



**Department of Energy**

Field Office, Albuquerque  
Los Alamos Area Office  
Los Alamos, New Mexico 87544



APR 26 1995

0221 Permit  
FFCO

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Joel M. Dougherty, Ph.D  
ALONM Section (6H-CS)  
RCRA Enforcement Branch  
Hazardous Waste Management Division  
U. S. Environmental Protection Agency  
1445 Ross Avenue  
Dallas, Texas 75202

Dear Dr. Dougherty:

Subject: Schedule for Completion of the Hazardous Waste  
Treatment Facility, Federal Facility Compliance  
Agreement, Milestone HW 400

This letter transmits a schedule for the completion of the Hazardous Waste Treatment Facility (HWTF) at the Los Alamos National Laboratory (LANL). The Department of Energy's (DOE) submittal of this deliverable is required to ensure compliance with milestone number HW 400 contained in the Federal Facilities Compliance Agreement (FFCA). This FFCA addresses hazardous and low-level radioactive mixed wastes (LLMW) pursuant to the Resource Conservation and Recovery Act (RCRA). The FFCA specified a due date for this milestone of April 30, 1995.

LANL signed the Preliminary Design Summary Report (Title I design) for the HWTF on November 30, 1992, certifying completion of the Title I design effort. You were notified of completion of the definitive design (Title II) on January 31, 1995. Design information was completed to support submission of the RCRA Part B permit application for the HWTF to the New Mexico Environment Department on October 12, 1993, in fulfillment of FFCA milestone HW 300 (see notification letter for HW 300, submitted on April 30, 1994).

The definitive schedule for the completion of the HWTF in this deliverable is to include definitive milestones to replace the target timelines for milestones HW 500 (Start construction); HW 600 (Complete LLMW work-off plan for HWTF); and HW 700 (Complete construction). The schedule contained in the enclosed deliverable is that submitted to the State of New Mexico in March 1995, as part of the Proposed Site Treatment Plan (PSTP) prepared pursuant to the Federal Facilities Compliance Act. The PSTP schedule will be incorporated into a consent agreement with the state as a compliance schedule later this year.



APR 26 1995

Dr. Joel Dougherty

2

Information regarding other HWTF milestones is contained in the FFCA Annual Report (milestone AR 100). Supporting documentation will be retained in DOE and LANL files to support the FFCA, and will be made available to EPA and the State of New Mexico upon request. Please contact Jon Mack at (505) 665-5026 or Paul Schumann at (505) 667-5840, if you have any questions regarding this activity.

Sincerely,



Joseph C. Vozella  
Assistant Area Manager  
Office of Environment and Projects

LAAMEP:2JM-032

Enclosure

cc w/enclosure:

- M. Potts  
RCRA Enforcement Branch  
Hazardous Waste Management Division  
U. S. Environmental Protection Agency  
Region 6  
1445 Ross Avenue  
Dallas, Texas 75202
- B. Garcia  
Hazardous & Radioactive Materials  
Bureau  
New Mexico Environment Department  
525 Camino de los Marquez  
P. O. Box 26110  
Santa Fe, New Mexico 87502
- P. Siebach, EM-352, HQ
- D. Erickson, ESH-DO, LANL, MS-K491
- R. Nevarez, WMD, AL

**HW 400  
SCHEDULE WITH DEFINITIVE TIMELINES  
FOR CONSTRUCTION OF  
THE HAZARDOUS WASTE TREATMENT FACILITY  
(HW 500, HW 600, AND HW 700)**

**Final**

**April 24, 1995**

**Submitted in partial fulfillment of the  
requirements of the Federal Facility  
Compliance Agreement addressing hazardous  
and mixed waste under the Resource  
Conservation and Recovery Act**

**Los Alamos Area Office  
U. S. Department of Energy  
528 35th Street  
Los Alamos, New Mexico 87544**

**Los Alamos National Laboratory  
P.O. Box 1663  
Los Alamos, New Mexico 87545**

## PREFACE

This *Schedule with Definitive Timelines for Construction of the Hazardous Waste Treatment Facility (HW 500, HW 600, and HW 700)* is being submitted to the United States Environmental Protection Agency (EPA) by the Department of Energy (DOE) and Los Alamos National Laboratory (LANL) in fulfillment of DOE's commitment to EPA under the Federal Facility Compliance Agreement (FFCA) developed pursuant to the Land Disposal Restrictions (LDR) requirements of the Resource Conservation and Recovery Act (RCRA), as promulgated in 40 CFR Part 268. This deliverable is provided in compliance with Milestone HW 400 in Appendix B of the FFCA.

This *Schedule with Definitive Timelines for Construction of the Hazardous Waste Treatment Facility (HW 500, HW 600 and HW 700)* provides out-year milestones to replace the target timelines as identified in Appendix B of the FFCA. The timelines identified in the FFCA are estimates of activity durations, and were keyed from the preceding milestones. In this schedule, dates are established for the succeeding milestones, HW 500 (Start Construction), HW 600 (Complete LLMW work-off plan for HWTF), and HW 700 (Complete construction).

The following table discusses the LDR FFCA milestones that relate to HW 400 and the nature of their interrelationship.

<b>PRIMARY MILESTONE</b>	<b>RELATED MILESTONE</b>	<b>NATURE OF INTERRELATIONSHIP</b>
HW 400	ATS 100	The program management plan for the LLMW treatment skids will provide information to be incorporated into the timeline for completing the HWTF.
	HW 100	Information from the Title I report will contribute to developing the schedule for completing subsequent milestones.
	HW 200	Information from the Title II report will contribute to developing the schedule for completing subsequent milestones.
	HW 500	The schedule has a definitive timeline for beginning construction.
	HW 600	The schedule has a definitive timeline for completing the LLMW work-off plan for the HWTF.
	HW 700	The schedule has a definitive timeline for completing construction.

## LIST OF ACRONYMS

ACIS	Automated Chemical Inventory Systems
AET	Applied Environmental Technologies
ALARA	As Low As Reasonably Achievable
ATLAS	Advanced Testing for Actinide Separations
BAT	Best Available Technology
BDAT	Best Demonstrated Available Technology
BEJ	Best Engineering Judgment
BIF	Boiler and Industrial Furnace
CAI	Controlled Air Incinerator
CAMs	Continuous Air Monitors
CFC	Chlorinated Solvents
CFR	Code of Federal Regulations
CLS	Analytical Chemistry Group
CWM	Chemical Waste Management, Inc.
CWDR	Chemical Waste Disposal Request
DOE	U.S. Department of Energy
DOE/AL	DOE Albuquerque Operations Office
DOT	Department of Transportation
DSSI	Diversified Scientific Services, Inc.
EPA	U.S. Environmental Protection Agency
ERC	Earth Resources Corporation
ES&H	Environmental Safety, And Health
FERC	Federal Energy Regulation Commission
FFCA	Federal Facility Compliance Agreement
FHA	Fire Hazard Analysis
FY	Fiscal Year
GCP	Gas Cylinder Project
GSA	General Services Administration
HEPA	High Efficiency Particulate Air Filter
HSWA	Hazardous and Solid Waste Amendments
HWFP	Hazardous Waste Facility Permit
HWTF	Hazardous Waste Treatment Facility
ICP	Inductively Coupled Plasma
IPC	Industrial Partnership Center
JCI	Johnson Control Incorporated
KOP	Knowledge of Process
LAMPF	Los Alamos Meson Physics Facility
LANL	Los Alamos National Laboratory
LAO	LANL Assessment Office
LDR	Land Disposal Restriction
LLMW	Low-Level Mixed Waste
LLW	Low-Level Radioactive Waste
LP	LANL Procedures
MSDS	Material Safety Data Sheets
MWRSF	Mixed Waste Receiving and Storage Facility
NEPA	National Environmental Policy Act
NESHAPS	National Emissions Standards for Hazardous Air Pollutants
NFPA	National Fire Protection Association
NMED	New Mexico Environmental Department
NPDES	National Pollutant Discharge Elimination System
NRC	Nuclear Regulatory Commission
PPAC	Pollution Prevention Awareness Campaign
PRD	Program Required Document
PTS	Project Tracking System
PWA	Process Waste Assessment
QA	Quality Assurance
QAP	Quality Assurance Plan

**LIST OF ACRONYMS**  
**(Continued)**

RCRA	Resource Conservation and Recovery Act
R&D	Research and Development
R&M	Redistribution and Marketing Center
RES	Rollins Environmental Service
RMMA	Radioactive Material Management Area
RSWD	Radioactive Solid Waste Disposal Record
SOP	Standard Operating Procedures
SSP	Site Specific Plans
SWDA	Solid Waste Disposal Act
TA	Technical Area
TCLP	Toxicity Characteristic Leaching Procedures
TRU	Transuranic
TSCA	Toxic Substance Control Act
TSDF	Treatment, Storage, or Disposal Facility
UBC	Uniform Building Code
UL	Underwriters Laboratories
ULISSES	Uranium Line for Special Separation Sciences
WAC	Waste Acceptance Criteria
WBS	Work Breakdown Structure
WIPP	Waste Isolation Pilot Plant
WMC	Waste Management Coordinator
WMPO	Waste Minimization Program Office
WPF	Waste Profile Form

**HW 400**  
**SCHEDULE WITH DEFINITIVE TIMELINES**  
**FOR CONSTRUCTION OF**  
**THE HAZARDOUS WASTE TREATMENT FACILITY**  
**(HW 500, HW 600, AND HW 700)**

This *Schedule with Definitive Timelines for Construction of the Hazardous Waste Treatment Facility (HW 500, HW 600, and HW 700)* details the dates for starting construction of the HWTF (HW 500), completion of the low-level mixed waste (LLMW) work-off plan for the HWTF (HW 600), and the completion of construction of the HWTF (HW 700) pursuant to the Federal Facilities Compliance Agreement (FFCA) signed on March 15, 1995 between the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE). This agreement places the Los Alamos National Laboratory (LANL) on a compliance schedule to treat LLMW in accordance with the land disposal restrictions (LDR). An agreement was needed because of the lack of available DOE and commercial treatment capacity for appropriate treatment of LLMW and a consequent exceedance of the LDR storage prohibition.

As required by Section 3021(b) of the Resource Conservation and Recovery Act (RCRA), 42 USC 6721, as amended by Section 105(a) of the Federal Facility Compliance Act (PL 102-386) (FFCA), DOE must prepare a plan for developing treatment capabilities and technologies for each facility at which DOE generates or stores mixed waste. Upon submission of the plan to the appropriate regulatory agency (in New Mexico the agency is the New Mexico Environment Department), the FFCA requires the recipient agency to solicit and consider public comments, and approve, approve with modifications, or disapprove the plan within six months. Upon approval of a plan, the NMED must issue an order requiring compliance with the approved plan, which will be referred to as an Order. The DOE Los Alamos Area Office (LAAO) has prepared the *Proposed Site Treatment Plan for Los Alamos National Laboratory*, which identifies how DOE proposes to treat the site's mixed waste or develop technologies where technologies do not exist or need modification. This Federal Facilities Compliance Agreement and the milestone requirements in Appendix B, negotiated by DOE with EPA, will be replaced by the FFCA Order. Therefore, the construction schedule for the HWTF established in the PSTP is the schedule presented in this deliverable.

The PSTP is scheduled to be delivered for review to the NMED during the first half of April 1995. When the PSTP is incorporated into a final Compliance Order by NMED, it will contain operating schedules for the individual mobile treatment units to be operated in the HWTF. These schedules when finalized in the Order, will comprise the basis for the LLMW work-off plan (HW 600).

Other milestones which either contribute to or benefit from this schedule include *Program Management Plan for Generic Skid Design (ATS 100)*, *Notice of Completion of Preliminary Design Summary Report for the Hazardous Waste Treatment Facility (HW 100)*, *Notice of Completion of Definitive Design, Title II for the Hazardous Waste Treatment Facility (HW 200)*, *Start Construction of the HWTF (HW 500)*, *Complete LLMW Work-Off Plan for HWTF (HW 600)*, and *Complete Construction of the HWTF (HW 700)*. ATS 100, HW 100, HW 200, and HW 300 have been completed on schedule. HW 500, HW 600, and HW 700 will be addressed in this document.

The HWTF is designed to house mobile skid-mounted treatment units. Final design of the HWTF is complete. Operating schedules for waste treatment at the HWTF are those associated with the individual mobile treatment units and are addressed in the FFCA through milestone ATS 100 and in AR 100, the annual report on skid development progress. As discussed earlier, once finalized in the FFCA Order, these will form the basis for completing milestone HW 600. The RCRA Part B application for the HWTF and associated units is being modified and will be resubmitted to NMED in the third quarter of FY95.

This schedule is submitted with the following assumptions:

- The schedule assumes that site preparation and building construction not subject to RCRA permitting can start before the RCRA permit is received.
- The facility will be permitted in a reasonable time frame; two years has been allowed in the schedule for review of the permit application by NMED.
- The National Environmental Policy Act process in the planned Site-Wide Environmental Impact Statement for LANL will not adversely impact the schedule for the construction of the HWTF.
- Schedules are based on the projected budget as of February 1995.

The schedule (see Table 1) provides that the RCRA permit application will be resubmitted by October 30, 1995. Construction will begin by October 1, 1996 and be completed by January 4, 1998. The LLMW work-off plan will be accomplished through the treatment schedules established in the PSTP for waste streams to be treated using the mobile skid-mounted treatment units.

Table 1

<b>Activity</b>	<b>Proposed Milestone Date</b>
Resubmit Permit Application	10/30/95
Initiate Phase I Construction	10/01/96
Complete Phase I Construction	09/26/97
Initiate Phase II Construction	01/02/98
Complete Phase II Construction	09/26/98
Commence Operations	01/02/99