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February 17, 1997

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

Kenneth Hargis
 STP Project Manager
 Los Alamos National Laboratory
 Los Alamos, NM 87445

RE: Annual Update to the Site Treatment Plan for Fiscal Year 1995; Additional Information Request

Dear Mr. Plum and Mr. Hargis:

New Mexico Environment Department (NMED), Hazardous and Radioactive Materials Bureau (HRMB) has received the response from Department of Energy (DOE) and University of California at Los Alamos National Laboratory (UC/LANL) which addressed the HRMB questions concerning the lead inventory in the LANL Annual Update Site Treatment Plan.

The responses to the questions pertaining to inventory clarification were addressed in the letter or its attachments, however, I had a difficult time understanding the explanations in the proposed text. I have attached a reviewer comments page with additional questions and some suggested details to incorporate into the text to allow for easier comprehension. Changes to allow further understanding other than the suggestions listed are also encouraged.

If there are any questions concerning this or other FFCO matters, please call me at (505) 827-1867 or 827-1558.

Sincerely,

Janice Archuleta
 Janice Archuleta

ja

enclosure

cc: Benito Garcia, Chief, Hazardous and Radioactive Materials Bureau
 Stu Dinwiddie, Program Manager, RCRA Permits Management (without enclosure)
 Susan McMichael, OGC (without enclosure)

REDLANL FFCO/97



Document Review Comment Record		
Page #	Line # ^a	Reviewer's Comment
19a	6-8	It may help the reader if you include the applicable TGs in this sentence; it would be easier to understand those paragraphs following. For instance, what is the TG for the lead headed for the decontamination trailer?
19a	6-8	"...the second focused on sorting and decontaminating any lead...". Insert redlined words.
19a	19-20	Why was lead returned to TA-54, if decontaminated?
19a	21-30	Basically, these sentences are difficult to understand. Below are some specific questions which may aid in the rewrite of this paragraph.
19a	22	"long term storage is <u>was</u> assigned"; Paragraph is written in past tense except for this example. Insert redlined.
19a	21-24	Sentence begins by saying how lead was returned from the storage and ends how it was removed from storage. This is very confusing to the reader. A logical progression would be easier to understand.
19a	21-24	In which column and how is it indicated that items were removed from TGs in the Table 2-1? Also indicate the same for how the items were added to the TGs.
19a	24-26	Were these the TGs that the lead originally came from? If not this should be stated clearly and it should be indicated what the original TGs were or where the references are in the table.
19a	28-30	Does Table 2-1 indicate that lead from the first campaign was removed from TGs? If so, where in the table is this?
19a	35-46	Have any kind of rough calculations been made to check this hypothesis of the lead volume increase even though 140,000 pounds of lead were removed from the inventory?

a. The line number is indicated on the following pages, a copy of the LANL proposed revised pages 19a and 19b with line numbers hand written.

1 Prior to the issuance of the FFCO, LANL was decontaminating lead in accordance with
2 the FFC Agreement milestone LD200. LANL successfully completed the LD200
3 milestone and removed over 140,000 pounds of lead from the LLMW inventory. This
4 lead decontamination effort was conducted in two campaigns, the first of which was
5 completed in early 1995 and the second was conducted between July and September,
6 1995. The first campaign focused on drums of lead waste that were acceptable for
7 decontamination in the lead decontamination trailer and the second focused on any lead
8 bricks in inventory when the FFC Agreement was signed (March, 1994).

9 During the second campaign, drums potentially containing lead bricks were opened to
10 examine the drum contents, even if the drum contents were not primarily lead bricks. If
11 one or more lead bricks were found, they were removed to be decontaminated. The
12 remaining contents of these drums were sorted into physical forms, such as lead pigs,
13 lead sheets, lead shot/shavings, odd lead pieces, etc., recontainerized, and returned to
14 storage as mixed waste. The sorting effort was completed by September 30, 1995;
15 however, due to processing time for the paperwork, some of the drums were not received
16 at TA-54 for long-term storage until November 29, 1995. In addition, lead waste which
17 was unsuccessfully decontaminated was returned for long-term storage at TA-54; this
18 lead waste will require a different treatment such as macroencapsulation and disposal.
19 Some lead product also was returned to TA-54 even though it was successfully
20 decontaminated.

21 To ensure that the lead waste that was processed in the LD200 lead decontamination
22 effort and returned to long-term storage is assigned to the proper treatability groups, all
23 of these waste items were removed from the treatability groups initially assigned in the
24 STP CPV, as shown in Table 2-1. For instance, unsuccessfully decontaminated lead
25 bricks were assigned to LA-W921, *Activated or Inseparable Lead*, and LA-W931, *Lead*
26 *Requiring Sorting*. Much of the sorted lead wastes were assigned to LA-W930, *Lead for*
27 *Surface Decontamination* because they may be decontaminated through other processes
28 than the lead decontamination trailer. Similarly, the lead waste returned from the first
29 campaign, which was not sorted, was removed from the initial treatability groups and
30 was re-assigned to the treatability group LA-W924, *Lead TBD*. For the treatability group
31 LA-W929, *Nonradioactive or Suspect Waste Items to be Surveyed*, this effort resulted in
32 very small changes in inventory volume as shown in Table 2-1, but due to rounding, the
33 total volume did not show a change (since these values are reported to two decimal
34 places).

35 Table 2-1 reports a small apparent net increase (0.42 m^3) in the volume of lead waste
36 shown, even though over 140,000 pounds of lead was removed from the LLMW
37 inventory prior to FY96 due to LANL's LD200 lead decontamination project. This
38 apparent increase in volume resulted from the sorting operations. Many of the legacy
39 drums were packed full while in storage at TA-54, and contained over 2,000 pounds of
40 lead waste each when removed for decontamination. However, current transportation
41 requirements limit the maximum weight of a 55-gal. drum to 800 pounds. Therefore,

42 when unsuccessfully decontaminated lead bricks were repacked and returned to TA-54,
43 they were received (and recorded in inventory) as full drums containing 55 gal. (0.208m³
44 of waste), even though the drums were now only one-third full. Therefore, the volume is
45 reported in Table 2-1 as showing an apparent increase, even though the actual quantity of
46 lead waste did not increase.

2.1.2 MTRU Inventory Summary

The MTRU covered waste inventory at LANL is summarized in Table 2-2. The table shows the volumes of MTRU covered waste for each treatability group. After the enactment of the Federal Facility Compliance Act (FFCAct) in 1992, efforts were made to identify all mixed waste in storage at the Laboratory. Because much of the TRU inventory was generated prior to the existence of the Resource Conservation and Recovery Act (RCRA) regulations, identification of MTRU as a subset of TRU necessarily relied largely on existing records. As stated in Section 1.5.1 of the STP BV, until recently, the best available data for MTRU was published in the April 1993 Interim MWIR which was used to provide the MTRU waste inventory data in Section 4.1 of the STP BV. While as much as possible of the MTRU and potential MTRU was identified early on to fulfill FFCAct reporting requirements, a more in depth study of the inventory has taken place in the last two years, resulting in a more conservative assumption of the processes generating the waste, and thus, the identification of more potential MTRU. As better process knowledge becomes available, it is being incorporated into the LANL TRU waste database. Therefore, differences in total MTRU inventory between Table 2-2 and the MTRU waste inventory data in Section 4.1 of the STP BV are due in part to better knowledge of the legacy MTRU inventory since the Interim MWIR report was published.