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Rec LANL FFCO/96

June 10, 1996

H. L. Plum
STP Project Manager
Department of Energy
Office of Environment
and Projects
Los Alamos Area Office
Los Alamos, NM 87544

Micheline Devaurs
STP Project Manager
Los Alamos National Laboratory
Los Alamos, NM 87445

Subject:

Dear Mr. Plum and Ms. Devaurs:

The intent of this letter is to list errata from the revision to the Federal Facility Compliance Order (FFCO), Exhibit A, Los Alamos National Laboratory (LANL) Mixed Waste Site Treatment Plan (STP), Compliance Plan Volume (CPV). This is Revision 1.0 of the STP/CPV, June 1996, accompanied a cover letter dated June 3, 1996 which concerned the off-site shipment approval process requested by the Respondents (the Department of Energy [DOE] and the Regents of the University of California [UC]).

Omissions and errata were discovered in Revision 1.0 of the STP/CPV and subsequently, modifications were made. The errata addressed and their modifications are listed below. The modifications are printed in bold type.

1) On page 4, Section 2.1.4.1, language was inadvertently omitted from the following sentence,

"A modification to LANL's RCRA permit providing for the return of such wastes and/or residues to **LANL must be approved by NMED prior** to any such return of wastes and/or residues to LANL.

1785

P2

2) On page 7, Section 3.1.1, sentences which were previously omitted should be added for comprehension. The following sentences should succeed the sentence, "The waste will be treated at on off-site facility that combusts organic 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."

3) On page 7, Section 3.1.2, sentences which were previously omitted should be added for comprehension. The following sentences should succeed the sentence, "The waste will be treated at on off-site facility that stabilizes or macroencapsulates wastes."

"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."

4) On page 20, Section 3.3, a date in the Activity /Compliance Date table under "E" was inadvertently changed from 12/20/98 to "12/2/98" and should be reverted to the original date, **"12/20/98".**

5) On page 21, Section 3.4.1, a sentence should be added for clarification. The sentence should immediately precede the first Activity/Compliance Date table on this page.

Lead shapes and forms processed using the decontamination trailer.

Provided is a copy of the finalized Revision 1.0, June 3, 1996, to the STP/CPV which includes in its entirety the changes stated above.

In the letter dated June 3, 1996 from Benito Garcia which accompanied the STP/CPV revision, in paragraph 2, a reference was made to Section 3.3.3. This section does not exist and the reference should have been made to Section 3.2.1.

Should you have questions on this or other issues related to the FFCO, or STP/CPV, please contact Janice Archuleta at (505) 827-1557.

Sincerely,

Janice Archuleta

Janice Archuleta,
FCCO Project Manager

enclosure

ja

cc: Benito Garcia, Chief
Susan McMichael, OGC
file

EXHIBIT A

LOS ALAMOS NATIONAL LABORATORY

MIXED WASTE SITE TREATMENT PLAN

COMPLIANCE PLAN VOLUME (CPV)

BACKGROUND VOLUME

Revision 1.0

June 1996

(Rev. 1.0 6/96)

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 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 develop treatment capacities and technologies, and treat or otherwise meet the requirements set forth for LDR under the HWA and RCRA. The STP will be fully implemented by a Compliance Order issued by NMED on or before 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 the submittal of applications for permits, construction of treatment facilities, technology development, off-site transportation for treatment, 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.

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 bring existing waste treatment technologies into operation, process backlogged and currently generated waste, include schedules required to develop new facilities and capacity for treatment and 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. Compliance dates for the activities identified in Table I may be found in Section 3.1.

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 3.2.

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.
E. Commence systems testing.
F. Begin treating mixed waste.
G. Complete treatment of existing wastes to applicable regulatory standards.

2.1.3 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 III. "Radionuclide separation" shall mean segregating the radioactive portion of the mixed waste from the hazardous portion of the mixed waste.

Table III. 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.

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

In lieu of plans to treat mixed-waste on-site, DOE may treat waste at an off-site facility; at a commercial or non-commercial mixed waste treatment facility. Any and all requirements imposed by the off-site treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment 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 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 facility. Activities for mixed waste to be shipped off-site for treatment at a non-commercial facility are identified in Table V.

Should DOE decide to treat 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 facility.

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

A.	Meet all regulatory requirements for off-site shipment.
B.	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 treatment facility.

2.1.4.1 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 V. Activities for Mixed Waste to be Shipped Off-Site for Treatment 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 storage pending treatment or disposal.
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 treatment facility.
E.	Meet all regulatory requirements to include RCRA Permit modifications for residual or newly generated waste streams after treatment.
F.	Provide documentation to NMED within 30 working days after receipt of residual or newly generated waste streams upon return to LANL.

2.1.5 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.

3.0 LOW-LEVEL MIXED WASTE STREAMS

This section presents proposed schedules for treatment technologies and the preferred options to treat low-level mixed waste streams (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.

3.1 Mixed Waste Streams for Which Technology Exists

The following subsections summarize LLMW treatability groups for which technology exists.

3.1.1 Off-site Treatment by Thermal Treatment

Treatability Group(s):

LLMW for Thermal Treatment (MWIR Treatment ID DS-S001)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
IPA wastes	LA-W901	D001, D009, F002, F003, F005	104	15.89
scintillation fluids	LA-W902	D001, F003, F005	18	2.47
Totals			**122**	**18.36**

Treatment Technology:

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. Meet all regulatory requirements prior to shipping waste	9/30/96
B. Complete shipping waste	12/30/96
C. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.2 Off-site Treatment by Stabilization or Macroencapsulation

Treatability Group(s):

LLMW for Stabilization

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
lead blankets	LA-W903	D007, D008	4	0.74
soil with heavy metals	LA-W904	D004, D005, D006, D007, D008, D009, D010, D011	59	10.53
ER soils	LA-W905	D028, D029, F001, F005 D010, D011	36	39.32
Totals			99	50.59

Treatment Technology:

The waste will be treated at an off-site facility that stabilizes or macroencapsulates wastes. 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. Meet all regulatory requirements prior to shipping waste	05/30/97
B. Complete shipping waste	09/30/97
C. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.3 Evaporative Oxidation (MWIR Treatment ID GJ-S801C)

Treatability Group(s):

LLMW for Evaporative Oxidation/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
aqueous organic liquids	LA-W906	D001, D002, D005, D007, D008, D010, D018, D019, D022, D027, D028, D030, D032, D033, D036, D037, D038, D039, D041, D042, D043, F001, F002, F003, F004, F005	45	1.65
Totals			**45**	**1.65**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated off-site and operated on-site. 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 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.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	12/30/96
B. Initiate construction	As specified in the NMED permit.
C. Complete system test and commence operation and begin treating mixed waste	6/19/99
D. Complete treatment of existing wastes to applicable regulatory standards, or	2/09/00
E. Complete shipment of existing wastes for treatment to an off-site facility.	2/09/00
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.4 Thermal Desorption (MWIR Treatment ID GJ-S801B)

LLMW for Thermal Desorption/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
organic-contaminated combustible solids	LA-W911	D001, F001, F002, F003, F005	307	28.32
Totals			**307**	**28.32**

LLMW for Thermal Desorption

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
organic-contaminated noncombustible solids	LA-W919	D001, D003, D004, D005, D006, D007, D008, D009, D010, D011, D027, D030, D032, D033, D034, D042, D043, F001, F002, F004, F005	80	7.82
Totals			**80**	**7.82**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated off-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	11/16/98
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	02/01/01
D. Complete treatment of existing wastes to applicable regulatory standards, or	02/14/02
E. Complete shipping of existing wastes to an off- site treatment facility.	02/14/02
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.5 Macroencapsulation (MWIR Treatment ID PX-S803)

Treatability Group(s):

LLMW for Macroencapsulation/Off-site treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
combustible debris	LA-W912	D001, D002, D003, D005, D006, D007, D008, D009, D011, D035, F001, F002, F003, F005	83	13.82
Totals			**83**	**13.82**

LLMW for Macroencapsulation

Treatability group		RCRA codes	Number of items	Net volume (m^3)
activated or inseparable lead	LA-W921	D008	74	15.60
noncombustible debris	LA-W922	D001, D004, D005, D006, D007, D008, D009, D010, D011	41	5.62
Totals			**115**	**21.22**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated off-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	01/04/98
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operation and begin treating mixed waste	02/01/00
D. Complete treatment of existing wastes to applicable regulatory standards, or	08/25/00
E. Complete shipping of existing wastes to an off-site treatment facility.	08/25/00
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.6 Chemical Plating Waste Treatment Skid (MWIR Treatment ID LA-S004)

Treatability Group(s):

LLMW for Chemical Plating Waste Skid/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
aqueous wastes with heavy metals	LA-W913	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011	203	1.85
corrosive solutions	LA-W914	D001, D002	162	1.36
aqueous cyanides, nitrates, chromates, and arsenates	LA-W915	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, F007, P029, P098	15	0.13
Totals			380	3.34

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated off-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Resubmit revised permit application to NMED	10/30/96
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	03/17/00
D. Complete treatment of existing wastes to applicable regulatory standards, or	05/08/01
E. Complete shipping of existing wastes to an off-site treatment facility.	05/08/01
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.7 Water-reactive Metals Treatment Skid (MWIR Treatment ID LA-S003)

Treatability Group(s):

LLMW for Water-Reactive Metals Skid/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
water-reactive wastes	LA-W916	D001, D003	78	6.03
Totals			**78**	**6.03**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated on-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	06/30/01
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	09/09/03
D. Complete treatment of existing wastes to applicable regulatory standards, or	04/21/04
E. Complete shipping of existing wastes to an off-site treatment facility.	04/21/04
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.8 Gas-scrubbing Skid (MWIR Treatment ID LA-S801)

Treatability Group(s):

LLMW for Gas-Scrubbing Skid/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
compressed gases requiring scrubbing	LA-W917	D001, D002, P056	13	0.35
Totals			**13**	**0.35**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated on-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	03/10/98
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	05/10/02
D. Complete treatment of existing wastes to applicable regulatory standards, or	08/28/03
E. Complete shipping of existing wastes to an off- site treatment facility.	08/28/03
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.9 Gas Oxidation Skid (MWIR Treatment ID LA-S801)

Treatability Group(s):

LLMW for Gas Oxidation Skid/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
compressed gases requiring oxidation	LA-W918	D001	6	0.08
Totals			**6**	**0.08**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated on-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	03/10/98
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	05/10/02
D. Complete treatment of existing wastes to applicable regulatory standards, or	08/28/03
E. Complete shipping of existing wastes to an off-site treatment facility.	08/28/03
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.10 Mercury Amalgamation (MWIR Treatment ID PI-S801)

Treatability Group(s):

LLMW for Amalgamation/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
elemental mercury	LA-W920	D006, D009, F005	45	0.50
Totals			45	0.50

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated off-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	01/30/98
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	06/05/00
D. Complete treatment of existing waste to applicable regulatory standards, or	11/15/00
E. Complete shipping of existing wastes to an off-site treatment facility.	11/15/00
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.2 Mixed Waste Streams for Which Technology Requires Adaptation or for Which No Technology Exists

The following subsections summarize mixed waste streams for which technology requires adaptation or for which no technology exists.

3.2.1 Hydrothermal Processing

Treatability Group(s):

LLMW for Hydrothermal Processing/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
halogenated organic liquids	LA-W907	D001, D002, D003, D007, D009, D018, D019, D022, D028, D029, D035, D043, F001, F002, F003, F005, U077, U080, U226, U227, U228, U236	385	16.58
nonhalogenated organic liquids	LA-W908	D001, D002, D003, D004, D007, D008, D009, D011, D018, D038, D040, F002, F003, F004, F005, U002, U019, U169, U188, U220, U246	275	14.34
bulk oils	LA-W909	D002, D004, D005, D006, D007, D008, D009, D010, D011, D021, D027, D039, F001, F002, F003, F005	28	3.75
PCB wastes with RCRA components	LA-W910	D008, D039, F002	4	0.74
Totals			**692**	**35.41**

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
inorganic solid oxidizers	LA-W923	D001, D003, D005	55	0.20
Totals			**55**	**0.20**

Treatment Technology:

The preferred destruction treatment technology option for this treatability group is Hydrothermal Processing which is a technology that needs development for adaptation to treat radioactive and PCB-bearing waste. This treatment technology is being adapted at LANL and is expected to be developed into a mobile treatment unit. The GJPO schedule for deployment of the unit indicates

its possible availability to LANL after February 2002. Shipment off-site for treatment is a parallel preferred option. Respondents shall submit treatment or off-site shipment schedules and options for NMED's approval by November 30, 1998. Treatment or other options other than off-site shipment shall be carried out pursuant to the revision process. Off-site shipments must be completed by February 2002.

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 forty-five (45) working days of receipt of waste at the treatment facility.

3.3 Mixed Waste Requiring Further Characterization or for Which Technology Assessment Has Not Been Done (MWIR Treatment ID LA-S701)

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
lead wastes - TBD	LA-W924	D003, D008	186	51.44
mercury wastes - TBD	LA-W925	D007, D008, D009, F001	63	18.30
compressed gases - TBD	LA-W926	D001, D007, D009, D022, P056, U080, U226	10	1.25
biochemical laboratory wastes	LA-W927	D001, D003	9	1.34
dewatered treatment sludge	LA-W928	see Subsection 3.3 in the Background Volume	1288	268.17
Totals			**1556**	**340.50**

Treatment Technology:

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

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, or	12/20/98
E. Complete shipping of existing wastes to an off-site treatment facility.	12/20/98
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.4 Plans for Other Types of Activities

The following subsection summarizes plans for other types of activities.

3.4.1 Lead Decontamination (MWIR Treatment ID LA-S001)/Off-site Treatment (preferred option)

Treatability Group(s):

Treatability group	MWIR waste ID	Net volume (m^3)	Preferred option
lead for surface contamination	LA-W930	56.20	lead decontamination trailer
Totals		**56.20**	

Treatment Technology:

Lead bricks and shapes will be decontaminated for recycle in an on-site decontamination trailer. The trailer is on-site and has operated, but needs an upgrade for prolonged operation. 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

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 forty-five (45) working days of receipt of waste at the treatment facility.

Lead shapes and forms processed using the decontamination trailer.

Activity	Compliance Date
A. complete lead decontamination	09/30/97
B. Complete shipping of existing wastes to an off-site treatment facility	12/2/98
C. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

Lead shapes and forms not amenable to processing using the decontamination trailer.

Activity	Compliance Date
A. Segregate lead waste into decontamination groupings	7/31/97
B. Complete shipment of waste to commercial decontamination operations	3/31/98
C. Determine treatment/disposal or other recycle options for lead waste not acceptable for commercial decontamination	6/30/98
D. Complete treatment and disposal operations or other recycle operations	12/2/98
E. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.4.2 Sorting, Surveying, and Decontamination (MWIR Treatment ID GJ-S804)

Treatability Group(s):

Treatability group	MWIR waste ID	Number of items	Net volume (m3)
nonradioactive or suspect waste items to be surveyed	LA-W929	1250	14.24
Totals		**1250**	**14.24**

Treatment Technology:

This field operation 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 another DOE-site. Waste determined not to be radioactively contaminated will be treated using commercial facilities permitted to treat hazardous waste.

Activity	Compliance Dates
complete survey	10/30/96

4.0 MIXED TRANSURANIC WASTE

Treatment Group(s):

Assorted Mixed Transuranic Waste

Treatment Technology

Respondents are required to develop treatment technologies and treat mixed transuranic (MTRU) waste at LANL according to the schedule set forth below:

Activity	Compliance Date
A. Development of treatment technolgies	June 30, 1999
B. Submit permit application amendment or modification to NMED for treatment of MTRU	December 31, 1999
C. Begin treating MTRU	Six (6) months after NMED permit issuance
D. Complete treatment of existing MTRU to applicable regulatory standards	December 31, 2010

The above schedule is not based on the assumption that WIPP will be a disposal option or that DOE will receive a variance from treatment standards for land disposal of MTRU waste to be disposed at WIPP. All revisions to compliance dates shall be in accordance with the procedures set forth in the compliance order.

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 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 develop treatment capacities and technologies, and treat or otherwise meet the requirements set forth for LDR under the HWA and RCRA. The STP will be fully implemented by a Compliance Order issued by NMED on or before 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 the submittal of applications for permits, construction of treatment facilities, technology development, off-site transportation for treatment, 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.

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 bring existing waste treatment technologies into operation, process backlogged and currently generated waste, include schedules required to develop new facilities and capacity for treatment and 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. Compliance dates for the activities identified in Table I may be found in Section 3.1.

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 3.2.

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.
E. Commence systems testing.
F. Begin treating mixed waste.
G. Complete treatment of existing wastes to applicable regulatory standards.

2.1.3 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 III. "Radionuclide separation" shall mean segregating the radioactive portion of the mixed waste from the hazardous portion of the mixed waste.

Table III. 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.

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

~~Should DOE decide to treat waste at an off-site 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. DOE shall request approval from NMED for off-site treatment in accordance with the revision process pursuant to the Compliance Order.~~

In lieu of plans to treat mixed-waste on-site, DOE may treat waste at an off-site facility, at a commercial or non-commercial mixed waste treatment facility. Any and all requirements imposed by the off-site treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment 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 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 facility. Activities for mixed waste to be shipped off-site for treatment at a non-commercial facility are identified in Table V.

Should DOE decide to treat 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 facility.

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

~~A.~~	~~Request necessary approval from NMED for shipment of waste.~~
A.	Meet all regulatory requirements for off-site shipment.
B.	Provide documentation to NMED that waste has been received at an off-site facility for treatment~~, disposal or storage pending treatment or disposal.~~ within 45 working days of receipt of waste at the treatment facility.

2.1.4.1 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 V. Activities for Mixed Waste to be Shipped Off-Site for Treatment 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 storage pending treatment or disposal.
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 treatment facility.
E.	Meet all regulatory requirements to include RCRA Permit modifications for residual or newly generated waste streams after treatment.
F.	Provide documentation to NMED within 30 working days after receipt of residual or newly generated waste streams upon return to LANL.

2.1.5 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.

3.0 LOW-LEVEL MIXED WASTE STREAMS

This section presents proposed schedules for treatment technologies and the preferred options to treat low-level mixed waste streams (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.

3.1 Mixed Waste Streams for Which Technology Exists

The following subsections summarize LLMW treatability groups for which technology exists.

3.1.1 ~~Commercial~~ Off-site Treatment by Thermal Treatment

Treatability Group(s):

LLMW for ~~Commercial Off-site~~ Thermal Treatment (MWIR Treatment ID DS-S001)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
IPA wastes	LA-W901	D001, D009, F002, F003, F005	104	15.89
scintillation fluids	LA-W902	D001, F003, F005	18	2.47
Totals			**122**	**18.36**

Treatment Technology:

The waste will be treated at an off-site ~~commercial~~ 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. Meet all regulatory requirements prior to shipping waste	9/30/96
B. Complete shipping waste	12/30/96
C. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.2 ~~Commercial~~ Off-site Treatment by Stabilization or Macroencapsulation

Treatability Group(s):

LLMW for ~~Commercial~~ Stabilization

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (M^3)
lead blankets	LA-W903	D007, D008	4	0.74
soil with heavy metals	LA-W904	D004, D005, D006, D007, D008, D009, D010, D011	59	10.53
ER soils	LA-W905	D028, D029, F001, F005 D010, D011	36	39.32
Totals			99	50.59

Treatment Technology:

The waste will be treated at an off-site ~~commercial~~ facility that stabilizes or macroencapsulates wastes. 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. Meet all regulatory requirements prior to shipping waste	05/30/97
B. Complete shipping waste	09/30/97
C. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.3 Evaporative Oxidation (MWIR Treatment ID GJ-S801C)

Treatability Group(s):

LLMW for Evaporative Oxidation/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
aqueous organic liquids	LA-W906	D001, D002, D005, D007, D008, D010, D018, D019, D022, D027, D028, D030, D032, D033, D036, D037, D038, D039, D041, D042, D043, F001, F002, F003, F004, F005	45	1.65
Totals			**45**	**1.65**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated off-site and operated on-site. 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. ~~DOE shall request approval from NMED for off-site treatment in accordance with the revision process pursuant to the Compliance Order.~~ 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.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	12/30/96
B. Initiate construction	As specified in the NMED permit.
C. Complete system test and commence operation and begin treating mixed waste	6/19/99
D. Complete treatment of existing wastes to applicable regulatory standards, or	2/09/00
E. Complete shipment of existing wastes for treatment to an off- site facility	2/09/00
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.4 Thermal Desorption (MWIR Treatment ID GJ-S801B)

LLMW for Thermal Desorption/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
organic-contaminated combustible solids	LA-W911	D001, F001, F002, F003, F005	307	28.32
Totals			**307**	**28.32**

LLMW for Thermal Desorption

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
organic-contaminated noncombustible solids	LA-W919	D001, D003, D004, D005, D006, D007, D008, D009, D010, D011, D027, D030, D032, D033, D034, D042, D043, F001, F002, F004, F005	80	7.82
Totals			**80**	**7.82**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated off-site and operated on-site. 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. ~~DOE shall request approval from NMED for off-site treatment in accordance with the revision process pursuant to the Compliance Order.~~ 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.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	11/16/98
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	02/01/01
D. Complete treatment of existing wastes to applicable regulatory standards, or	02/14/02
E. Complete shipping of existing wastes to an off- site treatment facility	02/14/02
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.5 Macroencapsulation (MWIR Treatment ID PX-S803)

Treatability Group(s):

LLMW for Macroencapsulation/Off-site treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
combustible debris	LA-W912	D001, D002, D003, D005, D006, D007, D008, D009, D011, D035, F001, F002, F003, F005	83	13.82
Totals			**83**	**13.82**

LLMW for Macroencapsulation

Treatability group		RCRA codes	Number of items	Net volume (m^3)
activated or inseparable lead	LA-W921	D008	74	15.60
noncombustible debris	LA-W922	D001, D004, D005, D006, D007, D008, D009, D010, D011	41	5.62
Totals			**115**	**21.22**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated off-site and operated on-site. 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. ~~DOE shall request approval from NMED for off-site treatment in accordance with the revision process pursuant to the Compliance Order.~~ 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.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	01/04/98
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operation and begin treating mixed waste	02/01/00
D. Complete treatment of existing wastes to applicable regulatory standards, or	08/25/00
E. Complete shipping of existing wastes to an off-site treatment facility.	08/25/00
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.6 Chemical Plating Waste Treatment Skid (MWIR Treatment ID LA-S004)

Treatability Group(s):

LLMW for Chemical Plating Waste Skid/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
aqueous wastes with heavy metals	LA-W913	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011	203	1.85
corrosive solutions	LA-W914	D001, D002	162	1.36
aqueous cyanides, nitrates, chromates, and arsenates	LA-W915	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, F007, P029, P098	15	0.13
Totals			380	3.34

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated off-site and operated on-site. 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. ~~DOE shall request approval from NMED for off-site treatment in accordance with the revision process pursuant to the Compliance Order.~~ 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.

Activity	Compliance Dates
A. Resubmit revised permit application to NMED	10/30/96
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	03/17/00
D. Complete treatment of existing wastes to applicable regulatory standards, or	05/08/01
E. Complete shipping of existing wastes to an off-site treatment facility.	05/08/01
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.7 Water-reactive Metals Treatment Skid (MWIR Treatment ID LA-S003)

Treatability Group(s):

LLMW for Water-Reactive Metals Skid/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
water-reactive wastes	LA-W916	D001, D003	78	6.03
Totals			**78**	**6.03**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated on-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	06/30/01
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	09/09/03
D. Complete treatment of existing wastes to applicable regulatory standards, ~~or~~	04/21/04
~~E. Complete shipping of existing wastes to an off-site treatment facility~~	~~04/21/04~~
~~F. Provide documentation to NMED that waste was received at off-site facility~~	~~Within 45 days of receipt of waste at treatment facility~~

3.1.8 Gas-scrubbing Skid (MWIR Treatment ID LA-S801)

Treatability Group(s):

LLMW for Gas-Scrubbing Skid/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
compressed gases requiring scrubbing	LA-W917	D001, D002, P056	13	0.35
Totals			**13**	**0.35**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated on-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	03/10/98
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	05/10/02
D. Complete treatment of existing wastes to applicable regulatory standards, or	08/28/03
E. Complete shipping of existing wastes to an off- site treatment facility	08/28/03
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.9 Gas Oxidation Skid (MWIR Treatment ID LA-S801)

Treatability Group(s):

LLMW for Gas Oxidation Skid/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
compressed gases requiring oxidation	LA-W918	D001	6	0.08
Totals			**6**	**0.08**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated on-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	03/10/98
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	05/10/02
D. Complete treatment of existing wastes to applicable regulatory standards, or	08/28/03
~~E. Complete shipping of existing wastes to an off-site treatment facility.~~	~~08/28/03~~
~~F. Provide documentation to NMED that waste was received at off-site facility~~	~~Within 45 days of receipt of waste at treatment facility~~

3.1.10 Mercury Amalgamation (MWIR Treatment ID PI-S801)

Treatability Group(s):

LLMW for Amalgamation/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)

elemental mercury	LA-W920	D006, D009, F005	45	0.50
Totals			45	0.50

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated off-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	01/30/98
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	06/05/00
D. Complete treatment of existing waste to applicable regulatory standards, or	11/15/00
E. Complete shipping of existing wastes to an off-site treatment facility.	11/15/00
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.2 Mixed Waste Streams for Which Technology Requires Adaptation or for Which No Technology Exists

The following subsections summarize mixed waste streams for which technology requires adaptation or for which no technology exists.

3.2.1 Hydrothermal Processing

Treatability Group(s):

LLMW for Hydrothermal Processing/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
halogenated organic liquids	LA-W907	D001, D002, D003, D007, D009, D018, D019, D022, D028, D029, D035, D043, F001, F002, F003, F005, U077, U080, U226, U227, U228, U236	385	16.58
nonhalogenated organic liquids	LA-W908	D001, D002, D003, D004, D007, D008, D009, D011, D018, D038, D040, F002, F003, F004, F005, U002, U019, U169, U188, U220, U246	275	14.34
bulk oils	LA-W909	D002, D004, D005, D006, D007, D008, D009, D010, D011, D021, D027, D039, F001, F002, F003, F005	28	3.75
PCB wastes with RCRA components	LA-W910	D008, D039, F002	4	0.74
Totals			**692**	**35.41**

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
inorganic solid oxidizers	LA-W923	D001, D003, D005	55	0.20
Totals			**55**	**0.20**

Treatment Technology:

The preferred destruction treatment technology option for this treatability group is Hydrothermal Processing which is a technology that needs development for adaptation to treat radioactive and PCB-bearing waste. This treatment technology is being adapted at LANL and is expected to be developed into a mobile treatment unit. The GJPO schedule for deployment of the unit indicates its possible availability to LANL after February 2002. Shipment off-site for treatment is a parallel preferred option. Respondents shall submit treatment or off-site shipment schedules and options for NMED's approval by November 30, 1998. Treatment or other options other than off-site shipment shall be carried out pursuant to the revision process. Off-site shipments must be completed by February 2002.

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 forty-five (45) working days of receipt of waste at the treatment facility.

3.3 Mixed Waste Requiring Further Characterization or for Which Technology Assessment Has Not Been Done (MWIR Treatment ID LA-S701)

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
lead wastes - TBD	LA-W924	D003, D008	186	51.44
mercury wastes - TBD	LA-W925	D007, D008, D009, F001	63	18.30
compressed gases - TBD	LA-W926	D001, D007, D009, D022, P056, U080, U226	10	1.25
biochemical laboratory wastes	LA-W927	D001, D003	9	1.34
dewatered treatment sludge	LA-W928	see Subsection 3.3 in the Background Volume	1288	268.17
Totals			**1556**	**340.50**

Treatment Technology:

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

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, ~~or~~	12/20/98
~~E. Complete shipping of existing wastes to an off-site treatment facility.~~	~~12/20/98~~
~~F. Provide documentation to NMED that waste was received at off-site facility~~	~~Within 45 days of receipt of waste at treatment facility~~

3.4 Plans for Other Types of Activities

The following subsection summarizes plans for other types of activities.

3.4.1 Lead Decontamination (MWIR Treatment ID LA-S001)/Off-site Treatment (preferred option)

Treatability Group(s):

Treatability group	MWIR waste ID	Net volume (m^3)	Preferred option
lead for surface contamination	LA-W930	56.20	lead decontamination trailer
Totals		**56.20**	

Treatment Technology:

Lead bricks and shapes will be decontaminated for recycle in an on-site decontamination trailer. The trailer is on-site and has operated, but needs an upgrade for prolonged operation. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Lead shapes and forms processed using the decontamination trailer.

Activity	Compliance Date
A. complete lead decontamination	09/30/97
B. Complete shipping of existing wastes to an off-site treatment facility	12/2/98
C. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

Lead shapes and forms not amenable to processing using the decontamination trailer.

Activity	Compliance Date
A. provide schedule for development of lead processing techniques and options, of	06/30/96
B. Complete shipping of existing wastes to an off- site treatment facility.	12/02/98
C. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.4.2 Sorting, Surveying, and Decontamination (MWIR Treatment ID GJ-S804)

Treatability Group(s):

Treatability group	MWIR waste ID	Number of items	Net volume (m3)
nonradioactive or suspect waste items to be surveyed	LA-W929	1250	14.24
Totals		**1250**	**14.24**

Treatment Technology:

This field operation 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 another DOE-site. Waste determined not to be radioactively contaminated will be treated using commercial facilities permitted to treat hazardous waste.

Activity	Compliance Dates
complete survey	10/30/96

4.0 MIXED TRANSURANIC WASTE

Treatment Group(s):

Assorted Mixed Transuranic Waste

Treatment Technology

Respondents are required to develop treatment technologies and treat mixed transuranic (MTRU) waste at LANL according to the schedule set forth below:

Activity	Compliance Date
A. Development of treatment technolgies	June 30, 1999
B. Submit permit application amendment or modification to NMED for treatment of MTRU	December 31, 1999
C. Begin treating MTRU	Six (6) months after NMED permit issuance
D. Complete treatment of existing MTRU to applicable regulatory standards	December 31, 2010

The above schedule is not based on the assumption that WIPP will be a disposal option or that DOE will receive a variance from treatment standards for land disposal of MTRU waste to be disposed at WIPP. All revisions to compliance dates shall be in accordance with the procedures set forth in the compliance order.

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 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 develop treatment capacities and technologies, and treat or otherwise meet the requirements set forth for LDR under the HWA and RCRA. The STP will be fully implemented by a Compliance Order issued by NMED on or before 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 the submittal of applications for permits, construction of treatment facilities, technology development, off-site transportation for treatment, 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.

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 bring existing waste treatment technologies into operation, process backlogged and currently generated waste, include schedules required to develop new facilities and capacity for treatment and 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. Compliance dates for the activities identified in Table I may be found in Section 3.1.

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 3.2.

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.
E. Commence systems testing.
F. Begin treating mixed waste.
G. Complete treatment of existing wastes to applicable regulatory standards.

2.1.3 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 III. "Radionuclide separation" shall mean segregating the radioactive portion of the mixed waste from the hazardous portion of the mixed waste.

Table III. 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.

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

In lieu of plans to treat mixed-waste on-site, DOE may treat waste at an off-site facility; at a commercial or non-commercial mixed waste treatment facility. Any and all requirements imposed by the off-site treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment 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 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 facility. Activities for mixed waste to be shipped off-site for treatment at a non-commercial facility are identified in Table V.

Should DOE decide to treat 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 facility.

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

A.	Meet all regulatory requirements for off-site shipment.
B.	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 treatment facility.

2.1.4.1 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 V. Activities for Mixed Waste to be Shipped Off-Site for Treatment 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 storage pending treatment or disposal.
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 treatment facility.
E.	Meet all regulatory requirements to include RCRA Permit modifications for residual or newly generated waste streams after treatment.
F.	Provide documentation to NMED within 30 working days after receipt of residual or newly generated waste streams upon return to LANL.

2.1.5 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.

3.0 LOW-LEVEL MIXED WASTE STREAMS

This section presents proposed schedules for treatment technologies and the preferred options to treat low-level mixed waste streams (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.

3.1 Mixed Waste Streams for Which Technology Exists

The following subsections summarize LLMW treatability groups for which technology exists.

3.1.1 ~~Commercial~~ Off-site Treatment by Thermal Treatment

Treatability Group(s):

LLMW for ~~Commercial Off-site~~ Thermal Treatment (MWIR Treatment ID DS-S001)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
IPA wastes	LA-W901	D001, D009, F002, F003, F005	104	15.89
scintillation fluids	LA-W902	D001, F003, F005	18	2.47
Totals			**122**	**18.36**

Treatment Technology:

The waste will be treated at an off-site ~~commercial~~ 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. Meet all regulatory requirements prior to shipping waste	9/30/96
B. Complete shipping waste	12/30/96
C. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.2 ~~Commercial~~ Off-site Treatment by Stabilization or Macroencapsulation

Treatability Group(s):

LLMW for ~~Commercial~~ Stabilization

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (M^3)
lead blankets	LA-W903	D007, D008	4	0.74
soil with heavy metals	LA-W904	D004, D005, D006, D007, D008, D009, D010, D011	59	10.53
ER soils	LA-W905	D028, D029, F001, F005 D010, D011	36	39.32
Totals			99	50.59

Treatment Technology:

The waste will be treated at an off-site facility that stabilizes or macroencapsulates wastes. 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. Meet all regulatory requirements prior to shipping waste	05/30/97
B. Complete shipping waste	09/30/97
C. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.3 Evaporative Oxidation (MWIR Treatment ID GJ-S801C)

Treatability Group(s):

LLMW for Evaporative Oxidation/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
aqueous organic liquids	LA-W906	D001, D002, D005, D007, D008, D010, D018, D019, D022, D027, D028, D030, D032, D033, D036, D037, D038, D039, D041, D042, D043, F001, F002, F003, F004, F005	45	1.65
Totals			**45**	**1.65**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated off-site and operated on-site. 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 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.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	12/30/96
B. Initiate construction	As specified in the NMED permit.
C. Complete system test and commence operation and begin treating mixed waste	6/19/99
D. Complete treatment of existing wastes to applicable regulatory standards, or	2/09/00
E. Complete shipment of existing wastes for treatment to an off- site facility.	2/09/00
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.4 Thermal Desorption (MWIR Treatment ID GJ-S801B)

LLMW for Thermal Desorption/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
organic-contaminated combustible solids	LA-W911	D001, F001, F002, F003, F005	307	28.32
Totals			**307**	**28.32**

LLMW for Thermal Desorption

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
organic-contaminated noncombustible solids	LA-W919	D001, D003, D004, D005, D006, D007, D008, D009, D010, D011, D027, D030, D032, D033, D034, D042, D043, F001, F002, F004, F005	80	7.82
Totals			**80**	**7.82**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated off-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	11/16/98
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	02/01/01
D. Complete treatment of existing wastes to applicable regulatory standards, or	02/14/02
E. Complete shipping of existing wastes to an off- site treatment facility.	02/14/02
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.5 Macroencapsulation (MWIR Treatment ID PX-S803)

Treatability Group(s):

LLMW for Macroencapsulation/Off-site treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
combustible debris	LA-W912	D001, D002, D003, D005, D006, D007, D008, D009, D011, D035, F001, F002, F003, F005	83	13.82
Totals			**83**	**13.82**

LLMW for Macroencapsulation

Treatability group		RCRA codes	Number of items	Net volume (m^3)
activated or inseparable lead	LA-W921	D008	74	15.60
noncombustible debris	LA-W922	D001, D004, D005, D006, D007, D008, D009, D010, D011	41	5.62
Totals			**115**	**21.22**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated off-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	01/04/98
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operation and begin treating mixed waste	02/01/00
D. Complete treatment of existing wastes to applicable regulatory standards, or	08/25/00
E. Complete shipping of existing wastes to an off-site treatment facility.	08/25/00
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.6 Chemical Plating Waste Treatment Skid (MWIR Treatment ID LA-S004)

Treatability Group(s):

LLMW for Chemical Plating Waste Skid/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
aqueous wastes with heavy metals	LA-W913	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011	203	1.85
corrosive solutions	LA-W914	D001, D002	162	1.36
aqueous cyanides, nitrates, chromates, and arsenates	LA-W915	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, F007, P029, P098	15	0.13
Totals			380	3.34

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated off-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Resubmit revised permit application to NMED	10/30/96
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	03/17/00
D. Complete treatment of existing wastes to applicable regulatory standards, or	05/08/01
E. Complete shipping of existing wastes to an off-site treatment facility.	05/08/01
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.7 Water-reactive Metals Treatment Skid (MWIR Treatment ID LA-S003)

Treatability Group(s):

LLMW for Water-Reactive Metals Skid/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
water-reactive wastes	LA-W916	D001, D003	78	6.03
Totals			**78**	**6.03**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated on-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	06/30/01
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	09/09/03
D. Complete treatment of existing wastes to applicable regulatory standards, or	04/21/04
E. Complete shipping of existing wastes to an off-site treatment facility.	04/21/04
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.8 Gas-scrubbing Skid (MWIR Treatment ID LA-S801)

Treatability Group(s):

LLMW for Gas-Scrubbing Skid/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
compressed gases requiring scrubbing	LA-W917	D001, D002, P056	13	0.35
Totals			**13**	**0.35**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated on-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	03/10/98
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	05/10/02
D. Complete treatment of existing wastes to applicable regulatory standards, or	08/28/03
E. Complete shipping of existing wastes to an off- site treatment facility.	08/28/03
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.9 Gas Oxidation Skid (MWIR Treatment ID LA-S801)

Treatability Group(s):

LLMW for Gas Oxidation Skid/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
compressed gases requiring oxidation	LA-W918	D001	6	0.08
Totals			**6**	**0.08**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated on-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	03/10/98
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	05/10/02
D. Complete treatment of existing wastes to applicable regulatory standards, or	08/28/03
E. Complete shipping of existing wastes to an off-site treatment facility.	08/28/03
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.10 Mercury Amalgamation (MWIR Treatment ID PI-S801)

Treatability Group(s):

LLMW for Amalgamation/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
elemental mercury	LA-W920	D006, D009, F005	45	0.50
Totals			45	0.50

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated off-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	01/30/98
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	06/05/00
D. Complete treatment of existing waste to applicable regulatory standards, or	11/15/00
E. Complete shipping of existing wastes to an off-site treatment facility.	11/15/00
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.2 Mixed Waste Streams for Which Technology Requires Adaptation or for Which No Technology Exists

The following subsections summarize mixed waste streams for which technology requires adaptation or for which no technology exists.

3.2.1 Hydrothermal Processing

Treatability Group(s):

LLMW for Hydrothermal Processing/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
halogenated organic liquids	LA-W907	D001, D002, D003, D007, D009, D018, D019, D022, D028, D029, D035, D043, F001, F002, F003, F005, U077, U080, U226, U227, U228, U236	385	16.58
nonhalogenated organic liquids	LA-W908	D001, D002, D003, D004, D007, D008, D009, D011, D018, D038, D040, F002, F003, F004, F005, U002, U019, U169, U188, U220, U246	275	14.34
bulk oils	LA-W909	D002, D004, D005, D006, D007, D008, D009, D010, D011, D021, D027, D039, F001, F002, F003, F005	28	3.75
PCB wastes with RCRA components	LA-W910	D008, D039, F002	4	0.74
Totals			**692**	**35.41**

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
inorganic solid oxidizers	LA-W923	D001, D003, D005	55	0.20
Totals			**55**	**0.20**

Treatment Technology:

The preferred destruction treatment technology option for this treatability group is Hydrothermal Processing which is a technology that needs development for adaptation to treat radioactive and PCB-bearing waste. This treatment technology is being adapted at LANL and is expected to be developed into a mobile treatment unit. The GJPO schedule for deployment of the unit indicates its possible availability to LANL after February 2002. Shipment off-site for treatment is a parallel preferred option. Respondents shall submit treatment or off-site shipment schedules and

options for NMED's approval by November 30, 1998. Treatment or other options other than off-site shipment shall be carried out pursuant to the revision process. Off-site shipments must be completed by February 2002.

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 forty-five (45) working days of receipt of waste at the treatment facility.

3.3 Mixed Waste Requiring Further Characterization or for Which Technology Assessment Has Not Been Done (MWIR Treatment ID LA-S701)

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
lead wastes - TBD	LA-W924	D003, D008	186	51.44
mercury wastes - TBD	LA-W925	D007, D008, D009, F001	63	18.30
compressed gases - TBD	LA-W926	D001, D007, D009, D022, P056, U080, U226	10	1.25
biochemical laboratory wastes	LA-W927	D001, D003	9	1.34
dewatered treatment sludge	LA-W928	see Subsection 3.3 in the Background Volume	61	12.71
Totals			329	85.00

Treatment Technology:

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

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, or	12/20/98
E. Complete shipping of existing wastes to an off-site treatment facility.	12/20/98
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.4 Plans for Other Types of Activities

The following subsection summarizes plans for other types of activities.

3.4.1 Lead Decontamination (MWIR Treatment ID LA-S001)/Off-site Treatment (preferred option)

Treatability Group(s):

Treatability group	MWIR waste ID	Net volume (m^3)	Preferred option
lead for surface contamination	LA-W930	56.20	lead decontamination trailer
Totals		**56.20**	

Treatment Technology:

Lead bricks and shapes will be decontaminated for recycle in an on-site decontamination trailer. The trailer is on-site and has operated, but needs an upgrade for prolonged operation. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Lead shapes and forms processed using the decontamination trailer.

Activity	Compliance Date
A. complete lead decontamination	09/30/97
B. Complete shipping of existing wastes to an off-site treatment facility	12/2/98
C. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

Lead shapes and forms not amenable to processing using the decontamination trailer.

Activity	Compliance Date
A. provide schedule for development of lead processing techniques and options, or	06/30/96
B. Complete shipping of existing wastes to an off- site treatment facility.	12/02/98
C. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.4.2 Sorting, Surveying, and Decontamination (MWIR Treatment ID GJ-S804)

Treatability Group(s):

Treatability group	MWIR waste ID	Number of items	Net volume (m^3)
1. nonradioactive or suspect waste items to be surveyed	LA-W929	1049	10. 58
2. nonradioactive or suspect waste items to receive RCRA and radiological characterization	LA-W929	162	3.25
3. nonradioactive or suspect waste items that cannot or should not be sampled	LA-W929	39	0.41
Totals		1250	14.24

Treatment Technology:

The waste items in part 1 of 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 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	*2/28/97*
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	1/28/97
E. submit documentation assigning waste items to applicable treatability groups or proposing off-site shipment dates	2/28/97
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	1/28/97
H. submit documentation assigning waste items to applicable treatability groups or proposing off-site shipment dates	6/30/97
I. propose additional compliance dates if necessary	9/30/97

4.0 MIXED TRANSURANIC WASTE

Treatment Group(s):

Assorted Mixed Transuranic Waste

Treatment Technology

Respondents are required to develop treatment technologies and treat mixed transuranic (MTRU) waste at LANL according to the schedule set forth below:

Activity	Compliance Date
A. Development of treatment technolgies	June 30, 1999
B. Submit permit application amendment or modification to NMED for treatment of MTRU	December 31, 1999
C. Begin treating MTRU	Six (6) months after NMED permit issuance
D. Complete treatment of existing MTRU to applicable regulatory standards	December 31, 2010

The above schedule is not based on the assumption that WIPP will be a disposal option or that DOE will receive a variance from treatment standards for land disposal of MTRU waste to be disposed at WIPP. All revisions to compliance dates shall be in accordance with the procedures set forth in the compliance order.

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 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 develop treatment capacities and technologies, and treat or otherwise meet the requirements set forth for LDR under the HWA and RCRA. The STP will be fully implemented by a Compliance Order issued by NMED on or before 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 the submittal of applications for permits, construction of treatment facilities, technology development, off-site transportation for treatment, 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.

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 bring existing waste treatment technologies into operation, process backlogged and currently generated waste, include schedules required to develop new facilities and capacity for treatment and 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. Compliance dates for the activities identified in Table I may be found in Section 3.1.

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 3.2.

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.
E. Commence systems testing.
F. Begin treating mixed waste.
G. Complete treatment of existing wastes to applicable regulatory standards.

2.1.3 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 III. "Radionuclide separation" shall mean segregating the radioactive portion of the mixed waste from the hazardous portion of the mixed waste.

Table III. 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.

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

~~Should DOE decide to treat waste at an off-site 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. DOE shall request approval from NMED for off-site treatment in accordance with the revision process pursuant to the Compliance Order.~~

In lieu of plans to treat mixed-waste on-site, DOE may treat waste at an off-site facility, at a commercial or non-commercial mixed waste treatment facility. Any and all requirements imposed by the off-site treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment 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 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 facility. Activities for mixed waste to be shipped off-site for treatment at a non-commercial facility are identified in Table V.

Should DOE decide to treat 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 facility.

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

~~A.~~	~~Request necessary approval from NMED for shipment of waste.~~
A.	Meet all regulatory requirements for off-site shipment.
B.	Provide documentation to NMED that waste has been received at an off-site facility for treatment ~~, disposal or storage pending treatment or disposal.~~ within 45 working days of receipt of waste at the treatment facility.

2.1.4.1 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 V. Activities for Mixed Waste to be Shipped Off-Site for Treatment 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 storage pending treatment or disposal.
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 treatment facility.
E.	Meet all regulatory requirements to include RCRA Permit modifications for residual or newly generated waste streams after treatment.
F.	Provide documentation to NMED within 30 working days after receipt of residual or newly generated waste streams upon return to LANL.

2.1.5 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.

3.0 LOW-LEVEL MIXED WASTE STREAMS

This section presents proposed schedules for treatment technologies and the preferred options to treat low-level mixed waste streams (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.

3.1 Mixed Waste Streams for Which Technology Exists

The following subsections summarize LLMW treatability groups for which technology exists.

3.1.1 ~~Commercial~~ Off-site Treatment by Thermal Treatment

Treatability Group(s):

LLMW for ~~Commercial Off-site~~ Thermal Treatment (MWIR Treatment ID DS-S001)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
IPA wastes	LA-W901	D001, D009, F002, F003, F005	104	15.89
scintillation fluids	LA-W902	D001, F003, F005	18	2.47
Totals			**122**	**18.36**

Treatment Technology:

The waste will be treated at an off-site ~~commercial~~ 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. Meet all regulatory requirements prior to shipping waste	9/30/96
B. Complete shipping waste	12/30/96
C. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.2 ~~Commercial~~ Off-site Treatment by Stabilization or Macroencapsulation

Treatability Group(s):

LLMW for ~~Commercial~~ Stabilization

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
lead blankets	LA-W903	D007, D008	4	0.74
soil with heavy metals	LA-W904	D004, D005, D006, D007, D008, D009, D010, D011	59	10.53
ER soils	LA-W905	D028, D029, F001, F005 D010, D011	36	39.32
Totals			99	50.59

Treatment Technology:

The waste will be treated at an off-site ~~commercial~~ facility that stabilizes or macroencapsulates wastes. 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. Meet all regulatory requirements prior to shipping waste	05/30/97
B. Complete shipping waste	09/30/97
C. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.3 Evaporative Oxidation (MWIR Treatment ID GJ-S801C)

Treatability Group(s):

LLMW for Evaporative Oxidation/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
aqueous organic liquids	LA-W906	D001, D002, D005, D007, D008, D010, D018, D019, D022, D027, D028, D030, D032, D033, D036, D037, D038, D039, D041, D042, D043, F001, F002, F003, F004, F005	45	1.65
Totals			**45**	**1.65**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated off-site and operated on-site. 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. ~~DOE shall request approval from NMED for off-site treatment in accordance with the revision process pursuant to the Compliance Order.~~ 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.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	12/30/96
B. Initiate construction	As specified in the NMED permit.
C. Complete system test and commence operation and begin treating mixed waste	6/19/99
D. Complete treatment of existing wastes to applicable regulatory standards, or	2/09/00
E. Complete shipment of existing wastes for treatment to an off-site facility	2/09/00
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.4 Thermal Desorption (MWIR Treatment ID GJ-S801B)

LLMW for Thermal Desorption/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
organic-contaminated combustible solids	LA-W911	D001, F001, F002, F003, F005	307	28.32
Totals			**307**	**28.32**

LLMW for Thermal Desorption

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
organic-contaminated noncombustible solids	LA-W919	D001, D003, D004, D005, D006, D007, D008, D009, D010, D011, D027, D030, D032, D033, D034, D042, D043, F001, F002, F004, F005	80	7.82
Totals			**80**	**7.82**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated off-site and operated on-site. 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. ~~DOE shall request approval from NMED for off-site treatment in accordance with the revision process pursuant to the Compliance Order.~~ 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.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	11/16/98
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	02/01/01
D. Complete treatment of existing wastes to applicable regulatory standards, or	02/14/02
E. Complete shipping of existing wastes to an off-site treatment facility	02/14/02
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.5 Macroencapsulation (MWIR Treatment ID PX-S803)

Treatability Group(s):

LLMW for Macroencapsulation/Off-site treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
combustible debris	LA-W912	D001, D002, D003, D005, D006, D007, D008, D009, D011, D035, F001, F002, F003, F005	83	13.82
Totals			**83**	**13.82**

LLMW for Macroencapsulation

Treatability group		RCRA codes	Number of items	Net volume (m^3)
activated or inseparable lead	LA-W921	D008	74	15.60
noncombustible debris	LA-W922	D001, D004, D005, D006, D007, D008, D009, D010, D011	41	5.62
Totals			**115**	**21.22**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated off-site and operated on-site. 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. ~~DOE shall request approval from NMED for off-site treatment in accordance with the revision process pursuant to the Compliance Order.~~ 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.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	01/04/98
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operation and begin treating mixed waste	02/01/00
D. Complete treatment of existing wastes to applicable regulatory standards, or	08/25/00
E. Complete shipping of existing wastes to an off-site treatment facility.	08/25/00
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.6 Chemical Plating Waste Treatment Skid (MWIR Treatment ID LA-S004)

Treatability Group(s):

LLMW for Chemical Plating Waste Skid/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
aqueous wastes with heavy metals	LA-W913	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011	203	1.85
corrosive solutions	LA-W914	D001, D002	162	1.36
aqueous cyanides, nitrates, chromates, and arsenates	LA-W915	D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, F007, P029, P098	15	0.13
Totals			380	3.34

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated off-site and operated on-site. 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. ~~DOE shall request approval from NMED for off-site treatment in accordance with the revision process pursuant to the Compliance Order.~~ 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.

Activity	Compliance Dates
A. Resubmit revised permit application to NMED	10/30/96
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	03/17/00
D. Complete treatment of existing wastes to applicable regulatory standards, or	05/08/01
E. Complete shipping of existing wastes to an off-site treatment facility.	05/08/01
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.7 Water-reactive Metals Treatment Skid (MWIR Treatment ID LA-S003)

Treatability Group(s):

LLMW for Water-Reactive Metals Skid/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
water-reactive wastes	LA-W916	D001, D003	78	6.03
Totals			**78**	**6.03**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated on-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	06/30/01
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	09/09/03
D. Complete treatment of existing wastes to applicable regulatory standards, ~~or~~	04/21/04
~~E. Complete shipping of existing wastes to an off-site treatment facility.~~	~~04/21/04~~
~~F. Provide documentation to NMED that waste was received at off-site facility~~	~~Within 45 days of receipt of waste at treatment facility~~

3.1.8 Gas-scrubbing Skid (MWIR Treatment ID LA-S801)

Treatability Group(s):

LLMW for Gas-Scrubbing Skid/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
compressed gases requiring scrubbing	LA-W917	D001, D002, P056	13	0.35
Totals			**13**	**0.35**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated on-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	03/10/98
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	05/10/02
D. Complete treatment of existing wastes to applicable regulatory standards, ~~or~~	08/28/03
~~E. Complete shipping of existing wastes to an off- site treatment facility.~~	~~08/28/03~~
~~F. Provide documentation to NMED that waste was received at off-site facility~~	~~Within 45 days of receipt of waste at treatment facility~~

3.1.9 Gas Oxidation Skid (MWIR Treatment ID LA-S801)

Treatability Group(s):

LLMW for Gas Oxidation Skid/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
compressed gases requiring oxidation	LA-W918	D001	6	0.08
Totals			**6**	**0.08**

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated on-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	03/10/98
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	05/10/02
D. Complete treatment of existing wastes to applicable regulatory standards, or	08/28/03
E. Complete shipping of existing wastes to an off-site treatment facility.	08/28/03
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.1.10 Mercury Amalgamation (MWIR Treatment ID PI-S801)

Treatability Group(s):

LLMW for Amalgamation/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
elemental mercury	LA-W920	D006, D009, F005	45	0.50
Totals			45	0.50

Treatment Technology

The waste will be treated in a mobile treatment unit that will be fabricated off-site and operated on-site. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Activity	Compliance Dates
A. Submit permit application, amendment or modification to NMED	01/30/98
B. Initiate construction	As specified in the NMED permit
C. Complete system testing and commence operations and begin treating mixed waste	06/05/00
D. Complete treatment of existing waste to applicable regulatory standards, or	11/15/00
E. Complete shipping of existing wastes to an off-site treatment facility.	11/15/00
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.2 Mixed Waste Streams for Which Technology Requires Adaptation or for Which No Technology Exists

The following subsections summarize mixed waste streams for which technology requires adaptation or for which no technology exists.

3.2.1 Hydrothermal Processing

Treatability Group(s):

LLMW for Hydrothermal Processing/Off-site Treatment (preferred option)

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
halogenated organic liquids	LA-W907	D001, D002, D003, D007, D009, D018, D019, D022, D028, D029, D035, D043, F001, F002, F003, F005, U077, U080, U226, U227, U228, U236	385	16.58
nonhalogenated organic liquids	LA-W908	D001, D002, D003, D004, D007, D008, D009, D011, D018, D038, D040, F002, F003, F004, F005, U002, U019, U169, U188, U220, U246	275	14.34
bulk oils	LA-W909	D002, D004, D005, D006, D007, D008, D009, D010, D011, D021, D027, D039, F001, F002, F003, F005	28	3.75
PCB wastes with RCRA components	LA-W910	D008, D039, F002	4	0.74
Totals			**692**	**35.41**

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
inorganic solid oxidizers	LA-W923	D001, D003, D005	55	0.20
Totals			**55**	**0.20**

Treatment Technology:

The preferred destruction treatment technology option for this treatability group is Hydrothermal Processing which is a technology that needs development for adaptation to treat radioactive and PCB-bearing waste. This treatment technology is being adapted at LANL and is expected to be developed into a mobile treatment unit. The GJPO schedule for deployment of the unit indicates its possible availability to LANL after February 2002. Shipment off-site for treatment is a parallel preferred option. Respondents shall submit treatment or off-site shipment schedules and

options for NMED's approval by November 30, 1998. Treatment or other options other than off-site shipment shall be carried out pursuant to the revision process. Off-site shipments must be completed by February 2002.

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 forty-five (45) working days of receipt of waste at the treatment facility.

3.3 Mixed Waste Requiring Further Characterization or for Which Technology Assessment Has Not Been Done (MWIR Treatment ID LA-S701)

Treatability Group(s):

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m^3)
lead wastes - TBD	LA-W924	D003, D008	186	51.44
mercury wastes - TBD	LA-W925	D007, D008, D009, F001	63	18.30
compressed gases - TBD	LA-W926	D001, D007, D009, D022, P056, U080, U226	10	1.25
biochemical laboratory wastes	LA-W927	D001, D003	9	1.34
dewatered treatment sludge	LA-W928	see Subsection 3.3 in the Background Volume	~~1228~~ 61	~~268.17~~ 12.71
Totals			~~1556~~ 329	~~340.50~~ 85.00

Treatment Technology:

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

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, or	12/20/98
E. Complete shipping of existing wastes to an off-site treatment facility.	12/20/98
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.4 Plans for Other Types of Activities

The following subsection summarizes plans for other types of activities.

3.4.1 Lead Decontamination (MWIR Treatment ID LA-S001)/Off-site Treatment (preferred option)

Treatability Group(s):

Treatability group	MWIR waste ID	Net volume (m^3)	Preferred option
lead for surface contamination	LA-W930	56.20	lead decontamination trailer
Totals		**56.20**	

Treatment Technology:

Lead bricks and shapes will be decontaminated for recycle in an on-site decontamination trailer. The trailer is on-site and has operated, but needs an upgrade for prolonged operation. 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 forty-five (45) working days of receipt of waste at the treatment facility.

Lead shapes and forms processed using the decontamination trailer.

Activity	Compliance Date
A. complete lead decontamination	09/30/97
B. Complete shipping of existing wastes to an off-site treatment facility	12/2/98
C. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

Lead shapes and forms not amenable to processing using the decontamination trailer.

Activity	Compliance Date
A. provide schedule for development of lead processing techniques and options, or	06/30/96
B. Complete shipping of existing wastes to an off- site treatment facility.	12/02/98
C. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.4.2 Sorting, Surveying, and Decontamination (MWIR Treatment ID GJ-S804)

Treatability Group(s):

Treatability group	MWIR waste ID	Number of items	Net volume (m^3)
1. nonradioactive or suspect waste items to be surveyed	LA-W929	1049	10.58
2. nonradioactive or suspect waste items to receive RCRA and radiological characterization	LA-W929	162	3.25
3. nonradioactive or suspect waste items that cannot or should not be sampled	LA-W929	39	0.41
Totals		1250	14.24

Treatment Technology:

The waste items in part 1 of this treatability group will be surveyed using a ~~This~~ 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 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	2/28/97
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	1/28/97
E. submit documentation assigning waste items to applicable treatability groups or proposing off-site shipment dates	2/28/97
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	1/28/97
H. submit documentation assigning waste items to applicable treatability groups or proposing off-site shipment dates	6/30/97
I. propose additional compliance dates if necessary	9/30/97