FFCO

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NATIONAL LABORATORY

Solid Waste Regulatory Compliance
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Date: June 07, 2005
Refer To: ENV-SWRC:05-036

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

RECEIVED
JUN 2005
NMED Hazardous
Waste Bureau

Ms. Lee Winn
Environmental Specialist
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

SUBJECT: NMED COMMENTS ON THE SITE TREATMENT PLAN (STP) FISCAL YEAR 2004 UPDATE AND REVISION 15.0 PROPOSAL, LOS ALAMOS NATIONAL LABORATORY (LANL) FEDERAL FACILITY COMPLIANCE ORDER (FFCO), ORDER 4, 1995

Dear Ms. Winn:

On April 11, 2005, we met to discuss your review of the Los Alamos National Laboratory (LANL) Site Treatment Plan Fiscal Year 2004 Update and Revision 15.0 Proposal, dated March 18, 2005. As a result of your review, you requested information on the following:

1.) In a letter dated October 9, 2003, LANL notified the New Mexico Environment Department (NMED) of the return to LANL of approximately 1.5 cubic meters of mixed low level waste source segregated by WCS at its Andrew County, Texas facility. The letter stated that an increase in volume from the returned waste would be reflected in the next annual update (i.e. the FY2004 update). However, that waste shipment was not returned for storage at LANL but was transported from WCS on to Duratek in Tennessee for recycling within the DOE complex. Thus, there was no increase in volume as anticipated in the October 9, 2003 letter.

2.) In a letter dated October 29, 2003, LANL notified NMED that during characterization of items for off-site shipment, a gas cylinder, in treatability group LA-W918 for *Compressed Gases Requiring Oxidation* due to its EPA Code D001 for ignitability as a compressed gas, was found to not have a valve on the cylinder itself. The empty gas cylinder does not have an associated EPA code and is low-level waste. The letter stated the item volume (0.0425 m^3) would be removed from inventory in the next annual revision. That decrease in volume was reflected in the FY2003 STP update.

3.) Table X.C.2.a.-1 of Revision 15 lists newly covered waste for FY2004. Most of the newly covered waste was shipped off site for treatment during FY2004. The small volume of newly covered waste that remained in storage at the end of FY2004 has been added to the appropriate sections of the compliance plan volume along with proposed compliance dates.

4.) You had several questions on discrepancies in volumes listed in expedited shipment letters and in tables in the annual update and revision. Corrections to the tables have been made.

Enclosed is copy of the Site Treatment Plan (STP) Fiscal Year 2004 Update and Revision Proposal 15.0 that includes the changes discussed above in items 3 and 4.

Please contact me (505) 667-4715 or dyea@lanl.gov if you have any questions.

Sincerely,

Albert Dye
STP Project Manager

AD:vc

Enc. a/s

Cy: w/enc.
Mr. James Bearzi
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park East, Bldg. 1
Santa Fe, New Mexico 87505

J. Nunz, DOE, LASO, A316
Author File, K490
SWRC File, K490
IM-9, A150

CERTIFICATION

COMMENT RESOLUTION ON THE SITE TREATMENT PLAN (STP) FISCAL YEAR 2004 UPDATE AND REVISION 15.0 PROPOSAL, LOS ALAMOS NATIONAL LABORATORY (LANL) FEDERAL FACILITY COMPLIANCE ORDER (FFCO), ORDER 4, 1995

I certify that I am the project manager responsible for overseeing the implementation of the Site Treatment Plan for the Los Alamos National Laboratory. To the best of my knowledge and belief, the information in this document is true, accurate, and complete.

Albert Dye
STP Project Manager
Environmental Stewardship Division
Los Alamos National Laboratory
Operator

6/1/05
Date Signed

James G. Nunz
Waste Management Program Manager
Los Alamos Area Office
U.S. Department of Energy
Albuquerque Operations
Owner/Operator

6/7/05
Date Signed

STP Background Volume
Attachment A

Los Alamos National Laboratory

Federal Facility Compliance Order

Annual Site Treatment Plan Update for Fiscal Year 2004

Background Volume

LA-UR-05-1844

March 18, 2005

Los Alamos

NATIONAL LABORATORY

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1.0 INTRODUCTION

On October 4, 1995, the New Mexico Environment Department (NMED) issued a Federal Facility Compliance Order (FFCO) to the Department of Energy (DOE) and its management and operating contractor, the University of California (UC) Regents. The FFCO required Los Alamos National Laboratory (LANL) to implement the Site Treatment Plan (STP) for the treatment of mixed waste at LANL. The STP was written to address treatment capacities and technologies to treat all of LAN's mixed waste, regardless of the time it was generated. Section VII of the FFCO requires LANL to submit an Annual Site Treatment Plan Update to the NMED each year on or before March 31.

The STP contains two volumes, the Compliance Plan Volume (CPV) and the Background Volume (BV). The FFCO requires the Annual Update bring information in both volumes current to the end of the previous federal fiscal year (FY). The update to the BV provides the following information:

- The amount of each covered waste stored at LANL as follows: 1) the estimated volume in storage at the end of the previous fiscal year; and 2) the estimated volume anticipated to be placed in storage for the next five fiscal years;
- A progress report from the end of the previous federal fiscal year 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 waste (MTRU) related to the waste treatment standards, if any, for the DOE Waste Isolation Pilot Plant (WIPP) facility near Carlsbad, New Mexico.

This document constitutes the FY04 update to the BV.

2.0 AMOUNT OF EACH COVERED WASTE STORED AT LANL

2.1 MIXED LOW LEVEL WASTE (MLLW) INVENTORY

During FY04, MLLW covered inventories decreased from approximately 16.39 m^3 to 5.61 m^3. Table 2.1-1 summarizes changes to the estimated MLLW covered waste inventory for FY04. A total of 1.21 m^3 of newly generated waste became covered during FY04 and 7.05 m^3 of covered waste was treated, recycled, or disposed during the fiscal year. Each item in the MLLW covered waste inventory is verified during quality control activities for individual shipments for treatment and disposal or recycling. Inconsistencies may exist in treatability groups between the original inventory reported when compared to actual shipments. These inconsistencies are reconciled annually, with the STP update, under Administrative Adjustments.

TABLE 2.1-1: FY04 MLLW Inventory Summary

Contribution	Volume (M3)
Estimated MLLW Inventory Reported in FY04 Annual Update	**16.39**
Proposed Revision 15.0	
Newly Generated Covered Waste	1.2124
Off-site Treatment	(7.0534)
Off-site Recycle	(0.00)
On-site Decontamination	(0.00)
Treatability Study Use	(0.00)
Administrative Adjustments	(4.9355)
Proposed Deletion under FFCO Section V.B.	0.00
Estimated MLLW Inventory Reported in FY04 Annual Update	**5.61**

Table 2.1-2 below provides the detailed FY04 covered MLLW inventory changes by treatability group. Newly generated waste is waste that was generated in FY03 and became covered waste in FY04.

TABLE 2.1-2: FY04 MLLW Inventory Detailed Update by Treatability Group

CPV Sec.	MWIR Waste ID and Treatability Group/Category	FY03 Annual Update (m3)	Proposed Revision 15.0 (m3)	Comments	FY04 Annual Update (m3)	Projection FY04-FY08 (m3)
3.1.1	LA-W901 IPA Wastes	0	0		0	0
3.1.1	LA-W902 Scintillation Fluids	0	0		0	0
3.1.2	LA-W903 Lead Blankets	0	0		0	0
3.1.2	LA-W904 Soil with Heavy Metals	0	0		0	0
3.1.2	LA-W905 ER Soils	0	0		0	0
3.1.3	LA-W906 Aqueous Organic Liquids	0	0.0001	Newly Generated	0.0001	0
3.1.4	LA-W911 Organic-Contaminated Combustible Solids	0	0		0	0

CPV Sec.	MWIR Waste ID and Treatability Group/Category	FY03 Annual Update (m3)	Proposed Revision 15.0 (m3)	Comments	FY04 Annual Update (m3)	Projection FY04-FY08 (m3)
3.1.4	LA-W919 Organic-Contaminated Noncombustible Solids	0	0		0	0
3.1.5	LA-W912 Combustible Debris	0	0		0	0
3.1.5	LA-W921 Activated or Inseparable Lead	0	0		0	0
3.1.5	LA-W922 Noncombustible Debris	0	0.2610 (0.2610) 0.0255 (0.0255)	Expedited Shipment to Perma-Fix 1/26/04 Expedited Shipment to Envirocare 4/20/04	0	2
3.1.6	LA-W913 Aqueous Wastes with Heavy Metals	0	0		0	0
3.1.6	LA-W914 Corrosive Solutions	0	0.0814 (0.0814) 0.0005	Shipped to WCS 4/15/04 Administrative Adjustment	0.0005	0
3.1.6	LA-W915 Aqueous Cyanides, Nitrates, Chromates, and Arsenates	0	0		0	0
3.1.7	LA-W916 Water-Reactive Wastes	0.6	(0.2127) (0.3724) (0.017) (0.0007) 0.0028	Shipped to DSSI 6/24/04 Shipped to MEC 6/24/04 Shipped to Perma-Fix 1/26/04 Shipped to Perma-Fix 6/24/04 Administrative Adjustment	0	0.01
3.1.8	LA-W917 Compressed Gases Requiring Scrubbing	0.3	0		0.3	0

CPV Sec.	MWIR Waste ID and Treatability Group/Category	FY03 Annual Update (m3)	Proposed Revision 15.0 (m3)	Comments	FY04 Annual Update (m3)	Projection FY04-FY08 (m3)
3.1.9	LA-W918 Compressed Gases Requiring Oxidation	0.81	0		0.81	0
3.1.10	LA-W920 Elemental Mercury	0.17	(0.1147) (0.0023)	Shipped to MEC 06/24/04 Administrative Adjustment	0.053	
3.1.11	LA-W907 Halogenated Organic Liquids	0	0		0	0
3.1.11	LA-W908 Nonhalogenated Organic Liquids	0	0		0	0
3.1.11	LA-W909 Bulk Oils	0	0.2264	Newly Generated	0.2264	0
3.1.11	LA-W910 PCB Wastes with RCRA Components	4.96	(4.0538) (0.1136) 0.0023	Shipped to MEC 09/24/04 Shipped to Envirocare 09/30/04 Administrative Adjustment	0.7949	2.2
3.1.11	LA-W923 Liquid and Solid Oxidizers	0	0.0045 (0.0045)	Shipped to Perma-Fix 1/26/04	0	0
3.2	LA-W924 Lead Wastes – TBD	0	0.2082	Newly Generated	0.2082	
3.2	LA-W925 Mercury Wastes – TBD	2.38	0.3700 (0.3700) (0.0820) (0.3987) 0.0154 0.0943	Expedited Shipment to MEC 1/26/04 Shipped to MEC 1/26/04 Shipped to MEC 6/24/04 Newly Generated Administrative Adjustment	2.0090	1.5
3.2	LA-W926 Compressed Gases – TBD	0	0		0	0
3.2	LA-W927 Biochemical Laboratory Wastes	0	0		0	0

CPV Sec.	MWIR Waste ID and Treatability Group/Category	FY03 Annual Update (m3)	Proposed Revision 15.0 (m3)	Comments	FY04 Annual Update (m3)	Projection FY04-FY08 (m3)
3.2	LA-W928 Dewatered Treatment Sludge	0	0		0	0
3.2	LA-W932 Explosives	0	0		0	
3.2	LA-W933 Lab Packs	0	(0.0002) 0.0199 (0.0199) 0.0002	Shipped to MEC 1/26/04 Shipped to Perma-Fix and DSSI 6/24/04 Administrative adjustment	0	2
3.2	LA-W934 High Activity Waste	7.15	(0.2120) (0.7133) (5.0133)	Shipped to Envirocare 12/8/03 Shipped to Envirocare 9/20/04 Administrative Adjustment	1.2114	0.1
3.3.1	LA-W930 Lead for Surface Decontamination	0	0		0	0
3.3.2	LA-W929 Nonradioactive or Suspect Waste Items to be Surveyed	0	0		0	0
3.3.3	LA-W931 Lead Requiring Sorting	0	0		0	0
3.4	Missing/ nonexistent/ TBV category	0.02	(0.02)	Administrative Adjustment	0	N/A
	TOTALS	**16.39**	**(10.7765)**		**5.6135**	

2.2 MIXED TRANSURANIC (MTRU) INVENTORY SUMMARY

During FY04, MTRU covered inventories increased from approximately 4141.06 m^3 to 4303.05 m^3. Table 2.2-1 summarizes changes to the estimated MTRU covered waste inventory for FY04.

Table 2.2-1: Covered MTRU Inventory Summary

Description	Volume (M3)
Covered MTRU Inventory Reported in FY03	4141.06
New Covered MTRU Waste	161.99
Covered MTRU Inventory At End of FY04	**4303.05**

The estimated covered MTRU waste inventory at LANL is described by treatability group in Table 2.2-2 below. This table presents the estimated volume of covered MTRU waste for each treatability group, along with an estimate of projected future generation levels for the next 5 calendar years.

TABLE 2.2-2. FY04 Estimated Covered MTRU Inventory by Treatability Group

Waste Treatability Group	Environmental Protection Agency (EPA) Code	Estimated Covered Volume (m3) FY04	Projected Volume (m3) FY04-FY08
Solidified Inorganic and Organic Solids	D006, D007 ,D008, D009, D019 ,D021, D039, F001, F002, F003, F005	1571.18	0
Metallic Waste	D004, D006, D007, D008, D009, D019, D040	1566.67	25.0
Glass Waste	D008, D009, D019, D040	2.71	2.0
Non-Combustible Waste	D006, D007, D008, D009, D028, F001, F002, F005	243.26	8.0
Combined Combustible and Non-Combustible Waste	D008, F001, F002	483.10	20.0
Combustible Waste	D007, D008, D019, D040, F001, F002, F005, U080	259.88	20.0
Organic Liquid	D002, D003, D006, D008, D019, D022, F002, F003, F005	0.26	4.0
Cemented Process Sludge	D007, D008, D009, D019, F001, F002, F005	160.10	83.0
Leaded Glovebox Gloves	D008	15.94	5.0
Total		**4303.10**	

3.0 TREATMENT PROGRESS

3.1 OFF-SITE TREATMENT

During FY04, covered mixed waste streams were shipped for treatment to off-site commercial treatment facilities such as Envirocare of Clive, Utah; Waste Control Specialists (WCS) in Andrews, Texas; DSSI in Kingston, TN; Perma-fix in Gainesville, Florida and Material and Energy Corporation (M&EC) in Oak Ridge, Tennessee.

- **Envirocare**

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

- **Perma-Fix**

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

- **Material and Energy Corporation**

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

- **Waste Control Specialists LLC**

WCS LLC is a Pasadena, Texas-based environmental services firm that manages radioactive and hazardous waste. WCS operates a facility in Andrews County, Texas, that has received permits for the treatment, storage, and disposal of radioactive, hazardous and toxic waste. WCS performs stabilization of waste forms for the purpose of meeting LDR treatment standards. WCS also conducts waste compaction, consolidation, and repackaging activities. The current hazardous waste treatment capabilities include consolidation, repackaging, thermal desorption, and stabilization for a wide variety of RCRA and Toxic Substances Control Act (TSCA) wastes. The TSCA permit allows the direct disposal of PCB contaminated materials and/or treatment, if necessary.

- **Diversified Scientific Services, Inc. (DSSI)**

Diversified Scientific Services, Inc., was acquired by Perma-Fix Environmental Services in September 2000. Waste delivered to DSSI is thermally treated and the residue is disposed of at an appropriately licensed and permitted disposal facility. Through beneficial recovery of thermal energy, the waste that would otherwise be stored produces a useful product (electricity) while accomplishing a substantial waste reduction. DSSI is located in Kingston, Tennessee.

Table 3.1-1 below is a summary of LANL's off-site shipments for treatment and/or disposal of covered MLLW in FY04. A total volume of 7.03 cubic meters of STP waste were shipped off-site for treatment and/or disposal.

TABLE 3.1-1: FY04 STP MLLW Off-Site Shipments for Treatment and/or Disposal

Date Shipped	Destination	MWIR #	Treatability Group	Vol. (m^3)	Shipping Manifest No.	Date NMED Notified	CPV Section
12/10/03	Envirocare	LA-W934	*High Activity*	0.21	02364	1/23/04	3.2
1/26/04	M&EC	LA-W925	*Mercury Wastes TBD*	0.45	04023	3/11/04	3.2
	M&EC	LA-W933	*Lab Packs*	.0002	04023		3.2
1/26/04	Perma-Fix	LA-W916	*Water Reactive*	0.020	4022	3/11/04	3.1.7
	Perma-Fix	LA-W922	*Non-combustible Debris*	0.260	4022		3.1.5
	Perma-Fix	LA-W923	*Liquid and Solid Oxidizers*	0.004	4022		3.1.11
4/15/04	WCS	LA-W914	*Corrosive Solutions*	0.081	04072	5/26/04	3.1.6
4/20/04	Envirocare	LA-W922	*Non-combustible Debris*	0.026	04092	5/26/04	3.1.5
6/24/04	M&EC	LA-W920	*Elemental Mercury*	0.115	04178	8/4/04	3.1.10
6/24/04	DSSI, M&EC, Perma-Fix	LA-W925	*Mercury Wastes TBD*	0.399	04178	8/4/04	3.2
	DSSI, M&EC, Perma-Fix	LA-W933	*Lab Packs*	0.02	04180, 04181	8/4/04	3.2
	DSSI, M&EC, Perma-Fix	LA-W916	*Water Reactive*	0.586	04179, 04180, 04194	8/4/04	3.1.7
9/20/04	Envirocare	LA-W934	*High Activity*	0.71	04275	10/25/04	3.2
9/24/04	M&EC	LA-W910	*PCB Wastes with RCRA components*	4.0538	04284	11/4/04	3.1.11
9/29/04	Envirocare	LA-W910	*PCB Wastes with RCRA components*	0.1136	04294	11/5/04	3.1.11
			Total Volume	**7.05**			

3.2 OFF-SITE RECYCLING

In FY04, DOE and UC conducted no off-site recycling.

TABLE 3.2-1: FY04 STP MLLW Off-Site Shipments for Recycling

Date Shipped	Destination	MWIR #	Treatability Group	Vol (m^3)	Shipping Manifest No.	Date NMED Notified	CPV Section
			Total Volume	**0.00**			

3.3 ON-SITE TREATMENT AND RECYCLING

In FY04, DOE and UC conducted no on-site treatment or recycling.

TABLE 3.3-1: FY04 STP MLLW On-Site Treatment

MWIR #	Treatability Group	Vol (m^3)	Date NMED Notified	CPV Section
	Total Volume	**0.00**		

3.4 ON-SITE LEAD DECONTAMINATION

No LANL covered MLLW was decontaminated on-site during FY04.

3.5 TREATABILITY STUDIES

In FY04, DOE and UC conducted no treatability studies.

TABLE 3.5-1: FY04 STP MLLW Treatability Studies

Date Shipped	Destination	MWIR #	Treatability Group	Vol (m^3)	Shipping Manifest No.	Date NMED Notified	CPV Section
			Total Volume	**0.00**			

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 for the STP Annual Update. These adjustments may result in additions of newly identified covered waste, transfers of waste to other treatability groups, or transfers of waste to the *missing/nonexistent/TBV category* of the STP. A thorough data quality review is conducted

annually to compare shipment notifications with shipping manifests against database updates. The discrepancies in the following table were discovered when preparing the FY04 Annual Update to the STP.

TABLE 3.6-1: Administrative Adjustments and Corrections

MWIR Waste ID	Treatability Group	Volume (m^3)	Comments	CPV Section
LA-W914	*Corrosive Solutions*	0.0005		3.1.6
LA-W916	*Water-Reactive Wastes*	0.0028		3.1.7
LA-W920	*Elemental Mercury*	(0.0023)		3.1.10
LA-W910	*PCB Waste with RCRA Components*	0.0023		3.1.11
LA-W925	*Mercury Wastes TBD*	0.0943		3.2
LA-W933	*Lab Packs*	0.0002		3.2
LA-W934	*High Activity*	(5.0133)		3.2
None	*Missing/Nonexistent/TBD*	(0.02)		3.4
	Net Total	(4.94)		

3.7 OTHER TYPES OF MIXED WASTE ACTIVITIES

No other MLLW activities were performed.

4.0 TREATMENT TECHNOLOGY DEVELOPMENT

During FY04, the availability of commercial and federal facility off-site treatment and disposal capacity for MLLW remained stable. As a result of DOE's increasing reliance on commercial treatment/disposal for mixed wastes, nearly all funding for onsite technology development has been reprioritized to support off-site treatment and disposal of mixed wastes. DOE treatment technology development initiatives are generally limited to specific technologies or technology adaptations in response to specific needs that cannot be addressed through commercial facilities.

4.1 TREATMENT TECHNOLOGIES BEING EVALUATED

DOE and UC continue 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 Off-Site Commercial Treatment Facilities

M&EC is licensed for a technology to treat mercury-contaminated waste using amalgamation. The treatment consists of mixing proprietary amalgamation agents with the waste until the process analysis shows that the mercury was fully reacted. When the amalgamation is complete, the wastes is stabilized and sampled. The resultant product is a waste form suitable for land

disposal. This mercury treatment process will be evaluated once it becomes available for low-level mixed waste treatment pending approval of a permit modification request.

4.1.2 Off-Site DOE Treatment Facilities

UC staff at LANL will continue to evaluate off-site DOE-operated treatment facilities for their appropriateness to treat LANL STP waste.

Advanced Mixed Waste Treatment Project (AMWTP)

The Advanced Mixed Waste Treatment Project is located at the DOE Idaho National Engineering and Environmental Laboratory (INEEL). A contract was awarded to British Nuclear Fuels Limited, Inc. in December, 1996, for the treatment and supporting services for 65,000 cubic meters of alpha and MTRU waste. . The project scope is to treat INEEL alpha and MTRU waste, as well as other DOE mixed wastes in the DOE complex. The AMWTP is expected to include waste vitrification, high force compaction, macroencapsulation, and mercury amalgamation

- **Hanford Site Solid Waste Program**

The Hanford Site, located in Richland, Washington, operates waste treatment, storage and disposal facilities for the various types of radioactive waste. The site has lined RCRA Subtitle C land disposal units for mixed waste (referred to as the Mixed Waste Disposal Units, or Mixed Waste Trenches) and a number of unlined disposal units for non-mixed radioactive waste (referred to as the unlined Low-Level Burial Grounds). The Hanford site does not currently accept mixed waste from other DOE sites pending completion of Hanford's Solid Waste Environmental Impact Statement. However, the facility submitted a permit application in November 2001 but does not anticipate approval before FY04. The facility will be evaluated once it becomes available for mixed low-level waste disposal.

5.0 DOE FUNDING FOR STP-RELATED ACTIVITIES

Funding to implement the LANL STP for mixed waste during FY04 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 during FY98, FY99, FY00, FY01, FY02, FY03 and FY04 for shipment of mixed waste offsite for treatment and disposal at DOE and commercial facilities. Funding during FY04 is also sufficient to meet all compliance dates established in the STP for FY04. Should funding reductions occur that would affect STP compliance dates, the DOE and UC will so notify the NMED to address compliance schedules and activities.

The DOE Assistant Secretary for Environmental Management has initiated a long-range plan for its cleanup and waste management activities, with a goal of accelerating clean-up progress as much as possible before 2006. The plan, *Accelerating Cleanup: Paths to Closure*, includes sections for the LANL site that address MLLW and Transuranic (TRU) wastes that are currently in storage (legacy waste). Current funding targets for waste management in the draft *LANL Accelerating Cleanup: Paths to Closure* plan should allow UC Staff at LANL to continue to meet all compliance dates in the STP, but assume 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.

Beginning in FY99, all newly generated MLLW with a disposal path was planned to be treated and disposed within one year if a treatment/disposal capability was available for the waste. All MLLW placed into storage before FY99 is planned to be treated and disposed before the end of FY04.

6.0 TREATMENT VARIANCES

The RCRA allows certain case-by-case variances from LDR standards. Variances that may be sought under the 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/LANL WITHDRAWL ACT AMENDMENTS

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

The WIPP repository is considered to be a deep geologic repository rather than a shallow landfill. It is wholly sited 2,100 ft below the land surface in a salt bed. Because salt has the advantageous characteristic of slow plastic deformation, it is predicted that the salt will entomb the waste and seal it from the human environment, making potential release of hazardous constituents a low-probability event.

The Land Withdrawal Act Amendments of 1996 (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, 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 New Mexico Environment Department issued a hazardous waste permit for WIPP on October 27, 1999, authorizing the DOE to manage, store, and dispose of contact-handled TRU mixed waste at the facility.

6.2 OTHER TREATMENT VARIANCE (S)

No treatment variances were requested or granted in FY04.

7.0 WIPP FACILITY CAPABILITIES

As discussed above, the DOE is planning to dispose of its defense TRU waste, both mixed and nonhazardous, in its deep geologic depository at the WIPP near Carlsbad, New Mexico. This facility is a receiving and disposal facility, without the capability of routinely opening and repackaging waste. TRU waste will already be containerized when received at the WIPP facility. The WIPP facility is not a generator of TRU waste, and therefore will receive all of the waste in shipments from off-site.

7.1 CHARACTERIZATION CAPABILITIES AT WIPP

No capabilities for characterization of TRU waste or hazardous waste constituents regulated by the RCRA were developed at the WIPP facility. During the present fiscal year, DOE is planning to resubmit permit modification requests that would lay the groundwork to accelerate cleanup at sites with small quantities of TRU waste (6,000 drums or less). Under this plan, generator/storage sites would characterize their waste. The DOE originally submitted this permit modification in July 2000. After hearing stakeholder concerns, the DOE withdrew the modification request and has subsequently resubmitted in FY02.

7.2 MTRU TREATMENT CAPABILITIES AND PLANS

No capabilities for treatment of MTRU to meet the LDR standards were developed at the WIPP facility. As described above, the LWAA exempted wastes designated by the Secretary of Energy for disposal at the WIPP from this requirement.

8.0 REFERENCES

1. "*Federal Facility Compliance Order (Los Alamos National Laboratory*" New Mexico Environment Department (October 4, 1995)
2. "*Hazardous Waste Report for Los Alamos National Laboratory*" Volumes I and II, ESH-19, Los Alamos National Laboratory (February 1996)
3. "*Transuranic Waste Baseline Inventory Report Revision 3*", US Department of Energy, Carlsbad Area Office (December 1995)
4. "*AL Mixed Waste Treatment Plan*", Los Alamos National Laboratory (March 1994)
5. 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)*
6. "*Los Alamos National Laboratory Federal Facility Compliance Order Annual Site Treatment Plan Update for Fiscal Year 1995*" (March 1996).
7. "*Los Alamos National Laboratory Federal Facility Compliance Order Annual Site Treatment Plan Update for Fiscal Year 1996*" (March 1997).
8. "*Los Alamos National Laboratory Federal Facility Compliance Order Annual Site Treatment Plan Update for Fiscal Year 1997*" (March 1998).
9. "*Los Alamos National Laboratory Federal Facility Compliance Order Annual Site Treatment Plan Update for Fiscal Year 1998*" (March 1999).
10. "*Los Alamos National Laboratory Federal Facility Compliance Order Annual Site Treatment Plan Update for Fiscal Year 1999*" (December 1999).
11. *"Los Alamos National Laboratory Federal Facility Compliance Order, Site Treatment Plan, Revision 10.0"* (August 2000).
12. "*Los Alamos National Laboratory Federal Facility Compliance Order, Site Treatment Plan, Revision 11.0"* (April 2001)
13. 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
14. "*Los Alamos National Laboratory Federal Facility Compliance Order, Site Treatment Plan, Revision 12.0"* (March 2002)
15. *Los Alamos National Laboratory Federal Facility Compliance Order, Site Treatment Plan, Revision 13.0"* (March 2003)
16. *Los Alamos National Laboratory Federal Facility Compliance Order, Site Treatment Plan, Revision 14.0"* (March 2004)

Appendix A

Reported STP MLLW Inventories 1995-1996

Appendix A – Reported Inventories, 1995 – 1996 (from Table 2-1, LANL FY96 Annual Update)

CPV Sec.	MWIR Waste ID and Treatability Group	CPV Vol. (m^3)	FY95 Changes Covered Waste (m^3)[a]	Explanation for FY95 Change	Covered Vol. End of FY95 (m^3)	FY96 Changes Covered Waste (m^3)[b]	Comments	Covered Vol. End of FY96 (m^3)	Projection FY97-FY01 (m^3)
3.1.1	LA-W901 IPA Wastes	15.89	NC		15.89	Increased 4.07[d] Decreased 19.98	Waste volume incorrectly reported in original STP inventory Shipped off-site for treatment at commercial or DOE facilities during FY96	0.02	0.0
3.1.1	LA-W902 Scintillation Fluids	2.47	Decreased 2.24	Commercially treated in FY95	0.23	Increased 0.13[d] Decreased 0.36[d]	Waste volume incorrectly reported in original STP inventory Shipped off-site for treatment at commercial or DOE facilities during FY96	0.0038[g]	0.0
3.1.2	LA-W903 Lead Blankets	0.74	NC		0.74	Decreased 0.74	Shipped off-site for treatment at commercial facility during FY96	0.00	0.0
3.1.2	LA-W904 Soil with Heavy Metals	10.53	NC		10.53	Increased 0.11	Waste that was newly generated in FY95 that became covered waste in FY96	10.64	0.5
3.1.2	LA-W905 ER Soils	39.32	NC		39.32	Decreased 39.32	Shipped off-site for treatment or disposal at commercial facility during FY96	0.00	0.0
3.1.3	LA-W906 Aqueous Organic Liquids	1.65	Increased 0.43	Inadvertently omitted from STP	2.08	Increased 3.62	Waste that was newly generated in FY95 that became covered waste in FY96	5.70	18.1
3.1.4	LA-W911 Organic-Contaminated Combustible Solids	28.32	Decreased 0.11 Increased 0.17	Treated in treat-ability study in FY95 Inadvertently omitted from STP	28.38	Increased 5.24 Decreased 0.11	Waste that was newly generated in FY95 that became covered waste in FY96 Shipped for treatment in on-site treatability study during FY96	33.51	26.2
3.1.4	LA-W919 Organic-Contaminated Noncombustible Solids	7.82	Decreased 0.11 Increased 0.001	Treated in treat-ability study in FY95 Inadvertently omitted from STP	7.71	Increased 9.58	Waste that was newly generated in FY95 that became covered waste in FY96	17.29	47.9
3.1.5	LA-W912 Combustible Debris	13.82	NC		13.82	Increased 0.28	Waste that was newly generated in FY95 that became covered waste in FY96	14.10	1.4
3.1.5	LA-W921 Activated or Inseparable Lead	15.60	Decreased 7.42 Increased 10.11	Decontaminated and released in FY95 Received from LD200 effort	18.29	Increased 2.29 Decreased 12.45	Waste that was newly generated in FY95 that became covered waste in FY96 Shipped for off-site treatment at commercial facility during FY96	8.13	11.5
3.1.5	LA-W922 Noncombustible Debris	5.62	Decreased 0.0002 Increased 1.25	Treated in treat-ability study in FY95 Inadvertently	6.87	Increased 21.04	Waste that was newly generated in FY95 that became covered waste in FY96	27.91	105.2

CPV Sec.	MWIR Waste ID and Treatability Group	CPV Vol. (m^3)	FY95 Changes Covered Waste (m^3)[a]	Explanation for FY95 Change	Covered Vol. End of FY95 (m^3)	FY96 Changes Covered Waste (m^3)[b]	Comments	Covered Vol. End of FY96 (m^3)	Projection FY97-FY01 (m^3)
				omitted from STP					
3.1.6	LA-W913 Aqueous Wastes with Heavy Metals	1.85	NC		1.85	Increased 0.15 Decreased 0.030 Decreased 0.32	Waste that was newly generated in FY95 that became covered waste in FY96 Shipped for treatment in on-site treatability study during FY95 Shipped for treatment in on-site treatability study during FY96	1.65	0.8
3.1.6	LA-W914 Corrosive Solutions	1.36	Increased 0.04	Inadvertently omitted from STP	1.40	Increased 0.08 Decreased 0.67	Waste that was newly generated in FY95 that became covered waste in FY96 Shipped for treatment in on-site treatability study during FY96	0.81	0.4
3.1.6	LA-W915 Aqueous Cyanides, Nitrates, Chromates, and Arsenates	0.13	Decreased 0.0003 Increased 0.02	Treated in treat-ability study in FY95 Inadvertently omitted from STP	0.15	Increased 0.02 Decreased 0.0002 Decreased 0.0031	Waste that was newly generated in FY95 that became covered waste in FY96 Shipped for treatment in on-site treatability study during FY95 Shipped for treatment in on-site treatability study during FY96	0.17	0.1
3.1.7	LA-W916 Water-Reactive Wastes	6.03	Increased 0.02	Inadvertently omitted from STP	6.05	Increased 0.01	Waste that was newly generated in FY95 that became covered waste in FY96	6.06	0.05
3.1.8	LA-W917 Compressed Gases Requiring Scrubbing	0.35	NC		0.35	NC		0.35	0.0
3.1.9	LA-W918 Compressed Gases Requiring Oxidation	0.08	NC		0.08	Increased 0.01	Waste that was newly generated in FY95 that became covered waste in FY96	0.09	0.0
3.1.10	LA-W920 Elemental Mercury	0.50	NC		0.50	Increased 0.02	Waste that was newly generated in FY95 that became covered waste in FY96	0.52	0.1
3.2.1	LA-W907 Halogenated Organic Liquids	16.58	Increased 0.04	Inadvertently omitted from STP	16.62	Increased 0.45 Decreased 0.0025	Waste that was newly generated in FY95 that became covered waste in FY96 Shipped for treatment in on-site treatability study during FY96	17.07	2.3
3.2.1	LA-W908 Nonhalogenated Organic Liquids	14.34	Increased 0.08	Inadvertently omitted from STP	14.42	Increased 2.83	Waste that was newly generated in FY95 that became covered waste in FY96	17.25	14.2
3.2.1	LA-W909 Bulk Oils	3.75	NC		3.75	Increased 2.28	Waste that was newly generated in FY95 that became covered waste in FY96	6.03	11.4
3.2.1	LA-W910	0.74	NC		0.74	NC		0.74	0.0

CPV Sec.	MWIR Waste ID and Treatability Group	CPV Vol. (m^3)	FY95 Changes Covered Waste (m^3)[a]	Explanation for FY95 Change	Covered Vol. End of FY95 (m^3)	FY96 Changes Covered Waste (m^3)[b]	Comments	Covered Vol. End of FY96 (m^3)	Projection FY97-FY01 (m^3)
	PCB Wastes with RCRA Components								
3.2.1	LA-W923 Inorganic Solid Oxidizers	0.20	Increased 0.32	Inadvertently omitted from STP	0.52	Decreased 0.087	Shipped for treatment in off-site treatability study during FY96	0.43	0.2
3.3	LA-W924 Lead Wastes – TBD	51.44	Decreased 11.28	Decontaminated and released in FY95	40.16	NC		40.16	0.0
3.3	LA-W925 Mercury Wastes - TBD	18.30	NC		18.30	Increased 1.52	Waste that was newly generated in FY95 that became covered waste in FY96	19.82	7.6
3.3	LA-W926 Compressed Gases - TBD	1.25	NC		1.25	NC		1.25	0.0
3.3	LA-W927 Biochemical Laboratory Wastes	1.34	NC		1.34	NC		1.34	0.0
3.3	LA-W928 Dewatered Treatment Sludge	268.17	NC		268.17	NC		268.17	0.0
3.4.1	LA-W930 Lead for Surface Decontamination	56.20	Decreased 14.64 Increased 22.50	Decontaminated and released in FY95 Received from LD200 effort	64.06	Increased 1.25	Waste that was newly generated in FY95 that became covered waste in FY96	65.31	6.3
3.4.2	LA-W929 Nonradioactive or Suspect Waste Items to be Surveyed	14.24	Decreased 0.002 Increased 0.00002	Decontaminated and released in FY95 Inadvertently omitted from STP	14.24	Decreased 0.00094 Decreased 0.0029	Shipped for treatment in on-site treatability study during FY95 Shipped for treatment in on-site treatability study during FY96	14.24	0.0
None[d]	LA-W931 Lead Requiring Sorting	9.97	Decreased 4.58 Increased 5.73	Decontaminated and released in FY95 Received from LD200 effort	11.12	Increased 0.44 Decreased 6.36	Waste that was newly generated in FY95 that became covered waste in FY96 Shipped for off-site treatment at commercial facility during FY96	5.20	2.2
None[e]	LA-W932 Explosives	0.0	NC			NC		0.0	0.0
None[e]	LA-W933 Lab Packs	0.0	NC			Increased 0.13	Waste that was newly generated in FY95 that became covered waste in FY96	0.13	0.8

Appendix B

Reported STP MLLW Inventories 1997

Table 2-1. FY97 MLLW Inventory Update Summary[a]

			FY97 Changes in Covered Waste				
CPV Sec.	MWIR Waste ID and Treatability Group/Category	3/96 Annual Update Volume (m^3)	Revision 5 (Other Changes) (m^3)	Revision 6 (3/98 FY97 Annual Update Changes)[b] (m^3)	Comments	3/98 Annual Update Volume (m^3)	Projection FY98-FY02 (m^3)
3.1.1	LA-W901 IPA Wastes	0.02	~~Decreased 0.005~~[e,m]	Decreased 0.02	Shipped off-site for treatment at commercial facility during FY97	0.00	0.0
3.1.1	LA-W902 Scintillation Fluids	0.0038[d]		Decreased 0.0038	Shipped off-site for treatment at commercial facility during FY97	0.00	0.0
3.1.2	LA-W903 Lead Blankets	0.00				0.00	0.0
3.1.2	LA-W904 Soil with Heavy Metals	10.64	~~Decreased 0.2082~~[e,m] ~~0.1047~~[n]	Decreased 0.62 Decreased 0.42 Decreased 8.91 Decreased 0.14	Transferred to LA-W910 (approved by NMED 9/18/97) Transferred to LA-W911 (approved by NMED 9/18/97) Shipped off-site for treatment at commercial or DOE facilities during FY97 Shipped off-site for treatment at commercial or DOE facilities during FY97	0.55	0.00
3.1.2	LA-W905 ER Soils	0.00				0.00	0.0
3.1.3	LA-W906 Aqueous Organic Liquids	5.70	~~Increased 0.0005~~[e,m] Increased ~~4.83~~[f] 4.26[f,n]	Increased 5.74	Waste that was newly generated in FY96 that became covered waste in FY97	15.70	50.0
3.1.4	LA-W911 Organic-Contaminated Combustible Solids	33.51	Increased 1.46[f]	Increased 0.0038 Increased 0.42	Waste that was newly generated in FY96 that became covered waste in FY97 Transferred from LA-W904 (approved by NMED 9/18/97)	35.39	7.3
3.1.4	LA-W919 Organic-Contaminated Noncombustible Solids	17.29	Increased 0.95[f]	Increased 8.58 Increased 0.11	Waste that was newly generated in FY96 that became covered waste in FY97 Unused Treatability Study sample returned form off-site facility in FY97	26.93	47.6

FY01 ...nual STP Update
Background Volume
03/31/05

			FY97 Changes in Covered Waste				
CPV Sec.	MWIR Waste ID and Treatability Group/Category	3/96 Annual Update Volume (m^3)	Revision 5 (Other Changes) (m^3)	Revision 6 (3/98 FY97 Annual Update Changes)[6] (m^3)	Comments	3/98 Annual Update Volume (m^3)	Projection FY98-FY02 (m^3)
3.1.5	LA-W912 Combustible Debris	14.10		Increased 0.32	Waste that was newly generated in FY96 that became covered waste in FY97	14.42	1.6
3.1.5	LA-W921 Activated or Inseparable Lead	8.13		Increased 1.58 Decreased 0.89 Decreased 1.72	Waste that was newly generated in FY96 that became covered waste in FY97 Shipped for off-site treatment at commercial facility during FY97 Shipped off-site for recycle at commercial facility in FY97	7.10	7.9
3.1.5	LA-W922 Noncombustible Debris	27.91		Increased 9.25 Decreased 2.915 Decreased 0.62	Waste that was newly generated in FY96 that became covered waste in FY97 Shipped for off-site treatment at commercial facility during FY97 Shipped for off-site treatment at commercial facility during FY97	33.63	46.2
3.1.6	LA-W913 Aqueous Wastes with Heavy Metals	1.65		Increased 1.02	Waste that was newly generated in FY96 that became covered waste in FY97	2.67	5.1
3.1.6	LA-W914 Corrosive Solutions	0.81		Increased 0.04	Waste that was newly generated in FY96 that became covered waste in FY97	0.85	0.2
3.1.6	LA-W915 Aqueous Cyanides, Nitrates, Chromates, and Arsenates	0.17				0.17	0.0
3.1.7	LA-W916 Water-Reactive Wastes	6.06		Increased 0.68	Waste that was newly generated in FY96 that became covered waste in FY97	6.74	3.4
3.1.8	LA-W917 Compressed Gases Requiring Scrubbing	0.35				0.35	0.0

CPV Sec.	MWIR Waste ID and Treatability Group/Category	3/96 Annual Update Volume (m^3)	FY97 Changes in Covered Waste: Revision 5 (Other Changes) (m^3)	FY97 Changes in Covered Waste: Revision 6 (3/98 FY97 Annual Update Changes)[5] (m^3)	Comments	3/98 Annual Update Volume (m^3)	Projection FY98-FY02 (m^3)
3.1.9	LA-W918 Compressed Gases Requiring Oxidation	0.09		Increased 0.0002	Waste that was newly generated in FY96 that became covered waste in FY97	0.09	0.001
3.1.10	LA-W920 Elemental Mercury	0.52		Increased 0.12	Waste that was newly generated in FY96 that became covered waste in FY97	0.64	0.6
3.2.1	LA-W907 Halogenated Organic Liquids	17.07		Increased 0.15 Decreased 0.0076	Waste that was newly generated in FY96 that became covered waste in FY97 Shipped for off-site treatment at commercial facility during FY97	17.21	0.8
3.2.1	LA-W908 Nonhalogenated Organic Liquids	17.25		Increased 0.09 Increased 0.076 Decreased 0.49 Decreased 0.11	Waste that was newly generated in FY96 that became covered waste in FY97 Correction to volume reported in original STP inventory which was in error Shipped for off-site treatment at commercial facility during FY97 Correction to volume reported in original STP inventory which was in error	16.82	0.4
3.2.1	LA-W909 Bulk Oils	6.03		Increased 0.05 Increased 0.47 Decreased 2.22	Waste that was newly generated in FY96 that became covered waste in FY97 Correction to volume reported in original STP inventory which was in error Shipped for off-site treatment at commercial facility during FY97	4.33	0.2
3.2.1	LA-W910 PCB Wastes with RCRA Components	0.74		Increased 1.39 Increased 0.62	Waste that was newly generated in FY96 that became covered waste in FY97 Transferred from LA-W904 (Approved by NMED 9/18/97)	2.75	0.4
3.2.1	LA-W923 Liquid and Solid Oxidizers	0.43		Increased 0.795	Waste that was newly generated in FY96 that became covered waste in FY97	1.23	4.0

FY01 Annual STP Update
Background Volume
03/31/05

			FY97 Changes in Covered Waste				
CPV Sec.	MWIR Waste ID and Treatability Group/Category	3/96 Annual Update Volume (m^3)	Revision 5 (Other Changes) (m^3)	Revision 6 (3/98 FY97 Annual Update Changes)[b] (m^3)	Comments	3/98 Annual Update Volume (m^3)	Projection FY98-FY02 (m^3)
3.3	LA-W924 Lead Wastes - TBD	40.16				40.16	0.0
3.3	LA-W925 Mercury Wastes - TBD	19.82		Increased 0.67	Waste that was newly generated in FY96 that became covered waste in FY97	20.49	3.4
3.3	LA-W926 Compressed Gases – TBD	1.25				1.25	0.0
3.3	LA-W927 Biochemical Laboratory Wastes	1.34				1.34	0.0
3.3	LA-W928 Dewatered Treatment Sludge	268.17		Decreased 255.46	Approved by NMED 9/18/97 as Rev. 2.0 to the STP	12.71	0.0
3.4.1	LA-W930 Lead for Surface Decontamination	65.31	~~Decreased 8.34~~[g m]	Increased 12.06 Decreased 0.32 Decreased 0.97 Decreased 1.04 Decreased 5.66	Waste that was newly generated in FY96 that became covered waste in FY97 Shipped for decontamination and recycle at on-site facility in F Y97 Shipped for decontamination and recycle at on-site facility in F Y97 Shipped for decontamination and recycle at on-site facility in F Y97 Shipped for decontamination and recycle at on-site facility in F Y97	69.38	60.3
3.4.2	LA-W929 Nonradioactive or Suspect Waste Items to be Surveyed	14.24	~~Decreased 0.26~~[h m]	Decreased 0.0076	Shipped for off-site treatment at commercial facility during FY97	14.23	0.0
None[i]	LA-W931 Lead Requiring Sorting	5.20		Increased 0.64 Decreased 4.78	Waste that was newly generated in FY96 that became covered waste in FY97 Shipped for off-site treatment at commercial facility during FY97	1.06	3.2

			FY97 Changes in Covered Waste				
CPV Sec.	MWIR Waste ID and Treatability Group/Category	3/96 Annual Update Volume (m^3)	Revision 5 (Other Changes) (m^3)	Revision 6 (3/98 FY97 Annual Update Changes)[b] (m^3)	Comments	3/98 Annual Update Volume (m^3)	Projection FY98-FY02 (m^3)
				Increased 0.02	Correction to Original STP Inventory as discussed in Revision 6.0		
None[j]	LA-W932 Explosives	0.00				0.00	0.0
None[j]	LA-W933 Lab Packs	0.13		Increased 0.003	Waste that was newly generated in FY96 that became covered waste in FY97	0.13	0.02
None	IPA Waste	0.00		Increased 0.0005[k] Decreased 0.0005[k]	Omitted from original STP inventory as discussed in Rev. 6.0 Shipped for off-site treatment at commercial facility during FY97	0.00	0.0
None[l]	Missing/ nonexistent/ TBV category	0.00	~~Increased 0.2082[e] 0.1047[m n]~~ ~~Increased 0.26[m]~~ ~~Increased 8.34[m]~~			0.00	Not Applicable

NOTES TO TABLE

[a] The covered waste volumes reported in Appendix B of the proposed Revision 6.0 include the volume changes in Revisions 4.0 and 5.0, approved by NMED in FY98 (December 29, 1997). Therefore, the volume changes in Revision 4.0 and 5.0 are not reflected in the FY97 STP *Annual Update* and are not included in this table. Because of this, the volumes in this table cannot be compared to the volumes reported in Appendix B. Also refer to *Note to Reader* in Section 2.1.1.

[b] These changes are the additional changes in FY 97 that were not previously reported in Rev. 5.0.

[c] One item from treatability group LA-W901 (*IPA wastes)* transferred to LA-W906 (*Aqueous Organic Liquids*) treatability group in Rev. 5.0 (also see footnote m).

[d] The final FY96 volume for most treatability groups is reported to two decimal places for consistency with the original STP inventory. The final FY96 LA-W902 volume is given as $0.0038m^3$ (i.e., reported to four decimal places) in order to accurately report the presence of one small-volume waste item in this treatability group remaining in the LANL inventory at the end of FY96. This item was shipped off-site on December 18, 1996.

[e] Items of LA-W904 waste transferred to the category of *Missing/Nonexistent/TBV* in Rev. 5.0 (also see footnotes m and n).

[f] These are wastes that were generated in FY96 and became covered waste in FY97; they were included in the Revision 5 request to facilitate expedited treatment and disposal of these wastes.

[g] Items of LA-W930 waste transferred to the category of *Missing/Nonexistent/TBV* in Rev. 5.0 (also see footnote m).

[h] Items of LA-W929 waste transferred to the category of *Missing/Nonexistent/TBV* in Rev. 5.0 (also see footnote m).

[i] This treatability group (LA-W931, *Lead Requiring Sorting*) is not listed in the *Compliance Plan Volume*; however, it is discussed in section 3.4.3 of the *Background Volume.*

Appendix C

Reported STP MLLW Inventories FY98

(Through Revision 7.0)

TABLE B-1. SUMMARY [illegible]BLE

STP/CPV MLLW INVENTORY CHANGES FOR REVISION 7.0

			Net Covered Waste Inventory by Subgroup (reported in Rev. 4/5)		Revision 6 (3/98 FY97 Annual Update Changes)		Revision 6 (Other Changes)		Revision 7		Subtotal (by subgroup)		Net Covered Waste Inventory (including Rev. 7 changes)	
CPV Section	Treatability Group	MWIR ID (by subgroup)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)
3.1.1	IPA Wastes	LA-W901-0	7	0.02	Decrease 7	Decrease 0.02					0	0.00	0	0.00
3.1.1	Scintillation Fluids	LA-W902-0	1	0.0038	Decrease 1	Decrease 0.0038					0	0.00	0	0.00
3.1.2	Lead Blankets	LA-W903-0	0	0.00							0	0.00	0	0.00
3.1.2	Soil with Heavy Metals	LA-W904-0	58	~~10.33~~ 10.43[a]	Decrease 6 Decrease 2 Decrease 46 Decrease 2	Decrease 0.62[b] Decrease 0.42[c] Decrease 8.91 Decrease 0.14					2	0.34		
		LA-W904-5	1	0.11							1	0.11	3	0.45
3.1.2	ER Soils	LA-W905-0	0	0.00							0	0.00	0	0.00
3.1.3	Aqueous Organic Liquids	LA-W906-0	45	1.65							45	1.65		
		LA-W906-4	27	0.36							27	0.36		
		LA-W906-5	101	~~8.88~~ 8.31[d]							101	8.31		
		LA-W906-6	0	0.00	Increase 88	Increase 5.74					88	5.74	261	16.06
3.1.4	Organic-Contaminated Combustible Solids	LA-W911-0	305	28.10	Increase 2	Increase 0.42[c]					307	28.52	382	36.07

TABLE B-1. SUMMARY TABLE

STP/CPV MLLW INVENTORY CHANGES FOR REVISION 7.0

			Net Covered Waste Inventory by Subgroup (reported in Rev. 4/5)		Revision 6 (3/98 FY97 Annual Update Changes)		Revision 6 (Other Changes)		Revision 7		Subtotal (by subgroup)		Net Covered Waste Inventory (including Rev. 7 changes)	
CPV Section	Treatability Group	MWIR ID (by subgroup)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)
		LA-W911-4	33	0.68							33	0.68		
		LA-W911-5	40	6.87							40	6.87		
		LA-W911-6	0	0.00	Increase 1	Increase 0.0038					1	0.0038		
		LA-W911-7	0	0.00					Increase 1	Increase 0.001	1	0.001		
3.1.4	Organic-Contaminated Noncombustible Solids	LA-W919-0	79	7.71	Increase 1	Increase 0.11[e]					80	7.82	~~227~~ 231	
		LA-W919-4	9	0.38							9	0.38	~~23112~~	
		LA-W919-5	89	10.53							89	10.53		27.31
		LA-W919-6	0	0.00	Increase 49	Increase 8.58					49	8.58		
		LA-W919-7	0	0.00					Increase 4	Increase 0.002	4	0.002		
3.1.5	Combustible Debris	LA-W912-0	83	13.82							83	13.82		
		LA-W912-4	9	0.75							9	0.75		
		LA-W912-5	5	0.28							5	0.28		
		LA-W912-6	0	0.00	Increase 6	Increase 0.32					6	0.32		
		LA-W912-7	0	0.00					Increase 2	Increase 0.0004	2	0.0004	~~103~~ 105	15.17
3.1.5	Activated or Inseparable Lead	LA-W921-0	14	4.77	Decrease 1 Decrease 2	Decrease 0.06[f] Decrease 1.72			Increase 1	Increase 0.208	~~11~~ 12	~~2.99~~ 3.20		
		LA-W921-5	18	3.35	Decrease	Decrease					14	2.52		

TABLE B-1. SUMMARY TABLE

STP/CPV MLLW INVENTORY CHANGES FOR REVISION 7.0

			Net Covered Waste Inventory by Subgroup (reported in Rev. 4/5)		Revision 6 (3/98 FY97 Annual Update Changes)		Revision 6 (Other Changes)		Revision 7		Subtotal (by subgroup)		Net Covered Waste Inventory (Including Rev. 7 changes)	
CPV Section	Treatability Group	MWIR ID (by subgroup)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)
					4	0.83[1]								
		LA-W921-6	0	0.00	Increase 9	Increase 1.58					9	1.58	~~34~~ 35	~~7.09~~ 7.30
3.15	Non-combustible Debris	LA-W922-0	41	5.62	Decrease 14	Decrease 2.915					27	2.71		
		LA-W922-4	53	2.83							53	2.83		
		LA-W922-5	63	22.29	Decrease 3	Decrease 0.62					60	21.67		
		LA-W922-6	0	0.00	Increase 51	Increase 9.25					51	9.25	191	36.46
3.1.6	Aqueous Wastes with Heavy Metals	LA-W913-0	83	1.50							83	1.50		
		LA-W913-4	25	0.40							25	0.40		
		LA-W913-5	11	0.15							11	0.15		
		LA-W913-6	0	0.00	Increase 20	Increase 1.02					20	1.02	139	3.07
3.1.6	Corrosive Solutions	LA-W914-0	60	0.69							60	0.69		
		LA-W914-4	90	0.36							90	0.36		
		LA-W914-5	39	0.12							39	0.12		
		LA-W914-6	0	0.00	Increase 8	Increase 0.04					8	0.04	197	1.21
3.1.6	Aqueous Cyanides, Nitrates, Chromates, and Arsenates	LA-W915-0	9	0.13							9	0.13		
		LA-W915-4	3	0.002							3	0.002		
		LA-W915-5	11	0.04							11	0.04	23	0.17
3.1.7	Water-Reactive Wastes	LA-W916-0	78	6.03							78	6.03		
		LA-W916-4	26	0.31							26	0.31		
		LA-W916-5	4	0.03							4	0.03		
		LA-W916-6	0	0.00	Increase 5	Increase 0.68					5	0.68	113	7.05
3.1.8		LA-W917-0	13	0.35							13	0.35		

TABLE B-1. SUMMARY TABLE

STP/CPV MLLW INVENTORY CHANGES FOR REVISION 7.0

			Net Covered Waste Inventory by Subgroup (reported in Rev. 4/5)		Revision 6 (3/98 FY97 Annual Update Changes)		Revision 6 (Other Changes)		Revision 7		Subtotal (by subgroup)		Net Covered Waste Inventory (including Rev. 7 changes)	
CPV Section	Treatability Group	MWIR ID (by subgroup)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)
	Compressed Gases Requiring Scrubbing	LA-W917-7	0	0.00					Increase 12	Increase 0.28	12	0.28	~~13~~ 25	~~0.35~~ 0.63
3.1.9	Compressed Gases Requiring Oxidation	LA-W918-0	6	0.08							6	0.08		
		LA-W918-4	168	1.23							168	1.23		
		LA-W918-5	2	0.01							2	0.01		
		LA-W918-6	0	0.00	Increase 1	Increase 0.0002					1	0.0002		
		LA-W918-7	0	0.00					Increase 15	Increase 0.46	15	0.46	~~177~~ 192	~~1.32~~ 1.78
3.1.10	Elemental Mercury	LA-W920-0	45	0.50							45	0.50		
		LA-W920-4	20	0.02							20	0.02		
		LA-W920-5	9	0.02							9	0.02		
		LA-W920-6	0	0.00	Increase 5	Increase 0.12					5	0.12	79	0.66
~~3.2.1~~ 3.1.11	Halogenated Organic Liquids	LA-W907-0	384	16.58	Decrease 3	Decrease 0.0076					381	16.57		
		LA-W907-4	97	1.05							97	1.05		
		LA-W907-5	31	0.49							31	0.49		
		LA-W907-6	0	0.00	Increase 16	Increase 0.15					16	0.15		
		LA-W907-7	0	0.00					Increase 12	Increase 0.04	12	0.04	~~525~~ 537	~~18.26~~ 18.30
~~3.2.1~~ 3.1.11	Nonhalogenated Organic Liquids	LA-W908-0	275	14.34	Increase 0[g]	Increase 0.076					271	13.82		

TABLE B-1. SUMMARY TABLE

STP/CPV MLLW INVENTORY CHANGES FOR REVISION 7.0

			Net Covered Waste Inventory by Subgroup (reported in Rev. 4/5)		Revision 6 (3/98 FY97 Annual Update Changes)		Revision 6 (Other Changes)		Revision 7		Subtotal (by subgroup)		Net Covered Waste Inventory (including Rev. 7 changes)	
CPV Section	Treatability Group	MWIR ID (by subgroup)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)
					Decrease 4 Decrease 0[h]	Decrease 0.49 Decrease 0.11								
		LA-W908-4	409	3.38							409	3.38		
		LA-W908-5	130	2.91							130	2.91		
		LA-W908-6	0	0.00	Increase 33	Increase 0.09					33	0.09		
		LA-W908-7							Increase 56	Increase 0.02	56	0.02	~~843~~ 899	~~20.20~~ 20.22
~~3.2.1~~ 3.1.11	Bulk Oils	LA-W909-0	28	3.75	Increase 0[i] Decrease 23	Increase 0.47 Decrease 2.22					5	2.00		
		LA-W909-4	8	1.48							8	1.48		
		LA-W909-5	28	2.28							28	2.28		
		LA-W909-6	0	0.00	Increase 4	Increase 0.05					4	0.05	45	5.81
~~3.2.1~~ 3.1.11	PCB Wastes with RCRA Components	LA-W910-0	4	0.74	Increase 6	Increase 0.62[b]					10	1.36		
		LA-W910-6	0	0.00	Increase 30	Increase 1.39					30	1.39	40	2.75
~~3.2.1~~ 3.1.11	Liquid and Solid Oxidizers	LA-W923-0	6	0.117							6	0.117		
		LA-W923-4	67	0.145							67	0.145		
		LA-W923-5	13	0.317							13	0.317		
		LA-W923-6	0	0.00	Increase 7	Increase 0.795					7	0.795	93	1.37
~~3.3~~ 3.2	Lead Waste - TBD	LA-W924-0	129	40.16							129	40.16	129	40.16
~~3.3~~	Mercury	LA-W925-0	63	18.30							63	18.30		

TABLE B-1. SUMMARY TABLE

STP/CPV MLLW INVENTORY CHANGES FOR REVISION 7.0

			Net Covered Waste Inventory by Subgroup (reported in Rev. 4/5)		Revision 6 (3/98 FY97 Annual Update Changes)		Revision 6 (Other Changes)		Revision 7		Subtotal (by subgroup)		Net Covered Waste Inventory (including Rev. 7 changes)	
CPV Section	Treatability Group	MWIR ID (by subgroup)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)
3.2	Wastes - TBD	LA-W925-4	37	0.42							37	0.42		
		LA-W925-5	14	1.52							14	1.52		
		LA-W925-6	0	0.00	Increase 23	Increase 0.67					23	0.67	137	20.91
~~3.3~~ 3.2	Compressed Gases - TBD	LA-W926-0	10	1.25							10	1.25	10	1.25
~~3.3~~ 3.2	Biochemical Laboratory Wastes	LA-W927-0	9	1.34							9	1.34	9	1.34
~~3.3~~ 3.2	Dewatered Treatment Sludge	LA-W928-0	61	12.71							61	12.71	61	12.71
~~3.3~~ 3.2	Explosives	LA-W932-0	0	0.00							0	0.00		
		LA-W932-4	1	0.000001							1	0.000001	1	0.000001
~~3.3~~ 3.2	Lab Packs	LA-W933-0	0	0.00							0	0.00		
		LA-W933-4	114	0.17							114	0.17		
		LA-W933-5	28	0.13							28	0.13		
		LA-W933-6	0	0.00	Increase 6	Increase 0.003	Increase 1	Increase 0.00002[j]			7	0.003		
		LA-W933-7	0	0.00					Increase 4	Increase 0.002	4	0.002	~~149~~ 153	0.30
~~3.4.1~~ 3.3.1	Lead for Surface Decontamin-ation	LA-W930-0	36	33.43	Decrease 1 Decrease 4 Decrease 6 Decrease 2	Decrease 0.11[k] Decrease 0.35[k] Decrease 1.04 Decrease 5.66			Increase 0[o] Decrease 1	Increase 0.095 De-crease 0.208	~~23~~ 22	~~26.27~~ 26.16		

TABLE B-1. SUMMARY TABLE

STP/CPV MLLW INVENTORY CHANGES FOR REVISION 7.0

			Net Covered Waste Inventory by Subgroup (reported in Rev. 4/5)		Revision 6 (3/98 FY97 Annual Update Changes)		Revision 6 (Other Changes)		Revision 7		Subtotal (by subgroup)		Net Covered Waste Inventory (including Rev. 7 changes)	
CPV Section	Treatability Group	MWIR ID (by subgroup)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)
		LA-W930-5	115	23.75	Decrease 1 Decrease 3	Decrease 0.21[k] Decrease 0.62[k]					111	22.92		
		LA-W930-6	0	0.00	Increase 14	Increase 12.06					14	12.06	~~148~~ 147	~~61.25~~ 61.14
~~3.4.2~~ 3.3.2	Nonradioac-tive or Suspect Waste Items to be Surveyed	LA-W929-0	2	0.0076	Decrease 2	Decrease 0.0076					0	0.00		
		LA-W929-5	1	0.00002			Decrease 1	Decrease 0.00002[j]			0	0.00	0	0.00
~~None~~[l] 3.3.3	Lead Requiring Sorting	LA-W931-0	23	4.76	Decrease 23 Increase 0[m]	Decrease 4.78 Increase 0.02					0	0.00		
		LA-W931-5	8	0.44							8	0.44		
		LA-W931-6	0	0.00	Increase 4	Increase 0.64					4	0.64	12	1.08
None[n]	IPA	None	0	0.00	Increase 1 Decrease 1	Increase 0.0005[n] Decrease 0.0005[n]					0	0.00	0	0.00

CPV Section	Category	MWIR ID (by subgroup)	Net Covered Waste Inventory by Subgroup (reported in Rev. 4/5)		Revision 6 (3/98 FY97 Annual Update Changes)		Revision 6 (Other Changes)		Revision 7		Subtotal (by subgroup)		Net Covered Waste Inventoı (including Rev. changes)	
			Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volume (m^3)	Items	Volu (m^3
~~3.5~~ 3.4	Missing/ nonexistent/ TBV	NONE (Revision 5)	48	8.81					0	Decrease0 .00095[p]	48	8.81	48	8

NOTES:

[a] This correction in LA-W904 volume arises from an error in the Appendix B in Revision 4/5 as discussed in Revision 6.0.

[b] This transfer of LA-W904 waste to LA-W910 was approved by NMED on September 18, 1997 as discussed in Revision 6.0

[c] This transfer of LA-W904 waste to LA-W911 was approved by NMED on September 18, 1997 as discussed in Revision 6.0

[d] This correction in LA-W906 volume arises from an error in the Appendix B in Revision 4/5 as discussed in Revision 6.0.

[e] The volume increase arises from the return of unused treatability study sample. It has been returned to the original inventory of LA-W919 (subgroup -0) consistent with the inventory

subgroup from which the sample was removed.

[f] These 5 items in subgroups LA-W921-0 and -5 (0.89 m^3 total) were shipped on December 9, 1996 as discussed in DOE□s letter dated December 24, 1996.

[g] This increase in LA-W908 volume arises from an error in the original STP inventory data as discussed in Revision 6.0.

[h] This decrease in LA-W908 volume arises from an error in the original STP inventory data as discussed in Revision 6.0.

[i] This correction in LA-W909 volume arises from an error in Appendix B in Revision 4/5 as discussed in Revision 6.0.

[j] This transfer of LA-W929 waste to LA-W933 is discussed in Revision 6.0.

[k] The shipment of 0.32 m^3, as reported in the FY97 STP *Annual Update*, consisted of 1 item (0.11 m^3) from subgroup LA-W930-0 and 1 item (0.21 m^3) from subgroup -5. The shipment of 0.97 m^3, as reported in the FY97 STP *Annual Update*, consisted of 4 items (0.35 m^3) from subgroup -0 and 3 items (0.62 m^3) from subgroup -5.

[l] ~~This treatability group (LA-W931, *Lead Requiring Sorting*) is not listed in the CPV; however it is discussed in section 3.4.3 of the *Background Volume*.~~

[m] This increase in LA-W931 volume arises from an error in the original STP inventory data as discussed in Revision 6.0.

[n] This item of isopropyl alcohol waste was not included in the original STP inventory and it was shipped for treatment as discussed in DOE s letter dated January 9, 1997.

[o] The increase in volume without increasing the number of items reults from an error in the original STP inventory data as discussed in Revision 7.0.

[p] Item found as discussed in Revision 7.0.

Appendix D

Reported STP MLLW Inventories FY98

(Through Revision 9.0)

Table 2.1-2. FY98 MLLW Inventory Detailed Update by Treatability Group.

CPV Sec.	MWIR Waste ID and Treatability Group/ Category	3/98 Annual Update (m^3)	Revision 7.0 (m^3)	Proposed Revision 9.0 (m^3)	Comments	FY98 Annual Update (m^3)	Projection FY99-FY03 (m^3)
3.1.1	LA-W901 IPA Wastes	0.00	0.00			0.00	0.00
3.1.1	LA-W902 Scintillation Fluids	0.00	0.00			0.00	0.00
3.1.2	LA-W903 Lead Blankets	0.00	0.00			0.00	0.00
3.1.2	LA-W904 Soil with Heavy Metals	0.55*	0.45			0.45	0.00
3.1.2	LA-W905 ER Soils	0.00	0.00			0.00	0.00
3.1.3	LA-W906 Aqueous Organic Liquids	15.70	16.06	(2.91) (3.92) 0.02 0.001	Shipped off-site for treatment Shipped off-site for treatment Newly generated Administrative adjustments	9.25	0.00
3.1.4	LA-W911 Organic-Contaminated Combustible Solids	35.39	36.07	(3.54) (0.0001) 0.64 0.12	Shipped off-site for treatment Shipped off-site for treatment Newly generated Administrative adjustments	33.29	0.00
3.1.4	LA-W919 Organic-Contaminated Noncombustible Solids	26.93	27.31	(6.45) 1.59	Shipped off-site for treatment Newly generated	22.45	0.00
3.1.5	LA-W912 Combustible Debris	14.42	15.17	(0.00005)	Shipped off-site for treatment	15.17	0.00
3.1.5	LA-W921 Activated or Inseparable Lead	7.10	7.30	(0.21)** (0.32) 0.11	On-site Lead Decon Transferred to LA-W910 Administrative adjustments	6.88	0.00
3.1.5	LA-W922 Noncombustible Debris	33.63	36.46	(2.02) (0.008) 5.40 0.63	Treatability Study Treatability Study Newly generated Administrative adjustments	40.46	0.00
3.1.6	LA-W913 Aqueous Wastes with Heavy Metals	2.67	3.07	(0.004) 1.33	Shipped off-site for treatment Newly generated	4.40	0.00
3.1.6	LA-W914 Corrosive Solutions	0.85	1.21	(0.00003) 0.01 0.006	Treatability Study Newly generated Administrative adjustments	1.23	0.00
3.1.6	LA-W915 Aqueous Cyanides, Nitrates, Chromates, and Arsenates	0.17	0.17	(0.14) 0.91	Treatability Study Newly generated	0.94	0.00
3.1.7	LA-W916 Water-Reactive Wastes	6.74	7.05	(5.70) (0.22) 0.05 0.42 (0.11)	Shipped off-site for treatment Shipped off-site for treatment Newly generated Administrative adjustments Transferred to LA-W908	1.49	0.00
3.1.8	LA-W917 Compressed Gases Requiring Scrubbing	0.35	0.63	(0.28)	Treatability Study	0.35	0.00
3.1.9	LA-W918 Compressed Gases Requiring Oxidation	0.09	1.78	(0.05) 0.006	Treatability Study Administrative adjustments	1.74	0.00
3.1.10	LA-W920 Elemental Mercury	0.64	0.66	(0.02) 0.002	Treatability Study Newly generated	0.64	0.00
3.1.11	LA-W907 Halogenated Organic Liquids	17.21	18.30	(4.97) (6.94) 0.02 0.21	Shipped off-site for treatment Shipped off-site for treatment Newly generated Administrative adjustments	6.62	0.00
3.1.11	LA-W908 Nonhalogenated Organic Liquids	16.82	20.22	(1.87) (1.65) (0.71) (0.001)	Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for treatment Treatability Study	16.56	0.00

CPV Sec	MWIR Waste ID and Treatability Group/ Category	3/98 Annual Update (m^3)	Revision 7.0 (m^3)	Proposed Revision 9.0 (m^3)	Comments	FY98 Annual Update (m^3)	Projection FY99-FY03 (m^3)
				0.41 0.06 (0.01) 0.11	Newly generated Administrative adjustments Transferred to missing Transferred from LA-W916		
3.1.11	LA-W909 Bulk Oils	4.33	5.81	(1.08) 0.42	Shipped off-site for treatment Newly generated	5.15	0.00
3.1.11	LA-W910 PCB Wastes with RCRA Components	2.75	2.75	0.10 0.32 0.02	Newly generated Transferred from LA-W921 Transferred from LA-W924	3.19	20.00
3.1.11	LA-W923 Liquid and Solid Oxidizers	1.23	1.37	(0.001)	Shipped off-site for treatment	1.37	0.00
3.2	LA-W924 Lead Wastes - TBD	40.16	40.16	(2.5) (10.54) (5.52) (0.003) (2.82) 0.10 (0.02)	Shipped off-site for treatment Shipped off-site for treatment Off-site Recycle On-site Decon Transferred to missing Administrative adjustments Transferred to LA-W910	18.86	0.00
3.2	LA-W925 Mercury Wastes - TBD	20.49	20.91	(14.49)	Shipped off-site for treatment	6.42	0.00
3.2	LA-W926 Compressed Gases – TBD	1.25	1.25	(1.06)	Treatability Study	0.19	0.00
3.2	LA-W927 Biochemical Laboratory Wastes	1.34	1.34			1.34	0.00
3.2	LA-W928 Dewatered Treatment Sludge	12.71	12.71			12.71	0.00
3.2	LA-W932 Explosives	0.00	0.000001			0.000001	0.00
3.2	LA-W933 Lab Packs	0.13	0.30	(0.001) 0.009	Treatability Study Administrative adjustment	0.31	0.00
3.3.1	LA-W930 Lead for Surface Decontamination	69.38	61.14	(4.99) (6.66) (0.68) (0.09) (2.08) (4.58) (4.25)	Off-site Recycle Off-site Recycle On-site Decon On-site Decon On-site Decon On-site Decon On-site Decon	37.81	0.00
3.3.3	LA-W931 Lead Requiring Sorting	1.06	1.08			1.08	0.00
3.4	Missing/ nonexistent/ TBV category	0.00	8.81	0.01 2.82	Transferred from LA-W908 Transferred from LA-W924	11.64	Not Applicable

*Volume was reported incorrectly as 0.00 cubic meters in FY97 Annual Update.

**Item was successfully decontaminated on 8/23/95 in the on-site decontamination operation, but was not previously reported.

Appendix E

Reported STP MLLW Inventories

(1) FY99 Update

(2) Revision 10.0 Final

(1) FY99 MLLW Inventory Detailed Update by Treatability Group.

CPV Sec.	MWIR Waste ID and Treatability Group/ Category	FY98 Annual Update (m^3)	Proposed Revision 10.0 (m^3)	Comments	FY99 Annual Update (m^3)	Projection FY99-FY03 (m^3)
3.1.1	LA-W901 IPA Wastes	0.00			0.00	0.00
3.1.1	LA-W902 Scintillation Fluids	0.00			0.00	0.00
3.1.2	LA-W903 Lead Blankets	0.00			0.00	0.00
3.1.2	LA-W904 Soil with Heavy Metals	0.45	(0.45) 0.68	Shipped off-site for treatment Newly generated	0.68	0.00
3.1.2	LA-W905 ER Soils	0.00			0.00	0.00
3.1.3	LA-W906 Aqueous Organic Liquids	9.25	(0.01) (1.09) (0.15) (2.18) (2.74) (0.95) (0.01) (0.0005) 0.34	Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for treatment SSD Project SSD Project Newly generated	2.46	1.00
3.1.4	LA-W911 Organic-Contaminated Combustible Solids	33.29	(0.75) (0.004) (0.01) (0.001) (0.006) 0.75	Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for treatment SSD Project SSD Project Newly generated	33.27	3.20
3.1.4	LA-W919 Organic-Contaminated Noncombustible Solids	22.45	(2.44) (0.95) (0.42) 4.92	Shipped off-site for treatment Shipped off-site for treatment SSD Project Newly generated	23.56	7.95
3.1.5	LA-W912 Combustible Debris	15.17	(0.003) 0.11 (0.11)	SSD Project Newly generated Transfer to LA-W916	15.17	0.00
3.1.5	LA-W921 Activated or Inseparable Lead	6.88	(0.63) (0.23) (0.23) (2.6) 0.63	Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for recycling Newly generated	3.82	0.00
3.1.5	LA-W922 Noncombustible Debris	40.46	(5.49) (4.79) (0.64) (0.11) (1.21) (1.003) (3.45) (2.75) (3.05) (0.0009) (0.21) (0.009) 2.25	Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for recycling SSD Project Transfer to Missing Transfer to LA-W917 Newly generated	20.00	27.00
3.1.6	LA-W913 Aqueous Wastes with Heavy Metals	4.40	(0.14) 0.98	SSD Project Newly generated	5.24	6.65
3.1.6	LA-W914 Corrosive Solutions	1.23	(0.008) (0.006) 0.03	SSD Project SSD Project Newly generated	1.25	0.05
3.1.6	LA-W915 Aqueous Cyanides,	0.94	0.0007	Newly generated	0.94	4.55

CPV Sec.	MWIR Waste ID and Treatability Group/ Category	FY98 Annual Update (m^3)	Proposed Revision 10.0 (m^3)	Comments	FY99 Annual Update (m^3)	Projection FY99-FY03 (m^3)
	Nitrates, Chromates, and Arsenates					
3.1.7	LA-W916 Water-Reactive Wastes	1.49	(0.0004) 0.52 0.11	SSD Project Newly generated Transferred from LA-W912	2.12	0.25
3.1.8	LA-W917 Compressed Gases Requiring Scrubbing	0.35	(0.07) 0.009 0.01	Treatability study Transferred from LA-W922 Newly generated	0.30	0.00
3.1.9	LA-W918 Compressed Gases Requiring Oxidation	1.74	(0.03) (0.02) (0.005) 0.04	Treatability study SSD Project SSD Project Newly generated	1.73	0.00
3.1.10	LA-W920 Elemental Mercury	0.64	0.006 0.0000	Newly generated Transfer to Missing	0.65	0.01
3.1.11	LA-W907 Halogenated Organic Liquids	6.62	(3.21) (0.004) (0.72) (0.25) (0.99) (0.0005) 0.007	Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for treatment SSD Project SSD Project Newly generated	1.45	0.1
3.1.11	LA-W908 Nonhalogenated Organic Liquids	16.56	(4.89) (0.56) (1.94) (0.99) (0.0005) (0.49) (0.5) (0.06) 0.49	Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for treatment SSD Project SSD Project Newly generated	7.62	2.05
3.1.11	LA-W909 Bulk Oils	5.15	(0.001) (0.83) 0.84	Shipped off-site for treatment SSD Project Newly generated	5.16	2.1
3.1.11	LA-W910 PCB Wastes with F Components	3.19	0.0003	Newly generated	3.19	0.5
3.1.11	LA-W923 Liquid and Solid Oxidizers	1.37	(0.007) 0.01	SSD Project Newly generated	1.37	0.00
3.2	LA-W924 Lead Wastes – TBD	18.86	(0.62) (0.34)	Shipped off-site for treatment Shipped off-site for recycling	17.90	0.00
3.2	LA-W925 Mercury Wastes – TBD	6.42 2.61*	(0.007) (0.23) (0.003) 0.01 0.001	Treatability study Treatability study SSD Project Newly generated Transfer to Missing	6.19 2.61	1.4
3.2	LA-W926 Compressed Gases – TBD	0.19			0.19	0.00
3.2	LA-W927 Biochemical Laboratory Wastes	1.34	(1.34)	Shipped off-site for treatment	0.00	0.00
3.2	LA-W928 Dewatered Treatment Sludge	12.71	(4.16)	Shipped off-site for treatment	8.55	0.00
3.2	LA-W932 Explosives	0.000001	0.000001	On-site Recycle	0.00	0.00
3.2	LA-W933 Lab Packs	0.31	(0.03)	SSD Project	0.28	0.00

CPV Sec.	MWIR Waste ID and Treatability Group/ Category	FY98 Annual Update (m^3)	Proposed Revision 10.0 (m^3)	Comments	FY99 Annual Update (m^3)	Projection FY99-FY03 (m^3)
3.3.1	LA-W930 Lead for Surface Decontamination	37.81	(0.84) (1.74) (0.28) (3.23) (0.56) (10.76) (1.78) (2.29) (11.42) (0.66)	Shipped off-site for treatment Shipped off-site for treatment Shipped off-site for recycling Shipped off-site for recycling Shipped off-site for recycling Shipped off-site for recycling On-Site lead decon On-Site lead decon Approved for transfer to MTRU (Amendment 3.0) Administrative Adjustment	4.25	0.00
3.3.2	LA-W929 Nonradioactive or Suspect Waste Items to be Surveyed	0.00			0.00	0.00
3.3.3	LA-W931 Lead Requiring Sorting	1.08			1.08	0.00
3.4	Missing/ nonexistent/ TBV category	11.64	0.21 0.001 0.0000	Transferred from LA-W922 Transferred from LA-W925 Transferred from LA-W920	11.85	Not Applicable
	TOTALS	**261.99** **2.61***	**(81.74)**		**182.88**	

(2) Revision 10.0 Final

CPV Sec.	MWIR Waste ID and Treatability Group/ Category	FY98 Annual Update (m^3)	Proposed Revision 10.0 (m^3)	FY99 Annual Update (m^3)	FINAL Revision 10.0 (m^3)	Totals after FINAL Rev 10
3.1.1	LA-W901 IPA Wastes	0.00		0.00		0.00
3.1.1	LA-W902 Scintillation Fluids	0.00		0.00		0.00
3.1.2	LA-W903 Lead Blankets	0.00		0.00		0.00
3.1.2	LA-W904 Soil with Heavy Metals	0.45	(0.45) 0.68	0.68		0.68
3.1.2	LA-W905 ER Soils	0.00		0.00		0.00
3.1.3	LA-W906 Aqueous Organic Liquids	9.25	(0.01) (1.09) (0.15) (2.18) (2.74) (0.95) (0.01)	2.46		2.46

CPV Sec	MWIR Waste ID and Treatability Group/ Category	FY98 Annual Update (m^3)	Proposed Revision 10.0 (m^3)	FY99 Annual Update (m^3)	FINAL Revision 10.0 (m^3)	Totals after FINAL Rev 10
			(0.0005) 0.34			
3.1.4	LA-W911 Organic-Contaminated Combustible Solids	33.29	(0.75) (0.004) (0.01) (0.001) (0.006) 0.75	33.27	(0.2) 0.11 (0.11) 0.4	33.47
3.1.4	LA-W919 Organic-Contaminated Noncombustible Solids	22.45	(2.44) (0.95) (0.42) 4.92	23.56	0.08 (0.08)	23.56
3.1.5	LA-W912 Combustible Debris	15.17	(0.003) 0.11	15.28		15.28
3.1.5	LA-W921 Activated or Inseparable Lead	6.88	(0.63) (0.23) (0.23) (2.6) 0.63	3.82		3.82
3.1.5	LA-W922 Noncombustible Debris	40.46	(5.49) (4.79) (0.64) (0.11) (1.21) (1.003) (3.45) (2.75) (3.05) (0.0009) (0.21) (0.009) 2.25	20.00	(0.34) (0.00004) (0.001) (0.01) (0.11)	19.54
3.1.6	LA-W913 Aqueous Wastes with Heavy Metals	4.40	(0.14) 0.98	5.24		5.24
3.1.6	LA-W914 Corrosive Solutions	1.23	(0.008) (0.006)	1.25		1.25

CPV Sec.	MWIR Waste ID and Treatability Group/ Category	FY98 Annual Update (m^3)	Proposed Revision 10.0 (m^3)	FY99 Annual Update (m^3)	FINAL Revision 10.0 (m^3)	Totals after FINAL Rev 10
			0.03			
3.1.6	LA-W915 Aqueous Cyanides, Nitrates, Chromates, and Arsenates	0.94	0.0007	0.94	0.00004	0.94
3.1.7	LA-W916 Water-Reactive Wastes	1.49	(0.0004) 0.52	2.01	0.34	2.35
3.1.8	LA-W917 Compressed Gases Requiring Scrubbing	0.35	(0.07) 0.009 0.01	0.30		0.30
3.1.9	LA-W918 Compressed Gases Requiring Oxidation	1.74	(0.03) (0.02) (0.005) 0.04	1.73		1.73
3.1.10	LA-W920 Elemental Mercury	0.64	0.006	0.65		0.65
3.1.11	LA-W907 Halogenated Organic Liquids	6.62	(3.21) (0.004) (0.72) (0.25) (0.99) (0.0005) 0.007	1.45	0.59 (0.59) 0.02 (0.2)	1.45
3.1.11	LA-W908 Nonhalogenated Organic Liquids	16.56	(4.89) (0.56) (1.94) (0.99) (0.0005) (0.49) (0.5) (0.06) 0.49	7.62	0.11 (0.11)	7.62
3.1.11	LA-W909 Bulk Oils	5.15	(0.001) (0.83) 0.84	5.16	0.28 (0.28) 0.38	5.54
3.1.11	LA-W910 PCB Wastes with RCRA Components	3.19	0.0003	3.19		3.19

CPV Sec.	MWIR Waste ID and Treatability Group/ Category	FY98 Annual Update (m^3)	Proposed Revision 10.0 (m^3)	FY99 Annual Update (m^3)	FINAL Revision 10.0 (m^3)	Totals after FINAL Rev 10
3.1.11	LA-W923 Liquid and Solid Oxidizers	1.37	(0.007) 0.01	1.37	(.05)	1.32
3.2	LA-W924 Lead Wastes – TBD	18.86	(0.62) (0.34)	17.90	(4.79)	13.11
3.2	LA-W925 Mercury Wastes – TBD	6.42 2.61*	(0.007) (0.23) (0.003) 0.01	6.19 2.61	0.01	6.19 2.62
3.2	LA-W926 Compressed Gases – TBD	0.19		0.19	(0.19)	0.00
3.2	LA-W927 Biochemical Laboratory Wastes	1.34	(1.34)	0.00		0.00
3.2	LA-W928 Dewatered Treatment Sludge	12.71	(4.16)	8.55		8.55
3.2	LA-W932 Explosives	0.000001	0.000001	0.00		0.00
3.2	LA-W933 Lab Packs	0.31	(0.03)	0.28	0.001 0.05	0.33
3.2	LA-W934 High Activity Waste				0.11 4.79 0.19 0.01	5.1
3.3.1	LA-W930 Lead for Surface Decontamination	37.81	(0.84) (1.74) (0.28) (3.23) (0.56) (10.76) (1.78) (2.29) (11.42) (0.66)	4.25		4.25
3.3.2	LA-W929 Nonradioactive or Suspect Waste Items to be Surveyed	0.00		0.00		0.00
3.3.3	LA-W931 Lead Requiring Sorting	1.08		1.08	(0.11)	0.97

CPV Sec	MWIR Waste ID and Treatability Group/ Category	FY98 Annual Update (m^3)	Proposed Revision 10.0 (m^3)	FY99 Annual Update (m^3)	FINAL Revision 10.0 (m^3)	Totals after FINAL Rev 10
3.4	Missing/ nonexistent/ TBV category	11.64	0.21	11.85	0.2 0.11	12.16
	TOTALS	**261.99** **2.61***	**(81.74)**	**182.88**		**183.67**

*Omitted from FY98 Update by mistake.

Appendix F

Reported STP MLLW Inventories

FY00 Update

FY00 MLLW Inventory Detailed Update by Treatability Group

CPV Sec.	MWIR Waste ID and Treatability Group/ Category	FY99 Annual Update (m^3)	Proposed Revision 10.0 (m^3)	Proposed Revision 11.0 (m^3)	Comments	FY00 Annual Update (m^3)	Projection FY00-FY04 (m^3)
3.1.1	LA-W901 IPA Wastes	0.00	0.00				0.00
3.1.1	LA-W902 Scintillation Fluids	0.00	0.00				0.00
3.1.2	LA-W903 Lead Blankets	0.00	0.00				0.00
3.1.2	LA-W904 Soil with Heavy Metals	0.68	0.68			0.68	0.00
3.1.2	LA-W905 ER Soils	0.00	0.00				0.00
3.1.3	LA-W906 Aqueous Organic Liquids	2.46	2.46	(0.33) (0.02) (0.21) (0.42) (0.21) (0.59)	Shipped to DSSI 12/17/99 Shipped to DSSI 12/17/99 Shipped to WCS 1/25/00 Shipped to DSSI 3/28/00 Shipped to DSSI 6/27/00 Shipped to Perma-Fix 7/25/00	0.68	1.00
3.1.4	LA-W911 Organic-Contaminated Combustible Solids	33.27	33.47	(0.38) (0.21) (0.04) (0.62) (0.11) (2.08) 0.11 0.11	Shipped to Perma-Fix 2/25/00 Shipped to ATG 3/31/00 Shipped to DSSI 6/27/00 Shipped to Perma-Fix 7/25/00 Shipped to Perma-Fix 7/25/00 Shipped to ATG 7/26/00 Administrative Adjustment Newly Generated	30.25	0.00
3.1.4	LA-W919 Organic-Contaminated Noncombustible Solids	23.56	23.56	(0.00) (0.001) (0.08) 0.08	Shipped to DSSI 12/17/99 Shipped to DSSI 3/28/00 Shipped to ATG 5/31/00 Administrative Adjustment	23.56	0.00
3.1.5	LA-W912 Combustible Debris	15.17	15.28	(0.002) (13.49) (0.23) (1.34) (0.11) (0.11)	Shipped to DSSI 12/17/99 Shipped to ATG 3/31/00 Shipped to ATG 5/31/00 Shipped to Envirocare 6/27/00 Shipped to ATG 7/26/00 Administrative Adjustment	0.00	0.00
3.1.5	LA-W921 Activated or Inseparable Lead	3.82	3.82	(0.74) (0.63) (2.61) (0.0006) 0.16	Shipped to ATG 5/31/00 Shipped to Envirocare 6/27/00 Shipped to Envirocare 6/27/00 Shipped to ATG 7/26/00 Administrative Adjustment	0.00	0.00
3.1.5	LA-W922 Noncombustible Debris	20.00	19.54	(1.19) (2.03) (13.95) (0.22) (0.80) (0.70) (0.0002) (0.65)	Shipped to ATG 5/31/00 Shipped to Envirocare 6/27/00 Shipped to Envirocare 6/27/00 Shipped to ATG 7/26/00 Shipped to ATG 7/26/00 Shipped to GTS 8/1/00 Shipped to GTS 8/1/00 Administrative Adjustment	0.00	0.00
3.1.6	LA-W913 Aqueous Wastes with Heavy Metals	5.24	5.24	(0.0002) (0.005) (0.09) (0.83) (2.20) (0.37) (0.14)	Shipped to DSSI 12/17/99 Shipped to WCS 1/25/00 Shipped to DSSI 3/28/00 Shipped to DSSI 6/27/00 Shipped to DSSI 6/27/00 Shipped to Perma-Fix 9/14/00 Administrative Adjustment	1.60	0.00
3.1.6	LA-W914 Corrosive Solutions	1.25	1.25	(0.0004) (0.29) (0.00)	Shipped to WCS 1/25/00 Shipped to DSSI 3/28/00 Shipped to DSSI 3/28/00	0.62	0.00

CPV Sec.	MWIR Waste ID and Treatability Group/ Category	FY99 Annual Update (m^3)	Proposed Revision 10.0 (m^3)	Proposed Revision 11.0 (m^3)	Comments	FY00 Annual Update (m^3)	Projection FY00-FY04 (m^3)
				(0.11) (0.23) (0.002)	Shipped to DSSI 6/27/00 Shipped to Perma-Fix 9/14/00 Administrative Adjustment		
3.1.6	LA-W915 Aqueous Cyanides, Nitrates, Chromates, and Arsenates	0.94	0.94	(0.002) (0.48)	Shipped to Perma-Fix 9/14/00 Administrative Adjustment	0.46	0.00
3.1.7	LA-W916 Water-Reactive Wastes	2.12	2.35	(0.00) 0.11 0.0005	Shipped to ATG 7/26/00 Administrative Adjustment Newly Generated	2.44	0.00
3.1.8	LA-W917 Compressed Gases Requiring Scrubbing	0.30	0.30			0.30	0.00
3.1.9	LA-W918 Compressed Gases Requiring Oxidation	1.73	1.73			1.73	0.00
3.1.10	LA-W920 Elemental Mercury	0.65	0.65	(0.21) (0.002) (0.05)	Shipped to ATG 7/26/00 Shipped to BNL 9/25/00 Shipped to BNL 9/25/00	0.39	0.01
3.1.11	LA-W907 Halogenated Organic Liquids	6.62	1.45	(0.60) (0.08) (0.02) (0.0001) (0.02) 0.02 (0.02)	Shipped to DSSI 12/17/99 Shipped to Perma-Fix 2/25/00 Shipped to Perma-Fix 2/25/00 Shipped to DSSI 3/28/00 Shipped to DSSI 6/27/00 Administrative Adjustment Administrative Adjustment	0.73	0.1
3.1.11	LA-W908 Nonhalogenated Organic Liquids	16.56	7.62	(0.46) (0.005) (0.04) (0.34) (0.08) (0.11) (0.05) (0.12) (0.90) 0.11	Shipped to DSSI 12/17/99 Shipped to Perma-Fix 2/25/00 Shipped to Perma-Fix 2/25/00 Shipped to DSSI 3/28/00 Shipped to DSSI 6/27/00 Shipped to DSSI 6/27/00 Shipped to Perma-Fix 7/25/00 Shipped to Perma-Fix 7/25/00 Shipped to Perma-Fix 9/14/00 Administrative Adjustment	5.62	0.00
3.1.11	LA-W909 Bulk Oils	5.15	5.54	(1.11) (0.40) (0.25) (0.83) (0.62) 0.25 0.21	Shipped to DSSI 12/17/99 Shipped to DSSI 3/28/00 Shipped to DSSI 3/28/00 Shipped to DSSI 6/27/00 Shipped to DSSI 6/27/00 Administrative Adjustment Newly Generated	2.79	0.00
3.1.11	LA-W910 PCB Wastes with RCRA Components	3.19	3.19	(0.06) 0.02 0.81	Shipped to DSSI 3/28/00 Newly generated Administrative Adjustment	3.96	0.5
3.1.11	LA-W923 Liquid and Solid Oxidizers	1.37	1.32	(0.0007)	Shipped to Perma-Fix 9/14/00	1.32	0.00
3.2	LA-W924 Lead Wastes – TBD	18.86	13.11	(8.52) 0.66	Shipped to GTS 9/19/00 Newly Generated	5.25	0.00
3.2	LA-W925 Mercury Wastes – TBD	6.42 2.61*	6.19 2.62	(0.01) (2.61)	Shipped to BNL 9/25/00 Administrative Adjustment	6.19	1.4
3.2	LA-W926 Compressed Gases – TBD	0.19	0.00			0.00	0.00
3.2	LA-W927 Biochemical Laboratory Wastes	1.34	0.00			0.00	0.00
3.2	LA-W928 Dewatered Treatment	12.71	8.55	(8.55)	Proposed for Deletion	0.00	0.00

CPV Sec	MWIR Waste ID and Treatability Group/ Category	FY99 Annual Update (m^3)	Proposed Revision 10.0 (m^3)	Proposed Revision 11.0 (m^3)	Comments	FY00 Annual Update (m^3)	Projection FY00-FY04 (m^3)
	Sludge						
3.2	LA-W932 Explosives	0.000001	0.00	0.004	Newly Generated	0.004	0.00
3.2	LA-W933 Lab Packs	0.31	0.33	(0.001) (0.02) (0.0001) (0.003) (0.00001) 0.21 0.48	Shipped to DSSI 12/17/99 Shipped to ATG 3/31/00 Shipped to ATG 7/26/00 Shipped to Perma-Fix 9/14/00 Administrative Adjustment Newly Generated Administrative Adjustment	1.00	0.00
3.2	LA-W934 High Activity Waste	0.00	5.1			5.1	
3.3.1	LA-W930 Lead for Surface Decontamination	37.81	4.25	(4.25)	Shipped to TA-50 11/15/99	0.00	0.00
3.3.2	LA-W929 Nonradioactive or Suspect Waste Items to be Surveyed	0.00	0.00			0.00	0.00
3.3.3	LA-W931 Lead Requiring Sorting	1.08	0.97	(0.02)	Shipped to ATG 3/31/00	0.95	0.00
3.4	Missing/ nonexistent/ TBV category	11.85	12.16	(0.0002) (0.0005) (0.14)	Shipped to DSSI 3/28/00 Shipped to ATG 3/31/00 Shipped to Perma-Fix 9/14/00	12.02	N/A
	TOTALS	**182.88**	**183.67**	**(76.01)**		**107.66**	

Appendix G

Reported STP MLLW Inventories

FY01 Update

CPV Sec.	MWIR Waste ID and Treatability Group/ Category	FY00 Annual Update (m^3)	Proposed Revision 12.0 (m^3)	Comments	FY01 Annual Update (m^3)	Projection FY01-FY05 (m^3)
3.1.1	LA-W901 IPA Wastes	0.00				0.00
3.1.1	LA-W902 Scintillation Fluids	0.00				0.00
3.1.2	LA-W903 Lead Blankets	0.00				0.00
3.1.2	LA-W904 Soil with Heavy Metals	0.68	(0.68)	Shipped to WCS 6/25/01	0.00	0.00
3.1.2	LA-W905 ER Soils	0.00				0.00
3.1.3	LA-W906 Aqueous Organic Liquids	0.68			0.68	1.00
3.1.4	LA-W911 Organic-Contaminated Combustible Solids	30.25	(8.52) (2.66) (1.38) (3.65) (1.92) 5.01	Shipped to ATG 10/31/00 Shipped to ATG 2/12/01 Shipped to DSSI 3/1/01 Shipped to Perma-Fix 7/31/01 Shipped to Perma-Fix 9/27/01 Administrative Adjustment	17.13	0.00
3.1.4	LA-W919 Organic-Contaminated Noncombustible Solids	23.56	(2.72) (1.27) (6.05) (0.85)	Shipped to WCS 7/30/01 Shipped to Perma-Fix 9/12/01 Shipped to Perma-Fix 9/27/01 Administrative Adjustment	12.67	0.00
3.1.5	LA-W912 Combustible Debris	0.00			0.00	0.00
3.1.5	LA-W921 Activated or Inseparable Lead	0.00			0.00	0.00
3.1.5	LA-W922 Noncombustible Debris	0.00	(0.21) 0.21 1.31	Shipped to WCS 6/25/01 Administrative Adjustment Newly Generated	1.31	2.00
3.1.6	LA-W913 Aqueous Wastes with Heavy Metals	1.60	(0.002) (1.42) (0.18)	Shipped to Envirocare 4/14/01 Shipped to WCS 5/7/01 Administrative Adjustment	0.00	0.00
3.1.6	LA-W914 Corrosive Solutions	0.62	(0.38) (0.24)	Shipped to WCS 5/7/01 Administrative Adjustment	0.00	0.00
3.1.6	LA-W915 Aqueous Cyanides, Nitrates, Chromates, and Arsenates	0.46	(0.92) 0.46	Shipped to WCS 5/7/01 Administrative Adjustment	0.00	0.00
3.1.7	LA-W916 Water-Reactive Wastes	2.44	(0.00001) 0.25 0.0047	Shipped to WCS 5/7/01 Administrative Adjustment Newly Generated	2.69	0.01
3.1.8	LA-W917 Compressed Gases Requiring Scrubbing	0.30			0.30	0.00
3.1.9	LA-W918 Compressed Gases Requiring Oxidation	1.73	0.21	Administrative Adjustment	1.94	0.00
3.1.10	LA-W920 Elemental Mercury	0.39	0.05	Administrative Adjustment	0.44	0.01

CPV Sec.	MWIR Waste ID and Treatability Group/ Category	FY00 Annual Update (m^3)	Proposed Revision 12.0 (m^3)	Comments	FY01 Annual Update (m^3)	Projection FY01-FY05 (m^3)
3.1.11	LA-W907 Halogenated Organic Liquids	0.73	(0.55)	Administrative Adjustment	0.18	0.00
3.1.11	LA-W908 Nonhalogenated Organic Liquids	5.62	(0.19) (4.49)	Shipped to Perma-Fix 7/31/01 Administrative Adjustment	0.94	0.00
3.1.11	LA-W909 Bulk Oils	2.79	0.36 (1.07)	Newly Generated Administrative Adjustment	2.08	0.00
3.1.11	LA-W910 PCB Wastes with RCRA Components	3.96	1.85	Administrative Adjustment	5.81	2.0
3.1.11	LA-W923 Liquid and Solid Oxidizers	1.32	(0.08)	Administrative Adjustment	1.24	0.00
3.2	LA-W924 Lead Wastes – TBD	5.25	(3.06) (1.51)	Shipped to GTS 12/12/00 Shipped to Envirocare 12/12/00	0.68	0.00
3.2	LA-W925 Mercury Wastes – TBD	6.19	(2.70) 3.24 0.38	Shipped to GTS 7/27.01 Administrative Adjustment Newly Generated	7.11	1.5
3.2	LA-W926 Compressed Gases – TBD	0.00			0.00	0.00
3.2	LA-W927 Biochemical Laboratory Wastes	0.00			0.00	0.00
3.2	LA-W928 Dewatered Treatment Sludge	0.00			0.00	0.00
3.2	LA-W932 Explosives	0.004	0.0002	Administrative Adjustment	0.0042	0.00
3.2	LA-W933 Lab Packs	1.00	1.65 0.043	Administrative Adjustment Newly Generated	2.7	2.00
3.2	LA-W934 High Activity Waste	5.1	0.112	Administrative Adjustment	5.21	0.1
3.3.1	LA-W930 Lead for Surface Decontamination	0.00	0.00		0.00	0.00
3.3.2	LA-W929 Nonradioactive or Suspect Waste Items to be Surveyed	0.00	0.00		0.00	0.00
3.3.3	LA-W931 Lead Requiring Sorting	0.95	(0.83) (0.12)	Shipped to Envirocare 12/12/01 Administrative Adjustment	0.00	0.00
3.4	Missing/ nonexistent/ TBV category	12.02	0.01	Administrative Adjustment	12.03	N/A
	TOTALS	**107.64**	**(32.5)**		**75.14**	

Appendix H

Reported STP MLLW Inventories

FY02 Update

CPV Sec.	MWIR Waste ID and Treatability Group/ Category	FY01 Annual Update (m^3)	Proposed Revision 13.0 (m^3)	Comments	FY02 Annual Update (m^3)	Projection FY02-FY06 (m^3)
3.1.1	LA-W901 IPA Wastes	0.00				0.00
3.1.1	LA-W902 Scintillation Fluids	0.00				0.00
3.1.2	LA-W903 Lead Blankets	0.00				0.00
3.1.2	LA-W904 Soil with Heavy Metals	0.00			0.00	0.00
3.1.2	LA-W905 ER Soils	0.00				0.00
3.1.3	LA-W906 Aqueous Organic Liquids	0.68	(0.32) (0.95) 0.58	Shipped to Perma-Fix 6/18/02 Shipped to WCS 9/27/02 Administrative Adjustment	0.00	0.00
3.1.4	LA-W911 Organic-Contaminated Combustible Solids	17.13	(0.44) (0.22) (0.47) Rec (0.17) (4.94) (8.52) (0.91) (1.22) (0.11) (0.13)	Shipped to Perma-Fix 1/31/02 Shipped to Perma-Fix 1/31/02 Shipped to Duratek 1/30/02 Shipped to M&EC 2/14/02 Shipped to Perma-Fix 2/13/02 Shipped to Perma-Fix 2/13/02 Shipped to Perma-Fix 2/14/02 Shipped to Perma-Fix 2/14/02 Shipped to Perma-Fix 6/18/02t Administrative Adjustment	0.00	0.00
3.1.4	LA-W919 Organic-Contaminated Noncombustible Solids	12.67	(0.00) (1.30) (0.02) (4.88) (0.39) (3.94) (2.12) (0.02)	Shipped 1/31/02 to DSSI Shipped to Perma-Fix 1/31/02 Shipped to Perma-Fix 1/31/02 Shipped to M&EC 2/14/02 Shipped to Perma-Fix 2/14/02 Shipped to Perma-Fix 2/14/02 Shipped to Perma-Fix 2/14/02 Administrative Adjustment	0.00	0.00
3.1.5	LA-W912 Combustible Debris	0.00			0.00	0.00
3.1.5	LA-W921 Activated or Inseparable Lead	0.00			0.00	0.00
3.1.5	LA-W922 Noncombustible Debris	1.31	(0.13) (0.74) (0.84) 0.40	Shipped to Perma-Fix 6/18/02 Shipped to Perma-Fix 7/23/02 Shipped to Envirocare 8/27/02 Administrative Adjustment	0.00	2.00
3.1.6	LA-W913 Aqueous Wastes with Heavy Metals	0.00			0.00	0.00
3.1.6	LA-W914 Corrosive Solutions	0.00			0.00	0.00
3.1.6	LA-W915 Aqueous Cyanides,	0.00			0.00	0.00

CPV Sec.	MWIR Waste ID and Treatability Group/ Category	FY01 Annual Update (m^3)	Proposed Revision 13.0 (m^3)	Comments	FY02 Annual Update (m^3)	Projection FY02-FY06 (m^3)
3.1.1	LA-W901 IPA Wastes	0.00				0.00
3.1.1	LA-W902 Scintillation Fluids	0.00				0.00
3.1.2	LA-W903 Lead Blankets	0.00				0.00
3.1.2	LA-W904 Soil with Heavy Metals	0.00			0.00	0.00
3.1.2	LA-W905 ER Soils	0.00				0.00
3.1.3	LA-W906 Aqueous Organic Liquids	0.68	(0.32) (0.95) 0.58	Shipped to Perma-Fix 6/18/02 Shipped to WCS 9/27/02 Administrative Adjustment	0.00	0.00
	Nitrates, Chromates, and Arsenates					
3.1.7	LA-W916 Water-Reactive Wastes	2.69	(0.00) (0.00)	Shipped to Perma-Fix 2/14/02 Shipped to M&EC 8/26/02	2.69	0.01
3.1.8	LA-W917 Compressed Gases Requiring Scrubbing	0.30			0.30	0.00
3.1.9	LA-W918 Compressed Gases Requiring Oxidation	1.94	(0.53) Rec (0.00)	Onsite Recycling 6/6/02 Shipped to Perma-Fix 8/26/02	1.41	0.00
3.1.10	LA-W920 Elemental Mercury	0.44	(0.26)	Shipped to M&EC 4/24/02*	0.18	
3.1.11	LA-W907 Halogenated Organic Liquids	00.18	(0.00) (0.07) (0.11) (0.20) Rec 0.20	Shipped 1/31/02 to DSSI Shipped to Perma-Fix 1/31/02 Shipped to Perma-Fix 2/13/02Onsite Recycling Administrative Adjustment	0.00	0.00
3.1.11	LA-W908 Nonhalogenated Organic Liquids	0.94	(0.01) (0.93) (0.00) Rec	Shipped 1/31/02 to DSSI Shipped to Perma-Fix 1/31/02 Onsite Recycling 6/6/02	0.00	0.00
3.1.11	LA-W909 Bulk Oils	2.08	(1.49) Rec (1.20) 0.61	Shipped to Duratek 1/30/02 Shipped to Perma-Fix 7/23/02 Administrative Adjustment	0.00	0.00
3.1.11	LA-W910 PCB Wastes with RCRA Components	5.81	(0.25) Trt	Shipped to Shaw 9/26/02	5.58	2.2

CPV Sec.	MWIR Waste ID and Treatability Group/ Category	FY01 Annual Update (m^3)	Proposed Revision 13.0 (m^3)	Comments	FY02 Annual Update (m^3)	Projection FY02-FY06 (m^3)
3.1.1	LA-W901 IPA Wastes	0.00				0.00
3.1.1	LA-W902 Scintillation Fluids	0.00				0.00
3.1.2	LA-W903 Lead Blankets	0.00				0.00
3.1.2	LA-W904 Soil with Heavy Metals	0.00			0.00	0.00
3.1.2	LA-W905 ER Soils	0.00				0.00
3.1.3	LA-W906 Aqueous Organic Liquids	0.68	(0.32) (0.95) 0.58	Shipped to Perma-Fix 6/18/02 Shipped to WCS 9/27/02 Administrative Adjustment	0.00	0.00
			0.02	Newly Covered		
3.1.11	LA-W923 Liquid and Solid Oxidizers	1.24	(0.80) (0.00) (0.23) (0.45) 0.24	Shipped to WCS 1/30/02 Shipped 1/31/02 to DSSI Shipped to Perma-Fix 1/31/02 Shipped to Perma-Fix 1/31/02 Administrative Adjustment	0.00	0.00
3.2	LA-W924 Lead Wastes – TBD	0.68	(0.68)	Administrative Adjustment	0.00	
3.2	LA-W925 Mercury Wastes – TBD	7.11	(0.00)* (0.26)	Shipped to M&EC 4/24/02 Shipped to WCS 6/4/02	6.85	1.5
3.2	LA-W926 Compressed Gases – TBD	0.00			0.00	0.00
3.2	LA-W927 Biochemical Laboratory Wastes	0.00			0.00	0.00
3.2	LA-W928 Dewatered Treatment Sludge	0.00			0.00	0.00
3.2	LA-W932 Explosives					

FY04 Annual STP Update
Background Volume
3/31/05

CPV Sec.	MWIR Waste ID and Treatability Group/ Category	FY01 Annual Update (m^3)	Proposed Revision 13.0 (m^3)	Comments	FY02 Annual Update (m^3)	Projection FY02-FY06 (m^3)
3.1.1	LA-W901 IPA Wastes	0.00				0.00
3.1.1	LA-W902 Scintillation Fluids	0.00				0.00
3.1.2	LA-W903 Lead Blankets	0.00				0.00
3.1.2	LA-W904 Soil with Heavy Metals	0.00			0.00	0.00
3.1.2	LA-W905 ER Soils	0.00				0.00
3.1.3	LA-W906 Aqueous Organic Liquids	0.68	(0.32) (0.95) 0.58	Shipped to Perma-Fix 6/18/02 Shipped to WCS 9/27/02 Administrative Adjustment	0.00	0.00
3.2	LA-W933 Lab Packs	2.7	(0.00) (0.04) (0.26) (0.05) (0.96)	Shipped to WCS 6/4/02 Shipped to Perma-Fix 6/18/02 Shipped to Perma-Fix 8/26/02 Shipped to M&EC 8/26/02 Shipped to Perma-Fix 9/26/02	1.39	2.00
3.2	LA-W934 High Activity Waste	5.21			5.21	0.1
3.3.1	LA-W930 Lead for Surface Decontamination	0.00	0.00		0.00	0.00
3.3.2	LA-W929 Nonradioactive or Suspect Waste Items to be Surveyed	0.00	0.00		0.00	0.00
3.3.3	LA-W931 Lead Requiring Sorting	0.00			0.00	0.00
3.4	Missing/ nonexistent/ TBV category	12.03	(0.00)	Administrative Adjustment	12.03	N/A
	TOTALS	**75.14**	**(39.54)**		**35.62**	

*Correspondence RRES/WD:02-020 inadvertently listed the incorrect volumes for these shipments. The volumes shown are correct.

Appendix I

Reported STP MLLW Inventories

FY03 Update

CPV Sec.	MWIR Waste ID and Treatability Group/ Category	FY02 Annual Update (m^3)	Proposed Revision 14.0 (m^3)	Comments	FY03 Annual Update (m^3)	Projection FY03-FY07 (m^3)
3.1.1	LA-W901 IPA Wastes	0.00			0.00	0.00
3.1.1	LA-W902 Scintillation Fluids	0.00			0.00	0.00
3.1.2	LA-W903 Lead Blankets	0.00			0.00	0.00
3.1.2	LA-W904 Soil with Heavy Metals	0.00			0.00	0.00
3.1.2	LA-W905 ER Soils	0.00			0.00	0.00
3.1.3	LA-W906 Aqueous Organic Liquids	0.00			0.00	0.00
3.1.4	LA-W911 Organic-Contaminated Combustible Solids	0.00			0.00	0.00
3.1.4	LA-W919 Organic-Contaminated Noncombustible Solids	0.00			0.00	0.00
3.1.5	LA-W912 Combustible Debris	0.00			0.00	0.00
3.1.5	LA-W921 Activated or Inseparable Lead	0.00	0.92 (0.92)	Expedited Ship Request 4/11/03 Shipped to Envirocare 4/30/03	0.00	0.00
3.1.5	LA-W922 Noncombustible Debris	0.00			0.00	2.00
3.1.6	LA-W913 Aqueous Wastes with Heavy Metals	0.00			0.00	0.00
3.1.6	LA-W914 Corrosive Solutions	0.00			0.00	0.00
3.1.6	LA-W915 Aqueous Cyanides, Nitrates, Chromates, and Arsenates	0.00			0.00	0.00
3.1.7	LA-W916 Water-Reactive Wastes	2.69	(1.19) (0.9)	Shipped to WCS 09/3/2003Administrative Adjustment	0.60	0.01
3.1.8	LA-W917 Compressed Gases Requiring Scrubbing	0.30			0.30	0.00
3.1.9	LA-W918 Compressed Gases Requiring Oxidation	1.41	(0.60)	Administrative Adjustment	0.81	0.00
3.1.10	LA-W920 Elemental Mercury	0.18	(0.01)	Administrative Adjustment	0.17	

CPV Sec.	MWIR Waste ID and Treatability Group/ Category	FY02 Annual Update (m^3)	Proposed Revision 14.0 (m^3)	Comments	FY03 Annual Update (m^3)	Projection FY03-FY07 (m^3)
3.1.11	LA-W907 Halogenated Organic Liquids	0.00			0.00	0.00
3.1.11	LA-W908 Nonhalogenated Organic Liquids	0.00			0.00	0.00
3.1.11	LA-W909 Bulk Oils	0.00	0.73 (0.73)	2/14/03 Expedited Shipment Request Shipped to DSSI 2/20/03	0.00	0.00
3.1.11	LA-W910 PCB Wastes with RCRA Components	5.58	(0.62)	Administrative Adjustment	4.96	2.2
3.1.11	LA-W923 Liquid and Solid Oxidizers	0.00	(0.00)	Shipped to Perma Fix 11/21/02	0.00	0.00
3.2	LA-W924 Lead Wastes – TBD	0.00			0.00	
3.2	LA-W925 Mercury Wastes – TBD	6.85	(3.99) (0.59) 0.11	Shipped to Envirocare 12/18/2002 Shipped to WCS 9/3/2003 Administrative Adjustment	2.38	1.5
3.2	LA-W926 Compressed Gases – TBD	0.00			0.00	0.00
3.2	LA-W927 Biochemical Laboratory Wastes	0.00			0.00	0.00
3.2	LA-W928 Dewatered Treatment Sludge	0.00			0.00	0.00
3.2	LA-W932 Explosives					
3.2	LA-W933 Lab Packs	1.39	(0.18) (0.02) (0.21) (0.98)	Shipped to Perma Fix 11/21/02 Shipped to Perma Fix 4/4/03 Shipped to DSSI, M&EC, and Perma Fix 8/21/03 Administrative adjustment	0.00	2.00
3.2	LA-W934 High Activity Waste	5.21	(4.08) 6.02	Shipped to Duratek 8/26/03 Administrative Adjustment	7.15	0.1
3.3.1	LA-W930 Lead for Surface Decontamination	0.00	0.00		0.00	0.00
3.3.2	LA-W929 Nonradioactive or Suspect Waste Items to be Surveyed	0.00	0.00		0.00	0.00
3.3.3	LA-W931 Lead Requiring Sorting	0.00			0.00	0.00
3.4	Missing/ nonexistent/ TBV category	12.03	(12.01))	Administrative Adjustment	0.02	N/A
	TOTALS	**35.64**	**(19.25)**		**16.39**	

Fiscal Year 2004 Annual Update for the STP Compliance Plan Volume
Attachment B

Los Alamos National Laboratory Federal Facility Compliance Order Annual Site Treatment Plan Update for Fiscal Year 2004

Compliance Plan Volume

LA-UR-05-1845

March 18, 2005

Los Alamos

NATIONAL LABORATORY

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1.0 INTRODUCTION.

On October 4, 1995, the New Mexico Environment Department (NMED) issued a Federal Facility Compliance Order (FFCO) to the Department of Energy (DOE) and its management and operating contractor, the University of California (UC) Regents. The FFCO requires Los Alamos National Laboratory (LANL) to implement the Site Treatment Plan (STP) for the treatment of mixed waste at LANL. The STP was written to address treatment capacities and technologies to treat all of LANL's mixed waste, regardless of the time it was generated. Section VII of the FFCO requires LANL to submit an *Annual Site Treatment Plan Update (Update)* to the NMED each year on or before March 31.

The STP contains two volumes, the Compliance Plan Volume (CPV) and the Background Volume (BV). The FFCO requires that the Annual Update bring the information in both volumes current to the end of the previous federal fiscal year (FY). The update to the CPV contains changes and revisions to the CPV occurring since the previous Annual Update; proposed revisions and amendments, including compliance date changes; a description of waste deleted in accordance with the requirements in Section IX (Deletion of Waste); documentation of new covered waste in accordance with the requirements in Section VIII (Addition of New Covered Waste); and any other changes to the overall schedule in the CPV of the STP. The Annual Update to the CPV identifies changes that require NMED approval as a revision under Section X (Revisions) or an amendment under Section XI (Other Amendments to the STP). This document constitutes the update to the CPV.

1.1 ACTIVITIES COMPLETED DURING FY04.

During FY04, DOE and UC completed the required CPV Activities on or before their required Compliance Dates as described below in Table 1.1A.

TABLE 1.1 A: FY04 FFCO AND STP MILESTONES

STP or FFCO	STP/FFCO Reference	Title/TA	Treatability Group	Compliance Date
STP	3.1.10(A)	10 day notification completion of milestone 3.1.10(A)	LA-W920	12/20/04
STP	3.4(B)	10 day notification completion of milestone 3.4 (B)	Missing	4/21/04
STP	3.4 (C)	10 day notification completion of milestone 3.4 (C)	Missing	4/21/04
FFCO	VII.A.	Submit Annual STP Updates	N/A	03/31/04

2.0 *CHANGES AND REVISIONS TO THE CPV OCCURRING SINCE THE PREVIOUS ANNUAL UPDATE.*

This section describes revisions, amendments, or other changes to the LANL CPV approved in FY03 under the FFCO. The STP Compliance Plan Volume has been modified a number of 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 Federal Facility Compliance Order, as amended and revised. CPV Appendix A, *Summary of STP/FFCO Chronology,* provides a summary of these CPV changes and of modifications to the FFCO since its issuance. Revision 14.0 was proposed and approved during FY04.

2.1 REVISIONS AND AMENDMENTS PROPOSED IN FY03 AND APPROVED IN FY04

Revision 14.0 was submitted to NMED on March 19, 2004, and was approved on January 5, 2005 after a 30-day public comment period. The purpose of this revision request was to reflect changes in the mixed low-level waste inventories in the LANL CPV of the STP, as described in the Fiscal Year 2003 STP Annual Update. The STP covered waste inventory increased with the addition of newly covered waste during FY04, and decreased with shipments for treatment, recycle or disposal of covered wastes during FY04.

LANL asked for expedited shipment of "*Non-Combustible Debris*" MWIR Waste ID LA-W922 and "*Mercury Waste TBD*" LA-W925 waste items to be included in Revision 15 in a letter to NMED dated January 5, 2004.

LANL asked for expedited shipment of "*Corrosive Solutions*" MWIR Waste ID LA-W914 waste items to be included in Revision 15 in a letter to NMED dated April 6, 2004.

LANL asked for expedited shipment of "*Non-Combustible Debris,*" MWIR Waste ID LA-W922 waste items to be included in Revision 15 in a letter to NMED dated April 14, 2004.

3.0 DESCRIPTION OF WASTE DELETED IN ACCORDANCE WITH FFCO SECTION IX (DELETION OF WASTE).

A proposal for deletion of STP waste items will be included with this update as Proposed Revision 15.0. These deletions are proposed due to off-site shipments for treatment, disposal, or recycling. A detailed description of these covered wastes is provided in the FY04 *Background Volume Update* and in *Revision Proposal 15.0.*

4.0 DOCUMENTATION OF NEW COVERED WASTE IN ACCORDANCE WITH THE REQUIREMENTS IN SECTION VIII (ADDITION OF NEW COVERED WASTE.)

A proposal for addition of STP waste items will be included with this update as Proposed Revision 15.0. These additions consist of waste that was placed in storage during FY03 and became covered waste in FY04. A detailed description of these covered wastes and associated extension of milestones required to treat and dispose of a portion of this new covered waste is included with this update in the FY04 *Background Volume Update* and in *Revision Proposal 15.0.*

5.0 ANY OTHER CHANGES TO THE OVERALL SCHEDULE IN THE COMPLIANCE PLAN VOLUME.

There were no other changes to the overall schedule in the Compliance Plan Volume of the Site Treatment Plan.

BIBLIOGRAPHY

1. *Federal Facility Compliance Order, Los Alamos National Laboratory*" New Mexico Environment Department (October 4, 1995).

2. *"Site Treatment Plan (STP), Fiscal Year 2004 update and Revision14.0 Proposal, Los Alamos National Laboratory (LANL) Federal Facility Compliance Order (FFCO), October 4, 1995,"* Dianne Wilburn, STP Project Manager to Ms. Lee Winn, Environmental Specialist, March 19, 2004.

3. *Proposed Revision 14.0, Annual Update to Site Treatment Plan, Federal Facilities Compliance Order Los Alamos National Laboratory EPA ID #NM0890010515 HWB-LANL-03-023*, to Albert Dye, Los Alamos National Laboratory STP Project Manager and James Nunz, Department of Energy LASO Waste Management Program Manager, January 5, 2005.

Revision 15.0 Proposal
Attachment C

LOS ALAMOS NATIONAL LABORATORY SITE TREATMENT PLAN
PROPOSED REVISION 15.0

LOS ALAMOS NATIONAL LABORATORY FEDERAL FACILITY COMPLIANCE ORDER

The purpose of this revision request is to reflect changes in the mixed low-level waste (MLLW) inventories in the Los Alamos National Laboratory (LANL) Compliance Plan Volume (CPV) of the Site Treatment Plan (STP), as described in the Fiscal Year 2004 (FY04) STP *Annual Update.* The changes proposed by this revision to the CPV 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 CPV text changes are indicated in the redline, strikeout version provided in Enclosure D. The revised CPV "clean copy" text is provided as Enclosure E.

Section X.C.2.a. of Federal Facility Compliance Order (Los Alamos National Laboratory): Detailed description of the proposed revision.

The Department of Energy (DOE) and the University of California (UC) are proposing to revise the Compliance Plan Volume text to reflect the following changes in MLLW covered waste inventories, as described in the FY04 STP *Annual Update*:

- Increases and decreases in covered mixed waste inventories due to the addition of newly covered waste, recycling, and off-site shipments during FY04;
- Extensions of Milestone Activity dates relative to changes in covered mixed waste inventories and current treatment capabilities.

The volume 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."*

Addition of newly covered waste

DOE and UC are requesting that the following waste be added to the STP as covered waste, as described also in the FY04 STP *Annual Update.* The total volume of covered waste that is requested for addition is 1.2124 cubic meters

Table X.C.2.a.-1: Proposed Addition of Newly Covered Waste

CPV Section	MWIR Waste ID	Treatability Group	Volume (m^3)
3.1.3	LA-W906	*Aqueous Organic Liquids*	0.0001
3.1.5	LA-W922	*Noncombustible Debris*	0.2865
3.1.6	LA-W914	*Corrosive Solutions*	0.0814
3.1.11	LA-W909	*Bulk Oils*	0.2264
3.1.11	LA-W923	*Liquid and Solid Oxidizers*	0.0045
3.2	LA-W924	*Lead Wastes – TBD*	0.2082
3.2	LA-W925	*Mercury Wastes – TBD*	0.3854
3.2	LA-W933	*Lab Packs*	0.0199
		Total	**1.2124**

The total volume of newly covered MTRU waste that is requested for addition is 161.99 cubic meters.

Deletion of covered waste

DOE and UC are requesting that the following covered waste be deleted from the STP, as also described in the FY04 STP *Annual Update.* These covered wastes were either shipped off-site for treatment and disposal or recycling; treated on-site for lead decontamination; or used in treatability studies. The total volume of covered waste that is requested for deletion under this Revision to the CPV is 7.05 cubic meters.

Table X.C.2.a.-2: FY04 STP MLLW Off-Site Shipments for Treatment

Date Shipped	Destination	MWIR #	Treatability Group	Vol. (m^3)	Shipping Manifest No.	Date NMED Notified	CPV Section
12/8/03	Envirocare	LA-W934	*High Activity Waste*	0.2120	02364	1/23/04	3.2
1/26/04	Perma-Fix	LA-W922	*Noncombustible Debris*	0.2610	04022	3/11/04	3.1.5
		LA-W916	*Water-Reactive Wastes*	0.0170	04022	3/11/04	3.1.7
		LA-W923	*Liquid and Solid Oxidizers*	0.0045	04022	3/11/04	3.1.11
	MEC	LA-W925	*Mercury Wastes – TBD*	0.4520	04023	3/11/04	3.2
	MEC	LA-W933	*Lab Packs*	0.0002	04023	3/11/04	3.2
4/15/04	WCS	LA-W914	*Corrosive Solutions*	0.0814	04072	5/26/04	3.1.6
4/20/04	Envirocare	LA-W922	*Noncombustible Debris*	0.0255	04092	5/26/04	3.1.5
6/24/04	DSSI	LA-W916	*Water-Reactive Wastes*	0.2127	04180	8/4/04	3.1.7
	MEC	LA-W916	*Water-Reactive Wastes*	0.3724	04194	8/4/04	3.1.7
	Perma-Fix	LA-W916	*Water-Reactive Wastes*	0.0007	04179	8/4/04	3.1.7
	MEC	LA-W920	*Elemental Mercury*	0.1147	04178	8/4/04	3.1.10
	MEC	LA-W925	*Mercury Wastes – TBD*	0.3987	04178	8/4/04	3.2
	Perma	LA-W933	*Lab Packs*	0.0199	04180 04181	8/4/04	3.2
9/20/04	Envirocare	LA-W934	*High Activity Waste*	0.7133	04275	10/25/04	3.2
9/24/04	MEC	LA-W910	*PCB Wastes with RCRA*	4.0538	04284	11/4/04	3.1.11

Date Shipped	Destination	MWIR #	Treatability Group	Vol. (m^3)	Shipping Manifest No.	Date NMED Notified	CPV Section
			Components				
9/30/04	Envirocare	LA-W910	*PCB Wastes with RCRA Components*	0.1136	04294	11/5/04	3.1.11
			Total Volume	**7.0534**			

Table X.C.2.a.-3FY04 STP MLLW Off-Site Shipments for Recycling

Date Shipped	Destination	MWIR #	Treatability Group	Vol (m^3)	Shipping Manifest No.	Date NMED Notified	CPV Section
			Total Volume	**0.00**			

Table X.C.2.a.- 4: FY04 STP MLLW On-Site Treatment

MWIR #	Treatability Group	Vol (m^3)	Date NMED Notified	CPV Section
	Total Volume	**0.00**		

Table X.C.2.a.-5: FY04 STP MLLW Off-Site Shipments for Treatability Studies.

Date Shipped	Destination	MWIR #	Treatability Group	Vol (m^3)	Shipping Manifest No.	Date NMED Notified	CPV Section
			Total Volume	**0.00**			

Adjustments to the original (October 4, 1995) STP covered waste inventory

DOE and UC are requesting the following adjustments to the original (October 4, 1995) STP covered waste inventory. Most administrative adjustments are due to discrepancies found during quality control activities related to preparing waste for treatment and disposal. These adjustments result in additions of newly found covered waste, transfers of waste to other treatability groups, or transfers of waste to the missing/nonexistent/TBV category of the STP. Other administrative adjustments are due to further characterization of waste resulting in transfers to other treatability groups.

Table X.C.2.a.-6: Proposed Administrative Adjustments

MWIR Waste ID	Treatability Group	Volume (m^3)	Comments	CPV Section
LA-W914	*Corrosive Solutions*	0.0005	Excess Inventory Reported	3.1.6
LA-W916	*Water-Reactive Wastes*	0.0028	Excess Inventory Reported	3.1.7
LA-W920	*Elemental Mercury*	(0.0023)	Negative Inventory	3.1.10
LA-W910	*PCB Wastes with RCRA Components*	0.0023	Excess Inventory Reported	3.1.11
LA-W925	*Mercury Wastes – TBD*	0.0943	Excess Inventory Reported	3.2
LA-W933	*Lab Packs*	0.0002	Excess Inventory Reported	3.2
LA-W934	*High Activity Waste*	(5.0133)	Negative Inventory	3.2
Missing		(0.02)	Negative Inventory	3.4

Extension of Compliance Date for Milestone Activity 3.1.3(C) Aqueous Organic Liquids" LA-W906

DOE and UC are proposing the extension of CPV Milestone Activity 3.1.3 (C), "*Complete shipping waste or complete parallel option,*" for Treatability Group, "*Aqueous Organic Liquids,*" MWIR Waste ID LA-W906, from the Compliance Date of "02/09/03" to the Compliance Date of "10/01/05." An extension of this Compliance Date is requested because there is no path forward at this time for this newly covered wastestream.

<u>Section X.C.2.b. of Federal Facility Compliance Order (Los Alamos National Laboratory)</u>: Rationale for the proposed revision.

Addition of newly covered waste

The increases in covered waste inventory as of the end of FY04 are attributed primarily to waste that was newly generated in FY03 which was not treated within 12 months of generation, thereby becoming covered waste during FY04. 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.

Deletion of covered waste

The decreases in covered waste inventory reflect the treatment and disposal or recycling of covered waste at off-site commercial facilities, or the participation in treatability studies during FY04. Deletion of this covered waste is proposed in order to more accurately reflect the DOE and UC STP inventory as of the end of FY04.

Proposed Revision Text
Attachment D

Adjustments to the original (October 4, 1995) STP covered waste inventory

Administrative adjustments are due to discrepancies found during quality control activities related to preparing waste for treatment and disposal. These adjustments result in additions of newly found covered waste, transfers of waste to other treatability groups, or transfers of waste to the *missing/nonexistent/TBV category* of the STP. The adjustments to the original (October 4, 1995) STP covered waste inventory are proposed in order to more accurately reflect the DOE and UC STP inventory as of the end of FY04.

Section X.C.2.c. of Federal Facility Compliance Order (Los Alamos National Laboratory): Anticipated length of any delay in performance.

No delay in performance is anticipated for any other proposals stated in this requested revision to the Compliance Plan Volume of the Site Treatment Plan.

Section X.C.2.d. of Federal Facility Compliance Order (Los Alamos National Laboratory): 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.

1.0 PURPOSE AND SCOPE OF THE COMPLIANCE PLAN VOLUME.

1.1 Introduction.

On October 6, 1992, Congress passed the Federal Facility Compliance Act (FFC Act) to address compliance by the United States Department of Energy (DOE) with the land disposal restrictions (LDR) for the storage of mixed waste set forth in Section 3004(j) of RCRA. The FFC Act requires the 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 FFC Act 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, NMED is required by the FFC Act to provide public notice, consider public comments, consult with the Environmental Protection Agency (EPA) and any other state in which a facility affected by the STP is located.

On March 31, 1995, DOE submitted its proposed STP to NMED for the treatment of mixed waste at the Los Alamos National Laboratory (LANL). On April 17, 1995, the public was given notice of and an opportunity to comment to NMED on the draft STP submitted by DOE. After considering public comment and otherwise complying with the FFC Act, NMED determined to approve the draft STP with modifications as provided in this document.

The STP is intended to fulfill the requirements of the FFC Act and establish an enforceable framework to allow DOE and the Regents of the University of California (Respondents) to achieve full compliance with LDR requirements under the New Mexico Hazardous Waste Act (HWA) and RCRA. The compliance dates set forth herein 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. The STP was fully implemented by a Compliance Order issued by NMED on October 6, 1995.

1.2 Contents.

The STP contains two volumes and is intended to bring Respondents into compliance with LDR storage prohibitions under the HWA and RCRA. The Compliance Plan Volume of the STP provides overall schedules, including compliance dates, for achieving compliance with LDR storage and treatment requirements for mixed waste at LANL.
The Compliance Plan includes a schedule for off-site transportation for treatment, or completion of parallel options as defined in each Treatability Group Section, and the treatment of mixed

wastes in full compliance with the HWA and the implementing regulations at 20 NMAC 4.1, which incorporates by reference 40 CFR Parts 260 through 270. The Background Volume of the STP contains progress reports as required in the Compliance Order. Respondents shall carry out the activities described in the STP, including the Compliance Plan Volume of the STP, in accordance with the schedules and requirements set forth in the STP and the Order.

1.3 STP Revisions and Amendments.

The STP Compliance Plan Volume (CPV) 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 Federal Facility Compliance Order (FFCO), as amended and revised. Appendix A to the CPV provides a summary of these CPV changes, and of modifications to the FFCO since its issuance.

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 time frame 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 on-site, the categories of activities for compliance dates identified in Table I shall apply.

Table I. 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 on-site, the categories of activities for compliance dates are identified in Table II and shall apply. Compliance dates for the activities identified in Table II may be found in Section 3.1.

Table II. 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.

Off-site treatment is the primary preferred treatment option applicable to all mixed waste streams in the STP inventory. All activities and compliance dates related to the construction, permitting, and operation of on-site treatment skids have been removed from this volume. This change is due to the increased availability of off-site treatment and disposal capacity for mixed waste. Respondents will continue evaluating new commercial and DOE off-site treatment facilities as potential options for managing mixed waste, as they become available.

2.3 Plans for Mixed Waste to be Shipped Off-Site for Treatment.

The preferred alternative for DOE to treat mixed waste is at an off-site facility (at a commercial or non-commercial mixed waste treatment facility), or DOE may pursue parallel treatment options such as recycling/re-use or radiological decontamination. Requirements for waste shipped off-site for recycling are discussed under CPV Section 2.6.

DOE shall notify the NMED Project Manager in writing as soon as possible if mixed waste is planned to be sent to a non-commercial 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 off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment/recycling facility.

Activities for mixed waste to be shipped off-site for treatment/recycling at a non-commercial facility are identified in Table IV.

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

Table. III. Activities for Mixed Waste to be Shipped Off-Site for Treatment or Recycling at a Commercial facility.

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

2.3.1 Specific Site Requirements for Non-commercial Treatment Facilities.

Shipment to Idaho National Engineering Laboratory.

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

Shipments of low-level mixed wastes 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 off-site treatment, and they cannot be sent to another facility for disposal, then the residues may return to LANL. Should residual or newly generated waste streams be returned to LANL, the proper permits for the State of New Mexico must exist. DOE will notify the NMED Project Manager in writing as soon as possible, and in any event within thirty (30) working days after receipt of shipment of treatment residuals or newly generated waste streams from ORR.

Table IV. Activities for Mixed Waste to be Shipped Off-Site for Treatment or Recycling at a Non-commercial facility.

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

2.4 Requirements Pertaining to Radionuclide Separation.

The FFC Act 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 V. "Radionuclide separation" shall mean segregating the radioactive portion of the mixed waste from the hazardous portion of the mixed waste.

Table V. Categories of Activities for Compliance Dates for Radionuclide Separation of

Mixed Waste.

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

2.5 Plans Related to Other Mixed Waste Activities.

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

2. 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 Compliance Order. 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 Compliance Order.

3. DOE will notify the NMED when off-site treatability studies are conducted on STP waste. Treatability studies are used to explore alternative treatment options that may be practical for any or all of the STP mixed waste streams. When preparing waste for shipment for an off-site 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 on-site or off-site recycling/re-use as a parallel preferred option.

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

DOE shall notify the NMED Project Manager in writing as soon as possible if mixed waste is planned to be sent to an off-site non-commercial 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 off-site non-commercial recycling option prior to any shipment by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty five (45) working days of receipt of waste at the recycling facility. Activities for mixed waste to be recycled are identified in Table VI.

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

Table VI. Activities for Mixed Waste to be Recycled.

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 On-Site Radiological Decontamination.

DOE will pursue on-site radiological surface or external decontamination as a preferred option. No volumetric or internal decontamination processes will be considered or performed. Surface radiological decontamination includes activities such as sand blasting, hand-scrubbing, or electrolytic decontamination. These decontamination activities could result in reducing or removing the radiological contaminant from the waste such that the waste could be recycled in accordance with CPV 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 VII.

Table VII. Activities for Mixed Waste to be Radiologically Decontaminated.

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 Chapter presents the preferred options to treat mixed low-level waste streams (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 Compliance Order.

The original October 4, 1995 STP inventory in each MLLW treatability group has been modified through the revision process in the FFCO. The table in CPV Appendix B provides a comprehensive summary of changes to the CPV covered waste inventories (additions, deletions, and shifts of waste between treatability groups) occurring as of the date of this revision. In Appendix B, 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 Sections of this chapter, 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. For a complete listing of volumes by subgroup for all treatability groups, please refer to Appendix B.

3.1 Mixed Waste Streams.

The following subsections summarize MLLW treatability groups.

3.1.1 IPA Wastes and Scintillation Fluids.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
IPA wastes	LA-W901	D001, D009, F002, F003, F005	0.00
scintillation fluids	LA-W902	D001, F003, F005	0.00
Totals			**0.00**

Treatment:

The waste will be treated at an off-site facility that combusts organic liquid waste. Should DOE decide to treat waste at an off-site non-commercial facility, the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Activity	Compliance Dates
A. Complete shipping waste	12/30/96*
B. Provide documentation to NMED that waste was received at off-site 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

* This activity date refers to the applicable waste in the original treatability group. Please note that one of the items in the original Treatability Group LA-W901 was transferred to Treatability Group LA-W906, in Revision 5.0, approved 12/29/97 by NMED.

3.1.2 Lead Blankets, Soil with Heavy Metals, ER Soils.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
lead blankets	LA-W903	D007, D008	0.00

soil with heavy metals	LA-W904	D004, D005, D006, D007, D008, D009, D010, D011	0. 0.00
ER soils	LA-W905	D028, D029, F001, F005 D010, D011	0.00
Totals			**0.00**

Treatment:

The waste will be treated at an off-site facility that stabilizes or macroencapsulates wastes. Parallel preferred options include on-site or off-site recycling/re-use or radiological decontamination. Should DOE decide to treat waste at an off-site non-commercial facility, the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Activity	Compliance Dates
A. Complete shipping waste or complete parallel option	12/30/01
B. Provide documentation to NMED that waste was received at off-site 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

3.1.3 Aqueous Organic Liquids.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
aqueous organic liquids	LA-W906-0 LA-W906-4 LA-W906-5	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D027, D028, D030, D032, D033, D034, D036, D037, D038, D039, D041, D042, D043, F001, F002, F003, F004, F005	0.00
Totals			**0.00**

Note: See below for additional wastes in this treatability group

Treatment:

Shipment off-site for treatment is the preferred option. Parallel preferred options include on-site or off-site recycling/re-use or radiological decontamination. Should DOE decide to treat waste at an off-site non-commercial facility the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site treatment facility (commercial or non-commercial) and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment facility.

Should DOE elect to use on-site recycling/re-use facilities in lieu of (or in combination with) treatment, it will follow the requirements prescribed in Section 2.3, as if the waste were shipped off-site for treatment. DOE will provide a notification letter to the NMED within forty-five days, in place of documentation that waste was received at an offsite facility.

Activity	Compliance Dates
A. Complete shipment of existing wastes for treatment to an off-site facility or complete parallel option	02/09/00
B. Provide documentation to NMED that waste was received at off-site facility or provided notification of parallel option	Within 45 days of receipt of waste at treatment facility or within 45 days after completion of parallel option

Additional wastes.

The following additional wastes will require management in this category, according to the Activities and Compliance Dates listed below.

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
aqueous organic liquids	LA-W906-6 LA-W906-9 LA-W906-10 LA-W906-15	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D027, D028, D030, D032, D033, D034, D036, D037, D038, D039, D041, D042, D043, F001, F002, F003, F004, F005	~~0.000~~0.0001
Totals			**~~0.000~~0.0001**

Activity	Compliance Dates
C. Complete shipment of existing wastes for treatment to an off-site facility or complete parallel option	~~02/09/03~~10/1/05
D. Provide documentation to NMED that waste was received at off-site facility or provided notification of parallel option	Within 45 days of receipt of waste at treatment facility or within 45 days after completion of parallel option

3.1.4 Organic-Contaminated Combustible Solids.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
organic-contaminated combustible solids	LA-W911	D001, D004, D008, D009, F001, F002, F003, F005	0.00
Totals			**0.00**

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
organic-contaminated noncombustible solids	LA-W919	D001, D003, D004, D005, D006, D007, D008, D009, D010, D011, D012, D015, D018, D019, D020, D022, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D042, D043, F001, F002, F003, F004, F005	0.00
Totals			**0.00**

Treatment:

Shipment off-site for treatment is the preferred option. Parallel preferred options include on-site or off-site recycling/re-use or radiological decontamination. Should DOE decide to treat waste at an off-site non-commercial facility the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site (commercial or non-commercial) treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment facility.

Should DOE elect to use on-site recycling/re-use facilities in lieu of (or in combination with) treatment, it will follow the requirements prescribed in Section 2.3, as if the waste were shipped off-site for treatment. DOE will provide a notification letter to the NMED within forty-five days, in place of documentation that waste was received at an offsite facility.

Activity	Compliance Dates
A. Complete shipping of existing wastes to an off-site treatment facility or complete parallel option	02/14/02
B. Provide documentation to NMED that waste was received at off-site facility or provide notification of parallel option	Within 45 days of receipt of waste at treatment facility or within 45 days after completion of parallel option

3.1.5 Combustible Debris, Activated or Inseparable Lead, Noncombustible Debris.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
combustible debris	LA-W912	D001, D002, D003, D005, D006, D007, D008, D009, D011, D035, F001, F002, F003, F005	0.00
Totals			**0.00**

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
activated or inseparable lead	LA-W921	D008	0.00
noncombustible debris	LA-W922	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011	0.00
Totals			**0.00**

Treatment:

Shipment off-site for treatment is the preferred option. Parallel preferred options include on-site or off-site recycling/re-use or radiological decontamination. Should DOE decide to treat waste at an off-site non-commercial facility the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site (commercial or non-commercial) treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment facility.

Should DOE elect to use on-site recycling/re-use facilities in lieu of (or in combination with) treatment, it will follow the requirements prescribed in Section 2.3, as if the waste were shipped off-site for treatment. DOE will provide a notification letter to the NMED within forty-five days, in place of documentation that waste was received at an offsite facility.

Activity	Compliance Dates
A. Complete shipping of existing wastes to an off-site treatment facility or complete parallel option	08/25/03
B. Provide documentation to NMED that waste was received at off-site 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.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
aqueous wastes with heavy metals	LA-W913	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011	0.00
corrosive solutions	LA-W914	D001, D002	0.00
aqueous cyanides, nitrates, chromates, and arsenates	LA-W915	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, F007, P029, P098	0.00
Totals			**0.00**

Treatment:

Shipment off-site for treatment is the preferred option. Parallel preferred options include on-site or off-site recycling/re-use or radiological decontamination. Should DOE decide to treat waste at an off-site non-commercial facility the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site (commercial or non-commercial) treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment facility.

Should DOE elect to use on-site recycling/re-use facilities in lieu of (or in combination with) treatment, it will follow the requirements prescribed in Section 2.3, as if the waste were shipped off-site for treatment. DOE will provide a notification letter to the NMED within forty-five days, in place of documentation that waste was received at an offsite facility.

Activity	Compliance Dates
A. Complete shipping of existing wastes to an off-site treatment facility or complete parallel option	05/08/01
B. Provide documentation to NMED that waste was received at off-site 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

3.1.7 Water-Reactive Metals.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
water-reactive wastes	LA-W916	D001, D003, D004, D005, D007, D008, D010, D011	~~0.60~~0
Totals			~~0.60~~ 0.0

Treatment:

Shipment off-site for treatment is the preferred option. Parallel preferred options include on-site or off-site recycling/re-use or radiological decontamination. Should DOE decide to treat waste at an off-site non-commercial facility he DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site (commercial or non-commercial) treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met by DOE.

DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment facility.

Should DOE elect to use on-site recycling/re-use facilities in lieu of (or in combination with) treatment, it will follow the requirements prescribed in Section 2.3, as if the waste were shipped off-site for treatment. DOE will provide a notification letter to the NMED within forty-five days, in place of documentation that waste was received at an offsite facility.

Activity	Compliance Dates
A. Complete shipping of existing wastes to an off-site treatment facility or complete parallel option	12/21/06
B. Provide documentation to NMED that waste was received at off-site 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

3.1.8 Compressed Gases Requiring Scrubbing.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
compressed gases requiring scrubbing	LA-W917	D001, D002, P056	0.30
Totals			**0.30**

Treatment:

Shipment off-site for treatment is the preferred option. Parallel preferred options include on-site or off-site recycling/re-use or radiological decontamination. Should DOE decide to treat waste at an off-site non-commercial facility the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site (commercial or non-commercial) treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment facility.

Should DOE elect to use on-site recycling/re-use facilities in lieu of (or in combination with) treatment, it will follow the requirements prescribed in Section 2.3, as if the waste were shipped off-site for treatment. DOE will provide a notification letter to the NMED within forty-five days, in place of documentation that waste was received at an offsite facility.

Activity	Compliance Dates
A. Complete shipping of existing wastes to an off- site treatment facility or complete parallel option	8/28/06
B. Provide documentation to NMED that waste was received at off-site 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.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
compressed gases requiring oxidation	LA-W918	D001, U226	0.81
Totals			**0.81**

Treatment:

Shipment off-site for treatment is the preferred option. Parallel preferred options include on-site or off-site recycling/re-use or radiological decontamination. Should DOE decide to treat waste at an off-site non-commercial facility the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site (commercial or non-commercial) treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment facility.

Should DOE elect to use on-site recycling/re-use facilities in lieu of (or in combination with) treatment, it will follow the requirements prescribed in Section 2.3, as if the waste were shipped off-site for treatment. DOE will provide a notification letter to the NMED within forty-five days, in place of documentation that waste was received at an offsite facility.

Activity	Compliance Dates
A. Complete shipping of existing wastes to an off-site treatment facility or complete parallel option	8/28/06
B. Provide documentation to NMED that waste was received at off-site facility or provide notification of parallel option	Within 45 days of receipt of waste at treatment facility or within 45 days after completion of parallel option

3.1.10 Elemental Mercury.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
elemental mercury	LA-W920	D006, D009, F005	~~0.17~~ 0.053
Totals			~~0.17~~ 0.053

Treatment:

Shipment off-site for treatment is the preferred option. Parallel preferred options include on-site or off-site recycling/re-use or radiological decontamination. Should DOE decide to treat waste at an off-site non-commercial facility the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site (commercial or non-commercial) treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment facility.

Should DOE elect to use on-site recycling/re-use facilities in lieu of (or in combination with) treatment, it will follow the requirements prescribed in Section 2.3, as if the waste were shipped off-site for treatment. DOE will provide a notification letter to the NMED within forty-five days, in place of documentation that waste was received at an offsite facility.

Activity	Compliance Dates
A. Complete shipping of existing wastes to an off-site treatment facility or complete parallel option	12/20/04
B. Provide documentation to NMED that waste was received at off-site 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

3.1.11 Halogenated Organic Liquids, Nonhalogenated Organic Liquids, Bulk Oils, PCB Wastes with RCRA Components, Liquid and Solid Oxidizers.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
halogenated organic liquids	LA-W907	D001, D002, D003, D007, D009, D010, D011, D018, D019, D022, D028, D029, D035, D043, F001, F002, F003, F004, F005, U077, U080, U226, U227, U228, U236	0.00
nonhalogenated organic liquids	LA-W908	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	D002, D004, D005, D006, D007, D008, D009, D010, D011, D021, D027, D039, F001, F002, F003, F005	~~0.00~~0.2264
PCB wastes with RCRA components	LA-W910	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	~~4.96~~ 0.7949
Totals			**~~4.96~~ 1.0213**

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
Liquid and solid oxidizers	LA-W923	D001, D003, D005	0.00
Totals			**0.00**

Treatment:

Shipment off-site for treatment is the preferred option. Parallel preferred options include on-site or off-site recycling/re-use or radiological decontamination. Off-site shipments must be completed by February 2002.

Should DOE decide to treat waste at an off-site non-commercial facility the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility.
The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site (commercial or non-commercial) treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment facility.

Should DOE elect to use on-site recycling/re-use facilities in lieu of (or in combination with) treatment, it will follow the requirements prescribed in Section 2.3, as if the waste were shipped off-site for treatment. DOE will provide a notification letter to the NMED within forty-five days, in place of documentation that waste was received at an offsite facility.

	Activity	Compliance Dates
A.	Complete shipping of existing wastes to an off-site treatment facility or complete parallel option	12/31/05
B.	Provide documentation to NMED that waste was received at off-site 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

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

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
lead wastes - TBD	LA-W924	D003, D008	0.00
mercury wastes - TBD	LA-W925-0	D007, D008, D009, F001	0.00
compressed gases - TBD	LA-W926	D001, D007, D009, D022, P056, U080, U226	0.00
biochemical laboratory wastes	LA-W927	D001, D003	0.00
dewatered treatment sludge	LA-W928	see Subsection 3.3 in the Background Volume	0.00
Totals			**0.00**

Note: See below for additional wastes in some of these treatability groups

Treatment:

The following steps will be taken to properly characterize this waste:

- Conduct additional generator interviews
- Prepare a sampling plan for waste not adequately characterized
- Conduct sampling and analysis
- Determine treatment options

Activities for wastes originally belonging to these treatability groups as listed above.

Activity	Compliance Dates
A. Complete generator interviews	10/30/95
B. Complete sampling and analysis plan	1/30/96
C. Complete sampling and analysis	9/30/98
D. Complete determination of treatment options	12/20/98
E. Complete shipping of existing wastes to an off-site treatment facility, or submit documentation assigning waste items to applicable treatability groups or complete parallel option	12/20/01
F. Provide documentation to NMED that waste was received at off-site 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

Additional wastes and treatability groups:

The following additional wastes will require management in this category, according to the Activities and Compliance Dates listed below.

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
lead wastes - TBD	LA-W924-15	D003, D008	0.2082
mercury wastes-TBD	LA-W925-4 LA-W925-5 LA-W925-6 LA-W925-15	D003, D007, D008, D009 F001, F002, F005	~~2.38~~ 2.0279
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
high activity waste	LA-W934	D001, D003, D008, D009	~~7.15~~1.2114
Totals			**3.4475~~9.53~~**

Activities for wastes belonging to these treatability groups and subgroups.

Activity	Compliance Dates
G. Complete sampling and analysis plan	1/30/99
H. Complete sampling and analysis	9/30/01
I. Complete determination of treatment options	12/20/01

J. Complete shipping of wastes to an off-site treatment facility, or submit documentation assigning waste items to applicable treatability groups or complete parallel option	12/31/06
K. Provide documentation to NMED that waste was received at off-site facility or provide notification of parallel option	Within 45 days of receipt of waste at off-site facility or within 45 days after completion of parallel option

3.3 Plans for Other Types of Activities.

The following subsection summarizes plans for other types of activities.

3.3.1 Lead Decontamination

Treatability Group(s):

Treatability group	MWIR waste ID	First Category Net volume (m^3)	Second Category Net volume (m^3)	Totals Net volume (m^3)
lead for surface decontamination	LA-W930-0 LA-W930-5	0.00	0.00	0.00
Totals		**0.00**	**0.00**	**0.00**

Note: See below for additional wastes in this treatability group

Treatment:

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

Should DOE decide to treat or recycle waste at an off-site non-commercial facility in lieu of plans to treat or recycle such waste on-site, the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment/recycle option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site (commercial or non-commercial) treatment/ recycling facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment/recycling site shall be met by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment/recycling facility.

Lead shapes and forms in the first category.

Activity	Compliance Dates
A. Complete lead decontamination	09/30/97

Lead shapes and forms in the second category.

Activity	Compliance Dates
A. Provide schedule for development of lead processing techniques and options	06/30/96
B. Segregate lead waste into decontamination groupings	07/31/97
C. Complete shipment of wastes to decontamination operations, or	12/02/98
D. Determine treatment/disposal or other recycle options for lead waste not acceptable for decontamination	12/02/98
E. Complete treatment/disposal operations or other recycle operations for lead waste not acceptable for decontamination	07/31/99
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

Additional wastes.

The following additional wastes will require management in the second category, according to the Activities and Compliance Dates listed below.

Treatability group	MWIR waste ID	First Category Net volume (m^3)	Second Category Net volume (m^3)	Totals Net volume (m^3)
lead for surface decontamination	LA-W930-6	0.00	0.00	0.00
Totals		**0.00**	**0.00**	**0.00**

Activities for wastes belonging to this treatability subgroup.

Activity	Compliance Dates
G. Complete shipment of wastes to decontamination operations, or	12/02/99
H. Determine treatment/disposal or other recycle operations for lead waste not acceptable for decontamination	12/02/99
I. Complete treatment/disposal operations or other recycle operations for lead waste not acceptable for decontamination	07/13/00
J. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.3.2 Sorting, Surveying, and Decontamination.

Treatability Group(s):

Treatability group	MWIR waste ID	Net volume (m^3)
nonradioactive or suspect waste items to be surveyed	LA-W929-0(1)	0.00
nonradioactive or suspect waste items to receive RCRA and radiological characterization	LA-W929-0(2)	0.00
nonradioactive or suspect waste items that cannot or should not be sampled	LA-W929-0(3)	0.00
Totals		**0.00**

Note: See below for additional wastes in this treatability group.

Treatment:

The waste items in part 1 of the original volume in this treatability group will be surveyed using a field operation that will survey waste suspect of radioactive contamination to determine whether it is radioactively contaminated. The work will be done on-site with equipment and staffing provided by LANL or another DOE site. Waste determined not to be radioactively contaminated will be treated using commercial facilities permitted to treat hazardous waste; waste determined to be radioactively contaminated wastes will be assigned to applicable treatability groups and/or sent to offsite facilities for appropriate treatment.

Waste items in part 2 of this treatability group will be surveyed using complete RCRA and radiological sampling and characterization. Waste sampled under this alternative will be treated and disposed as low-level mixed waste; the waste will be assigned to applicable treatability groups and/or sent to off-site facilities for appropriate treatment based on the results of this characterization.

Sampling for this characterization alternative will be conducted in accordance with RCRA SW-846 methods. To ensure an adequate volume of waste material is available for sampling and to maximize the cost effectiveness of the sampling activities, some lab packed and other waste items may be bulked into larger volume containers; all RCRA waste codes will be transferred to the bulked wastes to ensure correct RCRA categorization is maintained. It may be found, when preparing a given drum for sampling, (for example, solid small volume waste items that cannot be sampled in accordance with EPA SW-846 methods) are in fact not amenable to sampling and should have been included in the item count for Group 3 . If visual inspection so indicates, these waste items will be transferred to Group 3 and assigned to applicable treatability groups based on existing knowledge.

Waste items in part 3 of this treatability group which are confirmed not amenable to sampling (e.g., lead-acid batteries, spray paint cans) will be assigned to applicable treatability groups based on existing knowledge. It may be found, when inspecting a given drum, that some items can in fact be sampled in accordance with EPA SW-846 methods and should have been included in the item count for Group 2. If visual inspection so indicates, these waste items will be transferred to Group 2 and sampled accordingly.

Additional compliance dates will be proposed for any waste items in this treatability group found not to have available treatment/disposal options following a complete review of all survey, analytical, or visual inspection data obtained through these processes.

For all waste items in this treatability group, shipment off-site for treatment is a parallel preferred option.

Should DOE decide to treat waste at an off-site non-commercial facility in lieu of plans to treat such waste on-site, the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site (commercial or non-commercial) treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met 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 facility.

Activities for waste items in part 1 of this treatability group.

Activity	Compliance Dates
A. Complete field survey	10/30/96
B. Submit documentation declaring waste items as nonradioactive, or submit documentation assigning waste items to applicable treatability groups	02/28/97
C. Propose additional compliance dates if necessary	4/30/97

Activities for waste items in part 2 of this treatability group.

Activity	Compliance Dates
D. Complete RCRA and radiological sampling	01/28/97
E. Submit documentation assigning waste items to applicable treatability groups or proposing off-site shipments dates	02/28/97
F. Propose additional compliance dates if necessary	4/30/97

Activities for waste items in part 3 of this treatability group.

Activity	Compliance Dates
G. Complete visual verification	01/28/97
H. Submit documentation assigning waste items to applicable treatability groups or proposing off-site shipments dates	06/30/97
I. Propose additional compliance dates if necessary	09/30/97

Additional wastes:

Treatability group	MWIR waste ID	Net volume (m^3)
Nonradioactive or suspect waste items	LA-W929-5	0.00
Totals		**0.00**

Activities for items added as subgroup 5 of this treatability group.

	Activity	Compliance Dates
J.	Submit documentation assigning waste items to applicable treatability groups or proposing off-site shipment dates	03/31/98
K.	Propose additional Compliance Dates if necessary	3/31/98

3.3.3 Lead Requiring Sorting.

Treatability Group(s):

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

Treatment:

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

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

Activities for waste items in this treatability group.

Activity	Compliance Dates
A. Complete sorting	06/01/01
B. Submit documentation assigning waste items to applicable treatability groups. Propose additional compliance dates, if necessary, or	06/01/03
C. Complete shipment of existing waste to off-site facility for treatment, or complete parallel options.	06/01/03

3.4 Management of "Missing" Items.

Waste Category:

Category	MWIR waste ID	Net volume (m^3)
Missing/nonexistent/TBV	None	~~0.02~~ 0.00
Totals		**~~0.02~~ 0.00**

Treatment:

During visual inspections and sampling activities in support of STP waste work-off, occasionally an item cannot be found, or it is not located in the containers in which it is expected to be, according to the LANL data files for the waste item. In some instances, such items could not be verified as having ever been received in storage at LANL, and follow-up investigations of the record files revealed 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 have been determined not to exist after visual inspection and document review. When DOE and UC determine that an STP covered waste item does not exist, transfer of the item to the category called *"Missing/ nonexistent/TBV (*to be verified*)"*, is requested through the revision process associated with the next *Annual Update.*

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

At any time during the re-verification process, should any of these items be discovered to exist, NMED will be notified, and approval will be requested for assignment of the rediscovered items to the appropriate TG. If necessary, they will be assigned new Activities and Compliance Dates, in accordance with the terms of the FFCO.

The following steps will be taken to verify presence or absence of this waste:

Activity	Compliance Dates
A. Initiate re-verification process on a shipment-by-shipment basis	01/03/98
B. Complete re-verification process	04/21/04
C. Re-assign any existing items to appropriate treatability groups	04/21/04
D. Complete treatment of existing wastes to applicable regulatory standards, or	10/30/04
E. Complete shipping of existing wastes to an off-site treatment facility	10/30/04
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

4.0 MIXED TRANSURANIC WASTE.

Treatment Group(s):

Assorted Mixed Transuranic Waste

Off-Site Disposal:

Mixed transuranic (MTRU) waste at LANL will be shipped for disposal at the Waste Isolation Pilot Plant (WIPP) located in Carlsbad, New Mexico. The schedule for characterization and subsequent off-site shipment to WIPP will be dependent on the annual DOE budget allocation specific to this activity.

CPV APPENDIX A.
HISTORY OF STP REVISIONS AND AMENDMENT.

As discussed in CPV Section 1.3, the STP Compliance Plan Volume 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 Federal Facility Compliance Order, as amended and revised. This Appendix provides a summary of these CPV changes, and of modifications to the FFCO since its issuance.

To date, there have been twelve revisions and three amendments to the CPV. In addition, the FFCO was amended once, on May 20, 1997. The following Table A-1 provides a summary of these changes. More detailed descriptions can be found in the CPV Update portion of each year's STP *Annual Update,* and the original correspondence requesting each change.

Table A-1. SUMMARY OF CHANGES TO THE CPV AND THE FFCO.

Action	Document Modified	Effective Date	Effect on FFCO/STP
Rev. 1.0	STP/CPV	6/12/96	Added off-site treatment as a parallel preferred option for most MLLW treatability groups
Rev. 2.0	STP/CPV	12/9/96	Reduced volume of LA-W928 by approving reclassification of sludges as LLW
Amendment 1.0	STP/CPV	10/30/96	Divided original volume of LA-W929 into three subgroups, and added new Activities and Compliance Dates
Rev. 3.0	STP/CPV	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/CPV	9/4/97	Extended CPV Activity 3.1.2B Compliance Date to 12/29/97
Rev. 4.0	STP/CPV	*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/CPV	*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 CPV Appendices, and deleted treated items
Rev. 6.0	STP/CPV	*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/CPV	*11/30/98*	Removed on-site treatment skids, added STP inventory items, added on-site recycling/re-use and radiological decontamination, added notification for off-site treatability studies,
Rev. 8.0	STP/CPV	*12/3/98*	Extended compliance dates for treatment of MTRU waste.

Action	Document Modified	Effective Date	Effect on FFCO/STP
Rev. 9.0	STP/CPV	*6/7/00*	Added and deleted volumes reported in FY98 *Annual Update* to certain treatability groups.
Amendment 3.0	STP/CPV	*8/30/99*	Transferred three items to MTRU, transferred one item to subgroup within same treatability group.
Rev. 10.0	STP/CPV	***12/18/00***	Added and deleted volumes reported in FY99 *Annual Update* to certain treatability groups.
Rev. 11.0	STP/CPV	***4/18/01***	Added and deleted volumes reported in FY00 *Annual Update.*
Rev. 12.0	STP/CPV	*3/13/02*	Added and deleted volumes reported in FY01 *Annual Update.* Extended CPV Activity 3.1.5A Compliance Date to 8/25/03. Extended CPV Activity 3.1.11A to 2/01/04. Removed the requirement to develop treatment technologies and the associated compliance schedule in CPV Activity 4.0 and added language specifying that MTRU waste would be shipped off-site to WIPP for disposal.
Rev 13.0	STP/CPV	~~**TBD**~~**1/5/05**	Added and deleted volumes reported in ~~FY01~~ FY02 *Annual Update*
Rev 14.0	STP/CPV	**TBD**	Added and deleted volumes reported in FY03 *Annual Update*

Proposed text for NMED approval
Attachment E

1.0 PURPOSE AND SCOPE OF THE COMPLIANCE PLAN VOLUME.

1.1 Introduction.

On October 6, 1992, Congress passed the Federal Facility Compliance Act (FFC Act) to address compliance by the United States Department of Energy (DOE) with the land disposal restrictions (LDR) for the storage of mixed waste set forth in Section 3004(j) of RCRA. The FFC Act requires the 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 FFC Act 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, NMED is required by the FFC Act to provide public notice, consider public comments, consult with the Environmental Protection Agency (EPA) and any other state in which a facility affected by the STP is located.

On March 31, 1995, DOE submitted its proposed STP to NMED for the treatment of mixed waste at the Los Alamos National Laboratory (LANL). On April 17, 1995, the public was given notice of and an opportunity to comment to NMED on the draft STP submitted by DOE. After considering public comment and otherwise complying with the FFC Act, NMED determined to approve the draft STP with modifications as provided in this document.

The STP is intended to fulfill the requirements of the FFC Act and establish an enforceable framework to allow DOE and the Regents of the University of California (Respondents) to achieve full compliance with LDR requirements under the New Mexico Hazardous Waste Act (HWA) and RCRA. The compliance dates set forth herein 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. The STP was fully implemented by a Compliance Order issued by NMED on October 6, 1995.

1.2 Contents.

The STP contains two volumes and is intended to bring Respondents into compliance with LDR storage prohibitions under the HWA and RCRA. The Compliance Plan Volume of the STP provides overall schedules, including compliance dates, for achieving compliance with LDR storage and treatment requirements for mixed waste at LANL.
The Compliance Plan includes a schedule for off-site transportation for treatment, or completion of parallel options as defined in each Treatability Group Section, and the treatment of mixed

wastes in full compliance with the HWA and the implementing regulations at 20 NMAC 4.1, which incorporates by reference 40 CFR Parts 260 through 270. The Background Volume of the STP contains progress reports as required in the Compliance Order. Respondents shall carry out the activities described in the STP, including the Compliance Plan Volume of the STP, in accordance with the schedules and requirements set forth in the STP and the Order.

1.3 STP Revisions and Amendments.

The STP Compliance Plan Volume (CPV) 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 Federal Facility Compliance Order (FFCO), as amended and revised. Appendix A to the CPV provides a summary of these CPV changes, and of modifications to the FFCO since its issuance.

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 time frame 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 on-site, the categories of activities for compliance dates identified in Table I shall apply.

Table I. 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 on-site, the categories of activities for compliance dates are identified in Table II and shall apply. Compliance dates for the activities identified in Table II may be found in Section 3.1.

Table II. 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.

Off-site treatment is the primary preferred treatment option applicable to all mixed waste streams in the STP inventory. All activities and compliance dates related to the construction, permitting, and operation of on-site treatment skids have been removed from this volume. This change is due to the increased availability of off-site treatment and disposal capacity for mixed waste. Respondents will continue evaluating new commercial and DOE off-site treatment facilities as potential options for managing mixed waste, as they become available.

2.3 Plans for Mixed Waste to be Shipped Off-Site for Treatment.

The preferred alternative for DOE to treat mixed waste is at an off-site facility (at a commercial or non-commercial mixed waste treatment facility), or DOE may pursue parallel treatment options such as recycling/re-use or radiological decontamination. Requirements for waste shipped off-site for recycling are discussed under CPV Section 2.6.

DOE shall notify the NMED Project Manager in writing as soon as possible if mixed waste is planned to be sent to a non-commercial 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 off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment/recycling facility.

Activities for mixed waste to be shipped off-site for treatment/recycling at a non-commercial facility are identified in Table IV.

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

Table. III. Activities for Mixed Waste to be Shipped Off-Site for Treatment or Recycling at a Commercial facility.

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

2.3.1 Specific Site Requirements for Non-commercial Treatment Facilities.

Shipment to Idaho National Engineering Laboratory.

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

Shipments of low-level mixed wastes 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 off-site treatment, and they cannot be sent to another facility for disposal, then the residues may return to LANL. Should residual or newly generated waste streams be returned to LANL, the proper permits for the State of New Mexico must exist. DOE will notify the NMED Project Manager in writing as soon as possible, and in any event within thirty (30) working days after receipt of shipment of treatment residuals or newly generated waste streams from ORR.

Table IV. Activities for Mixed Waste to be Shipped Off-Site for Treatment or Recycling at a Non-commercial facility.

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

2.4 Requirements Pertaining to Radionuclide Separation.

The FFC Act 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 V. "Radionuclide separation" shall mean segregating the radioactive portion of the mixed waste from the hazardous portion of the mixed waste.

Table V. Categories of Activities for Compliance Dates for Radionuclide Separation of

Mixed Waste.

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

2.5 Plans Related to Other Mixed Waste Activities.

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

2. 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 Compliance Order. 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 Compliance Order.

3. DOE will notify the NMED when off-site treatability studies are conducted on STP waste. Treatability studies are used to explore alternative treatment options that may be practical for any or all of the STP mixed waste streams. When preparing waste for shipment for an off-site 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 on-site or off-site recycling/re-use as a parallel preferred option.

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

DOE shall notify the NMED Project Manager in writing as soon as possible if mixed waste is planned to be sent to an off-site non-commercial 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 off-site non-commercial recycling option prior to any shipment by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty five (45) working days of receipt of waste at the recycling facility. Activities for mixed waste to be recycled are identified in Table VI.

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

Table VI. Activities for Mixed Waste to be Recycled.

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 On-Site Radiological Decontamination.

DOE will pursue on-site radiological surface or external decontamination as a preferred option. No volumetric or internal decontamination processes will be considered or performed. Surface radiological decontamination includes activities such as sand blasting, hand-scrubbing, or electrolytic decontamination. These decontamination activities could result in reducing or removing the radiological contaminant from the waste such that the waste could be recycled in accordance with CPV 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 VII.

Table VII. Activities for Mixed Waste to be Radiologically Decontaminated.

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 Chapter presents the preferred options to treat mixed low-level waste streams (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 Compliance Order.

The original October 4, 1995 STP inventory in each MLLW treatability group has been modified through the revision process in the FFCO. The table in CPV Appendix B provides a comprehensive summary of changes to the CPV covered waste inventories (additions, deletions, and shifts of waste between treatability groups) occurring as of the date of this revision. In Appendix B, 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 Sections of this chapter, 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. For a complete listing of volumes by subgroup for all treatability groups, please refer to Appendix B.

3.1 Mixed Waste Streams.

The following subsections summarize MLLW treatability groups.

3.1.1 IPA Wastes and Scintillation Fluids.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
IPA wastes	LA-W901	D001, D009, F002, F003, F005	0.00
scintillation fluids	LA-W902	D001, F003, F005	0.00
Totals			**0.00**

Treatment:

The waste will be treated at an off-site facility that combusts organic liquid waste. Should DOE decide to treat waste at an off-site non-commercial facility, the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Activity	Compliance Dates
A. Complete shipping waste	12/30/96*
B. Provide documentation to NMED that waste was received at off-site 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

* This activity date refers to the applicable waste in the original treatability group. Please note that one of the items in the original Treatability Group LA-W901 was transferred to Treatability Group LA-W906, in Revision 5.0, approved 12/29/97 by NMED.

3.1.2 Lead Blankets, Soil with Heavy Metals, ER Soils.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
lead blankets	LA-W903	D007, D008	0.00

soil with heavy metals	LA-W904	D004, D005, D006, D007, D008, D009, D010, D011	0. 0.00
ER soils	LA-W905	D028, D029, F001, F005 D010, D011	0.00
Totals			**0.00**

Treatment:

The waste will be treated at an off-site facility that stabilizes or macroencapsulates wastes. Parallel preferred options include on-site or off-site recycling/re-use or radiological decontamination. Should DOE decide to treat waste at an off-site non-commercial facility, the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Activity	Compliance Dates
A. Complete shipping waste or complete parallel option	12/30/01
B. Provide documentation to NMED that waste was received at off-site 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

3.1.3 Aqueous Organic Liquids.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
aqueous organic liquids	LA-W906-0 LA-W906-4 LA-W906-5	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D027, D028, D030, D032, D033, D034, D036, D037, D038, D039, D041, D042, D043, F001, F002, F003, F004, F005	0.00
Totals			**0.00**

Note: See below for additional wastes in this treatability group

Treatment:

Shipment off-site for treatment is the preferred option. Parallel preferred options include on-site or off-site recycling/re-use or radiological decontamination. Should DOE decide to treat waste at an off-site non-commercial facility the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site treatment facility (commercial or non-commercial) and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment facility.

Should DOE elect to use on-site recycling/re-use facilities in lieu of (or in combination with) treatment, it will follow the requirements prescribed in Section 2.3, as if the waste were shipped off-site for treatment. DOE will provide a notification letter to the NMED within forty-five days, in place of documentation that waste was received at an offsite facility.

Activity	Compliance Dates
A. Complete shipment of existing wastes for treatment to an off-site facility or complete parallel option	02/09/00
B. Provide documentation to NMED that waste was received at off-site facility or provided notification of parallel option	Within 45 days of receipt of waste at treatment facility or within 45 days after completion of parallel option

Additional wastes.

The following additional wastes will require management in this category, according to the Activities and Compliance Dates listed below.

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
aqueous organic liquids	LA-W906-6 LA-W906-9 LA-W906-10 LA-W906-15	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D027, D028, D030, D032, D033, D034, D036, D037, D038, D039, D041, D042, D043, F001, F002, F003, F004, F005	0.0001
Totals			**0.0001**

Activity	Compliance Dates
C. Complete shipment of existing wastes for treatment to an off-site facility or complete parallel option	10/1/05
D. Provide documentation to NMED that waste was received at off-site facility or provided notification of parallel option	Within 45 days of receipt of waste at treatment facility or within 45 days after completion of parallel option

3.1.4 Organic-Contaminated Combustible Solids.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
organic-contaminated combustible solids	LA-W911	D001, D004, D008, D009, F001, F002, F003, F005	0.00
Totals			**0.00**

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
organic-contaminated noncombustible solids	LA-W919	D001, D003, D004, D005, D006, D007, D008, D009, D010, D011, D012, D015, D018, D019, D020, D022, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D042, D043, F001, F002, F003, F004, F005	0.00
Totals			**0.00**

Treatment:

Shipment off-site for treatment is the preferred option. Parallel preferred options include on-site or off-site recycling/re-use or radiological decontamination. Should DOE decide to treat waste at an off-site non-commercial facility the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site (commercial or non-commercial) treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment facility.

Should DOE elect to use on-site recycling/re-use facilities in lieu of (or in combination with) treatment, it will follow the requirements prescribed in Section 2.3, as if the waste were shipped off-site for treatment. DOE will provide a notification letter to the NMED within forty-five days, in place of documentation that waste was received at an offsite facility.

Activity	Compliance Dates
A. Complete shipping of existing wastes to an off-site treatment facility or complete parallel option	02/14/02
B. Provide documentation to NMED that waste was received at off-site facility or provide notification of parallel option	Within 45 days of receipt of waste at treatment facility or within 45 days after completion of parallel option

3.1.5 Combustible Debris, Activated or Inseparable Lead, Noncombustible Debris.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
combustible debris	LA-W912	D001, D002, D003, D005, D006, D007, D008, D009, D011, D035, F001, F002, F003, F005	0.00
Totals			**0.00**

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
activated or inseparable lead	LA-W921	D008	0.00
noncombustible debris	LA-W922	D001, D002, D004, D005, D006, D007, D008, D009, D010, D011	0.00
Totals			**0.00**

Treatment:

Shipment off-site for treatment is the preferred option. Parallel preferred options include on-site or off-site recycling/re-use or radiological decontamination. Should DOE decide to treat waste at an off-site non-commercial facility the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site (commercial or non-commercial) treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment facility.

Should DOE elect to use on-site recycling/re-use facilities in lieu of (or in combination with) treatment, it will follow the requirements prescribed in Section 2.3, as if the waste were shipped off-site for treatment. DOE will provide a notification letter to the NMED within forty-five days, in place of documentation that waste was received at an offsite facility.

Activity	Compliance Dates
A. Complete shipping of existing wastes to an off-site treatment facility or complete parallel option	08/25/03
B. Provide documentation to NMED that waste was received at off-site 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.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
aqueous wastes with heavy metals	LA-W913	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011	0.00
corrosive solutions	LA-W914	D001, D002	0.00
aqueous cyanides, nitrates, chromates, and arsenates	LA-W915	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, F007, P029, P098	0.00
Totals			**0.00**

Treatment:

Shipment off-site for treatment is the preferred option. Parallel preferred options include on-site or off-site recycling/re-use or radiological decontamination. Should DOE decide to treat waste at an off-site non-commercial facility the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site (commercial or non-commercial) treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment facility.

Should DOE elect to use on-site recycling/re-use facilities in lieu of (or in combination with) treatment, it will follow the requirements prescribed in Section 2.3, as if the waste were shipped off-site for treatment. DOE will provide a notification letter to the NMED within forty-five days, in place of documentation that waste was received at an offsite facility.

Activity	Compliance Dates
A. Complete shipping of existing wastes to an off-site treatment facility or complete parallel option	05/08/01
B. Provide documentation to NMED that waste was received at off-site 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

3.1.7 Water-Reactive Metals.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
water-reactive wastes	LA-W916	D001, D003, D004, D005, D007, D008, D010, D011	0
Totals			**0.0**

Treatment:

Shipment off-site for treatment is the preferred option. Parallel preferred options include on-site or off-site recycling/re-use or radiological decontamination. Should DOE decide to treat waste at an off-site non-commercial facility he DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site (commercial or non-commercial) treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met by DOE.

DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment facility.

Should DOE elect to use on-site recycling/re-use facilities in lieu of (or in combination with) treatment, it will follow the requirements prescribed in Section 2.3, as if the waste were shipped off-site for treatment. DOE will provide a notification letter to the NMED within forty-five days, in place of documentation that waste was received at an offsite facility.

Activity	Compliance Dates
A. Complete shipping of existing wastes to an off-site treatment facility or complete parallel option	12/21/06
B. Provide documentation to NMED that waste was received at off-site 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

3.1.8 Compressed Gases Requiring Scrubbing.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
compressed gases requiring scrubbing	LA-W917	D001, D002, P056	0.30
Totals			**0.30**

Treatment:

Shipment off-site for treatment is the preferred option. Parallel preferred options include on-site or off-site recycling/re-use or radiological decontamination. Should DOE decide to treat waste at an off-site non-commercial facility the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site (commercial or non-commercial) treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment facility.

Should DOE elect to use on-site recycling/re-use facilities in lieu of (or in combination with) treatment, it will follow the requirements prescribed in Section 2.3, as if the waste were shipped off-site for treatment. DOE will provide a notification letter to the NMED within forty-five days, in place of documentation that waste was received at an offsite facility.

Activity	Compliance Dates
A. Complete shipping of existing wastes to an off- site treatment facility or complete parallel option	8/28/06
B. Provide documentation to NMED that waste was received at off-site 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.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
compressed gases requiring oxidation	LA-W918	D001, U226	0.81
Totals			**0.81**

Treatment:

Shipment off-site for treatment is the preferred option. Parallel preferred options include on-site or off-site recycling/re-use or radiological decontamination. Should DOE decide to treat waste at an off-site non-commercial facility the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site (commercial or non-commercial) treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment facility.

Should DOE elect to use on-site recycling/re-use facilities in lieu of (or in combination with) treatment, it will follow the requirements prescribed in Section 2.3, as if the waste were shipped off-site for treatment. DOE will provide a notification letter to the NMED within forty-five days, in place of documentation that waste was received at an offsite facility.

Activity	Compliance Dates
A. Complete shipping of existing wastes to an off-site treatment facility or complete parallel option	8/28/06
B. Provide documentation to NMED that waste was received at off-site facility or provide notification of parallel option	Within 45 days of receipt of waste at treatment facility or within 45 days after completion of parallel option

3.1.10 Elemental Mercury.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
elemental mercury	LA-W920	D006, D009, F005	**0.053**
Totals			**0.053**

Treatment:

Shipment off-site for treatment is the preferred option. Parallel preferred options include on-site or off-site recycling/re-use or radiological decontamination. Should DOE decide to treat waste at an off-site non-commercial facility the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site (commercial or non-commercial) treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment facility.

Should DOE elect to use on-site recycling/re-use facilities in lieu of (or in combination with) treatment, it will follow the requirements prescribed in Section 2.3, as if the waste were shipped off-site for treatment. DOE will provide a notification letter to the NMED within forty-five days, in place of documentation that waste was received at an offsite facility.

Activity	Compliance Dates
A. Complete shipping of existing wastes to an off-site treatment facility or complete parallel option	12/20/04
B. Provide documentation to NMED that waste was received at off-site 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

3.1.11 Halogenated Organic Liquids, Nonhalogenated Organic Liquids, Bulk Oils, PCB Wastes with RCRA Components, Liquid and Solid Oxidizers.

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
halogenated organic liquids	LA-W907	D001, D002, D003, D007, D009, D010, D011, D018, D019, D022, D028, D029, D035, D043, F001, F002, F003, F004, F005, U077, U080, U226, U227, U228, U236	0.00
nonhalogenated organic liquids	LA-W908	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	D002, D004, D005, D006, D007, D008, D009, D010, D011, D021, D027, D039, F001, F002, F003, F005	0.2264
PCB wastes with RCRA components	LA-W910	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	0.7949
Totals			**1.0213**

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
Liquid and solid oxidizers	LA-W923	D001, D003, D005	0.00
Totals			**0.00**

Treatment:

Shipment off-site for treatment is the preferred option. Parallel preferred options include on-site or off-site recycling/re-use or radiological decontamination. Off-site shipments must be completed by February 2002.

Should DOE decide to treat waste at an off-site non-commercial facility the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility.
The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site (commercial or non-commercial) treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment facility.

Should DOE elect to use on-site recycling/re-use facilities in lieu of (or in combination with) treatment, it will follow the requirements prescribed in Section 2.3, as if the waste were shipped off-site for treatment. DOE will provide a notification letter to the NMED within forty-five days, in place of documentation that waste was received at an offsite facility.

	Activity	Compliance Dates
A.	Complete shipping of existing wastes to an off-site treatment facility or complete parallel option	12/31/05
B.	Provide documentation to NMED that waste was received at off-site 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

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

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
lead wastes - TBD	LA-W924	D003, D008	0.00
mercury wastes - TBD	LA-W925-0	D007, D008, D009, F001	0.00
compressed gases - TBD	LA-W926	D001, D007, D009, D022, P056, U080, U226	0.00
biochemical laboratory wastes	LA-W927	D001, D003	0.00
dewatered treatment sludge	LA-W928	see Subsection 3.3 in the Background Volume	0.00
Totals			**0.00**

Note: See below for additional wastes in some of these treatability groups

Treatment:

The following steps will be taken to properly characterize this waste:

- Conduct additional generator interviews
- Prepare a sampling plan for waste not adequately characterized
- Conduct sampling and analysis
- Determine treatment options

Activities for wastes originally belonging to these treatability groups as listed above.

Activity	Compliance Dates
A. Complete generator interviews	10/30/95
B. Complete sampling and analysis plan	1/30/96
C. Complete sampling and analysis	9/30/98
D. Complete determination of treatment options	12/20/98
E. Complete shipping of existing wastes to an off-site treatment facility, or submit documentation assigning waste items to applicable treatability groups or complete parallel option	12/20/01
F. Provide documentation to NMED that waste was received at off-site 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

Additional wastes and treatability groups:

The following additional wastes will require management in this category, according to the Activities and Compliance Dates listed below.

Treatability group	MWIR waste ID	RCRA codes	Net volume (m^3)
lead wastes - TBD	LA-W924-15	D003, D008	0.2082
mercury wastes-TBD	LA-W925-4 LA-W925-5 LA-W925-6 LA-W925-15	D003, D007, D008, D009 F001, F002, F005	2.0279
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
high activity waste	LA-W934	D001, D003, D008, D009	1.2114
Totals			**3.4475**

Activities for wastes belonging to these treatability groups and subgroups.

Activity	Compliance Dates
G. Complete sampling and analysis plan	1/30/99
H. Complete sampling and analysis	9/30/01
I. Complete determination of treatment options	12/20/01

J. Complete shipping of wastes to an off-site treatment facility, or submit documentation assigning waste items to applicable treatability groups or complete parallel option	12/31/06
K. Provide documentation to NMED that waste was received at off-site facility or provide notification of parallel option	Within 45 days of receipt of waste at off-site facility or within 45 days after completion of parallel option

3.3 Plans for Other Types of Activities.

The following subsection summarizes plans for other types of activities.

3.3.1 Lead Decontamination

Treatability Group(s):

Treatability group	MWIR waste ID	First Category Net volume (m^3)	Second Category Net volume (m^3)	Totals Net volume (m^3)
lead for surface decontamination	LA-W930-0 LA-W930-5	0.00	0.00	0.00
Totals		**0.00**	**0.00**	**0.00**

Note: See below for additional wastes in this treatability group

Treatment:

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

Should DOE decide to treat or recycle waste at an off-site non-commercial facility in lieu of plans to treat or recycle such waste on-site, the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment/recycle option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site (commercial or non-commercial) treatment/ recycling facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment/recycling site shall be met by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment/recycling facility.

Lead shapes and forms in the first category.

Activity	Compliance Dates
A. Complete lead decontamination	09/30/97

Lead shapes and forms in the second category.

Activity	Compliance Dates
A. Provide schedule for development of lead processing techniques and options	06/30/96
B. Segregate lead waste into decontamination groupings	07/31/97
C. Complete shipment of wastes to decontamination operations, or	12/02/98
D. Determine treatment/disposal or other recycle options for lead waste not acceptable for decontamination	12/02/98
E. Complete treatment/disposal operations or other recycle operations for lead waste not acceptable for decontamination	07/31/99
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

Additional wastes.

The following additional wastes will require management in the second category, according to the Activities and Compliance Dates listed below.

		First Category	Second Category	Totals
Treatability group	**MWIR waste ID**	**Net volume (m^3)**	**Net volume (m^3)**	**Net volume (m^3)**
lead for surface decontamination	LA-W930-6	0.00	0.00	0.00
Totals		**0.00**	**0.00**	**0.00**

Activities for wastes belonging to this treatability subgroup.

Activity	Compliance Dates
G. Complete shipment of wastes to decontamination operations, or	12/02/99
H. Determine treatment/disposal or other recycle operations for lead waste not acceptable for decontamination	12/02/99
I. Complete treatment/disposal operations or other recycle operations for lead waste not acceptable for decontamination	07/13/00
J. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.3.2 Sorting, Surveying, and Decontamination.

Treatability Group(s):

Treatability group	MWIR waste ID	Net volume (m^3)
nonradioactive or suspect waste items to be surveyed	LA-W929-0(1)	0.00
nonradioactive or suspect waste items to receive RCRA and radiological characterization	LA-W929-0(2)	0.00
nonradioactive or suspect waste items that cannot or should not be sampled	LA-W929-0(3)	0.00
Totals		**0.00**

Note: See below for additional wastes in this treatability group.

Treatment:

The waste items in part 1 of the original volume in this treatability group will be surveyed using a field operation that will survey waste suspect of radioactive contamination to determine whether it is radioactively contaminated. The work will be done on-site with equipment and staffing provided by LANL or another DOE site. Waste determined not to be radioactively contaminated will be treated using commercial facilities permitted to treat hazardous waste; waste determined to be radioactively contaminated wastes will be assigned to applicable treatability groups and/or sent to offsite facilities for appropriate treatment.

Waste items in part 2 of this treatability group will be surveyed using complete RCRA and radiological sampling and characterization. Waste sampled under this alternative will be treated and disposed as low-level mixed waste; the waste will be assigned to applicable treatability groups and/or sent to off-site facilities for appropriate treatment based on the results of this characterization.

Sampling for this characterization alternative will be conducted in accordance with RCRA SW-846 methods. To ensure an adequate volume of waste material is available for sampling and to maximize the cost effectiveness of the sampling activities, some lab packed and other waste items may be bulked into larger volume containers; all RCRA waste codes will be transferred to the bulked wastes to ensure correct RCRA categorization is maintained. It may be found, when preparing a given drum for sampling, (for example, solid small volume waste items that cannot be sampled in accordance with EPA SW-846 methods) are in fact not amenable to sampling and should have been included in the item count for Group 3 . If visual inspection so indicates, these waste items will be transferred to Group 3 and assigned to applicable treatability groups based on existing knowledge.

Waste items in part 3 of this treatability group which are confirmed not amenable to sampling (e.g., lead-acid batteries, spray paint cans) will be assigned to applicable treatability groups based on existing knowledge. It may be found, when inspecting a given drum, that some items can in fact be sampled in accordance with EPA SW-846 methods and should have been included in the item count for Group 2. If visual inspection so indicates, these waste items will be transferred to Group 2 and sampled accordingly.

Additional compliance dates will be proposed for any waste items in this treatability group found not to have available treatment/disposal options following a complete review of all survey, analytical, or visual inspection data obtained through these processes.

For all waste items in this treatability group, shipment off-site for treatment is a parallel preferred option.

Should DOE decide to treat waste at an off-site non-commercial facility in lieu of plans to treat such waste on-site, the DOE shall notify the NMED Project Manager in writing as soon as possible and in any event within fourteen (14) working days after confirmation of a shipment date with the affected off-site facility. The NMED Project Manager shall approve in writing the off-site non-commercial treatment option proposed by DOE prior to any shipment by DOE.

Any and all requirements imposed by the off-site (commercial or non-commercial) treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met 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 facility.

Activities for waste items in part 1 of this treatability group.

Activity	Compliance Dates
A. Complete field survey	10/30/96
B. Submit documentation declaring waste items as nonradioactive, or submit documentation assigning waste items to applicable treatability groups	02/28/97
C. Propose additional compliance dates if necessary	4/30/97

Activities for waste items in part 2 of this treatability group.

Activity	Compliance Dates
D. Complete RCRA and radiological sampling	01/28/97
E. Submit documentation assigning waste items to applicable treatability groups or proposing off-site shipments dates	02/28/97
F. Propose additional compliance dates if necessary	4/30/97

Activities for waste items in part 3 of this treatability group.

Activity	Compliance Dates
G. Complete visual verification	01/28/97
H. Submit documentation assigning waste items to applicable treatability groups or proposing off-site shipments dates	06/30/97
I. Propose additional compliance dates if necessary	09/30/97

Additional wastes:

Treatability group	MWIR waste ID	Net volume (m^3)
Nonradioactive or suspect waste items	LA-W929-5	0.00
Totals		**0.00**

Activities for items added as subgroup 5 of this treatability group.

Activity	Compliance Dates
J. Submit documentation assigning waste items to applicable treatability groups or proposing off-site shipment dates	03/31/98
K. Propose additional Compliance Dates if necessary	3/31/98

3.3.3 Lead Requiring Sorting.

Treatability Group(s):

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

Treatment:

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

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

Activities for waste items in this treatability group.

Activity	Compliance Dates
A. Complete sorting	06/01/01
B. Submit documentation assigning waste items to applicable treatability groups. Propose additional compliance dates, if necessary, or	06/01/03
C. Complete shipment of existing waste to off-site facility for treatment, or complete parallel options.	06/01/03

3.4 Management of "Missing" Items.

Waste Category:

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

Treatment:

During visual inspections and sampling activities in support of STP waste work-off, occasionally an item cannot be found, or it is not located in the containers in which it is expected to be, according to the LANL data files for the waste item. In some instances, such items could not be verified as having ever been received in storage at LANL, and follow-up investigations of the record files revealed 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 have been determined not to exist after visual inspection and document review. When DOE and UC determine that an STP covered waste item does not exist, transfer of the item to the category called *"Missing/ nonexistent/TBV (*to be verified*)"*, is requested through the revision process associated with the next *Annual Update.*

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

At any time during the re-verification process, should any of these items be discovered to exist, NMED will be notified, and approval will be requested for assignment of the rediscovered items to the appropriate TG. If necessary, they will be assigned new Activities and Compliance Dates, in accordance with the terms of the FFCO.

The following steps will be taken to verify presence or absence of this waste:

Activity	Compliance Dates
A. Initiate re-verification process on a shipment-by-shipment basis	01/03/98
B. Complete re-verification process	04/21/04
C. Re-assign any existing items to appropriate treatability groups	04/21/04
D. Complete treatment of existing wastes to applicable regulatory standards, or	10/30/04
E. Complete shipping of existing wastes to an off-site treatment facility	10/30/04
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

4.0 MIXED TRANSURANIC WASTE.

Treatment Group(s):

Assorted Mixed Transuranic Waste

Off-Site Disposal:

Mixed transuranic (MTRU) waste at LANL will be shipped for disposal at the Waste Isolation Pilot Plant (WIPP) located in Carlsbad, New Mexico. The schedule for characterization and subsequent off-site shipment to WIPP will be dependent on the annual DOE budget allocation specific to this activity.

CPV APPENDIX A.
HISTORY OF STP REVISIONS AND AMENDMENT.

As discussed in CPV Section 1.3, the STP Compliance Plan Volume 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 Federal Facility Compliance Order, as amended and revised. This Appendix provides a summary of these CPV changes, and of modifications to the FFCO since its issuance.

To date, there have been twelve revisions and three amendments to the CPV. In addition, the FFCO was amended once, on May 20, 1997. The following Table A-1 provides a summary of these changes. More detailed descriptions can be found in the CPV Update portion of each year's STP *Annual Update,* and the original correspondence requesting each change.

Table A-1. SUMMARY OF CHANGES TO THE CPV AND THE FFCO.

Action	Document Modified	Effective Date	Effect on FFCO/STP
Rev. 1.0	STP/CPV	6/12/96	Added off-site treatment as a parallel preferred option for most MLLW treatability groups
Rev. 2.0	STP/CPV	12/9/96	Reduced volume of LA-W928 by approving reclassification of sludges as LLW
Amendment 1.0	STP/CPV	10/30/96	Divided original volume of LA-W929 into three subgroups, and added new Activities and Compliance Dates
Rev. 3.0	STP/CPV	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/CPV	9/4/97	Extended CPV Activity 3.1.2B Compliance Date to 12/29/97
Rev. 4.0	STP/CPV	*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/CPV	*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 CPV Appendices, and deleted treated items
Rev. 6.0	STP/CPV	*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/CPV	*11/30/98*	Removed on-site treatment skids, added STP inventory items, added on-site recycling/re-use and radiological decontamination, added notification for off-site treatability studies,
Rev. 8.0	STP/CPV	*12/3/98*	Extended compliance dates for treatment of MTRU waste.

Action	Document Modified	Effective Date	Effect on FFCO/STP
Rev. 9.0	STP/CPV	*6/7/00*	Added and deleted volumes reported in FY98 *Annual Update* to certain treatability groups.
Amendment 3.0	STP/CPV	*8/30/99*	Transferred three items to MTRU, transferred one item to subgroup within same treatability group.
Rev. 10.0	STP/CPV	***12/18/00***	Added and deleted volumes reported in FY99 *Annual Update* to certain treatability groups.
Rev. 11.0	STP/CPV	***4/18/01***	Added and deleted volumes reported in FY00 *Annual Update.*
Rev. 12.0	STP/CPV	*3/13/02*	Added and deleted volumes reported in FY01 *Annual Update.* Extended CPV Activity 3.1.5A Compliance Date to 8/25/03. Extended CPV Activity 3.1.11A to 2/01/04. Removed the requirement to develop treatment technologies and the associated compliance schedule in CPV Activity 4.0 and added language specifying that MTRU waste would be shipped off-site to WIPP for disposal.
Rev 13.0	STP/CPV	**1/5/05**	Added and deleted volumes reported in FY02 *Annual Update*
Rev 14.0	STP/CPV	**TBD**	Added and deleted volumes reported in FY03 *Annual Update*

Certification
Attachment F