<b>0.00</b>

Table 3.2-2: Additional Wastes Requiring Characterization or Assessment

Treatability Group	MWIR Waste ID	RCRA Codes	Net Volume (m <sup>3</sup> )
Lead Wastes - TBD	LA-W924-15	D003, D008	0.00
	LA-W924-16		0.00
	LA-W924-17		0.00
Mercury Wastes – TBD	LA-W925-4	D003, D007, D008, D009 F001, F002, F005	0.00
	LA-W925-5		
	LA-W925-6		
	LA-W925-15		
	LA-W925-16		
	LA-W925-17		
Explosives	LA-W932	D003	0.00
Labpacks	LA-W933	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
	LA-W933-17		
High Activity Waste	LA-W934	D001, D003, D008, D009	1.5079
	LA-W934-16		
	LA-W934-19		
	LA-W934-20		
<b>Totals</b>			<b>1.5079</b>

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

Activity	Compliance Dates
J. Complete shipping of wastes to an offsite treatment facility, or submit documentation assigning waste items to applicable treatability groups or complete parallel option	12/31/2013
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

LANL's inventory of *High Activity Waste* was approximately 31 m<sup>3</sup> at the time the milestone was extended to December 31, 2013. LANL has subsequently shipped about 95 percent of that waste offsite. LANL's remaining inventory of *High Activity Waste* on September 30, 2012, consisted of six containers with a combined volume of 1.5079 m<sup>3</sup>. Assuming that shipping issues can be resolved, LANL expects to meet the December 31, 2013, milestone for the remaining *High Activity Waste*.

Container C05180336 (Portsmouth debris) was shipped offsite in February 2013 and will be reported in the FY13 Annual Update. Container C00130818 (Tritium traps with mercury contamination) will be shipped as soon as TSDF availability and scheduling allows.

The remaining four containers (mole sieves and squib assemblies with very high tritium) cannot be transported as currently packaged. They were intended to be repackaged at TA-16 once Nuclear Safety Authorization Basis issues had been resolved. TA-16, however, is not permitted for processing the containers and has not been able to assure that the containers could be processed within the 24-hour period allowed for removal of waste from a permitted TSDF. LANL is working with off-site TSDFs to accept these containers, however, to date LANL has not been able to identify an available shipping container with a Certificate of Compliance that is capable of transporting these containers offsite safely and compliantly.

### 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

		First Category	Second Category	Totals
Treatability Group	MWIR Waste ID	Net Volume (m <sup>3</sup> )	Net Volume (m <sup>3</sup> )	Net Volume (m <sup>3</sup> )
Lead For Surface Decontamination	LA-W930-0 LA-W930-5	0.00	0.00	0.00
<b>Totals</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**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

		First Category	Second Category	Totals
Treatability Group	MWIR Waste ID	Net Volume (m <sup>3</sup> )	Net Volume (m <sup>3</sup> )	Net Volume (m <sup>3</sup> )
Lead For Surface Decontamination	LA-W930-6	0.00	0.00	0.00
<b>Totals</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

#### 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 <sup>3</sup> )
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
<b>Totals</b>		<b>0.00</b>

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

Treatability Group	MWIR Waste ID	Net Volume (m <sup>3</sup> )
Nonradioactive or Suspect Waste Items	LA-W929-5	0.00
<b>Totals</b>		<b>0.00</b>

### 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 <sup>3</sup> )
Lead Requiring Sorting	LA-W931	D008	0.00
<b>Totals</b>			<b>0.00</b>

**Treatment:** Wastes in this treatability group will require different treatment processes. Drums will be opened, the contents removed, and the waste repackaged based on appropriate treatment requirements. Wastes in this treatability group are primarily lead pieces, lead shot, and lead-contaminated soils that 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 3.3.4-1: Treatability Groups for 10–100 nCi/g Waste

Treatability Group	MWIR Waste ID	RCRA Codes	Net Volume (m <sup>3</sup> )
10-100 nCi/g	LA-W935 LA-W935-19 LA-W935-20 LA-W935-21 LA-W935-22 LA-W935-23	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	<b>201.4007<sup>1</sup></b>
<b>Totals</b>			<b>201.4007</b>

<sup>1</sup> The total volume of 10-100 nCi/g Waste shown in Table 3.3.4-1 in the FY11 Annual Update was shown as 173.1088 m<sup>3</sup>; it should have been entered as 173.1039 as shown in Table A-1 in the FY11 Update.

**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 Chem-Low-Level (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. 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 3.3.4-2: Activities and Compliance Dates for 10–100 nCi/g Waste*

<b>Activity</b>	<b>Compliance Dates</b>
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

As discussed in Part I, Section 2, LANL has prioritized waste shipments to address higher risk wastes before lower risk wastes like those in the *10-100 nCi/g Waste (LA-W935)* treatability group. Therefore, a substantial inventory of LA-W934 waste that resulted from reclassifying MTRU waste between FY07 and FY12 remains to be shipped offsite. LANL intends to complete shipment of the remaining inventory from FY11 as well as additional *10-100 nCi/g Waste* generated from continued remediation of legacy TRU waste in FY12 – a total of 201.4007 m<sup>3</sup>) before the milestone of December 31, 2012. As much waste as possible that is reclassified in FY13 will also be shipped offsite prior to December 31, 2013. However, some waste produced in the latter part of 2013 may not be able to be shipped prior to December 31, 2013 if there are scheduling conflicts or restrictions at the receiving facilities. In that case, LANL would seek an additional milestone for those particular wastes.

### **3.4 Management of “Missing” Items**

*Table 3.4-1: Waste Category for “Missing Waste”*

<b>Category</b>	<b>MWIR Waste ID</b>	<b>Net Volume (m<sup>3</sup>)</b>
<i>Missing/Nonexistent/TBV</i>	None	0.00
<b>Totals</b>		<b>0.00</b>

**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 verified the absence of all “*Missing/nonexistent/TBV*” items container by container as each STP waste item was being sampled, repackaged, or otherwise prepared for onsite or offsite treatment. The final verification of all “*Missing/nonexistent/TBV*” items was completed by 2004. All missing or nonexistent items have been deleted from the STP. All remaining MLLW items in the original STP inventory have been treated and disposed of.

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

#### **4.0 MIXED TRANSURANIC WASTE**

**Treatment Group(s):** Assorted MTRU Waste

**Offsite Disposal:** MTRU waste at LANL will be shipped for disposal at WIPP, which is 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.

**APPENDICES**

**APPENDIX A. CURRENT YEAR MLLW INVENTORY DETAIL**

*Table A-1: FY12 MLLW Inventory1 Detailed Update by Treatability Group*

CP* Sec.	MWIR* Waste ID and Treatability Group/Category	FY11 Annual Update (m <sup>3</sup> ) <sup>1</sup>	Proposed Revision 23.0 (m <sup>3</sup> )	Comments <sup>2</sup>	FY12 Annual Update (m <sup>3</sup> )	Projection FY13- FY17 (m <sup>3</sup> )
3.1.1	LA-W901 <i>IPA Wastes</i>	0	0		0	0
3.1.1	LA-W902 <i>Scintillation Fluids</i>	0	0		0	0
3.1.2	LA-W903 <i>Lead Blankets</i>	0	0		0	0
3.1.2	LA-W904 <i>Soil with Heavy Metals</i>	0	0		0	0
3.1.2	LA-W905 <i>ER Soils</i>	0	0		0	0
3.1.3	LA-W906 <i>Aqueous Organic Liquids</i>	0	0		0	0
3.1.4	LA-W911 <i>Organic-Contaminated Combustible Solids</i>	0	0		0	0
3.1.4	LA-W919 <i>Organic-Contaminated Noncombustible Solids</i>	0	0		0	0
3.1.5	LA-W912 <i>Combustible Debris</i>	0	0		0	0
3.1.5	LA-W921 <i>Activated or Inseparable Lead</i>	0	0		0	0
3.1.5	LA-W922 <i>Noncombustible Debris</i>	0	0.2082		0.2082	0
3.1.6	LA-W913 <i>Aqueous Wastes with Heavy Metals</i>	0	0		0	0
3.1.6	LA-W914 <i>Corrosive Solutions</i>	0	0		0	0
3.1.6	LA-W915 <i>Aqueous Cyanides, Nitrates, Chromates, and Arsenates</i>	0	0		0	0
3.1.7	LA-W916 <i>Water-Reactive Wastes</i>	0	0		0	0

CP* Sec.	MWIR* Waste ID and Treatability Group/Category	FY11 Annual Update (m <sup>3</sup> ) <sup>1</sup>	Proposed Revision 23.0 (m <sup>3</sup> )	Comments <sup>2</sup>	FY12 Annual Update (m <sup>3</sup> )	Projection FY13- FY17 (m <sup>3</sup> )
3.1.8	LA-W917	1.2492	0	Administrative Adjustment	0.8328	0
	<i>Compressed Gases Requiring Scrubbing</i>		-0.4164	Shipped offsite for treatment/disposal		
3.1.9	LA-W918 <i>Compressed Gases Requiring Oxidation</i>	0	0		0	0
3.1.10	LA-W920 <i>Elemental Mercury</i>	0	0		0	0
3.1.11	LA-W907 <i>Halogenated Organic Liquids</i>	0	0		0	0
3.1.11	LA-W908 <i>Nonhalogenated Organic Liquids</i>	0	0		0	0
3.1.11	LA-W909 <i>Bulk Oils</i>	0	0		0	0
3.1.11	LA-W910 <i>Polychlorinated Biphenyl (PCB) Wastes with Resource Conservation and Recovery Act (RCRA) Components</i>	0	0		0	0
3.1.11	LA-W923 <i>Liquid and Solid Oxidizers</i>	0	0		0	0
3.2	LA-W924 <i>Lead Wastes – TBD</i>	0	0		0	0
3.2	LA-W925 <i>Mercury Wastes – TBD</i>	0	0		0	0
3.2	LA-W926 <i>Compressed Gases – TBD</i>	0	0		0	0
3.2	LA-W927 <i>Biochemical Laboratory Wastes</i>	0	0		0	0
3.2	LA-W928 <i>Dewatered Treatment Sludge</i>	0	0		0	0
3.2	LA-W932 <i>Explosives</i>	0	0		0	0

CP* Sec.	MWIR* Waste ID and Treatability Group/Category	FY11 Annual Update (m <sup>3</sup> ) <sup>1</sup>	Proposed Revision 23.0 (m <sup>3</sup> )	Comments <sup>2</sup>	FY12 Annual Update (m <sup>3</sup> )	Projection FY13- FY17 (m <sup>3</sup> )
3.2	LA-W933 <i>Labpacks</i>	0	0		0	0
3.2	LA-W934 <i>High Activity Waste<sup>3</sup></i>	1.5079	0	Shipped offsite for treatment/disposal	1.5079	0
3.3.1	LA-W930 <i>Lead for Surface Decontamination</i>	0	0		0	0
3.3.2	LA-W929 <i>Nonradioactive or Suspect Waste Items to be Surveyed</i>	0	0		0	0
3.3.3	LA-W931 <i>Lead Requiring Sorting</i>	0	0		0	0
3.3.4	LA-W935 <i>10–100 nCi/g Waste<sup>3</sup></i>	173.1039	90.2360 -61.9392	Administrative Adjustment  Shipped offsite for treatment/disposal	201.4007	460.0000 <sup>4</sup>
3.4	<i>Missing/ nonexistent/ TBV category</i>	0	0		0	N/A
	<b>TOTALS</b>	<b>175.8610</b>			<b>203.9496</b>	

\* CP is Compliance Plan; MWIR is Mixed Waste Inventory Report

<sup>1</sup> MLLW volumes are calculated using the conversion: 55-gallon container = 0.2082 m<sup>3</sup>; 85-gallon container = 0.3218 m<sup>3</sup>; however, due to FY12 changes in the way that the MTRU and MLLW databases record volumes for newly reclassified LA-W935 waste, the volumes removed from the MTRU database for containers reclassified in FY12 equal those added to the MLLW inventory of LA-W935 waste.

<sup>2</sup> Shipment details are in Appendix B; Administrative adjustments are in Appendix C.

<sup>3</sup> Items prohibited from shipment to WIPP are removed from MTRU STP containers and consolidated; some are MLLW and are included in Table A-1 as LA-W917 waste; others are MTRU waste and are considered *Combustible-Noncombustible Waste* in Table E-1.

<sup>4</sup> LANL anticipates that a large volume of formerly TRU and MTRU waste will be retrieved over the next few years and will be reclassified to LA-W935. As a conservative measure, stored reclassified TRU waste may be assigned hazardous waste codes and managed as STP mixed waste.

**APPENDIX B. CURRENT YEAR MLLW SHIPMENT DETAIL**

*Table B-1. MLLW Shipped Offsite for Treatment and Disposal in FY12*

CP Section	MWIR No.	Treatability Group	Manifest Number	Destination	Date Shipped	Date NMED Notified	Volume (m <sup>3</sup> )
3.1.8	LA-W917	<i>Compressed Gases Requiring Scrubbing</i>	007047476JJK	Perma-Fix/M&EC	9/26/2012	11/6/2012 (WM-DO-12-0005)	0.4164
<b>LA-W917 Total</b>							<b>0.4164</b>
3.3.4	LA-W935	<i>10-100 nCi/g Waste</i>	007047091JJK	Perma-Fix/NW	12/15/2011	1/20/2012 (ENV-ES-12-011)	2.1100
3.3.4	LA-W935	<i>10-100 nCi/g Waste</i>	007047103JJK	Perma-Fix/NW	12/20/2011	1/25/2012 (ENV-ES-12-015)	10.1832 <sup>1</sup>
3.3.4	LA-W935	<i>10-100 nCi/g Waste</i>	007047487JJK	Perma-Fix/NW	3/30/2012	9/19/2012 (ENV-ES-12-0201)	2.1080
3.3.4	LA-W935	<i>10-100 nCi/g Waste</i>	007047487JJK	Perma-Fix/NW	9/27/2012	11/6/2012 (WM-DO-12-0004)	15.4900
3.3.4	LA-W935	<i>10-100 nCi/g Waste</i>	007047497JJK	Perma-Fix/NW	9/27/2012	11/6/2012 (WM-DO-12-0004)	31.8400
3.3.4	LA-W935	<i>10-100 nCi/g Waste</i>	007047483JJK	Perma-Fix/FL	9/26/2012	11/6/2012 (WM-DO-12-0005)	.2080
<b>LA-W935 Total</b>							<b>61.9392</b>
<b>Grand Total</b>							<b>62.3556</b>

<sup>1</sup> Due to a rounding error, the total volume reported in ENV-ES-12-015 was 10.1735 m<sup>3</sup>; it should have been reported as 10.1832 m<sup>3</sup>.

**APPENDIX C. CURRENT YEAR MLLW ADMINISTRATIVE ADJUSTMENTS**

*Table C-1. Administrative Adjustments*

CP Section	MWIR Number	Administrative Adjustment	Volume (m <sup>3</sup> )
3.3.4	LA-W935	Transferred into LA-W935 from MTRU STP Inventory	90.2360 <sup>1</sup>
<b>Total Net Adjustments for LA-W935</b>			<b>90.2360</b>
<b>Total Net Adjustments</b>			<b>90.2360</b>

<sup>1</sup> Due to changes in the way that the MTRU and MLLW databases record volumes for newly reclassified (LA-W935 waste), the volumes removed from the MTRU Inventory in FY12 equal the volumes added to the MLLW inventory.

*Table C-2. Administrative Adjustment - Detail*

CP Section	MWIR	Treatability Group	Type of Adjustment	Cumulative Volume Adjustment (m <sup>3</sup> )	Item or Container Number	MLLW Container Volume (m <sup>3</sup> )	Reason for Administrative Adjustment
3.3.4	LA-W935	10-100 nCi/g	Reclassified MTRU STP inventory to MLLW STP inventory	90.236			Less than 100 nCi/g; Derived from combustible/noncombustible MTRU inventory
					L12226669	2.5600	Parent MTRU Container 52307, 2.560 m3
					C11225642	26.7200	Parent MTRU Container 55123, 26.720 m3
					L12226668	19.2700	Parent MTRU Container 55304, 19.270 m3
					L12226671	11.7600	Parent MTRU Container 55306, 11.760 m3
					L12226665	12.5700	Parent MTRU Container S794035, 12.570 m3
					W730474	1.9000	Parent MTRU Container 89999, 1.900 m3
					L12226666	12.4000	Parent MTRU Container S813231, 12.400 m3
					L12226655	0.3220	Parent MTRU Container 91021, 0.322
					L12226663	0.2080	Parent MTRU Container 91111, 0.208 m3
					W734347	0.2080	Parent MTRU Container 90735, 0.208 m3
					L12226670	0.2080	Parent MTRU Container 89758, 0.208 m3
C11225675	2.1100	Parent MTRU Container 56040, 2.110 m3					
Subtotal MLLW Volume						90.2360	Subtotal MTRU Volume: 90.236

**APPENDIX D. PREVIOUS YEAR MLLW INVENTORY DETAIL**

*Table D-1: FY11 MLLW Inventory1 Detailed Update by Treatability Group*

<b>CP* Sec.</b>	<b>MWIR* Waste ID and Treatability Group/Category</b>	<b>FY10 Annual Update (m<sup>3</sup>)<sup>1</sup></b>	<b>Proposed Revision 22.0 (m<sup>3</sup>)</b>	<b>Comments<sup>2</sup></b>	<b>FY11 Annual Update (m<sup>3</sup>)</b>	<b>Projection FY12- FY16 (m<sup>3</sup>)</b>
3.1.1	LA-W901 <i>IPA Wastes</i>	0	0		0	0
3.1.1	LA-W902 <i>Scintillation Fluids</i>	0	0		0	0
3.1.2	LA-W903 <i>Lead Blankets</i>	0	0		0	0
3.1.2	LA-W904 <i>Soil with Heavy Metals</i>	0	0		0	0
3.1.2	LA-W905 <i>ER Soils</i>	0	0		0	0
3.1.3	LA-W906 <i>Aqueous Organic Liquids</i>	0	0		0	0
3.1.4	LA-W911 <i>Organic-Contaminated Combustible Solids</i>	0	0		0	0
3.1.4	LA-W919 <i>Organic-Contaminated Noncombustible Solids</i>	0	0		0	0
3.1.5	LA-W912 <i>Combustible Debris</i>	0	0		0	0
3.1.5	LA-W921 <i>Activated or Inseparable Lead</i>	0	0		0	0
3.1.5	LA-W922 <i>Noncombustible Debris</i>	0	1.3027	New covered	0	0
			-1.3027	Shipped offsite for treatment/disposal		
3.1.6	LA-W913 <i>Aqueous Wastes with Heavy Metals</i>	0	0		0	0
3.1.6	LA-W914 <i>Corrosive Solutions</i>	0	0		0	0
3.1.6	LA-W915 <i>Aqueous Cyanides, Nitrates, Chromates, and Arsenates</i>	0	0		0	0

**FY12 Annual Update  
Site Treatment Plan**

**March 29, 2013  
Federal Facility Compliance Order**

CP* Sec.	MWIR* Waste ID and Treatability Group/Category	FY10 Annual Update (m <sup>3</sup> ) <sup>1</sup>	Proposed Revision 22.0 (m <sup>3</sup> )	Comments <sup>2</sup>	FY11 Annual Update (m <sup>3</sup> )	Projection FY12- FY16 (m <sup>3</sup> )
3.1.7	LA-W916 <i>Water-Reactive Wastes</i>	0	0		0	0
3.1.8	LA-W917 <i>Compressed Gases Requiring Scrubbing</i>	4.164	-0.6246	Administrative Adjustment (Existing prohibited items from MLLW STP inventory <sup>3</sup> recharacterized as MTRU)	1.2492	0
			-2.2902	Shipped offsite for treatment/disposal		
3.1.9	LA-W918 <i>Compressed Gases Requiring Oxidation</i>	0	0		0	0
3.1.10	LA-W920 <i>Elemental Mercury</i>	0	0		0	0
3.1.11	LA-W907 <i>Halogenated Organic Liquids</i>	0	0		0	0
3.1.11	LA-W908 <i>Nonhalogenated Organic Liquids</i>	0	0		0	0
3.1.11	LA-W909 <i>Bulk Oils</i>	0	0		0	0
3.1.11	LA-W910 <i>Polychlorinated Biphenyl (PCB) Wastes with Resource Conservation and Recovery Act (RCRA) Components</i>	0	0		0	0
3.1.11	LA-W923 <i>Liquid and Solid Oxidizers</i>	0	0		0	0
3.2	LA-W924 <i>Lead Wastes – TBD</i>	0	0		0	0
3.2	LA-W925 <i>Mercury Wastes – TBD</i>	0	0		0	0
3.2	LA-W926 <i>Compressed Gases – TBD</i>	0	0		0	0
3.2	LA-W927 <i>Biochemical Laboratory Wastes</i>	0	0		0	0
3.2	LA-W928 <i>Dewatered Treatment Sludge</i>	0	0		0	0

CP* Sec.	MWIR* Waste ID and Treatability Group/Category	FY10 Annual Update (m <sup>3</sup> ) <sup>1</sup>	Proposed Revision 22.0 (m <sup>3</sup> )	Comments <sup>2</sup>	FY11 Annual Update (m <sup>3</sup> )	Projection FY12- FY16 (m <sup>3</sup> )
3.2	LA-W932 <i>Explosives</i>	0	0		0	0
3.2	LA-W933 <i>Labpacks</i>	0	0		0	0
3.2	LA-W934 <i>High Activity Waste<sup>3</sup></i>	2.1709	-0.6556	Shipped offsite for treatment/disposal	1.5079	0
			-0.0074	Administrative Adjustment		
3.3.1	LA-W930 <i>Lead for Surface Decontamination</i>	0	0		0	0
3.3.2	LA-W929 <i>Nonradioactive or Suspect Waste Items to be Surveyed</i>	0	0		0	0
3.3.3	LA-W931 <i>Lead Requiring Sorting</i>	0	0		0	0
3.3.4	LA-W935 <i>10-100 nCi/g Waste<sup>3</sup></i>	155.1344	76.1505	Administrative Adjustment	173.1039	460.0000 <sup>4</sup>
			10.6028	New covered (reclassified and transferred from TRU inventory)		
			-68.7838	Shipped offsite for treatment/disposal		
3.4	<i>Missing/ nonexistent/ TBV category</i>	0	0		0	N/A
	<b>TOTALS</b>	<b>161.4693</b>			<b>175.8610</b>	

\* CP is Compliance Plan; MWIR is Mixed Waste Inventory Report

<sup>1</sup> MLLW volumes are calculated using the conversion: 55-gallon container = 0.2082 m<sup>3</sup>; 85-gallon container = 0.3218 m<sup>3</sup>

<sup>2</sup> Shipment details are in Appendix B; Administrative adjustments are in Appendix C.

<sup>3</sup> Items prohibited from shipment to WIPP are removed from MTRU STP containers and consolidated; some are MLLW and are included in Table A-1 as LA-W917 waste; others are MTRU waste and are considered *Combustible-Noncombustible Waste* in Table E-1.

<sup>4</sup> LANL anticipates that a large volume of formerly TRU and MTRU waste will be retrieved over the next few years and will be reclassified to LA-W935. As a conservative measure, the stored reclassified TRU waste will be assigned hazardous waste codes and will be managed as STP mixed waste.

**APPENDIX E. CURRENT MTRU INVENTORY DETAIL**

*Table E-1. TA-54 MTRU Covered Inventory (by Treatability Group)*

Treatability Group	FY11 Annual Update (m <sup>3</sup> )	Proposed Revision 23.0 (m <sup>3</sup> ) <sup>1,2</sup>	Comments <sup>3</sup>	FY12 Annual Update (m <sup>3</sup> )	Projection FY13-FY17 (m <sup>3</sup> )
<i>Cemented Sludge</i>	<b>662.822</b>				
		0	New Covered		
		-62.580	Shipped Offsite		
		-4.154	Administrative Adjustments		
			<b>FY12 Subtotal Cemented Sludge</b>	<b>596.088</b>	<b>0</b>
<i>Combustible - Noncombustible Waste</i>	<b>2005.544</b>				
		8.348	New Covered		
		-280.568	Shipped Offsite		
		-7.138	Administrative Adjustments		
			<b>FY12 Subtotal Combustible-Noncombustible Waste</b>	<b>1726.186</b>	<b>100</b>
<i>Combustible Waste</i>	<b>20.460</b>				
		0.644	New Covered		
		-6.296	Shipped Offsite		
		-2.536	Administrative Adjustments		
			<b>FY12 Subtotal Combustible Waste</b>	<b>12.272</b>	<b>0</b>
<i>Glass Waste</i>	<b>0.208</b>				
		0	New Covered		
		0	Shipped Offsite		
		-0.208	Administrative Adjustments		
			<b>FY12 Subtotal Glass Waste</b>	<b>0</b>	<b>0</b>
<i>Leaded Glovebox Waste</i>	<b>0</b>				
		0	New Covered		
		0	Shipped Offsite		
		0	Administrative Adjustments		
			<b>FY12 Subtotal Leaded Glovebox Waste</b>	<b>0</b>	<b>0</b>
<i>Metallic Waste</i>	<b>118.988</b>				
		0	New Covered		
		-6.116	Shipped Offsite		
		-2.526	Administrative Adjustments		
			<b>FY12 Subtotal Metallic Waste</b>	<b>110.346</b>	<b>0</b>

<b>Treatability Group</b>	<b>FY11 Annual Update (m<sup>3</sup>)</b>	<b>Proposed Revision 23.0 (m<sup>3</sup>)<sup>1,2</sup></b>	<b>Comments<sup>3</sup></b>	<b>FY12 Annual Update (m<sup>3</sup>)</b>	<b>Projection FY13-FY17 (m<sup>3</sup>)</b>
<i>Noncombustible Waste</i>	<b>125.352</b>				
		0.208	New Covered		
		-96.708	Shipped Offsite		
		96.908	Administrative Adjustments		
			<b>FY12 Subtotal <i>Noncombustible Waste</i></b>	<b>125.760</b>	100
<i>Solidified Inorganic and Organic Waste</i>	<b>140.870</b>				
		2.288	New Covered		
		-23.752	Shipped Offsite		
		31.310	Administrative Adjustments		
			<b>FY12 Subtotal <i>Solidified Inorganic and Organic Waste</i></b>	<b>150.716</b>	10
<b>TOTAL FY10:</b>	<b>3074.244</b>		<b>Total FY12 Inventory:</b>	<b>2721.368</b>	<b>210</b>

<sup>1</sup> MTRU waste volumes are calculated using the conversion: 55-gallon container = 0.2080 m<sup>3</sup>; 85-gallon container = 0.3215 m<sup>3</sup>.

<sup>2</sup> Volumes are represented to three decimal places in accordance with an agreement with NMED to report MTRU volumes to three decimal places.

<sup>3</sup> Shipping details are found in Appendix F, and Administrative Adjustments are found in Appendix G.

<sup>4</sup> Depending on the rounding method (rounding of totals or of individual volumes), minor differences in the total inventory may be obtained. This report adjusts the end-of-the-year inventory with individual drum volumes rounded to three decimal places.

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

Location	FY11 MTRU Inventory (m <sup>3</sup> ) <sup>1</sup>	Treatability Group	Proposed Revision 23.0 (m <sup>3</sup> )	Comments <sup>1</sup>	FY12 MTRU Inventory (m <sup>3</sup> )
CMR	3.564	Combustible-Noncombustible Waste	0.208	New Covered	
			-1.456	Administrative Adjustments	
<b>Total FY12 CMR Inventory</b>					<b>2.316</b>
TA-55	5.806	Combustible-Noncombustible Waste	2.080	New Covered	
			-4.632	Administrative Adjustment	
<b>FY12 TA-55 Combustible-Noncombustible Waste Inventory</b>					<b>3.254</b>
TA-55	0	Combustible Waste	0.019	New Covered	
<b>FY12 TA-55 Combustible Waste Inventory</b>					<b>0.019</b>
TA-55	31.987	Metallic Waste			
<b>FY12 TA-55 Metallic Waste Inventory</b>					<b>31.987</b>
TA-55	3.148	Noncombustible Waste	3.596	New Covered	
			-2.524	Administrative Adjustment	
<b>FY12 TA-55 Noncombustible Waste Inventory</b>					<b>4.220</b>
TA-55	0.208	Solid Organic and Inorganic Waste			
<b>FY12 TA-55 Solidified Organic and Inorganic Waste Inventory</b>					<b>0.208</b>
<b>Total FY12 TA-55 Inventory</b>					<b>39.688</b>
	<b>44.713</b>	<b>Total FY12 CMR/TA-55 Inventory</b>			<b>42.004</b>

<sup>1</sup> Shipping details are found in Appendix F and Administrative Adjustments are found in Appendix G. Since all waste is shipped from TA-54, there are no shipping data for CMR/TA-55, only transfers to TA-54, which are included in the Appendix G.

**APPENDIX F. FY12 MTRU WASTE SHIPMENTS TO WIPP**

Table F-1: FY12 MTRU Shipments to WIPP

FY12 Quarter	Treatability Group	Existing FY11 Inventory Volume (m <sup>3</sup> )	New Covered Volume (m <sup>3</sup> )	Total Removed from Inventory (m <sup>3</sup> )	Total Volume Shipped (m <sup>3</sup> ) <sup>1</sup>
<b>Q1</b>	<i>Cemented Sludge Total</i>	4.690	0	4.690	4.576
	<i>Combustible-Noncombustible Waste Total</i>	50.336	0.208	50.544	50.544
	<i>Combustible Waste Total</i>	0.624	0	0.624	0.624
	<i>Noncombustible Waste Total</i>	24.960	0	24.960	24.960
	<i>Solidified Inorganic and Organic Waste Total</i>	1.664	0	1.664	1.664
	<b>Q1 Total</b>	<b>82.274</b>	<b>0.208</b>	<b>82.482</b>	<b>82.368</b>
<b>Q2</b>	<i>Cemented Sludge Total</i>	1.456	0	1.456	1.456
	<i>Combustible-Noncombustible Waste Total</i>	40.352	0.208	40.560	40.560
	<i>Combustible Waste Total</i>	1.040	0	1.040	1.040
	<i>Metallic Waste Total</i>	0.416	0	0.416	0.416
	<i>Noncombustible Waste Total</i>	31.408	0	31.408	31.408
	<i>Solidified Inorganic and Organic Waste Total</i>	1.040	0.208	1.248	1.248
<b>Q2 Total</b>	<b>75.712</b>	<b>0.416</b>	<b>76.128</b>	<b>76.128</b>	
<b>Q3</b>	<i>Cemented Sludge Total</i>	1.664	0	1.664	1.664
	<i>Combustible-Noncombustible Waste Total</i>	128.044	2.732	130.776	130.776
	<i>Combustible Waste Total</i>	4.216	0	4.216	4.216
	<i>Metallic Waste Total</i>	3.800	0	3.800	3.800
	<i>Noncombustible Waste Total</i>	17.472	0.208	17.680	17.680
	<i>Solidified Inorganic and Organic Waste Total</i>	0.416	0.416	0.832	0.832
<b>Q3 Total</b>	<b>155.612</b>	<b>3.356</b>	<b>158.968</b>	<b>158.968</b>	
<b>Q4</b>	<i>Cemented Sludge Total</i>	54.770	0	54.770	52.832
	<i>Combustible-Noncombustible Waste Total</i>	58.272	0.416	58.688	58.688
	<i>Combustible Waste Total</i>	0.416	0	0.416	0.416
	<i>Metallic Waste Total</i>	1.900	0	1.900	1.900
	<i>Noncombustible Waste Total</i>	22.660	0	22.660	22.660
	<i>Solidified Inorganic and Organic Waste Total</i>	19.592	0.416	20.008	19.552
<b>Q4 Total</b>	<b>157.610</b>	<b>0.832</b>	<b>158.442</b>	<b>156.048</b>	
<b>Grand Total</b>	<b>471.416</b>	<b>4.604</b>	<b>476.020</b>	<b>473.512</b>	

<sup>1</sup> Volumes shipped may be lower than volumes removed from the STP inventory due to the removal of overpacks before shipping.

**APPENDIX G. CURRENT YEAR MTRU INVENTORY – ADMINISTRATIVE ADJUSTMENTS**

*Table G-1: FY12 MTRU Administrative Adjustments to TA-54 Inventory*

<b>Treatability Group</b>	<b>Administrative Adjustment</b>	<b>Volume (m<sup>3</sup>)</b>
<i>Cemented Sludge</i>	Repacked into 6.032 m <sup>3</sup> <i>Combustible-Noncombustible Waste</i> and 4.576 m <sup>3</sup> <i>Noncombustible Waste</i>	-5.938
	Volume changes due to addition or removal of 85 gallon overpacks	1.784
<b><i>Cemented Sludge Net Adjustment</i></b>		<b>-4.154</b>
<i>Combustible-Noncombustible Waste</i>	Reclassified as MLLW (LA-W935)	-88.126
	Added as a result of recharacterizing TRU inventory as MTRU (Three containers (2.316 m <sup>3</sup> ) were discovered to contain aerosol cans and were assigned EPA Code D003)	2.316
	Added as a result of recharacterizing TRU inventory as MTRU during repacking	29.356
	Repacked into 138.086 m <sup>3</sup> <i>Combustible-Noncombustible Waste</i> and 33.280 m <sup>3</sup> <i>Noncombustible Waste</i>	-114.894
	Additional covered inventory transferred from TA-55 covered inventory	4.632
	Additional covered inventory transferred from CMR covered inventory	2.940
	Added as a result of repacking <i>Cemented Sludge</i> waste	6.0320
	Added as a result of repacking <i>Combustible-Noncombustible Waste</i>	138.086
	Added as a result of repacking <i>Combustible Waste</i>	1.872
	Added as a result of repacking <i>Glass Waste</i>	0.208
	Added as a result of repacking <i>Metallic Waste</i>	0.416
	Added as a result of repacking <i>Noncombustible Waste</i>	3.744
	Added as a result of repacking <i>Solidified Inorganic and Organic Waste</i>	3.952
	Added as a result of reclassifying MTRU WIPP-prohibited items ( <i>Noncombustible Waste</i> ) as <i>Combustible-Noncombustible Waste</i>	1.664
	Added as a result of accumulating MTRU WIPP-prohibited items	0.208
Volume changes due to addition of 85 gallon overpacks	0.456	
<b><i>Combustible-Noncombustible Net Adjustment</i></b>		<b>-7.138</b>
<i>Combustible Waste</i>	Repacked into 1.872 m <sup>3</sup> <i>Combustible-Noncombustible Waste</i> and 1.248 m <sup>3</sup> <i>Noncombustible Waste</i>	-2.536
<b><i>Combustible Waste Net Adjustment</i></b>		<b>-2.536</b>
<i>Glass Waste</i>	Repacked into 0.208 m <sup>3</sup> <i>Combustible-Noncombustible Waste</i>	-0.208
	<b><i>Glass Waste Net Adjustment</i></b>	<b>-0.208</b>
<i>Metallic Waste</i>	Reclassified as MLLW (LA-W935)	-2.110
	Repacked into 0.416 m <sup>3</sup> <i>Combustible-Noncombustible Waste</i>	-0.530
	Volume changes due to addition or removal of 85 gallon overpacks	0.114
<b><i>Metallic Waste Net Adjustment</i></b>		<b>-2.526</b>
<i>Noncombustible Waste</i>	Repacked into 3.744 m <sup>3</sup> <i>Combustible-Noncombustible Waste</i> and 7.696 m <sup>3</sup> <i>Noncombustible Waste</i>	-3.556
	Added as a result of repacking <i>Cemented Sludge</i>	4.576
	Added as a result of repacking <i>Combustible-Noncombustible Waste</i>	33.280
	Added as a result of repacking <i>Noncombustible Waste</i>	7.696
	Added as result of repacking <i>Combustible Waste</i>	1.248

Treatability Group	Administrative Adjustment	Volume (m <sup>3</sup> )
	Added as result of repacking <i>Solidified Inorganic and Organic Waste</i>	3.120
	MTRU WIPP-prohibited items ( <i>Noncombustible Waste</i> ) reclassified as <i>Combustible-Noncombustible Waste</i>	-1.664
	Added as a result of recharacterizing TRU inventory as MTRU during repacking	51.376
	Additional covered inventory transferred from TA-55 covered inventory and assigned to <i>Combustible-Noncombustible Waste</i> at TA-54	0.832
<b><i>Noncombustible Waste Net Adjustment</i></b>		<b>96.908</b>
<i>Solidified Inorganic and Organic Waste</i>	Repacked into 3.952 m <sup>3</sup> <i>Combustible-Noncombustible Waste</i> and 3.120 m <sup>3</sup> <i>Noncombustible Waste</i>	-3.442
	Added as a result of recharacterizing TRU inventory as MTRU during repacking 132 containers (34.296 m <sup>3</sup> ) of nitrate salts were reevaluated, determined to be potentially mixed waste, and assigned EPA codes D007, D008, and D009)	34.296
	Volume changes due to addition or removal of 85 gallon overpacks	0.456
<b><i>Solidified Inorganic and Organic Waste Net Adjustment</i></b>		<b>31.310</b>
<b><i>Total Net TA-54 Adjustment</i></b>		<b>111.656</b>

Table G-2: FY12 MTRU Administrative Adjustments  
for CMR and TA-55 Inventory

Location	Treatability Group	Administrative Adjustment	Volume (m <sup>3</sup> )
CMR	<i>Combustible-Noncombustible Waste</i>	Transferred to TA-54 and assigned to <i>Combustible-Noncombustible Waste</i> in the TA-54 inventory	-2.940
		Added due to overpacking waste (0.416 m <sup>3</sup> ) into Standard Waste Box (1.900 m <sup>3</sup> )	1.484
<b>Net Adjustment CMR Inventory</b>			<b>-1.456</b>
TA-55	<i>Combustible-Noncombustible Waste</i>	Transferred to TA-54 and assigned to <i>Combustible-Noncombustible Waste</i> in the TA-54 inventory	-4.632
		<b>Net Adjustment TA-55 <i>Combustible-Noncombustible Waste</i></b>	
TA-55	<i>Noncombustible Waste</i>	Transferred to TA-54 and assigned to <i>Combustible-Noncombustible Waste</i> in the TA-54 inventory	-0.832
		One container (a large metal plate) was reevaluated and determined to be nonhazardous low-level waste	-1.900
		Added as a result of dividing the contents of one <i>Noncombustible Waste</i> container (0.208 m <sup>3</sup> ) into two <i>Noncombustible Waste</i> containers (0.416 m <sup>3</sup> ) for a net increase of 0.208 m <sup>3</sup>	0.208
<b>Net Adjustment TA-55 <i>Noncombustible Waste</i></b>			<b>-2.524</b>
<b>Net Adjustment TA-55 Inventory</b>			<b>-7.156</b>
<b>Total Net TA-55/CMR Adjustment</b>			<b>-8.612</b>

Table G-3: MTRU Administrative Adjustments – TA-54 Volume Adjustments [Table omitted]

Table G-4: MTRU Administrative Adjustments – TA-54 Containers Added [Table omitted]

**APPENDIX H. MLLW TREATMENT FACILITIES**

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

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

**APPENDIX I. CORRESPONDENCE**

*Table I-1: Expedited Shipment Letters [Table omitted]*

*Table I-2: Correspondence*

<b>Letter Date</b>	<b>Description</b>	<b>Letter Number</b>	<b>Revision Reference</b>	<b>Listed in Revision 22.0 (Appendix I)</b>
10/7/2011	Response to the 9/21/2011 Notice of Disapproval of the FY10 STP Annual Report and Proposed Revision 21.0	ENV-ES-11-0222	21.0	Yes
10/28/2011	Notice of Completion of OffSite Waste Shipment Activity 3.3.4	ENV-ES-11-0234	22.0	Yes
11/1/2011	Notice of Completion of OffSite Waste Shipment Activity 4.0, FY11 Q4	ENV-ES-11-0257	22.0	Yes
12/9/2011	Notice of Completion of OffSite Waste Shipment Activity 3.1.8	ENV-ES-11-0285	22.0	Yes
1/20/2012	Notice of Completion of OffSite Waste Shipment Activity 3.3.4	ENV-ES-12-0011	23.0	No
1/25/2012	Notice of Completion of OffSite Waste Shipment Activity 3.3.4	ENV-ES-12-015	23.0	No
1/31/2012	Notice of Completion of OffSite Waste Shipment Activity 4.0, FY12 Q1	ENV-ES-018	23.0	No
3/30/2012	Submittal of FY11 STP Annual Report and Proposed Revision 22.0	ENV-ES-12-0059	22.0	Yes
5/9/2012	Notice of Completion of OffSite Waste Shipment Activity 4.0, FY12 Q2	ENV-ES-12-0092	23.0	No
8/7/2012	Notice of Completion of OffSite Waste Shipment Activity 4.0, FY12 Q3	ENV-ES-12-0160	23.0	No
9/11/2012	Correction of Table 3.2-2, FY11 Annual Report, STP	ENV-ES-12-0217	22.0	Yes
9/19/2012	Notice of Completion of OffSite Waste Shipment Activity 3.3.4	ENV-ES-12-0201	23.0	No
10/22/2012	Response to the 9/18/2012 Notice of Disapproval of the FY11 STP Annual Report and Proposed Revision 22.0	WM-DO-12-0002	22.0	Yes
11/6/2012	Notice of Completion of OffSite Waste Shipment Activity 3.3.4	WM-DO-12-0004	23.0	No
11/6/2012	Notice of Completion of OffSite Waste Shipment Activities 3.1.8 and 3.3.4	WM-DO-12-0005	23.0	No

<b>Letter Date</b>	<b>Description</b>	<b>Letter Number</b>	<b>Revision Reference</b>	<b>Listed in Revision 22.0 (Appendix I)</b>
11/6/2012	Notice of Completion of OffSite Waste Shipment Activity 4.0, FY12 Q4	WM-DO-12-0006	23.0	No
3/22/2013	Correction of Off-Site Shipment Reports, FY12 Q1, Q3, and Q4, Activity 4.0	ENV-EDA-13-04	23.0	No
3/29/2013	Submittal of FY12 Annual Update and Proposal 23.0	ENV-EDA-13-06	23.0	No

**APPENDIX J. HISTORY OF CHANGES TO THE CP AND FFCO**

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

To date, there have been 22 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*

<b>Action</b>	<b>Document Modified</b>	<b>Effective Date</b>	<b>Effect on FFCO/STP</b>
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 <i>Annual Updates</i> (and certain other items) to several treatability groups, added Activities and Compliance Dates, added CP Appendices, and deleted treated items.
Rev. 6.0	STP/CP	7/31/98	Added volumes reported in FY97 <i>Annual Update</i> to several treatability groups, added certain Activities and Compliance Dates, adjusted several original inventory volumes, transferred one LA-W929 item to a new treatability group, and deleted treated items.
Rev. 7.0	STP/CP	11/30/98	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 <i>Annual Update</i> to certain treatability groups.

<b>Action</b>	<b>Document Modified</b>	<b>Effective Date</b>	<b>Effect on FFCO/STP</b>
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 <i>Annual Update</i> to certain treatability groups.
Rev. 11.0	STP/CP	4/18/01	Added and deleted volumes reported in FY00 <i>Annual Update</i> .
Rev. 12.0	STP/CP	3/13/02	Added and deleted volumes reported in FY01 <i>Annual Update</i> . 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 <i>Annual Update</i> .
Rev 14.0	STP/CP	1/5/05	Added and deleted volumes reported in FY03 <i>Annual Update</i> .
Rev 15.0	STP/CP	8/16/05	Added and deleted volumes reported in FY04 <i>Annual Update</i> .
Rev 16.0	STP/CP	12/12/06	Added and deleted volumes reported in FY05 <i>Annual Update</i> . 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 <sup>3</sup> of LA-W934 High Activity MLLW waste to MTRU waste.
Rev 17.0	STP/CP	6/26/08	Added and deleted volumes reported in FY06 <i>Annual Update</i> . 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	1/9/09	Added and deleted volumes reported in FY07 <i>Annual Update</i> . 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	2/5/10	Added and deleted volumes reported in FY08 <i>Annual Update</i> . 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.

<b>Action</b>	<b>Document Modified</b>	<b>Effective Date</b>	<b>Effect on FFCO/STP</b>
Rev 20.0	STP/CP	11/8/10	Added and deleted volumes reported in FY09 Annual Update. Proposed an extended compliance date for CP Activity 3.2(J).
Rev 21.0	STP/CP	3/21/12	Added and deleted volumes reported in FY10 Annual Update. Proposed new compliance date for CP Activity 3.1.8(A).
Rev 22.0	STP/CP	12/10/12	Added and deleted volumes reported in FY11 Annual Update.
Rev 23.0	STP/CP	TBD	Added and deleted volumes reported in FY12 Annual Update

**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).

Mr. Timothy Hall, STP Manager  
ENV-EDA-13-06

## Enclosure 2

Compact Disk

ENV-EDA-13-06

LA-UR #13-22082

Barcode # N/A

Date: **MAR 27 2013**

*Los Alamos National Laboratory*

*Federal Facility Compliance Order*

*Annual Site Treatment Plan Update  
for Fiscal Year 2012~~1~~ Revision 2*

*LA-UR- 13-2208212-25193  
~~October 10, 2012~~ March 29, 2013*



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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
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
NMED	New Mexico Environment Department
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 U.S. Department of Energy (DOE) with the Land Disposal Restrictions (LDR) for the storage of mixed waste set forth in Section 3004(j) of the Resource Conservation and Recovery Act (RCRA). The FFCA requires DOE to submit a Site Treatment Plan (STP) for developing treatment capacities and technologies to treat all 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 22.0).

## PART I. BACKGROUND UPDATE

### 1.0 INTRODUCTION

The Background (Part I) provides the following information:

- The estimated volume of covered waste in storage at the end of the previous FY and anticipated to be placed in storage for the next five 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 ~~FY11~~ ~~FY12~~, STP-covered MLLW inventories increased from approximately ~~464,176~~ <sup>476,204</sup> m<sup>3</sup> to ~~476,204~~ m<sup>3</sup>. The increase was mainly due to reclassifying more mixed transuranic (MTRU) waste to mixed low-level waste (MLLW) (LA-W935) than could be shipped offsite for treatment. The waste was reclassified because it no longer satisfied DOE criteria for TRU waste (activity more than 100 nCi/g). Because higher risk wastes were given shipment priority, less 10-100 nCi/g Waste was shipped in ~~FY11~~ and ~~FY11-FY12~~ than in previous years. LANL shipped approximately 10 m<sup>3</sup> of the existing FY11 inventory and ~~Although LANL shipped~~ a portion of the ~~FY12~~ newly reclassified 10-100 nCi/g Waste (approximately 52 m<sup>3</sup>) in ~~FY11-FY12~~, s ~~The rest~~ of the ~~FY11-FY12~~ reclassified waste (approximately 38 m<sup>3</sup>) was readied for shipment and placed in storage. LANL intends to resume shipments of 10-100 nCi/g Waste when some of the higher risk waste shipments are completed in order to meet the established STP milestone (12/31/2013) for the current 10-100 nCi/g Waste. Table 2.1-1 summarizes changes to the estimated STP-covered MLLW inventory for ~~FY11~~ ~~FY12~~. Approximately one cubic meter of newly generated waste from FY10 and 11 m<sup>3</sup> of reclassified TRU waste became covered during FY11. The 11 m<sup>3</sup> of TRU waste reclassified in FY11 were derived from three containers of non-mixed TRU waste generated between FY96 and FY02. The waste was reclassified because it no longer satisfied DOE criteria for TRU waste (activity more than 100 nCi/g). When legacy waste is reclassified

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but offsite shipment may be delayed, LANL manages the reclassified waste as MLLW as a conservative measure and reports the shipment as newly added STP waste. The three containers were shipped on April 14, 2011 (letter to NMED dated May 20, 2011, ENV ES 11-101) and constitute part of the approximately 69 m<sup>3</sup> of shipped 10-100 nCi/g Waste that is shown in Tables A-1 and B-1. Approximately 7362 m<sup>3</sup> of covered MLLW was treated, recycled, disposed of, or otherwise deleted during FY11-FY12.

Appendix A provides the detailed changes to the FY11-FY12 covered MLLW inventory by treatability group, including the inventory at Technical Area (TA)-55 and the Chemistry and Metallurgy Research Building (CMR).<sup>1</sup> Appendix B (Table B-1) lists the MLLW shipments in FY11-FY12. Table B-2 identifies other deleted waste. If any, administrative adjustments to the MLLW inventory are shown in Appendix C (Table C-1). Detailed information about the administrative adjustments in Table C-1 are shown in Table C-2. The MLLW inventory reported in the FY10-FY11 Annual Update is included as Appendix D.

Table 2.1-1: FY11-FY12 MLLW Inventory Summary

Contribution	Volume (m <sup>3</sup> ) <sup>1</sup>
Estimated MLLW Inventory Reported in FY10-FY11 Annual Update	<del>175,861</del> 161,469 <sup>3</sup>
Proposed Revision 2223,0	
New Covered Waste	41,905 <del>50,208</del> <sup>2</sup>
Administrative Adjustments <sup>2</sup>	90,236 <del>75,518</del> <sup>2</sup>
Offsite Treatment	<del>62,355</del> -73,032 <sup>3</sup>
Offsite Recycle	NA <sup>3</sup>
Onsite Decontamination	NA
Treatability Study Use	NA
<b>Estimated MLLW Inventory Reported in FY11 Annual Update</b>	<b>203,949</b> <del>175,861</del> <sup>3</sup>

<sup>1</sup> MLLW volumes are calculated using the conversion: 55-gallon container = 0.2082 m<sup>3</sup>; 85-gallon container = 0.3218

<sup>2</sup> Includes transfers of MTRU and other wastes into MLLW categories

<sup>3</sup> NA = No Activity

## 2.2 Mixed Transuranic (MTRU) Inventory Summary

During FY11-FY12, STP-covered MTRU inventories ~~increased~~decreased from approximately 28473119 m<sup>3</sup> to 27633119 m<sup>3</sup>. In FY11, quality control activities included verifying the volumes of many older, large waste containers and correcting the volumes shown in the MTRU database. This resulted in a large increase in the volume of MTRU waste in inventory. Despite decreases due to shipping, which reduced the number of MTRU containers onsite by more than 900, the waste volume increased above FY10 levels.

<sup>1</sup> No MLLW was stored at CMR or TA-55 in FY11-FY12.

Table 2.2-1 summarizes changes to the estimated MTRU covered waste inventory for ~~FY11~~FY12. 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~~a summary of FY12 MTRU shipments to WIPP. In Appendix G, Tables G-1 and G-2 describe the administrative adjustments that were made to resolve differences in the TA-54 and the CMR/TA-55 MTRU inventory data, respectively. ~~Table G-3 provides detail on volume changes in the TA-54 inventory, and Table G-4 gives the detail for containers that became STP waste due to the addition of EPA codes to the waste.~~

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.
- LANL may correct waste data, such as volume or EPA codes, through quality control activities. ~~MTRU w~~Waste that was formerly classified as ~~transuranic~~(MTRU) because it had radioactivity greater than 10 nCi/g has been reclassified to MLLW (LA-W935) if its activity is less than 100 nCi/g under 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; removal of WIPP-prohibited items, if they are the only hazardous constituent, will result in the remaining waste being classified as nonmixed.
- Addition or removal of 85-gallon overpacks changes the volume of waste in the inventory; rounding container volumes to three decimal places also changes the inventory volume.

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<sup>3</sup>) may result in one drum of *Combined Combustible-Noncombustible Waste* (0.2080 m<sup>3</sup>) and one drum of *Noncombustible Waste* (0.2080 m<sup>3</sup>). 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 <sup>3</sup> )
Covered MTRU Inventory Reported in <del>FY10-FY11</del> (40,607,447.13 m <sup>3</sup> at CMR/TA-55 and <del>2806,546,307.244</del> m <sup>3</sup> at TA-54)	<del>3118,957,284.7123</del>
New Covered MTRU Waste at TA-54	<del>11,488,47,873</del>
New Covered MTRU Waste at TA-55/CMR	<del>5,903,2,912</del>
Covered MTRU Waste Shipped to WIPP in <del>FY11-FY12</del>	<del>-476,020,203,396</del>
Net Administrative Adjustments for TA-54 in <del>FY11-FY12</del>	<del>111,656,453,251</del>
Net Administrative Adjustments for CMR/TA-55 in <del>FY11-FY12</del>	<del>-8,612,1,194</del>
<b>Covered MTRU Inventory at End of <del>FY11-FY12</del></b>	<b><del>2763,372,3118,957</del></b>

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### 3.0 TREATMENT PROGRESS

#### 3.1 Offsite Treatment

During ~~FY11-FY12~~, 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; and Perma-Fix Northwest in the State of Washington.

##### 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 solvent extraction, demulsification/precipitation/flocculation, 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 for 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 regulations (State of Washington licenses WN-I00393-1 and WN-I00508-1) and permitted under RCRA regulations through the State of Washington. The facility can perform thermal

treatment, compaction, macroencapsulation, neutralization, and stabilization.

Appendix B summarizes LANL's offsite shipments for treatment and/or disposal of covered MLLW in FY11-FY12. Approximately 6273 m<sup>3</sup> of STP-covered MLLW was shipped offsite for treatment and/or disposal.

### **3.2 Offsite Recycling**

LANL did not recycle any STP-covered MLLW offsite in FY11-FY12.

### **3.3 Onsite Treatment and Recycling**

LANL did not treat or recycle any STP-covered MLLW onsite in FY11-FY12.

### **3.4 Onsite Lead Decontamination**

No LANL STP-covered MLLW was decontaminated onsite during FY11-FY12.

### **3.5 Treatability Studies**

LANL conducted no treatability studies in FY11-FY12.

### **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, *10-100 nCi/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 (Appendices C and G). ~~Other adjustments included removal of waste that had been shipped in previous fiscal years, recharacterization of some MLLW as MTRU waste, and removal of waste that was inadvertently included in the FY10 inventory.~~

#### ***3.6.2 Adjustments to MTRU Inventory***

During the preparation of the FY11-FY12 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 MTRU waste to MLLW. Other adjustments were needed to account for volume changes due to repacking of waste and transfers of waste from one treatability group to another or to correct database entries.

### **4.0 TREATMENT TECHNOLOGY DEVELOPMENT**

During FY11-FY12, 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 availability 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 ~~FY11-FY12~~ 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 ~~FY11-FY12~~ for shipment of mixed waste offsite for treatment and disposal at DOE and commercial facilities. Funding during ~~FY12~~ ~~FY13 is may be~~ ~~also~~ sufficient to meet all compliance dates established in the STP; however, FY13 federal budget restrictions may impact LANL shipping schedules. Furthermore, Congress has not yet taken action on an FY14 budget. When the federal funding for FY14 becomes clearer, LANL will reevaluate the available funding. 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 DOE's 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 was treated and disposed of before the end of FY09.

## **6.0 TREATMENT VARIANCES**

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

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

WIPP, located near Carlsbad, New Mexico, is a DOE repository for 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 [FY11-FY12](#).

## **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 repository at the WIPP near Carlsbad, New Mexico. This facility is a receiving and disposal facility, without the capability of routinely opening and repackaging waste. TRU waste will

already be containerized when received at the WIPP 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 (CCP), 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 ~~FY11~~~~FY12~~;
  - 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 ~~FY11~~~~FY12~~

During ~~FY11~~~~FY12~~, no CP Activity milestones were scheduled.

Table 2.1-1. ~~FY10-FY11~~ FFCO and STP Milestones *[Table omitted]*

~~Table omitted~~

#### 2.2 Expedited Shipment Letters

~~There were no~~ Expedited shipment letters ~~in FY12~~ are listed in Appendix I, Table I-1.

#### 2.3 Correspondence

Between October 1, ~~2010~~~~2011~~, and March 31, ~~2012~~~~2013~~, LANL communicated with NMED on issues related to

- Revisions ~~21.0~~ ~~and 22.0~~ of the Annual STP Update, and
- ~~FY10~~ ~~and~~ ~~FY11~~ ~~and~~ ~~FY12~~ -waste shipments.

This correspondence is listed in Appendix I (Table I-2). Correspondence previously listed in Appendix I, Table I-2 of Revision ~~2~~~~22.0~~ 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 ~~22-023.0~~ in accordance with FFCO Section IX, *Deletion of Waste*. These deletions are proposed because the waste was shipped offsite for treatment, disposal, or recycling or were otherwise determined not to be mixed wastes. These covered wastes are included in Appendix B, Appendix F, and Appendix G.

### 4.0 DOCUMENTATION OF NEW COVERED WASTE

A proposal for addition of STP waste items is included with this update in accordance with FFCO Section VIII, *Addition of Waste*. These additions consist of wastes that were placed in storage during ~~FY10-FY11~~ and were proposed to become covered wastes in ~~FY11-FY12~~. These covered wastes are included in Appendix E. Additional waste to be added to the STP is identified in Section 6.1.

### 5.0 PROPOSED CHANGES TO THE COMPLIANCE PLAN SCHEDULE

~~No changes to the compliance plan schedule are proposed.~~ LANL is proposing a new milestone for *Noncombustible Debris (LA-W922)*, Activity 3.1.5(A) to "*complete shipping of wastes to an offsite treatment facility or complete parallel option.*" LANL expects to be able to complete shipping of the one container of this waste by March 30, 2014.

#### I. Compliance Dates and Waste Description

LA-W922: This waste consists of noncombustible debris, such as buckets, gloves, and air pumps. The waste has been assigned an EPA code of D008.

Current approved compliance date: none  
Proposed Revision 23 compliance date: March 31, 2014

#### II. Treatment Process

The preferred treatment process for LA-W922 is shipment offsite for treatment to meet LDRs. These wastes may be treated by macroencapsulation or other RCRA treatment methods according to the standards in 40 CFR 268.40 at an offsite commercial facility.

#### III. Availability of Commercial Facilities

LANL uses the facilities identified in Appendix H for treatment and disposal of MLLW. No additional facilities are needed to treat the current inventory of *Noncombustible Debris (LA-W922)*.

#### IV. Justification for Milestone

Since commercial treatment facilities are available, LANL does not anticipate any significant delays in shipping this waste offsite for treatment. The shipping date will be based on the ability of a facility to accept the waste at a given time and on the scheduling of other offsite shipments. LANL is therefore requesting a milestone of March 31, 2014 to allow for schedule

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[flexibility on the part of the receiving facility. LANL will schedule shipment as part of routine waste shipment.](#)

[No other changes to the schedule in the CP of the STP are proposed.](#)

## 6.0 DETAILED DESCRIPTION OF THE PROPOSED REVISION

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

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

- [Increases and decreases in covered mixed waste inventories due to the addition of new covered waste and offsite shipments during ~~FY11-FY12~~ and other changes in the STP inventory.](#)
- [Establishment of new Compliance Dates for LA-W922 as discussed in Part II, Section 5.](#)

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<sup>2</sup> Waste

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

#### 6.1.1 MLLW Additions

The volume of MLLW that is requested for addition is ~~0.20824-3027~~ m<sup>3</sup> of new-covered<sup>3</sup> *Noncombustible Debris* (LA-W922), ~~and 10.6028 m<sup>3</sup> of LA-W935 waste that was previously managed in the TRU inventory (Appendix C).~~

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

CP Section	MWIR Waste ID	Treatability Group	Volume (m <sup>3</sup> )
3.1.5	LA-W922	<i>Noncombustible Debris</i>	<del>0.20824-3027</del>
<del>3.3.4</del>	<del>LA-W935</del>	<del>10-100 nCi/g Waste</del>	<del>10.6028</del>
<i>Total</i>			<del>0.20824-9055</del>

<sup>2</sup> [Waste generated during the previous FY that was not shipped offsite within one year is termed new-covered STP waste.](#)

<sup>3</sup> [Waste generated during the previous FY that was not shipped offsite within one year is termed new-covered STP waste.](#)

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**6.1.2 MTRU Waste Additions**

The volume of new covered MTRU waste that is requested for addition is ~~17.391~~~~17.873~~ m<sup>3</sup> (Table 6.1.2-1). LANL also requests the addition of ~~31.672~~~~71.400~~ m<sup>3</sup> of *Combustible-Noncombustible Waste*, and ~~51.376~~~~21.216~~ m<sup>3</sup> of *Noncombustible Waste*, and 34.296 m<sup>3</sup> of *Solidified Inorganic and Organic Waste* that was previously managed in the TRU inventory (Appendix G, Table G-1). Table 6.1.2-2 identifies waste that is proposed for addition following ~~quality control~~ activities that identified waste in the TRU inventory as MTRU ~~either through review of waste characteristics or as a result of identifying potentially hazardous constituents during repacking TRU waste.~~

Table 6.1.2-1: Proposed Addition of New Covered<sup>1</sup> MTRU Waste

CP Section	Treatability Group	Volume (m <sup>3</sup> )
<del>4.0</del>	<del>Cemented Sludge</del>	<del>4.368</del>
4.0	<del>Combined Combustible-Noncombustible Waste</del>	<del>8.3487.507</del>
4.0	<del>Combustible Waste</del>	<del>0.6642.254</del>
<del>4.0</del>	<del>Noncombustible Waste</del>	<del>0.208</del>
4.0	<del>Solidified Inorganic and Organic Waste</del>	<del>2.2883.744</del>
	<b>Total TA-54 New Covered</b>	<b><del>11.48817.873</del></b>
4.0	<del>Combined Combustible-Noncombustible Waste at CMR</del>	<del>0.2080.208</del>
4.0	<del>Combined Combustible-Noncombustible Waste at TA-5455</del>	<del>2.0802.080</del>
	<del>Combustible Waste at TA-55</del>	<del>0.019</del>
4.0	<del>Noncombustible Waste at TA-5455</del>	<del>3.5960.6240</del>
	<b>Total CMR and TA-55 New Covered</b>	<b><del>5.9032.912</del></b>
	<b>Total New Covered Waste</b>	<b><del>17.39120.785</del></b>

<sup>1</sup>New covered waste in Table 6.1.2-1 refers to waste generated in the previous FY.

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

CP Section	Treatability Group	Volume (m <sup>3</sup> )
4.0	<del>Combined Combustible-Noncombustible Waste (2.316 m<sup>3</sup> - discovery of aerosol cans in containers; 29.356 m<sup>3</sup> from identification of potentially hazardous constituents during repacking of TRU waste)</del>	<del>31.6723.234</del>
<del>4.0</del>	<del>Combustible Waste</del>	<del>6.776</del>
<del>4.0</del>	<del>Metallic Waste</del>	<del>11.486</del>
4.0	<del>Noncombustible Waste (from identification of potentially hazardous constituents during repacking of TRU waste)</del>	<del>51.3764.570</del>
4.0	<del>Solidified Inorganic and Organic Waste (34.296 m<sup>3</sup> - Nitrate salts determined to be potentially mixed waste)</del>	<del>34.2962.704</del>
	<b>Total Newly Characterized MTRU</b>	<b><del>117.34425.770</del></b>

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## 6.2 Deletion of Covered Waste

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

### 6.2.1 Deletion of MLLW

LANL is requesting that covered MLLW identified in Appendix B be deleted from the STP. These covered wastes were shipped offsite for treatment and disposal or recycling. The total volume of covered MLLW that is requested for deletion under this Revision to the CP is ~~62.355673~~ ~~0323~~ m<sup>3</sup> (Appendix B, Table B-1).

### 6.2.2 Deletion of MTRU Waste

LANL is requesting that a total of ~~476.020203~~ ~~396~~ m<sup>3</sup> 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. ~~LANL also requests deletion of 3.328 m<sup>3</sup> of MTRU waste that was included in the FY10 inventory but had not been in storage for one year (Appendix G, Table G-1). This waste was shipped offsite within one year and, therefore, did not become part of the STP inventory.~~

### 6.2.3 Other Deletions of ~~FY11-FY12~~ Waste

No waste is proposed for deletion due to recycling or onsite treatment in ~~FY11~~ ~~FY12~~. No waste was shipped offsite for treatability studies.

## 6.3 Adjustments to the Original (October 4, 1995) STP-Covered MLLW 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 Establishment of New Milestone Activity Dates

LANL is ~~not~~ requesting ~~any a~~ new compliance milestones for new covered LA-W922 for which there is no current milestone.

Table 6.5-1: Proposed Milestone Activity Compliance Dates ~~{Table omitted}~~

Milestone Activity	Treatability Group	Revision 22 Compliance Date	Proposed Compliance Date	Rationale
3.1.5(A)	<u>LA-W922 Noncombustible Debris</u>	none	3/31/2014	<u>LANL will schedule shipment as part of routine waste shipment.</u>

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## 6.6 Additional Revisions

No other revisions are requested.

## 7.0 RATIONALE FOR THE PROPOSED REVISION

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

### 7.1 Establishment of New Proposed Milestone

No new milestones are proposed. LANL is requesting a milestone for the LA-W922 waste stream since there is no current milestone for shipping this waste offsite.

### 7.2 Addition of New Covered Waste

Waste that was newly generated in ~~FY10~~~~FY11~~, which was not treated within 12 months of generation, became new covered waste during ~~FY11~~~~FY12~~ (see Appendix 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 ~~FY11~~~~FY12~~. Deletion of this covered waste is proposed in order to more accurately reflect the LANL STP inventory as of the end of ~~FY11~~~~FY12~~.

### 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 ~~FY11~~~~FY12~~.

**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 ~~2223.0~~

### 1.0 PURPOSE AND SCOPE OF THE COMPLIANCE PLAN

#### 1.1 Introduction

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

The CP includes a schedule for 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.

*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 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 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 should DOE ship MLLW to INL. Proper procedures including additional approvals (if necessary) and documentation shall be completed prior to the shipment of wastes to INL. Management of post-treatment waste residuals or newly generated waste streams will be in accordance with the requirements of DOE, the State of Idaho, and that state where they will be disposed. A modification to LANL's RCRA permit providing for the return of such wastes and/or residuals 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 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 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*

- |  |
|--|
| <ul style="list-style-type: none"><li>A. Request necessary approval from NMED for shipment of waste by category before shipping.</li><li>B. Meet all regulatory requirements for offsite shipment.</li><li>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.</li><li>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.</li><li>E. Meet all regulatory requirements to include RCRA Permit modifications for residual or newly generated waste streams after treatment or recycling.</li><li>F. Provide documentation to NMED within 30 working days after receipt of residual or newly generated waste streams upon return to LANL.</li></ul> |
|--|

#### **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*

- |  |
|--|
| <ul style="list-style-type: none"><li>A. Complete an estimate of the volume of waste generated by each case of radionuclide separation.</li><li>B. Complete an estimate of the volume of waste that would exist or be generated without radionuclide separation.</li><li>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.</li><li>D. Provide the assumptions underlying such estimates of waste volumes and cost estimates.</li><li>E. Provide characterization methodologies for determining waste type.</li><li>F. Submit a plan for treating or managing hazardous waste residues, accompanied by an NMED permit application.</li></ul> |
|--|

#### **2.5 Plans Related to Other Mixed Waste Activities**

Activities other than the types of activities specifically called for in the FFCA as requiring schedules are described in this STP. Some of these activities may be associated with schedules that may contain compliance dates related to treatment of 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 all state, federal, 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 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 45 days, in place of documentation, that waste was received at a recycling facility.

*Table 2.6-1: Requirements for Recycling*

<p>A. Meet all regulatory requirements for recycling/re-use.</p> <p>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.</p>
---

## 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*

<p>A. Meet all DOE requirements for radiological decontamination.</p> <p>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</p> <p>C. Propose waste for deletion in accordance with Section IX of the FFCO.</p>
---

### **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 that revision. In Part III, the original STP inventory in each MLLW treatability group is denoted as subgroup 0 of that treatability group (e.g., the original volume of STP treatability group LA-W906 became LA-W906-0). Each revision that has since added volumes to individual treatability groups has resulted in creation of an additional subgroup, having the same number as the revision (e.g., LA-W906-4 was created in Revision 4.0, and LA-W906-5 was created in Revision 5.0).

In most subsections of this section, the subgroups of the treatability groups are not shown. In those cases, the Activities and Compliance Dates are applicable to the entire net volume of that treatability group. However, when subgroups of a treatability group 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 <sup>3</sup> )
IPA Wastes	LA-W901	D001, D009, F002, F003, F005	0.00
Scintillation Fluids	LA-W902	D001, F003, F005	0.00
<b>Totals</b>			<b>0.00</b>

\*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 <sup>3</sup> )
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
<b>Totals</b>			<b>0.00</b>

**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 <sup>3</sup> )
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
<b>Totals</b>			<b>0.00</b>

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

Treatability Group	MWIR Waste ID	RCRA Codes	Net Volume (m <sup>3</sup> )
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
<b>Totals</b>			<b>0.00</b>

### 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 <sup>3</sup> )
Organic-Contaminated Combustible Solids	LA-W911	D001, D004, D008, D009, F001, F002, F003, F005	0.00
<b>Totals</b>			<b>0.00</b>

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

Treatability Group	MWIR Waste ID	RCRA Codes	Net Volume (m <sup>3</sup> )
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	0.00
<b>Totals</b>			<b>0.00</b>

### 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 <sup>3</sup> )
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 LA-W922-22 <a href="#">LA-W922-23</a>	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011	<del>0.000</del> <a href="#">2082</a>
<b>Totals</b>			<del>0.000</del> <a href="#">2082</a>

Table 3.1.5-2: Activities and Compliance Dates for Noncombustible Debris

Activity	Compliance Dates
A. <a href="#">Complete shipping of existing wastes to an offsite treatment facility or complete parallel option</a>	<a href="#">3/31/2014</a>
B. <a href="#">Provide documentation to NMED that waste was received at offsite facility or provide notification of parallel option</a>	<a href="#">Within 45 days of receipt of waste at treatment facility or within 45 days after completion of parallel option</a>

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### 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 <sup>3</sup> )
<i>Aqueous Wastes With Heavy Metals</i>	LA-W913	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011	0.00
<i>Corrosive Solutions</i>	LA-W914	D001, D002	0.00
<i>Aqueous Cyanides, Nitrates, Chromates, And Arsenates</i>	LA-W915	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, F007, P029, P098	0.00
<b>Totals</b>			<b>0.00</b>

### 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 <sup>3</sup> )
<i>Water-Reactive Metal</i>	LA-W916	D001, D003, D004, D005, D007, D008, D010, D011	0.00
<b>Totals</b>			<b>0.00</b>

### 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 <sup>3</sup> )
<i>Compressed Gases Requiring Scrubbing</i>	LA-W917 LA-W917-21	D001, D002, D003, D008, D009, P056	<a href="#">0.83284-2492</a>
<b>Totals</b>			<a href="#">0.83284-2492</a>

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 offsite treatment facility or complete parallel option	6/30/2014
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 for Compressed Gases Requiring Oxidation

Treatability Group	MWIR Waste ID	RCRA Codes	Net Volume (m <sup>3</sup> )
Compressed Gases Requiring Oxidation	LA-W918	D001, U226	0.00
<b>Totals</b>			<b>0.00</b>

### 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 <sup>3</sup> )
Elemental Mercury	LA-W920 LA-W920-16	D006, D009, F005	0.00
<b>Totals</b>			<b>0.00</b>

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

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

Treatability Group	MWIR Waste ID	RCRA Codes	Net Volume (m <sup>3</sup> )
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
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
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
<b>Totals</b>			<b>0.00</b>

Table 3.1.11-2: Additional Treatability Groups

Treatability Group	MWIR Waste ID	RCRA Codes	Net Volume (m <sup>3</sup> )
Liquid And Solid Oxidizers	LA-W923	D001, D003, D005	0.00
<b>Totals</b>			<b>0.00</b>

### 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 <sup>3</sup> )
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
Biochemical Laboratory Wastes	LA-W927	D001, D003	0.00
Dewatered Treatment Sludge	LA-W928		0.00
<b>Totals</b>			<b>0.00</b>

Table 3.2-2: Additional Wastes Requiring Characterization or Assessment

Treatability Group	MWIR Waste ID	RCRA Codes	Net Volume (m <sup>3</sup> )
Lead Wastes - TBD	LA-W924-15	D003, D008	0.00
	LA-W924-16		0.00
	LA-W924-17		0.00
Mercury Wastes – TBD	LA-W925-4	D003, D007, D008, D009 F001, F002, F005	0.00
	LA-W925-5		
	LA-W925-6		
	LA-W925-15		
	LA-W925-16		
	LA-W925-17		
Explosives	LA-W932	D003	0.00
Labpacks	LA-W933	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
	LA-W933-17		
High Activity Waste	LA-W934	D001, D003, D008, D009	1.5079
	LA-W934-16		
	LA-W934-19		
	LA-W934-20		
<b>Totals</b>			<b>1.5079</b>

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

Activity	Compliance Dates
J. Complete shipping of wastes to an offsite treatment facility, or submit documentation assigning waste items to applicable treatability groups or complete parallel option	12/31/2013
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

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LANL's inventory of *High Activity Waste* was approximately 31 m<sup>3</sup> at the time the milestone was extended to December 31, 2013. LANL has subsequently shipped about 95 percent of that waste offsite. LANL's remaining inventory of *High Activity Waste* on September 30, 2012, consists consisted of six containers with a combined volume of 1.5079 m<sup>3</sup>. Assuming that shipping issues can be resolved, LANL expects to meet the December 31, 2013, milestone for the remaining *High Activity Waste*.

Container C05180336 (Portsmouth debris) is ready for shipment was shipped offsite in February 2013 and will be reported in the FY13 Annual Update. -but the shipment cannot be completed until the offsite facility is able to accept it. This single container would consume over two thirds of the license limit for grams of fissile material allowed at the facility and must await a window of opportunity when the facility's inventory of fissile grams is very low. LANL continues to monitor the availability of the treatment/storage/disposal facility (TSDF), but it cannot guarantee when the offsite TSDF would be able to accept the waste. LANL will continue to review other offsite disposal options as the December 31, 2013, milestone approaches. If no other options become available, LANL will propose an extension of the milestone for Container C05180336.

Container C00130818 (Tritium traps with mercury contamination) will be shipped as soon as TSDF availability and scheduling allows.

The remaining four containers (mole sieves and squib assemblies with very high tritium) cannot be transported as currently packaged. They were intended to be repackaged at TA-16 once facility Nuclear Safety Authorization Basis -issues had been resolved. TA-16, however, is not permitted for processing the containers and has not been able to assure that the containers could be processed within the 24-hour period allowed for removal of waste from a permitted TSDF. LANL is working with off-site a-TSDFs to accept these containers, however, to date LANL has not been

~~able to identify an available shipping container with a Certificate of Compliance that is capable of transporting these containers offsite safely and compliantly. If the containers cannot be accepted, LANL will work with other TSDFs as necessary, depending on the waste stream requirements, to ensure that they are shipped offsite by the current milestone.~~

### 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	Second Category	Totals
		Net Volume (m <sup>3</sup> )	Net Volume (m <sup>3</sup> )	Net Volume (m <sup>3</sup> )
Lead For Surface Decontamination	LA-W930-0 LA-W930-5	0.00	0.00	0.00
<b>Totals</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**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	Second Category	Totals
		Net Volume (m <sup>3</sup> )	Net Volume (m <sup>3</sup> )	Net Volume (m <sup>3</sup> )
Lead For Surface Decontamination	LA-W930-6	0.00	0.00	0.00
<b>Totals</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

#### 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 <sup>3</sup> )
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
<b>Totals</b>		<b>0.00</b>

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

Treatability Group	MWIR Waste ID	Net Volume (m <sup>3</sup> )
Nonradioactive or Suspect Waste Items	LA-W929-5	0.00
<b>Totals</b>		<b>0.00</b>

### 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 (m3)
Lead Requiring Sorting	LA-W931	D008	0.00
<b>Totals</b>			<b>0.00</b>

**Treatment:** Wastes in this treatability group will require different treatment processes. Drums will be opened, the contents removed, and the waste repackaged based on appropriate treatment requirements. Wastes in this treatability group are primarily lead pieces, lead shot, and lead-contaminated soils that 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 3.3.4-1: Treatability Groups for 10–100 nCi/g Waste

Treatability Group	MWIR Waste ID	RCRA Codes	Net Volume (m <sup>3</sup> )
10-100 nCi/g	LA-W935 LA-W935-19 LA-W935-20 LA-W935-21 LA-W935-22 <a href="#">LA-W935-23</a>	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	<del>201.4007</del> <sup>173.10</sup> <del>88</del>
<b>Totals</b>			<del>201.4007</del> <sup>173.108</sup> <del>8</del>

The total volume of 10-100 nCi/g Waste shown in Table 3.3.4-1 in the FY11 Annual Update was shown as 173.1088 m<sup>3</sup>; it should have been entered as 173.1039 as shown in Table A-1 in the FY11 Update.

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**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 Chem-Low-Level (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. 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 3.3.4-2: 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

As discussed in Part I, Section 2, LANL has prioritized waste shipments to address higher risk wastes before lower risk wastes like those in the *10-100 nCi/g Waste* (LA-W934W935) treatability group. Therefore, a substantial inventory of LA-W934 waste that resulted from reclassifying MTRU waste between FY07 and ~~FY11-FY12~~ remains to be shipped offsite. LANL intends to complete shipment of the ~~existing remaining~~ inventory from FY11 as well as additional 10-100 nCi/g Waste generated from continued remediation of legacy TRU waste in FY12 – a total of 201.4007(173.1988 m<sup>3</sup>) before the milestone of December 31, 2012, as well as additional 10-100 nCi/g Waste generated from continued remediation of legacy TRU waste in FY12. As much waste as possible that is reclassified in FY13 will also be shipped offsite prior to December 31, 2013. However, some waste produced in the latter part of 2013 may not be able to be shipped prior to December 31, 2013 if there are scheduling conflicts or restrictions at the receiving facilities. In that case, LANL would seek an additional milestone for those particular wastes.

### 3.4 Management of “Missing” Items

*Table 3.4-1: Waste Category for “Missing Waste”*

Category	MWIR Waste ID	Net Volume (m <sup>3</sup> )
<i>Missing/Nonexistent/TBV</i>	None	0.00
<b>Totals</b>		<b>0.00</b>

**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 verified the absence of all “*Missing/nonexistent/TBV*” items container by container as each STP waste item was being sampled, repackaged, or otherwise prepared for onsite or offsite treatment. The final verification of all “*Missing/nonexistent/TBV*” items was completed by 2004. All missing or nonexistent items have been deleted from the STP. All remaining MLLW items in the original STP inventory have been treated and disposed of.

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

#### **4.0 MIXED TRANSURANIC WASTE**

**Treatment Group(s):** Assorted MTRU Waste

**Offsite Disposal:** MTRU waste at LANL will be shipped for disposal at WIPP, which is 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.

**APPENDICES**

**APPENDIX A. CURRENT YEAR MLLW INVENTORY DETAIL**

Table A-1: FY12 MLLW Inventory Detailed Update by Treatability Group

CP* Sec.	MWIR* Waste ID and Treatability Group/Category	FY110 Annual Update (m <sup>3</sup> ) <sup>1</sup>	Proposed Revision 232.0 (m <sup>3</sup> )	Comments <sup>2</sup>	FY121 Annual Update (m <sup>3</sup> )	Projection FY132- FY176 (m <sup>3</sup> )
3.1.1	LA-W901 <i>IPA Wastes</i>	0	0		0	0
3.1.1	LA-W902 <i>Scintillation Fluids</i>	0	0		0	0
3.1.2	LA-W903 <i>Lead Blankets</i>	0	0		0	0
3.1.2	LA-W904 <i>Soil with Heavy Metals</i>	0	0		0	0
3.1.2	LA-W905 <i>ER Soils</i>	0	0		0	0
3.1.3	LA-W906 <i>Aqueous Organic Liquids</i>	0	0		0	0
3.1.4	LA-W911 <i>Organic- Contaminated Combustible Solids</i>	0	0		0	0
3.1.4	LA-W919 <i>Organic- Contaminated Noncombustible Solids</i>	0	0		0	0
3.1.5	LA-W912 <i>Combustible Debris</i>	0	0		0	0
3.1.5	LA-W921 <i>Activated or Inseparable Lead</i>	0	0		0	0
3.1.5	LA-W922 <i>Noncombustible Debris</i>	0	1.3027 0.2082  -1.3027	New covered  Shipped offsite for treatment/disposal	0 0.2082	0
3.1.6	LA-W913 <i>Aqueous Wastes with Heavy Metals</i>	0	0		0	0
3.1.6	LA-W914 <i>Corrosive Solutions</i>	0	0		0	0

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**FY11-FY12 Annual Update  
Site Treatment Plan**

**October 10, 2012  
March 29, 2012  
2013  
Federal Facility Compliance Order**

CP* Sec.	MWIR* Waste ID and Treatability Group/Category	FY110 Annual Update (m <sup>3</sup> ) <sup>1</sup>	Proposed Revision 232.0 (m <sup>3</sup> )	Comments <sup>2</sup>	FY121 Annual Update (m <sup>3</sup> )	Projection FY132- FY176 (m <sup>3</sup> )
3.1.6	LA-W915 <i>Aqueous Cyanides, Nitrates, Chromates, and Arsenates</i>	0	0		0	0
3.1.7	LA-W916 <i>Water-Reactive Wastes</i>	0	0		0	0
3.1.8	LA-W917 <i>Compressed Gases Requiring Scrubbing</i>	1,249.24 <del>1,164</del>	0-0.6246  <del>-2,290.2</del> 0.4164	Administrative Adjustment ( <del>Existing prohibited items from MLLW STP inventory,<sup>2</sup> recharacterized as MTRU</del> )  Shipped offsite for treatment/disposal	0.8328 <del>1,249.2</del>	0
3.1.9	LA-W918 <i>Compressed Gases Requiring Oxidation</i>	0	0		0	0
3.1.10	LA-W920 <i>Elemental Mercury</i>	0	0		0	0
3.1.11	LA-W907 <i>Halogenated Organic Liquids</i>	0	0		0	0
3.1.11	LA-W908 <i>Nonhalogenated Organic Liquids</i>	0	0		0	0
3.1.11	LA-W909 <i>Bulk Oils</i>	0	0		0	0
3.1.11	LA-W910 <i>Polychlorinated Biphenyl (PCB) Wastes with Resource Conservation and Recovery Act (RCRA) Components</i>	0	0		0	0
3.1.11	LA-W923 <i>Liquid and Solid Oxidizers</i>	0	0		0	0
3.2	LA-W924 <i>Lead Wastes – TBD</i>	0	0		0	0
3.2	LA-W925 <i>Mercury Wastes – TBD</i>	0	0		0	0

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**FY11-FY12 Annual Update  
Site Treatment Plan**

**October 10, 2012  
March 29, 2012  
Federal Facility Compliance Order**

CP* Sec.	MWIR* Waste ID and Treatability Group/Category	FY110 Annual Update (m <sup>3</sup> ) <sup>1</sup>	Proposed Revision 232.0 (m <sup>3</sup> )	Comments <sup>2</sup>	FY121 Annual Update (m <sup>3</sup> )	Projection FY132- FY176 (m <sup>3</sup> )
3.2	LA-W926 <i>Compressed Gases – TBD</i>	0	0		0	0
3.2	LA-W927 <i>Biochemical Laboratory Wastes</i>	0	0		0	0
3.2	LA-W928 <i>Dewatered Treatment Sludge</i>	0	0		0	0
3.2	LA-W932 <i>Explosives</i>	0	0		0	0
3.2	LA-W933 <i>Labpacks</i>	0	0		0	0
3.2	LA-W934 <i>High Activity Waste<sup>3</sup></i>	1,507.92	-0.65560	Shipped offsite for treatment/disposal	1,507.9	0
			-0.0074	Administrative Adjustment		
3.3.1	LA-W930 <i>Lead for Surface Decontamination</i>	0	0		0	0
3.3.2	LA-W929 <i>Nonradioactive or Suspect Waste Items to be Surveyed</i>	0	0		0	0
3.3.3	LA-W931 <i>Lead Requiring Sorting</i>	0	0		0	0
3.3.4	LA-W935 <i>10–100 nCi/g Waste<sup>3</sup></i>	173,103.9	90,236.076	Administrative Adjustment	173,103.9	460.0000 <sup>4</sup>
		155.1344	150.5		201.4007	
			10.6028	New covered (reclassified and transferred from TRU inventory)		
			-61.9392- 68.7838	Shipped offsite for treatment/disposal		
3.4	<i>Missing/ nonexistent/ TBV category</i>	0	0		0	N/A
	<b>TOTALS</b>	<b>175,861.4</b>	<b>161.4</b>		<b>203,949.6</b>	<b>175,861.4</b>
		<b>693</b>				

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\* CP is Compliance Plan; MWIR is Mixed Waste Inventory Report

<sup>1</sup> MLLW volumes are calculated using the conversion: 55-gallon container = 0.2082 m<sup>3</sup>; 85-gallon container = 0.3218 m<sup>3</sup>; however, due to FY12 changes in the way that the MTRU and MLLW databases record volumes for newly reclassified LA-W935 waste, the

[volumes removed from the MTRU database for containers reclassified in FY12 equal those added to the MLLW inventory of LA-W935 waste.](#)

<sup>2</sup> Shipment details are in Appendix B; Administrative adjustments are in Appendix C.

<sup>3</sup> Items prohibited from shipment to WIPP are removed from MTRU STP containers and consolidated; some are MLLW and are included in Table A-1 as LA-W917 waste; others are MTRU waste and are considered *Combustible-Noncombustible Waste* in Table E-1.

<sup>4</sup> LANL anticipates that a large volume of formerly TRU and MTRU waste will be retrieved over the next few years and will be reclassified to LA-W935. As a conservative measure, ~~the~~-stored reclassified TRU waste ~~will~~-~~may~~ be assigned hazardous waste codes and ~~will~~-~~be~~-managed as STP mixed waste.

APPENDIX B. CURRENT YEAR MLLW SHIPMENT DETAIL

Table B-1. MLLW Shipped Offsite for Treatment and Disposal in FY11-FY12

CP Section	MWIR No.	Treatability Group	Manifest Number	Destination	Date Shipped	Date NMED Notified	Volume (m <sup>3</sup> )
3.1.5	LA-W922	Noncombustible Debris	00368697JJK	Perma-Fix/FL	4/25/2011	5/31/2011 (ENV-ES-11-109)	1.3027
<b>LA-W922 Total</b>							<b>1.3027</b>
3.1.8	LA-W917	Compressed Gases Requiring Scrubbing	007042905JJK 07047476JJK	Perma-Fix/M&ECM&EC	9/19/2011 9/26/2012	11/6/2012 12/9/2011 (ENV-ES-11-0285) WM-DO-12-0005	2.2902 0.4164
<b>LA-W917 Total</b>							<b>2.2902 0.4164</b>
3.2	LA-W934	High Activity Waste	00704285JJK	Perma-Fix/M&EC	8/29/2011	9/30/2011 (ENV-ES-11-0210)	0.2392
3.2	LA-W934	High Activity Waste	00704286JJK	Perma-Fix/M&EC	8/29/2011	9/30/2011 (ENV-ES-11-0210)	0.4164
<b>LA-W934 Total</b>							<b>0.6556</b>
3.3.4	LA-W935	10-100 nCi/g Waste	000368685JJK 07047091JJK	Perma-Fix/NW/NW	4/12/4/15/2 04/2011	5/1/20/2011 2012 (ENV-ES-11-12-104011)	2.1100 2.9408
3.3.4	LA-W935	10-100 nCi/g Waste	000368972JJK 07047103JJK	Perma-Fix/NW	6/12/22/20 04/2011	7/25/2011 1/25/2012 (ENV-ES-11-12-0153)	10.1832 9.4800
3.3.4	LA-W935	10-100 nCi/g Waste	007042787JJK	Perma-Fix/NW	9/15/2011	10/28/2011 (ENV-ES-11-0234)	3.4093
3.3.4	LA-W935	10-100 nCi/g Waste	007042788JJK 07047487JJK	Perma-Fix/NW	9/3/4/30/20 11/2012	10/28/2011 2012 (ENV-ES-11-12-02340201)	5.8446 2.1080
3.3.4	LA-W935	10-100 nCi/g Waste	007042926JJK	Perma-Fix/NW	9/22/2011	10/28/2011 (ENV-ES-11-0234)	12.6978
3.3.4	LA-W935	10-100 nCi/g Waste	007042784JJK	Perma-Fix/NW	9/27/2011	10/28/2011 (ENV-ES-11-0234)	10.6852
3.3.4	LA-W935	10-100 nCi/g Waste	007047487JJK	Perma-Fix/NW	9/27/2012	11/6/2012 (WM-DO-12-0004)	15.4900
3.3.4	LA-W935	10-100 nCi/g Waste	007047497JJK	Perma-Fix/NW	9/27/2012	11/6/2012 (WM-DO-12-0004)	31.8400
3.3.4	LA-W935	10-100 nCi/g Waste	007047483JJK 070442790JJK	Perma-Fix/NW/FL	9/26/2012 9/27/2011	11/6/2012 10/28/2011 (WM-DO-12-0005) ENV-ES-11-0234	2080 1.7564
<b>LA-W935 Total</b>							<b>61.9392 8.7838</b>
<b>Grand Total</b>							<b>62.3556 3.0323</b>

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<sup>1</sup>Due to a rounding error, the total volume reported in ENV-ES-12-015 was 10.1735 m<sup>3</sup>; it should have been reported as 10.1832 m<sup>3</sup>.

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APPENDIX C. CURRENT YEAR MLLW ADMINISTRATIVE ADJUSTMENTS

Table C-1. Administrative Adjustments

CP Section	MWIR Number	Administrative Adjustment	Volume (m <sup>3</sup> )
3.1.8	LA-W917	Removal of MLLW STP WIPP prohibited items due to recharacterization as MTRU prohibited items	-0.6246
<b>Total Net Adjustments for LA-W917</b>			<b>-0.6246</b>
3.2	LA-W934	Database correction: adjustment of container volumes	-0.0074
<b>Total Net Adjustments for LA-W934</b>			<b>-0.0074</b>
3.3.4	LA-W935	Transferred into LA-W935 from MTRU STP Inventory	77.305+90.2360 <sub>1</sub>
		FY10 inventory included 0.3218 m <sup>3</sup> that should not have been in the inventory	-0.3218
		Deletion of 10-100 nCi/g Waste that had been shipped as High Activity Waste (0.8496 m <sup>3</sup> ) in FY10 (ENV RRO 10-020)	-0.6246
		Deletion of 10-100 nCi/g Waste that had been shipped offsite in FY07 (ENV RCRA-07-254) but was still included in the FY10 inventory	-0.2082
<b>Total Net Adjustments for LA-W935</b>			<b>90.236076.1505</b>
<b>Total Net Adjustments</b>			<b>90.236075.5185</b>

<sup>1</sup> Due to differences/changes in the way that the MTRU and MLLW databases record volumes for newly reclassified (LA-W935 waste, the equivalent volumes removed from the MTRU Inventory in FY12 equal the volumes added to the MLLW inventory was 77.310 m<sup>3</sup>.

Table C-2. Administrative Adjustment - Detail

CP Section	MWIR	Treatability Group	Type of Adjustment	Cumulative Volume Adjustment (m <sup>3</sup> )	Item or Container Number	MLLW Item or Container Volume (m <sup>3</sup> )	Reason for Administrative Adjustment
3.3.4	LA-W935	10-100 nCi/g	Reclassified MTRU STP inventory to MLLW STP inventory	90.236			Less than 100 nCi/g; Derived from combustible/noncombustible MTRU inventory
					L12226669	2.5600	Parent MTRU Container # 67307 2.560 m3
					C11225642	26.7200	Parent MTRU Container # 5125 26.720 m3
					L12226668	19.2700	Parent MTRU Container # 5304 19.270 m3

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CP Section	MWIR	Treatability Group	Type of Adjustment	Cumulative Volume Adjustment (m <sup>3</sup> )	Item or Container Number	MLLW Item or Container Volume (m <sup>3</sup> )	Reason for Administrative Adjustment
					C011364 80	0.2082 (ine reas e-of 0.0 002 m <sup>3</sup> )	FY10 volume corrected from 0.208 m <sup>3</sup> as reported in the FY10 Annual Report to 0.2082 m <sup>3</sup> using the LANN MLLW volume conventions
					C001308 20	0.001 (dec reas e-of 0.0 00 m <sup>3</sup> )	FY10 volume corrected from 0.0 m <sup>3</sup> as reported in the FY10 Annual Report to 0.0010 m <sup>3</sup> wrong decimal placement
					C092036 11	0.3218 (ine reas e-of 0.0 003 m <sup>3</sup> )	FY10 volume corrected from 0.3215 m <sup>3</sup> as reported in the FY10 Annual Report to 0.3218 m <sup>3</sup> using the standard MLLW volume conventions
					C092036 12	0.3218 (ine reas e-of 0.0 003 m <sup>3</sup> )	FY10 volume corrected from 0.3215 m <sup>3</sup> as reported in the FY10 Annual Report to 0.3218 m <sup>3</sup> using the standard MLLW volume conventions
					C092036 13	0.3218 (ine reas e-of 0.0 003 m <sup>3</sup> )	FY10 volume corrected from 0.3215 m <sup>3</sup> as reported in the FY10 Annual Report to 0.3218 m <sup>3</sup> using the standard MLLW volume conventions
					C092036 14	0.3218 (ine reas e-of 0.0 003 m <sup>3</sup> )	FY10 volume corrected from 0.3215 m <sup>3</sup> as reported in the FY10 Annual Report to 0.3218 m <sup>3</sup> using the standard MLLW volume conventions

CP Section	MWIR	Treatability Group	Type of Adjustment	Cumulative Volume Adjustment (m <sup>3</sup> )	Item or Container Number	MLLW Item or Container Volume (m <sup>3</sup> )	Reason for Administrative Adjustment
2.4	LA-W935	10-100 nCi/g	Not in inventory; previously shipped	-0.2082	C07194669	0.2082	Included in FY10 inventory but had been shipped off site in FY07
			Should not have been in inventory	-0.3218	Unknown	NA	The reported inventory volume for FY10 exceeded the FY12 wall to wall inventory volume; the discrepancy could not be identified with any given container and may have been the result of double-counting one 85-gallon container; the current inventory volume was reduced by 0.3218 m <sup>3</sup> .
2.4	LA-W935	10-100 nCi/g Waste	Volume reported twice as High Activity Waste and 10-100 nCi/g Waste	-0.6246	C07190323	0.6246	This oversize container comprised 3 MTRU containers (S814701, S814752, S803793), each 0.2082 m <sup>3</sup> that had been reclassified to MLLW; the same container, C07190323, was also listed as High Activity Waste (LA-W934) with a revised volume of 0.8496 m <sup>3</sup> ; C07190323 was shipped off site as 0.8496 m <sup>3</sup> of High Activity Waste in FY10; the 10-100 nCi/g waste volume was reduced to remove the duplicate volume (0.6246 m <sup>3</sup> ).
			Reclassified MTRU STP inventory to MLLW	77.3051	C11221252	19.1241	Less than 100 nCi/g; Derived from combustible/noncombustible MTRU inventory (MTRU Container 55124, 19.12 m <sup>3</sup> )
					C11221253	9.2885	Less than 100 nCi/g; Derived from combustible/noncombustible MTRU inventory (MTRU Container 55300, 9.29 m <sup>3</sup> )
					C11221254	10.6852	Less than 100 nCi/g; Derived from combustible/noncombustible MTRU inventory (MTRU Container 55301, 10.69 m <sup>3</sup> )



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<u>CP* Sec.</u>	<u>MWIR* Waste ID and Treatability Group/Category</u>	<u>FY10 Annual Update (m<sup>3</sup>)<sup>1</sup></u>	<u>Proposed Revision 22.0 (m<sup>3</sup>)</u>	<u>Comments<sup>2</sup></u>	<u>FY11 Annual Update (m<sup>3</sup>)</u>	<u>Projection FY12- FY16 (m<sup>3</sup>)</u>
3.1.3	LA-W906 <i>Aqueous Organic Liquids</i>	0	0		0	0
3.1.4	LA-W911 <i>Organic-Contaminated Combustible Solids</i>	0	0		0	0
3.1.4	LA-W919 <i>Organic-Contaminated Noncombustible Solids</i>	0	0		0	0
3.1.5	LA-W912 <i>Combustible Debris</i>	0	0		0	0
3.1.5	LA-W921 <i>Activated or Inseparable Lead</i>	0	0		0	0
3.1.5	LA-W922 <i>Noncombustible Debris</i>	0	1.3027	New covered	0	0
			-1.3027	Shipped offsite for treatment/disposal		
3.1.6	LA-W913 <i>Aqueous Wastes with Heavy Metals</i>	0	0		0	0
3.1.6	LA-W914 <i>Corrosive Solutions</i>	0	0		0	0
3.1.6	LA-W915 <i>Aqueous Cyanides, Nitrates, Chromates, and Arsenates</i>	0	0		0	0
3.1.7	LA-W916 <i>Water-Reactive Wastes</i>	0	0		0	0
3.1.8	LA-W917 <i>Compressed Gases Requiring Scrubbing</i>	4.164	-0.6246	Administrative Adjustment (Existing prohibited items from MLLW STP inventory <sup>3</sup> recharacterized as MTRU)	1.2492	0
			-2.2902	Shipped offsite for treatment/disposal		
3.1.9	LA-W918 <i>Compressed Gases Requiring Oxidation</i>	0	0		0	0
3.1.10	LA-W920 <i>Elemental Mercury</i>	0	0		0	0
3.1.11	LA-W907 <i>Halogenated Organic Liquids</i>	0	0		0	0

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3.1.11	LA-W908 <i>Nonhalogenated Organic Liquids</i>	0	0		0	0
3.1.11	LA-W909 <i>Bulk Oils</i>	0	0		0	0
3.1.11	LA-W910 <i>Polychlorinated Biphenyl (PCB) Wastes with Resource Conservation and Recovery Act (RCRA) Components</i>	0	0		0	0
3.1.11	LA-W923 <i>Liquid and Solid Oxidizers</i>	0	0		0	0
3.2	LA-W924 <i>Lead Wastes – TBD</i>	0	0		0	0
3.2	LA-W925 <i>Mercury Wastes – TBD</i>	0	0		0	0
3.2	LA-W926 <i>Compressed Gases – TBD</i>	0	0		0	0
3.2	LA-W927 <i>Biochemical Laboratory Wastes</i>	0	0		0	0
3.2	LA-W928 <i>Dewatered Treatment Sludge</i>	0	0		0	0
3.2	LA-W932 <i>Explosives</i>	0	0		0	0
3.2	LA-W933 <i>Labpacks</i>	0	0		0	0
3.2	LA-W934 <i>High Activity Waste<sup>2</sup></i>	2.1709	-0.6556	Shipped offsite for treatment/disposal	1.5079	0
			-0.0074	Administrative Adjustment		
3.3.1	LA-W930 <i>Lead for Surface Decontamination</i>	0	0		0	0
3.3.2	LA-W929 <i>Nonradioactive or Suspect Waste Items to be Surveyed</i>	0	0		0	0

CP* Sec.	MWIR* Waste ID and Treatability Group/Category	FY10 Annual Update (m <sup>3</sup> ) <sup>1</sup>	Proposed Revision 22.0 (m <sup>3</sup> )	Comments <sup>2</sup>	FY11 Annual Update (m <sup>3</sup> )	Projection FY12- FY16 (m <sup>3</sup> )
3.3.3	LA-W931 <i>Lead Requiring Sorting</i>	0	0		0	0
3.3.4	LA-W935 <i>10-100 nCi/g Waste<sup>2</sup></i>	155.1344	76.1505	Administrative Adjustment	173.1039	460.0000 <sup>4</sup>
			10.6028	New covered (reclassified and transferred from TRU inventory)		
			-68.7838	Shipped offsite for treatment/disposal		
3.4	<i>Missing/ nonexistent/ TBV category</i>	0	0		0	N/A
<b>TOTALS</b>		<b>161.4693</b>			<b>175.8610</b>	

\*CP is Compliance Plan; MWIR is Mixed Waste Inventory Report

<sup>1</sup> MLLW volumes are calculated using the conversion: 55-gallon container = 0.2082 m<sup>3</sup>; 85-gallon container = 0.3218 m<sup>3</sup>

<sup>2</sup> Shipment details are in Appendix B; Administrative adjustments are in Appendix C.

<sup>3</sup> Items prohibited from shipment to WIPP are removed from MTRU STP containers and consolidated; some are MLLW and are included in Table A-1 as LA-W917 waste; others are MTRU waste and are considered *Combustible-Noncombustible Waste* in Table E-1.

<sup>4</sup> LANL anticipates that a large volume of formerly TRU and MTRU waste will be retrieved over the next few years and will be reclassified to LA-W935. As a conservative measure, the stored reclassified TRU waste will be assigned hazardous waste codes and will be managed as STP mixed waste.

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CP* Sec.	MWIR* Waste ID and Treatability Group/Category	FY09 Annual Update (m <sup>3</sup> ) <sup>1</sup>	Proposed Revision 21.0 (m <sup>3</sup> )	Comments <sup>2</sup>	FY10 Annual Update (m <sup>3</sup> )	Projection FY11-FY15 (m <sup>3</sup> )
3.1.1	LA-W901 <i>IPA Wastes</i>	0	0		0	0
3.1.1	LA-W902 <i>Scintillation Fluids</i>	0	0		0	0
3.1.2	LA-W903 <i>Lead Blankets</i>	0	0		0	0
3.1.2	LA-W904 <i>Soil with Heavy Metals</i>	0	0		0	0
3.1.2	LA-W905 <i>ER Soils</i>	0	0		0	0
3.1.3	LA-W906 <i>Aqueous Organic Liquids</i>	0	0		0	0
3.1.4	LA-W911 <i>Organic- Contaminated Combustible Solids</i>	0	0		0	0

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CP# Sec.	MWIR#-Waste-ID and-Treatability Group/Category	FY09 Annual Update (m <sup>3</sup> ) <sup>1</sup>	Proposed Revision 21.0 (m <sup>3</sup> )	Comments <sup>2</sup>	FY10 Annual Update (m <sup>3</sup> )	Projection FY11-FY15 (m <sup>3</sup> )
3.1.4	LA-W919 <i>Organic- Contaminated Noncombustible Solids</i>	0.2082	-0.2082	Shipped offsite for treatment/disposal	0	0
3.1.5	LA-W912 <i>Combustible-Debris</i>	0	0		0	0
3.1.5	LA-W921 <i>Activated or Inseparable-Lead</i>	0	0		0	0
3.1.5	LA-W922 <i>Noncombustible Debris</i>	0	0		0	1,3000
3.1.6	LA-W913 <i>Aqueous Wastes with Heavy Metals</i>	0	0		0	0
3.1.6	LA-W914 <i>Corrosive Solutions</i>	0	0		0	0
3.1.6	LA-W915 <i>Aqueous Cyanides, Nitrates, Chromates, and Arsenates</i>	0	0		0	0
3.1.7	LA-W916 <i>Water-Reactive Wastes</i>	0	0		0	0
3.1.8	LA-W917 <i>Compressed Gases Requiring Scrubbing</i>	0	4,1460	Administrative Adjustment (prohibited items from MTRU-STP inventory <sup>3</sup> added from MTRU inventory)	4,1460	0
3.1.9	LA-W918 <i>Compressed Gases Requiring Oxidation</i>	0	0		0	0
3.1.10	LA-W920 <i>Elemental Mercury</i>	0	0		0	0
3.1.11	LA-W907 <i>Halogenated Organic Liquids</i>	0	0		0	0
3.1.11	LA-W908 <i>Nonhalogenated Organic Liquids</i>	0	0		0	0
3.1.11	LA-W909 <i>Bulk Oils</i>	0	0		0	0

CP# Sec.	MWIR# Waste-ID and Treatability Group/Category	FY09 Annual Update (m <sup>3</sup> ) <sup>+</sup>	Proposed Revision 21.0 (m <sup>3</sup> )	Comments <sup>2</sup>	FY10 Annual Update (m <sup>3</sup> )	Projection FY11-FY15 (m <sup>3</sup> )
3.1.11	LA-W910 <i>Polychlorinated Biphenyl (PCB) Wastes with Resource Conservation and Recovery Act (RCRA) Components</i>	0	0		0	0
3.1.11	LA-W923 <i>Liquid and Solid Oxidizers</i>	0	0		0	0
3.2	LA-W924 <i>Lead Wastes—TBD</i>	0	0		0	0
3.2	LA-W925 <i>Mercury Wastes— TBD</i>	0	0		0	0
3.2	LA-W926 <i>Compressed Gases —TBD</i>	0	0		0	0
3.2	LA-W927 <i>Biochemical Laboratory Wastes</i>	0	0		0	0
3.2	LA-W928 <i>Dewatered Treatment Sludge</i>	0	0		0	0
3.2	LA-W932 <i>Explosives</i>	0	0		0	0
3.2	LA-W933 <i>Labpacks</i>	0	0		0	0
3.2	LA-W934 <i>High Activity Waste<sup>2</sup></i>	31.5012	-29.3303	Shipped offsite for treatment/disposal	2.1709	0.1000
3.3.1	LA-W930 <i>Lead for Surface Decontamination</i>	0	0		0	0
3.3.2	LA-W929 <i>Nonradioactive or Suspect Waste Items to be Surveyed</i>	0	0		0	0
3.3.3	LA-W931 <i>Lead Requiring Sorting</i>	0	0		0	0
3.3.4	LA-W935 <i>10-100 nCi/g Waste<sup>2</sup></i>	14.2128	187.1618	Administrative Adjustment	155.1344	460.0000 <sup>+</sup>
			-46.2402	Shipped offsite for treatment/disposal		
3.4	Missing/	0	0		0	N/A

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	<i>Nonexistent/TBV category</i>					
	<b>TOTALS</b>	<b>45.9222</b>			<b>161.4693</b>	

<sup>1</sup>CP is Compliance Plan; MWIR is Mixed Waste Inventory Report

<sup>1</sup>MLLW volumes are calculated using the conversion: 55-gallon container = 0.2082 m<sup>3</sup>; 85-gallon container = 0.3218 m<sup>3</sup>

<sup>2</sup>Shipment details are in Appendix B; Administrative adjustments are in Appendix C.

<sup>3</sup>Items prohibited from shipment to WIPP are removed from MTRU-STP containers and consolidated; some are MLLW and are included in Table A-1 as LA-W917 waste; others are MTRU waste and are considered *Combustible-Noncombustible Waste* in Table E-1.

<sup>4</sup>LANL anticipates that a large volume of formerly TRU and MTRU waste will be retrieved over the next few years 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 STP mixed waste.

APPENDIX E. CURRENT MTRU INVENTORY DETAIL

Table E-1. TA-54 MTRU Covered Inventory (by Treatability Group<sup>1, 2</sup>)

Treatability Group	FY110 Annual Update (m <sup>3</sup> )	Proposed Revision 231.0 (m <sup>3</sup> ) <sup>1, 2</sup>	Comments <sup>3</sup>	FY121 Annual Update (m <sup>3</sup> )	Projection FY132-FY176 (m <sup>3</sup> )
<i>Cemented Sludge</i>	<u>662,822</u> <u>742</u> <u>-278</u>				
		<u>4,368</u> <u>0</u>	New Covered		
		<u>-62,580</u> <u>-17,236</u>	Shipped Offsite		
		<u>-4,154</u> <u>-66,588</u>	Administrative Adjustments		
			<b>FY120 Subtotal Cemented Sludge</b>	<u>662,822</u> <u>596</u> <u>088</u>	0
<i>Combustible - Noncombustible Waste</i>	<u>2005,544</u> <u>17</u> <u>71,174</u>				
		<u>8,348</u> <u>7,507</u>	New Covered		
		<u>-280,568</u> <u>-173,888</u>	Shipped Offsite		
		<u>-</u> <u>7,138</u> <u>400</u> <u>751</u>	Administrative Adjustments		
			<b>FY120 Subtotal Combustible-Noncombustible Waste</b>	<u>2005,544</u> <u>172</u> <u>6,186</u>	100
<i>Combustible Waste</i>	<u>20,460</u> <u>18,334</u>				
		<u>0,644</u> <u>2,254</u>	New Covered		
		<u>-6,296</u> <u>-2,080</u>	Shipped Offsite		
		<u>-</u> <u>2,536</u> <u>1,952</u>	Administrative Adjustments		
			<b>FY120 Subtotal Combustible Waste</b>	<u>20,460</u> <u>12,272</u>	0
<i>Glass Waste</i>	0.208				
		0	New Covered		
		0	Shipped Offsite		
		<u>0</u> <u>-0.208</u>	Administrative Adjustments		
			<b>FY120 Subtotal Glass Waste</b>	<u>0.208</u> <u>0</u>	0
<i>Leaded Glovebox Waste</i>	0				
		0	New Covered		
		0	Shipped Offsite		
		0	Administrative Adjustments		
			<b>FY120 Subtotal Leaded Glovebox Waste</b>	0	0
<i>Metallic Waste</i>	<u>118,988</u> <u>48,758</u>				
		0	New Covered		

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Treatability Group	FY10 Annual Update (m <sup>3</sup> )	Proposed Revision 234.0 (m <sup>3</sup> ) <sup>1,2</sup>	Comments <sup>3</sup>	FY12 Annual Update (m <sup>3</sup> )	Projection FY13-FY16 (m <sup>3</sup> )
		<del>-6.116-</del> <del>0.208</del>	Shipped Offsite		
		<del>2.52670.43</del> <del>8</del>	Administrative Adjustments		
			<b>FY120 Subtotal Metallic Waste</b>	<del>118.988</del> <b>110.346</b>	0
<b>Noncombustible Waste</b>	<del>125.35281.</del> <b>700</b>				
		<del>0.2080</del>	New Covered		
		<del>-96.708-</del> <del>5.824</del>	Shipped Offsite		
		<del>96.90849.4</del> <del>76</del>	Administrative Adjustments		
			<b>FY120 Subtotal Noncombustible Waste</b>	<del>125.352</del> <b>125.760</b>	100
<b>Solidified Inorganic and Organic Waste</b>	<del>140.870144</del> <b>.064</b>				
		<del>2.2883.744</del>	New Covered		
		<del>-23.752-</del> <del>4.160</del>	Shipped Offsite		
		<del>31.310-</del> <del>2.778</del>	Administrative Adjustments		
			<b>FY120 Subtotal Solidified Inorganic and Organic Waste</b>	<del>140.870</del> <b>150.716</b>	10
<b>TOTAL FY10:</b>	<del>2806.51630</del> <b>74.244</b>		<b>Total FY12+ Inventory:</b>	<del>3074.244272</del> <b>1.368<sup>4</sup></b>	<b>210</b>

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<sup>1</sup> MTRU waste volumes are calculated using the conversion: 55-gallon container = 0.2080 m<sup>3</sup>; 85-gallon container = 0.3215 m<sup>3</sup>.

<sup>2</sup> Volumes are represented to three decimal places in accordance with an agreement with NMED to report MTRU volumes to three decimal places.

<sup>3</sup> Shipping details are found in Appendix F, and Administrative Adjustments are found in Appendix G.

<sup>4</sup> Depending on the rounding method (rounding of totals or of individual volumes), minor differences in the total inventory may be obtained. This report adjusts the end-of-the-year inventory with individual drum volumes rounded to three decimal places in the Administrative Adjustments in Table G-1.

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

Location	FY10 MTRU Inventory (m <sup>3</sup> ) <sup>1</sup>	Treatability Group	Proposed Revision 232.0 (m <sup>3</sup> )	Comments <sup>1</sup>	FY12+ MTRU Inventory (m <sup>3</sup> )
CMR	<del>3,564</del> 3,356	Combustible-Noncombustible Waste	0.208	New Covered	
			-1.456	Administrative Adjustment	
<b>Total FY12+ CMR Inventory</b>					<del>3,564</del> 2,316
TA-55	<del>5,806</del> 4,930	Combustible-Noncombustible Waste	2.080	New Covered	
			-4,632	Administrative Adjustment	
<b>FY12+ TA-55 Combustible-Noncombustible Waste Inventory</b>					<del>5,806</del> 3,254
TA-55	0	Combustible Waste	0.019	New Covered	
<b>FY12 TA-55 Combustible Waste Inventory</b>					<b>0.019</b>
TA-55	31,987	Metallic Waste			
<b>FY12 TA-55 Metallic Waste Inventory</b>					<b>31,987</b>
TA-55	<del>3,148</del> 3,126	Noncombustible Waste	3,596	New Covered	
			-2,524	Administrative Adjustment	
<b>FY11-FY12 TA-55 Noncombustible Waste Inventory</b>					<del>4,220</del> 3,148
TA-55	0.208	Solid Organic and Inorganic Waste			
<b>FY12+ TA-55 Solidified Organic and Inorganic Waste Inventory</b>					<b>0.208</b>
<b>Total FY12+ TA-55 Inventory</b>					<del>39,688</del> 41,449
<b>Total FY12+ CMR/TA-55 Inventory</b>					<del>42,004</del> 44,713

<sup>1</sup> Shipping details are found in Appendix F and Administrative Adjustments are found in Appendix G. Since all waste is shipped from TA-54, there are no shipping data for CMR/TA-55, only transfers to TA-54, which are included in the Appendix G.

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FY11 Quarter	Treatability Group	FY11 Inventory Volume (m <sup>3</sup> )	New Covered Volume (m <sup>3</sup> )	Total Removed from Inventory (m <sup>3</sup> )	Total Volume Shipped (m <sup>3</sup> )
	<i>Cemented Sludge Total</i>	4.032	0	4.032	3.120
	<i>Combustible Waste Total</i>	0.208	0	0.208	0.208
	<i>Combustible Noncombustible Waste Total</i>	23.504	0	23.504	23.504
	<i>Noncombustible Waste Total</i>	1.040	0	1.040	1.040
	<i>Solidified Inorganic and Organic Waste Total</i>	2.080	0	2.080	2.080
<b>Q1 Total</b>	-	<b>30.864</b>	<b>0</b>	<b>30.864</b>	<b>29.952</b>
	<i>Cemented Sludge Total</i>	7.132	0	7.132	6.448
	<i>Combustible Waste Total</i>	0.624	0	0.624	0.624
	<i>Combustible Noncombustible Waste Total</i>	28.496	0.832	29.328	29.328
	<i>Metallic Waste Total</i>	0.208	0	0.208	0.208
	<i>Noncombustible Waste Total</i>	1.456	0	1.456	1.456
	<i>Solidified Inorganic and Organic Waste Total</i>	0.832	0.208	1.040	1.040
<b>Q2 Total</b>	-	<b>38.748</b>	<b>1.040</b>	<b>39.788</b>	<b>39.104</b>
	<i>Cemented Sludge Total</i>	5.334	0	5.334	4.992
	<i>Combustible Waste Total</i>	0.832	0	0.832	0.832
	<i>Combustible Noncombustible Waste Total</i>	70.304	0.208	70.512	70.512
	<i>Noncombustible Waste Total</i>	0.416	0	0.416	0.416
	<i>Solidified Inorganic and Organic Waste Total</i>	0	0.416	0.416	0.416
<b>Q3 Total</b>	-	<b>76.886</b>	<b>0.624</b>	<b>77.510</b>	<b>77.168</b>
	<i>Cemented Sludge Total</i>	0.738	0	0.738	0.624
	<i>Combustible Waste Total</i>	0.416	0	0.416	0.416
	<i>Combustible Noncombustible Waste Total</i>	49.296	1.248	50.544	50.544
	<i>Noncombustible Waste Total</i>	2.912	0	2.912	2.912
	<i>Solidified Inorganic and Organic Waste Total</i>	0.208	0.416	0.624	0.624
<b>Q4 Total</b>	-	<b>53.570</b>	<b>1.664</b>	<b>55.234</b>	<b>55.120</b>
<b>Grand Total</b>	-	<b>200.068</b>	<b>3.328</b>	<b>203.396</b>	<b>201.344</b>

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APPENDIX G. CURRENT YEAR MTRU INVENTORY – ADMINISTRATIVE ADJUSTMENTS

Table G-1: FY11-FY12 MTRU Administrative Adjustments to TA-54 Inventory

<u>Treatability Group</u>	<u>Administrative Adjustment</u>	<u>Volume (m<sup>3</sup>)</u>
<u>Cemented Sludge</u>	Repacked into 6.032 m <sup>3</sup> <u>Combustible-Noncombustible Waste</u> and 4.576 m <sup>3</sup> <u>Noncombustible Waste</u>	-5.938
	Volume changes due to addition or removal of 85 gallon overpacks	1.784
	<b><u>Cemented Sludge Net Adjustment</u></b>	<b>-4.154</b>
<u>Combustible-Noncombustible Waste</u>	Reclassified as MLLW (LA-W935)	-88.126
	Added as a result of recharacterizing TRU inventory as MTRU (Three containers (2.316 m <sup>3</sup> ) were discovered to contain aerosol cans and were assigned EPA Code D003)	2.316
	Added as a result of recharacterizing TRU inventory as MTRU during repacking	29.356
	Repacked into 138.086 m <sup>3</sup> <u>Combustible-Noncombustible Waste</u> and 33.280 m <sup>3</sup> <u>Noncombustible Waste</u>	-114.894
	Additional covered inventory transferred from TA-55 covered inventory	4.632
	Additional covered inventory transferred from CMR covered inventory	2.940
	Added as a result of repacking <u>Cemented Sludge</u> waste	6.0320
	Added as a result of repacking <u>Combustible-Noncombustible Waste</u>	138.086
	Added as a result of repacking <u>Combustible Waste</u>	1.872
	Added as a result of repacking <u>Glass Waste</u>	0.208
	Added as a result of repacking <u>Metallic Waste</u>	0.416
	Added as a result of repacking <u>Noncombustible Waste</u>	3.744
	Added as a result of repacking <u>Solidified Inorganic and Organic Waste</u>	3.952
	Added as a result of reclassifying MTRU WIPP-prohibited items ( <u>Noncombustible Waste</u> ) as <u>Combustible-Noncombustible Waste</u>	1.664
	Added as a result of accumulating MTRU WIPP-prohibited items	0.208
	Volume changes due to addition of 85 gallon overpacks	0.456
	<b><u>Combustible-Noncombustible Net Adjustment</u></b>	<b>-7.138</b>
<u>Combustible Waste</u>	Repacked into 1.872 m <sup>3</sup> <u>Combustible-Noncombustible Waste</u> and 1.248 m <sup>3</sup> <u>Noncombustible Waste</u>	-2.536
	<b><u>Combustible Waste Net Adjustment</u></b>	<b>-2.536</b>
<u>Glass Waste</u>	Repacked into 0.208 m <sup>3</sup> <u>Combustible-Noncombustible Waste</u>	-0.208
	<b><u>Glass Waste Net Adjustment</u></b>	<b>-0.208</b>
<u>Metallic Waste</u>	Reclassified as MLLW (LA-W935)	-2.110
	Repacked into 0.416 m <sup>3</sup> <u>Combustible-Noncombustible Waste</u>	-0.530
	Volume changes due to addition or removal of 85 gallon overpacks	0.114
<b><u>Metallic Waste Net Adjustment</u></b>	<b>-2.526</b>	
<u>Noncombustible Waste</u>	Repacked into 3.744 m <sup>3</sup> <u>Combustible-Noncombustible Waste</u> and 7.696 m <sup>3</sup> <u>Noncombustible Waste</u>	-3.556
	Added as a result of repacking <u>Cemented Sludge</u>	4.576
	Added as a result of repacking <u>Combustible-Noncombustible Waste</u>	33.280
	Added as a result of repacking <u>Noncombustible Waste</u>	7.696
	Added as result of repacking <u>Combustible Waste</u>	1.248

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Treatability Group	Administrative Adjustment	Volume (m <sup>3</sup> )
	Added as result of repacking <i>Solidified Inorganic and Organic Waste</i>	3.120
	MTRU WIPP-prohibited items ( <i>Noncombustible Waste</i> ) reclassified as <i>Combustible-Noncombustible Waste</i>	-1.664
	Added as a result of recharacterizing TRU inventory as MTRU during repacking	51.376
	Additional covered inventory transferred from TA-55 covered inventory and assigned to <i>Combustible-Noncombustible Waste</i> at TA-54	0.832
<b><i>Noncombustible Waste Net Adjustment</i></b>		<b>96.908</b>
<i>Solidified Inorganic and Organic Waste</i>	Repacked into 3.952 m <sup>3</sup> <i>Combustible-Noncombustible Waste</i> and 3.120 m <sup>3</sup> <i>Noncombustible Waste</i>	-3.442
	Added as a result of recharacterizing TRU inventory as MTRU during repacking 132 containers (34.296 m <sup>3</sup> ) of nitrate salts were reevaluated, determined to be potentially mixed waste, and assigned EPA codes D007, D008, and D009)	34.296
	Volume changes due to addition or removal of 85 gallon overpacks	0.456
<b><i>Solidified Inorganic and Organic Waste Net Adjustment</i></b>		<b>31.310</b>
<b><i>Total Net TA-54 Adjustment</i></b>		<b>111.656</b>

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Treatability Group	Administrative Adjustment	Volume (m <sup>3</sup> )
<i>Cemented Sludge</i>	Reclassified as MLLW (LA-W935) <sup>†</sup>	0
	Repacked into 51.376 m <sup>3</sup> <i>Combustible-Noncombustible Waste</i>	-68.676
	Database correction (quality control activities resulted in correction of database volumes)	2.088
<b><i>Cemented Sludge Net Adjustment</i></b>		<b>-66.588</b>
<i>Combustible-Noncombustible Waste</i>	Reclassified as MLLW (LA-W935) <sup>†</sup>	-67.830
	Added as a result of recharacterizing TRU inventory as MTRU during repacking	71.400
	Repacked into 51.448 m <sup>3</sup> <i>Combustible-Noncombustible Waste</i> and 17.888 m <sup>3</sup> <i>Noncombustible Waste</i>	-64.378
	Additional covered inventory transferred from TA-55 covered inventory	3.356
	Added as a result of repacking <i>Cemented Sludge</i> waste	51.376
	Added as a result of repacking <i>Combustible-Nonecombustible Waste</i>	51.448
	Added as a result of repacking <i>Combustible Waste</i>	3.952
	Added as a result of repacking <i>Metallic Waste</i>	0.416
	Added as a result of repacking <i>Noncombustible Waste</i>	0.416
	Added as a result of repacking <i>Solidified Inorganic and Organic Waste</i>	5.616
	MTRU WIPP prohibited items reclassified as <i>Noncombustible Waste</i>	-0.832
	Adjustment for rounding	-0.001
	Database correction (containers should not have appeared in FY10 end-of-year inventory)	-2.912
	Database correction (quality control activities resulted in recoding waste as MTRU)	3.234
Database correction (container volumes were validated and database corrections made)	345.490	
<b><i>Combustible-Noncombustible Net Adjustment</i></b>		<b>400.751</b>
<i>Combustible Waste</i>	Reclassified as MLLW (LA-W935) <sup>†</sup>	0

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Treatability Group	Administrative Adjustment	Volume (m <sup>3</sup> )
	Repacked into 3.952 m <sup>3</sup> <i>Combustible Noncombustible Waste</i> and 3.952 m <sup>3</sup> <i>Noncombustible Waste</i>	-4.824
	Database correction (Quality control activities resulted in reencoding waste as MTRU)	6.776
	<b>Combustible Waste Net Adjustment</b>	<b>1.952</b>
<i>Metallic Waste</i>	Reclassified as MLLW (LA W935) <sup>†</sup>	0
	Repacked into 0.416 m <sup>3</sup> <i>Combustible Noncombustible Waste</i> and 0.208 m <sup>3</sup> <i>Noncombustible Waste</i>	-0.416
	Database correction (quality control activities resulted in reencoding waste as MTRU)	11.278
	Database correction (missing LANL waste code prevented container from being identified as STP waste until database error was corrected in FY11)	0.208
	Database correction (container volumes were validated and database corrections made)	59.368
	<b>Metallic Waste Net Adjustment</b>	<b>70.438</b>
<i>Noncombustible Waste</i>	Reclassified as MLLW (LA W935) <sup>†</sup>	-9.480
	Repacked into 0.416 m <sup>3</sup> <i>Combustible Noncombustible Waste</i> and 0.832 m <sup>3</sup> <i>Noncombustible Waste</i>	-0.832
	Added as a result of repacking <i>Combustible Noncombustible Waste</i>	17.888
	Added as a result of repacking <i>Noncombustible Waste</i>	0.832
	Added as result of repacking <i>Combustible Waste</i>	3.952
	Added as result of repacking <i>Metallic Waste</i>	0.208
	Added as result of repacking <i>Solidified Inorganic and Organic Waste</i>	3.328
	Added as a result of reclassifying <i>Combustible Noncombustible Waste</i> WIPP prohibited items to <i>Noncombustible Waste</i>	0.832
	Added as a result of accumulating MTRU WIPP prohibited items	0.832
	Added as a result of recharacterizing TRU inventory as MTRU during repacking	21.216
	Database correction (quality control activities resulted in correction of database volumes)	9.130
	Database correction (quality control activities resulted in reencoding waste as MTRU)	1.570
	<b>Noncombustible Waste Net Adjustment</b>	<b>49.476</b>
<i>Solidified Inorganic and Organic Waste</i>	Reclassified as MLLW (LA W935) <sup>†</sup>	0
	Database correction (containers should not have appeared in FY10 end-of-year inventory)	-0.416
	Repacked into 5.616 m <sup>3</sup> <i>Combustible Noncombustible Waste</i> and 3.328 m <sup>3</sup> <i>Noncombustible Waste</i>	-5.616
	Database correction (quality control activities resulted in reencoding waste as MTRU)	
	Database correction (container volumes were validated and database corrections made)	0.550
	<b>Solidified Inorganic and Organic Waste Net Adjustment</b>	<b>-2.778</b>
	<b>Total Net TA-54 Adjustment</b>	<b>453.251</b>

<sup>†</sup>The MTRU volume removed from the STP inventory was calculated using the MTRU standard conversion (55-gallon container = 0.2080 m<sup>3</sup>); when that volume is recalculated in the MLLW inventory using the MLLW conversion (55-gallon container = 0.2082 m<sup>3</sup> and 85-gallon container = 0.3218 m<sup>3</sup>), the total volume transferred increases from 140.407 m<sup>3</sup> to 140.5406 m<sup>3</sup> (as shown in Appendix C).

| [FY11-FY12](#) Annual Update  
Site Treatment Plan

~~October 10~~ [March 29, 2012](#) [2013](#)  
Federal Facility Compliance Order

Table G-2: ~~FY11-FY12~~ MTRU Administrative Adjustments  
for CMR and TA-55 Inventory

Location	Treatability Group	Administrative Adjustment	Volume (m <sup>3</sup> )
CMR	<i>Combustible-Noncombustible Waste</i>	Transferred to TA-54 and assigned to <i>Combustible-Noncombustible Waste</i> in the TA-54 inventory	-2.940
		Added due to overpacking waste (0.416 m <sup>3</sup> ) into Standard Waste Box (1.900 m <sup>3</sup> )	1.484
<b>Net Adjustment CMR Inventory</b>			<b>-1.456</b>
TA-55	<i>Combustible-Noncombustible Waste</i>	Transferred to TA-54 and assigned to <i>Combustible-Noncombustible Waste</i> in the TA-54 inventory	-4.632
		<b>Net Adjustment TA-55 <i>Combustible-Noncombustible Waste</i></b>	
			<b>-4.632</b>
TA-55	<i>Noncombustible Waste</i>	Transferred to TA-54 and assigned to <i>Combustible-Noncombustible Waste</i> in the TA-54 inventory	-0.832
		One container (a large metal plate) was reevaluated and determined to be nonhazardous low-level waste	-1.900
		Added as a result of dividing the contents of one <i>Noncombustible Waste</i> container (0.208 m <sup>3</sup> ) into two <i>Noncombustible Waste</i> containers (0.416 m <sup>3</sup> ) for a net increase of 0.208 m <sup>3</sup>	0.208
<b>Net Adjustment TA-55 <i>Noncombustible Waste</i></b>			<b>-2.524</b>
<b>Net Adjustment TA-55 Inventory</b>			<b>-7.156</b>
<b>Total Net TA-55/CMR Adjustment</b>			<b>-8.612</b>

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Location	Treatability Group	Administrative Adjustment	Volume (m <sup>3</sup> )
CMR	<i>Combustible-Noncombustible Waste</i>	No changes	0
<b>Net Adjustment CMR Inventory</b>			<b>0</b>
TA-55	<i>Combustible-Noncombustible Waste</i>	One container (0.602 m <sup>3</sup> ) added as a result of recategorizing <i>Noncombustible Waste</i>	0.602
		Added due to overpacking waste (1.358 m <sup>3</sup> ) into Standard Waste Boxes	6.242
		One container (0.208 m <sup>3</sup> ) was omitted from the FY10 inventory	0.208
		Transferred in FY10 and included in TA-54 FY10 inventory	-1.900
		Transferred to TA-54 and assigned to <i>Combustible-Noncombustible Waste</i> in the TA-54 inventory	-3.356
<b>Net Adjustment TA-55 <i>Combustible-Noncombustible Waste</i></b>			<b>1.796</b>
TA-55	<i>Noncombustible Waste</i>	One container (0.602 m <sup>3</sup> ) recategorized to <i>Combustible-Noncombustible Waste</i>	-0.602
<b>Net Adjustment TA-55 <i>Noncombustible Waste</i></b>			<b>-0.602</b>

Location	Treatability Group	Administrative Adjustment	Volume (m <sup>3</sup> )
		Net Adjustment TA-55 Inventory	1,194
		Total Net TA-55/CMR Adjustment	1,194

Table G-3: FY11-MTRU Administrative Adjustments – TA-54 Volume Adjustments [Table omitted]

Note: In all cases, database volumes were adjusted in FY11 as a result of routine inspections of containers that identified discrepancies between actual volumes and volumes recorded in the database.

Container ID	Treatability Group	Container Volume Reported in FY10 Update (m <sup>3</sup> )	Revised Container Volume for FY11 Update (m <sup>3</sup> )	Volume Change (m <sup>3</sup> )
S4104	Cemented Sludge	0.322	0.208	-0.114
S794276	Cemented Sludge	0.322	0.416	0.094
S803975	Cemented Sludge	0.322	0.208	-0.114
S807070	Cemented Sludge	0.322	0.208	-0.114
S810329	Cemented Sludge	0.322	0.208	-0.114
S814698	Cemented Sludge	0.322	0.208	-0.114
S814802	Cemented Sludge	0.322	0.208	-0.114
S822238	Cemented Sludge	0.322	0.208	-0.114
S822241	Cemented Sludge	0.322	0.208	-0.114
S822259	Cemented Sludge	0.208	0.322	0.114
S823747	Cemented Sludge	0.322	0.208	-0.114
S823755	Cemented Sludge	0.322	0.208	-0.114
S832546	Cemented Sludge	0.208	0.322	0.114
S835397	Cemented Sludge	0.208	0.322	0.114
S842521	Cemented Sludge	0.208	0.322	0.114
S843994	Cemented Sludge	0.322	0.208	-0.114
S844677	Cemented Sludge	0.322	0.416	0.094
S845027	Cemented Sludge	0.208	0.322	0.114
S845086	Cemented Sludge	0.322	0.416	0.094
S846050	Cemented Sludge	0.208	0.322	0.114
S846683	Cemented Sludge	0.322	0.208	-0.114
S846689	Cemented Sludge	0.322	0.208	-0.114
S851726	Cemented Sludge	0.322	1.900	1.578
S855181	Cemented Sludge	0.208	0.322	0.114
S855186	Cemented Sludge	0.208	0.322	0.114

Container ID	Treatability Group	Container Volume Reported in FY10 Update (m <sup>3</sup> )	Revised Container Volume for FY11 Update (m <sup>3</sup> )	Volume Change (m <sup>3</sup> )
S860040	Cemented Sludge	0.208	0.322	0.114
S860151	Cemented Sludge	0.208	0.322	0.114
S860152	Cemented Sludge	0.208	0.322	0.114
S862405	Cemented Sludge	0.208	0.322	0.114
S862514	Cemented Sludge	0.208	0.322	0.114
S862590	Cemented Sludge	0.322	0.208	-0.114
S862994	Cemented Sludge	0.208	0.322	0.114
S863942	Cemented Sludge	0.322	0.208	-0.114
S864202	Cemented Sludge	0.208	0.322	0.114
S864360	Cemented Sludge	0.208	0.322	0.114
S864362	Cemented Sludge	0.208	0.322	0.114
-	<b>Cemented Sludge Total</b>	9.654	11.742	2.088
3440	Combustible Noncombustible Waste	0.000	5.980	5.980
3441	Combustible Noncombustible Waste	0.000	9.760	9.760
52300	Combustible Noncombustible Waste	2.320	2.560	0.240
52301	Combustible Noncombustible Waste	2.320	2.560	0.240
52302	Combustible Noncombustible Waste	2.320	2.560	0.240
52303	Combustible Noncombustible Waste	2.320	2.560	0.240
52304	Combustible Noncombustible Waste	2.320	2.560	0.240
52305	Combustible Noncombustible Waste	2.320	2.560	0.240
52306	Combustible Noncombustible Waste	2.320	2.560	0.240
52307	Combustible Noncombustible Waste	2.320	2.560	0.240
52308	Combustible Noncombustible Waste	2.320	2.560	0.240
53877	Combustible Noncombustible Waste	2.320	2.560	0.240
53878	Combustible Noncombustible Waste	2.320	2.560	0.240
53879	Combustible Noncombustible Waste	2.320	2.560	0.240
53880	Combustible Noncombustible Waste	2.320	2.560	0.240
53881	Combustible Noncombustible Waste	2.320	2.560	0.240
53882	Combustible Noncombustible Waste	2.320	2.560	0.240
53883	Combustible Noncombustible Waste	2.320	2.560	0.240
53884	Combustible Noncombustible Waste	2.320	2.560	0.240
53885	Combustible Noncombustible Waste	2.320	2.560	0.240
53886	Combustible Noncombustible Waste	2.320	2.560	0.240
53887	Combustible Noncombustible Waste	2.320	2.560	0.240

Container ID	Treatability Group	Container Volume Reported in FY10 Update (m <sup>3</sup> )	Revised Container Volume for FY11 Update (m <sup>3</sup> )	Volume Change (m <sup>3</sup> )
53888	Combustible Noncombustible Waste	2.320	2.560	0.240
53889	Combustible Noncombustible Waste	2.320	2.560	0.240
53890	Combustible Noncombustible Waste	2.320	2.560	0.240
53891	Combustible Noncombustible Waste	2.320	2.560	0.240
53892	Combustible Noncombustible Waste	2.320	2.560	0.240
53893	Combustible Noncombustible Waste	2.320	2.560	0.240
53894	Combustible Noncombustible Waste	2.320	2.560	0.240
53895	Combustible Noncombustible Waste	2.320	2.560	0.240
53896	Combustible Noncombustible Waste	2.320	2.560	0.240
53897	Combustible Noncombustible Waste	2.320	2.560	0.240
53898	Combustible Noncombustible Waste	2.320	2.560	0.240
53899	Combustible Noncombustible Waste	2.320	2.560	0.240
54200	Combustible Noncombustible Waste	2.320	2.560	0.240
54201	Combustible Noncombustible Waste	2.320	2.560	0.240
54202	Combustible Noncombustible Waste	2.320	2.560	0.240
54203	Combustible Noncombustible Waste	2.320	2.560	0.240
54204	Combustible Noncombustible Waste	2.320	2.560	0.240
54205	Combustible Noncombustible Waste	2.320	2.560	0.240
54206	Combustible Noncombustible Waste	2.320	2.560	0.240
54207	Combustible Noncombustible Waste	2.320	2.560	0.240
54208	Combustible Noncombustible Waste	2.320	2.560	0.240
54209	Combustible Noncombustible Waste	2.320	2.560	0.240
54210	Combustible Noncombustible Waste	2.320	2.560	0.240
54211	Combustible Noncombustible Waste	2.320	2.560	0.240
54212	Combustible Noncombustible Waste	2.320	2.560	0.240
54213	Combustible Noncombustible Waste	2.320	2.560	0.240
54214	Combustible Noncombustible Waste	2.320	2.560	0.240
55119	Combustible Noncombustible Waste	5.692	6.130	0.438
55120	Combustible Noncombustible Waste	13.650	23.810	10.160
55123	Combustible Noncombustible Waste	24.553	26.720	2.167
55124	Combustible Noncombustible Waste	19.021	19.120	0.099
55125	Combustible Noncombustible Waste	8.156	8.850	0.694
55300	Combustible Noncombustible Waste	4.758	9.290	4.532
55301	Combustible Noncombustible Waste	11.838	10.690	-1.148

Container ID	Treatability Group	Container Volume Reported in FY10 Update (m <sup>3</sup> )	Revised Container Volume for FY11 Update (m <sup>3</sup> )	Volume Change (m <sup>3</sup> )
S5304	Combustible Noncombustible Waste	11.101	10.270	8.169
S5306	Combustible Noncombustible Waste	9.714	11.760	2.046
S6253	Combustible Noncombustible Waste	15.100	16.460	1.360
S6254	Combustible Noncombustible Waste	12.880	14.310	1.430
S7399	Combustible Noncombustible Waste	16.740	18.710	1.970
S7605	Combustible Noncombustible Waste	1.509	4.850	3.341
S7606	Combustible Noncombustible Waste	4.434	6.070	1.636
S7607	Combustible Noncombustible Waste	6.943	6.780	-0.163
S7610	Combustible Noncombustible Waste	4.810	4.870	0.060
S7611	Combustible Noncombustible Waste	6.510	8.250	1.740
S8200	Combustible Noncombustible Waste	3.800	14.380	10.580
S8201	Combustible Noncombustible Waste	5.600	14.170	8.570
S8202	Combustible Noncombustible Waste	5.600	14.270	8.670
S8500	Combustible Noncombustible Waste	63.000	64.890	1.890
S2189	Combustible Noncombustible Waste	10.860	10.950	0.090
S2450	Combustible Noncombustible Waste	7.000	26.650	19.650
S2451	Combustible Noncombustible Waste	4.410	5.360	0.950
S791968	Combustible Noncombustible Waste	5.437	5.980	0.543
S792016	Combustible Noncombustible Waste	8.496	10.730	2.234
S792054	Combustible Noncombustible Waste	11.900	12.740	0.840
S792093	Combustible Noncombustible Waste	5.437	5.980	0.543
S792121	Combustible Noncombustible Waste	14.160	24.700	10.540
S792124	Combustible Noncombustible Waste	14.160	23.590	9.430
S792125	Combustible Noncombustible Waste	14.160	15.090	0.930
S792128	Combustible Noncombustible Waste	14.200	22.970	9.770
S792129	Combustible Noncombustible Waste	14.160	12.570	-1.590
S794028	Combustible Noncombustible Waste	25.500	55.970	30.470
S794029	Combustible Noncombustible Waste	16.312	34.250	17.938
S794030	Combustible Noncombustible Waste	18.351	32.260	13.909
S794031	Combustible Noncombustible Waste	16.284	28.500	12.216
S794032	Combustible Noncombustible Waste	18.408	21.200	2.792
S794033	Combustible Noncombustible Waste	18.408	28.500	10.092
S794034	Combustible Noncombustible Waste	16.284	20.390	4.106
S794035	Combustible Noncombustible Waste	18.400	12.570	-5.830

Container ID	Treatability Group	Container Volume Reported in FY10 Update (m <sup>3</sup> )	Revised Container Volume for FY11 Update (m <sup>3</sup> )	Volume Change (m <sup>3</sup> )
S794036	Combustible Noncombustible Waste	16.312	22.720	6.408
S794037	Combustible Noncombustible Waste	16.312	28.340	12.028
S794064	Combustible Noncombustible Waste	5.400	5.980	0.580
S794070	Combustible Noncombustible Waste	21.750	23.380	1.630
S794075	Combustible Noncombustible Waste	30.900	35.750	4.850
S794124	Combustible Noncombustible Waste	32.600	34.130	1.530
S794125	Combustible Noncombustible Waste	32.600	33.840	1.240
S794126	Combustible Noncombustible Waste	32.600	34.130	1.530
S794128	Combustible Noncombustible Waste	21.750	23.110	1.360
S794152	Combustible Noncombustible Waste	24.468	39.880	15.412
S794154	Combustible Noncombustible Waste	24.468	41.290	16.822
S794155	Combustible Noncombustible Waste	21.750	36.970	15.220
S803219	Combustible Noncombustible Waste	24.468	30.030	5.562
S803221	Combustible Noncombustible Waste	24.468	30.840	6.372
S803222	Combustible Noncombustible Waste	21.750	8.820	-12.930
S803236	Combustible Noncombustible Waste	12.687	21.530	8.843
S803237	Combustible Noncombustible Waste	14.200	12.400	-1.800
S804110	Combustible Noncombustible Waste	1.900	3.410	1.510
S804111	Combustible Noncombustible Waste	0.510	3.410	2.900
S804112	Combustible Noncombustible Waste	0.566	3.410	2.844
S804113	Combustible Noncombustible Waste	0.113	3.410	3.297
S804114	Combustible Noncombustible Waste	0.057	3.410	3.353
S811186	Combustible Noncombustible Waste	3.172	3.330	0.158
S811445	Combustible Noncombustible Waste	3.172	3.410	0.238
S811446	Combustible Noncombustible Waste	3.172	3.410	0.238
S811447	Combustible Noncombustible Waste	3.172	3.410	0.238
S811761	Combustible Noncombustible Waste	3.172	3.410	0.238
S811773	Combustible Noncombustible Waste	11.894	12.400	0.506
S811897	Combustible Noncombustible Waste	3.172	3.410	0.238
S812704	Combustible Noncombustible Waste	3.172	3.410	0.238
S813221	Combustible Noncombustible Waste	11.894	12.400	0.506
S813233	Combustible Noncombustible Waste	3.172	3.670	0.498
S822526	Combustible Noncombustible Waste	3.172	3.410	0.238
S822954	Combustible Noncombustible Waste	3.172	3.410	0.238

Container ID	Treatability Group	Container Volume Reported in FY10 Update (m <sup>3</sup> )	Revised Container Volume for FY11 Update (m <sup>3</sup> )	Volume Change (m <sup>3</sup> )
S822962	Combustible-Noncombustible Waste	3.135	3.100	-0.035
S823000	Combustible-Noncombustible Waste	1.133	1.080	-0.053
S851160	Combustible-Noncombustible Waste	3.172	3.410	0.238
S851162	Combustible-Noncombustible Waste	3.172	3.720	0.548
S851167	Combustible-Noncombustible Waste	3.172	3.410	0.238
S851168	Combustible-Noncombustible Waste	3.172	3.410	0.238
S851244	Combustible-Noncombustible Waste	3.172	3.490	0.318
S851245	Combustible-Noncombustible Waste	3.172	3.410	0.238
S851246	Combustible-Noncombustible Waste	3.172	3.410	0.238
S852046	Combustible-Noncombustible Waste	3.172	3.490	0.318
S852053	Combustible-Noncombustible Waste	3.172	3.490	0.318
S860113	Combustible-Noncombustible Waste	5.437	5.840	0.403
S860114	Combustible-Noncombustible Waste	5.437	5.840	0.403
S862430	Combustible-Noncombustible Waste	5.437	5.980	0.543
S865185	Combustible-Noncombustible Waste	5.437	5.980	0.543
S865186	Combustible-Noncombustible Waste	5.437	5.980	0.543
S865187	Combustible-Noncombustible Waste	3.172	3.490	0.318
S865190	Combustible-Noncombustible Waste	3.172	3.720	0.548
S865193	Combustible-Noncombustible Waste	1.133	1.070	-0.063
S865195	Combustible-Noncombustible Waste	1.274	1.760	0.486
S870285	Combustible-Noncombustible Waste	5.437	5.840	0.403
S870286	Combustible-Noncombustible Waste	5.437	5.980	0.543
S872714	Combustible-Noncombustible Waste	5.437	5.840	0.403
S872719	Combustible-Noncombustible Waste	5.437	5.840	0.403
S874054	Combustible-Noncombustible Waste	5.437	5.840	0.403
-	<b>Combustible-Noncombustible Waste Total</b>	1169.860	1515.350	345.490
56039	Metallic Waste	8.130	8.200	0.070
56040	Metallic Waste	2.100	2.110	0.010
56065	Metallic Waste	2.970	3.320	0.350
56066	Metallic Waste	10.000	19.050	9.050
S910836	Metallic Waste	12.234	24.640	12.406
S910847	Metallic Waste	1.444	24.640	23.196
S911769	Metallic Waste	0.935	7.040	6.105

Container ID	Treatability Group	Container Volume Reported in FY10 Update (m <sup>3</sup> )	Revised Container Volume for FY11 Update (m <sup>3</sup> )	Volume Change (m <sup>3</sup> )
S911772	<i>Metallic Waste</i>	1,359	9,540	8,181
-	<i>Metallic Waste Total</i>	39,172	98,540	59,368
56249	<i>Noncombustible Waste</i>	6,950	9,460	2,510
56250	<i>Noncombustible Waste</i>	5,290	7,290	2,000
57648	<i>Noncombustible Waste</i>	4,320	5,850	1,530
57649	<i>Noncombustible Waste</i>	7,730	9,620	1,890
57650	<i>Noncombustible Waste</i>	9,850	12,680	2,830
57665	<i>Noncombustible Waste</i>	12,330	12,520	0,190
59567	<i>Noncombustible Waste</i>	11,300	9,480	-1,820
-	<i>Noncombustible Waste Total</i>	57,770	66,900	9,130
53204	<i>Organic and Inorganic Solids</i>	0,208	0,322	0,114
53714	<i>Organic and Inorganic Solids</i>	0,208	0,322	0,114
53747	<i>Organic and Inorganic Solids</i>	0,208	0,322	0,114
53765	<i>Organic and Inorganic Solids</i>	0,208	0,322	0,114
53792	<i>Organic and Inorganic Solids</i>	0,208	0,416	0,208
56743	<i>Organic and Inorganic Solids</i>	0,322	0,208	-0,114
-	<i>Organic and Inorganic Solids Total</i>	1,362	1,912	0,550
-	<i>Grand Total</i>	1277,818	1694,444	416,626





Container ID	Treatability Group	Container Volume Added to STP (m <sup>3</sup> )	Accumulation Start Date	Current Location	EPA Codes Currently Assigned
S862515	Combustible Waste	0.322	5/12/1986	WCCRF/ REPACK	D008
S902112	Combustible Waste	0.322	10/24/1989	Dome 229	D008
	<b>Combustible Waste Total</b>	6.776			
54841	Metallie Waste	0.208	10/30/1992	Dome 229	D008
55873	Metallie Waste	0.208	5/16/1995	Dome 229	D008
56262	Metallie Waste	0.208	10/16/1996	Dome 229	D008
56619	Metallie Waste	0.208	7/16/1997	Dome 375	
62456	Metallie Waste	8.97	10/17/2003	Boxes— Pad 10	D004—D011 D018—D019 D021, D022 D035 D038—D040 F001—F003 F005
S810689	Metallie Waste	0.208	11/3/1981	Dome 49— ready to ship	D008
S825713	Metallie Waste	0.322	12/28/1982	Dome 229	D008
S842490	Metallie Waste	0.208	3/12/1984	TA 50 WCCRF— Repack	D008
S846070	Metallie Waste	0.208	12/18/1984	TA 50 WCCRF— Repack	D003
S851430	Metallie Waste	0.322	2/11/1985	Dome 232	D008
S864195	Metallie Waste	0.208	9/30/1986	Dome 49 Staging— SWB Overpack	D008
S870236	Metallie Waste	0.208	4/13/1987	WIPP	D008
	<b>Metallie Waste Total</b>	11.486			
59204	Noncombustible Waste	0.208	10/21/2001	WIPP	D008
87066	Noncombustible Waste	0.208	12/29/1982	WIPP	D008
S802997	Noncombustible Waste	0.322	7/27/1980	Dome 229	D008
S814870	Noncombustible Waste	0.208	1/5/1981	TA 50 WCCRF— Repack	D008

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**APPENDIX H. MLLW TREATMENT FACILITIES**

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

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

APPENDIX I. CORRESPONDENCE

Table I-1: Expedited Shipment Letters [Table omitted]

Request for Expedited Shipment Letter Date	STP Section	MWIR <sup>§</sup> Waste ID	Treatability Group	Volume Proposed to be Shipped (m <sup>3</sup> )	Reference
5/31/2011	3.1.5	LA-W922	Noncombustible Debris	1,3027	ENV-ES-11-109
5/20/2011	3.3.4	LA-W935	10-100nCl/g Waste	10,6028	ENV-ES-11-101

<sup>§</sup>MWIR is Mixed Waste Inventory Report

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Table I-2: Correspondence

Letter Date	Description	Letter Number	Revision Reference	Listed in Revision 21.0 (Appendix I)
10/7/2011	Response to September 21, 2011 Notice of Disapproval of the STP FY10 Update and Rev 21.0 Proposal	ENV-ES-11-0222	21.0	Yes
11/2/2010	Notice of Completion of OffSite Waste Shipment Activity and Completion of Milestone 3.1.4 (A and B)	ENV-ES-10-214	21.0	Yes
11/2/2010	Notice of Completion of OffSite Waste Shipment Activity 4.0, FY 10 Q4	ENV-ES-10-213	21.0	Yes
2/1/2011	Notice of Completion of OffSite Waste Shipment Activity 4.0, FY 11 Q1	ENV-ES-11-024	22.0	No
3/10/2011	Correction of Offsite Waste Shipment Notifications, Activity 4.0, FY 10 Q1 (ENV-RRO-10-007) and FY 10 Q3 (ENV-ES-10-142)	ENV-ES-11-037	21.0	Yes
3/31/2011	Submittal of FY10 STP Annual Update and Revision 22.0 Proposal	ENV-ES-11-0063	21.0	Yes
5/8/2011	Notice of Completion of OffSite Waste Shipment Activity 4.0, FY 11 Q2	ENV-ES-11-004	22.0	No
5/20/2011	Notice of Completion of OffSite Waste Shipment Activity 3.3.4	ENV-ES-11-101	22.0	No
5/31/2011	Notice of Completion of Expedited Waste Shipment Activities 3.1.5	ENV-ES-11-109	22.0	No
6/10/2011	Resubmittal of FY10 STP Annual Report (Revision 1) and Proposed Revision 21.0	ENV-ES-11-0134	21.0	Yes
7/25/2011	Notice of Completion of OffSite Waste Shipment Activity 3.3.4	ENV-ES-11-0153	22.0	No
7/28/2011	Notice of Completion of OffSite Waste Shipment Activity 4.0, FY 11 Q3	ENV-ES-11-0168	22.0	No

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Letter Date	Description	Letter Number	Revision Reference	Listed in Revision <del>24</del> 22.0 (Appendix I)
<del>7/28/2011</del>	<del>Correction of Notice of Completion of OffSite Waste Shipment Activity 4.0, FY11 Q2</del>	<del>ENV-ES-11-0169</del>	<del>22.0</del>	<del>No</del>
<del>9/30/2011</del>	<del>Notice of Completion of OffSite Waste Shipment Activity 3.2</del>	<del>ENV-ES-11-0210</del>	<del>22.0</del>	<del>No</del>
10/4/2011	Response to the 9/21/2011 Notice of Disapproval of the FY10 STP Annual Report and Proposed Revision 21.0	ENV-ES-11-0222	21.0	Yes
10/28/2011	Notice of Completion of OffSite Waste Shipment Activity 3.3.4	ENV-ES-11-0234	22.0	<del>No</del> Yes
11/15/2011	Notice of Completion of OffSite Waste Shipment Activity 4.0, FY11 Q3Q4	ENV-ES-11-0257	22.0	Yes <del>No</del>
12/9/2011	Notice of Completion of OffSite Waste Shipment Activity 3.1.8	ENV-ES-11-0285	22.0	Yes <del>No</del>
1/20/2012	Notice of Completion of OffSite Waste Shipment Activity 3.3.4	ENV-ES-12-0011	23.0	No
1/25/2012	Notice of Completion of OffSite Waste Shipment Activity 3.3.4	ENV-ES-12-015	23.0	No
1/31/2012	Notice of Completion of OffSite Waste Shipment Activity 4.0, FY12 Q1	ENV-ES-018	23.0	No
3/30/2012	Submittal of FY11 STP Annual Report and Proposed Revision 22.0	ENV-ES-12-0059	22.0	Yes <del>No</del>
5/9/2012	Notice of Completion of OffSite Waste Shipment Activity 4.0, FY12 Q2	ENV-ES-12-0092	23.0	No
8/7/2012	Notice of Completion of OffSite Waste Shipment Activity 4.0, FY12 Q3	ENV-ES-12-0160	23.0	No
9/11/2012	Correction of Table 3.2-2, FY11 Annual Report, STP	ENV-ES-12-0217	22.0	Yes <del>No</del>
9/19/2012	Notice of Completion of OffSite Waste Shipment Activity 3.3.4	ENV-ES-12-0201	23.0	No
10/22/2012	Response to the 9/18/2012 Notice of Disapproval of the FY11 STP Annual Report and Proposed Revision 22.0	WM-DO-12-0002	22.0	Yes <del>No</del>
11/6/2012	Notice of Completion of OffSite Waste Shipment Activity 3.3.4	WM-DO-12-0004	23.0	No
11/6/2012	Notice of Completion of OffSite Waste Shipment Activities 3.1.8 and 3.3.4	WM-DO-12-0005	23.0	No
11/6/2012	Notice of Completion of OffSite Waste Shipment Activity 4.0, FY12 Q4	WM-DO-12-0006	23.0	No

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**FY11-FY12 Annual Update  
Site Treatment Plan**

~~October 10, 2012~~ **March 29, 2013**  
Federal Facility Compliance Order

Letter Date	Description	Letter Number	Revision Reference	Listed in Revision <del>24</del> 22.0 (Appendix I)
<a href="#">3/22/2013</a>	<a href="#">Correction of Off-Site Shipment Reports, FY 12 Q1, Q3, and Q4, Activity 4.0</a>	<a href="#">ENV-EDA-13-04</a>	<a href="#">23.0</a>	<a href="#">No</a>
<a href="#">3/29/2013</a>	<a href="#">Submittal of FY 12 Annual Update and Proposal 23.0</a>	<a href="#">ENV-EDA-13-06</a>	<a href="#">23.0</a>	<a href="#">No</a>

## APPENDIX J. HISTORY OF CHANGES TO THE CP AND FFCO

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

To date, there have been 229 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.
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.

Action	Document Modified	Effective Date	Effect on FFCO/STP
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 <i>Annual Update</i> to certain treatability groups.
Rev. 11.0	STP/CP	4/18/01	Added and deleted volumes reported in FY00 <i>Annual Update</i> .
Rev. 12.0	STP/CP	3/13/02	Added and deleted volumes reported in FY01 <i>Annual Update</i> . 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 <i>Annual Update</i> .
Rev 14.0	STP/CP	1/5/05	Added and deleted volumes reported in FY03 <i>Annual Update</i> .
Rev 15.0	STP/CP	8/16/05	Added and deleted volumes reported in FY04 <i>Annual Update</i> .
Rev 16.0	STP/CP	12/12/06	Added and deleted volumes reported in FY05 <i>Annual Update</i> . 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 <sup>3</sup> of LA-W934 High Activity MLLW waste to MTRU waste.
Rev 17.0	STP/CP	6/26/08	Added and deleted volumes reported in FY06 <i>Annual Update</i> . 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	1/9/09	Added and deleted volumes reported in FY07 <i>Annual Update</i> . 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	2/5/10	Added and deleted volumes reported in FY08 <i>Annual Update</i> . 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.

**FY11-FY12 Annual Update  
Site Treatment Plan**

**~~October 10~~ ~~March 29, 2012~~ 2013  
Federal Facility Compliance Order**

Action	Document Modified	Effective Date	Effect on FFCO/STP
Rev 20.0	STP/CP	11/8/10	Added and deleted volumes reported in FY09 Annual Update. Proposed an extended compliance date for CP Activity 3.2(J).
Rev 21.0	STP/CP	3/21/12	Added and deleted volumes reported in FY10 Annual Update. Proposed new compliance date for CP Activity 3.1.8(A).
Rev 22.0	STP/CP	<del>TBD</del> 12/10/12	Added and deleted volumes reported in FY11 Annual Update.
<a href="#">Rev 23.0</a>	<a href="#">STP/CP</a>	<a href="#">TBD</a>	<a href="#">Added and deleted volumes reported in FY12 Annual Update</a>

## **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).