



**Department of Energy**

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

AUG 15 1995

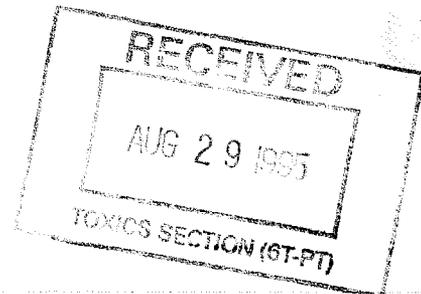


US EPA, DALLAS, TEXAS  
ENFORCEMENT BRANCH

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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Dr. Joel Dougherty  
Air and Waste Management Division  
U. S. Environmental Protection Agency  
Region 6  
1445 Ross Avenue, Suite 1200  
Dallas, Texas 75202-2033



Dear Dr. Dougherty:

Subject: Request for Extension of Milestone, Federal Facility Compliance Agreement, Milestone LD-200

The Department of Energy (DOE) is hereby requesting an extension to one of the milestones in the Federal Facility Compliance Agreement (FFCAgreement) between DOE and the Environmental Protection Agency (EPA) regarding land disposal restriction requirements for Low-Level Mixed Waste (LLMW) and other mixed and hazardous wastes at Los Alamos National Laboratory (LANL). The milestone which DOE requests to be extended is LD 200, *Complete Treatment of Applicable LLMW*, which refers to processing of recyclable lead bricks using processes including LANL's lead decontamination trailer.

This request for an extension to the LD 200 is submitted by DOE in accordance with Section XIII, Extensions, of the FFCAgreement. The FFCAgreement specifies a due date of September 15, 1995. As required in paragraph 2 of Section XIII, this extension request, which is for greater than 30 days, is being submitted 30 days prior to the milestone due date.

Definition of Lead to be Decontaminated

The language in the FFCAgreement indicates that the lead to be decontaminated is predominantly lead bricks. LANL has determined that lead bricks generated before March 15, 1993, having a uniform "brick-like" shape and minimum size, and radiation activity levels low enough to allow movement from TA-54 and processing of the lead at TA-50 where the lead decontamination trailer is located, meet the criteria of LD 200. At the time of FFCAgreement signature, this was believed to be a specific subset of the total lead in LLMW inventory. Lead bricks not meeting these criteria, and lead waste in other physical forms that was not suitable for the lead decontamination trailer, will be worked off through other FFCAgreement milestones or through the Site Treatment Plan when it is issued by the New Mexico Environment Department. No other FFCAgreement milestones are directly affected by this extension request.



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### Description and Status of Lead Decontamination Activities

The FFC Agreement required that surface contaminated radioactive lead bricks be decontaminated for reuse. LANL's proposed technology was a mobile decontamination trailer, which employed a water and abrasive high pressure blast system. During the FFC Agreement negotiations, LANL identified that it had a substantial waste stream of lead bricks. LANL's decommissioning personnel determined that approximately 50 tons of lead bricks had been identified through previous D&D operations. These lead bricks were sent to TA-54, Area-G for storage as LLMW. Concurrently at that time, LANL reviewed its waste inventory databases to confirm the information from the decommissioning records. This query appeared to confirm the 50 ton number as the total inventory of bricks likely to be subject to this milestone. LANL began lead decontamination activities in the lead decontamination trailer on April 8, 1993. Shortly after operations began, LANL identified that additional lead bricks, potentially as much as 110 tons, existed.

From April 8, 1993 through October 1994, approximately 58 tons of lead were examined to determine the lead bricks potential for decontamination for reuse within LANL. This constituted the total fraction of the lead inventory that had at that time been identified as clearly subject to the LD 200 milestone (i.e., processable lead bricks meeting the FFC Agreement criteria). Of that 58 tons, 3.8 tons were returned to storage as unsuitable because radiation levels indicated that the lead was activated and the lead decontamination technology would not work. 15.3 tons were decontaminated to free release criteria, i.e., non-detectable activity, and sent for off-site salvage. 20.8 tons were distributed within LANL for reuse. 18.2 tons were surveyed and determined to either be LLMW requiring further processing (approximately 7.4 tons), or lead product suitable for reuse without further processing. The decontamination process generated 3.5 tons of secondary waste in the form of grit, which was stabilized and disposed at TA-54, Area-G as nonhazardous low-level solid waste.

Since October 1994, LANL has been actively surveying the lead that has been decontaminated to ensure it meets the radioactivity standard for reuse within LANL, reviewing its database to determine if additional lead remaining in storage as LLMW is suitable for decontamination at the lead decontamination trailer, and identifying customers for the decontaminated lead in storage, as well as addressing operational concerns that resulted in downtimes for the trailer.

As of October 1994, all containers that were initially identified in LANL's waste databases as "lead bricks," had been processed. At that time, LANL personnel believed that they had met the LD 200 milestone, based on our understanding of the lead in the legacy LLMW inventory. Based on LANL's evolving understanding of how its lead waste inventory compares with the milestone's term "applicable LLMW," operational issues with the lead decontamination trailer, and changing status of the lead market during the last reporting period, LANL has become aware that there may be a number of additional containers of lead materials in the inventory that may include one or more processable lead bricks and thus may meet the criteria of "applicable LLMW" according to the terms of milestone LD 200. Because the

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bricks were commingled with other forms of lead, this could not be clearly identified from the existing characterization data.

While this lead continues to be surveyed and processed as rapidly as possible, it is now apparent that the deadline of September 15, 1995 may not be achievable if it is determined that these additional containers are subject to the LD 200 milestone. Therefore, DOE is requesting an extension to the milestone through this letter while this determination is made, in order to ensure compliance if the additional lead is determined to be "applicable LLMW" according to the terms of LD 200.

#### Operational Status of the Lead Decontamination Trailer

The trailer is currently operational. LANL is currently processing lead both in the trailer and by hand, and efforts to find users for the processed product continue at full speed. Determining which containers in inventory hold processable bricks has been evolving and is an ongoing process; best-case estimates are that approximately 285 drums remain to be processed (although this number is subject to revision). Confirmation is possible only at the time of opening the drums for inspection and processing. These containers are currently stored at Area-G and LANL is actively processing these containers now.

The present operations differ somewhat from the earlier operation. An additional step has been added to the lead decontamination process at the trailer - a nitric acid wash to remove any easily removable radioactivity. The processing of these additional containers includes a visual sort of the contents of each container (bricks vs. non-bricks); the nitric acid wash and survey to determine levels of radioactivity after scrubbing; decontamination of the still contaminated lead bricks through the lead decontamination trailer; and resurvey of the lead bricks after grit blasting.

#### Extension Request

LANL processed all the readily identifiable lead bricks first which were believed to be subject to the LD 200 milestone, and in fact completed processing these bricks by October 1994. If LANL is able to continue processing at a maximum rate of approximately 9 drums per day, with overtime and no downtime, DOE and LANL estimate that this effort may still be completed successfully for the additional bricks by the end of the first week of September 1995. However, given uncertainties regarding drum contents, the necessity to continue to operate safely, and unplanned budget shortfalls that eliminated most funding for overtime work, LANL is not assured that it will meet its deadline. Therefore, DOE is requesting an extension to the LD 200 milestone date of September 15, 1995, of more than thirty days. Within two weeks, once more survey information on the remaining drums becomes available and it is determined whether the additional lead is subject to the LD 200 milestone, DOE will be able to provide a more specific time request, or will confirm completion of the milestone.

DOE remains firmly committed to implementing the FFC Agreement until the State issues an order requiring compliance with the Site Treatment Plan

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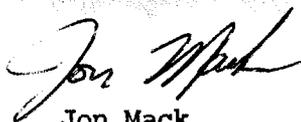
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being developed under the Federal Facilities Compliance Act. We are available to discuss this matter further with EPA at any time.

If you have any questions regarding this activity, please call me at (505) 665-5026, or Jody Plum of my staff at (505) 665-5042.

Sincerely,



Jon Mack  
Waste Management Program Manager  
Office of Environment and  
Projects

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