Department of Energy
Albuquerque Operations Office
Los Alamos Area Office
Los Alamos, New Mexico 87544

FEB 11 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Janice Archuleta
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department
P.O. Box 26110
Santa Fe, New Mexico 87502-26110

Dear Ms. Archuleta:

SUBJECT: NOTICE OF COMPLETION OF SORT, SURVEY AND DECONTAMINATION ACTIVITIES 3.4.2D AND 3.4.2G IN THE SITE TREATMENT PLAN (STP, OCTOBER 4, 1995, REV. 3.0)

The purpose of this letter is to notify the New Mexico Environment Department (NMED) of completion of two required activities set forth in Rev. 3.0 of the Federal Facility Compliance Order (FFCO):

- The STP Compliance Plan Volume (CPV), Activity 3.4.2D (as revised January 27, 1997), requires that the Department of Energy (DOE) and the University of California (UC) "*(C)omplete RCRA and radiological sampling*" for the covered waste items in subgroup 2 of the treatability group for sort, survey and decontamination (SSD), MWIR ID LA-W929, by January 28, 1997.

- Activity 3.4.2G (as revised January 27, 1997), requires that the Department of Energy (DOE) and the University of California (UC) "*(C)omplete visual verification*" for the covered waste items in subgroup 3 of the treatability group for SSD, MWIR ID LA-W929, by January 28, 1997.

These activities were completed in a timely manner as required. They were performed as described in our October 21, 1996 amendment/revision request letter. This notification is required by Section XX of the October 4, 1995, FFCO issued to Los Alamos National Laboratory (LANL).

Background

As we discussed in our October 21, 1996 amendment/revision request, full sampling and characterization for RCRA and radiological constituents was conducted on the items in treatability subgroup 2. The field survey activity included RCRA as well as radiological characterization of these items.

Visual inspections were conducted on the items in treatability subgroup 3. As we discussed in our October 21, 1996 amendment/revision request, DOE's and UC's field

experience indicated that the remaining unsampled waste items (such as lead-acid batteries with potential internal radioactive contamination) were not amenable to sampling using currently approved field methods. In some instances, this is because of the waste matrix involved (for example, there is inherent difficulty in obtaining representative samples of the internal parts of a lead-acid battery), and in other instances because taking extensive samples would cause unnecessary worker exposures and would not yield new or significantly different information about the waste item.

DOE and UC attempted to sample the 162 items assigned tentatively to subgroup 2, and to conduct visual verification of all containers holding the 39 items assigned tentatively to treatability subgroup 3, to confirm the available information on those that we thought could not be sampled. As anticipated, some items in both subgroups 2 and 3 in fact were found, upon visual inspection, to have been placed mistakenly in their respective categories. Thus, three (3) subgroup 3 items were sampled/analyzed for RCRA constituents (i.e., moved to subgroup 2). Likewise, some eighty-two (82) of the 162 items assigned tentatively to subgroup 2 could not be sampled, , and LANL teams conducted visual verification (i.e., they were moved to subgroup 3). . Reasons for these shifts between subgroups are summarized in Table 1.

However, sixty-nine (69) items could not be sampled or visually inspected, either for worker and environmental safety reasons (e.g., to avoid unnecessary exposures to tritium or airborne hazardous substances due to leaking or missing inner containers), or because the drum or item could not be located on-site. Reasons these items were not sampled/inspected are also included in Table 1. In addition, as discussed with you during our January 27, 1997 meeting,, we discovered inconsistencies between our database and the spreadsheets used by the field teams to track their activities, as well as inaccuracies in our database regarding the original assignment of the MWIR ID numbers All these factors contributed to our being unable to field-check these **69** items. These items, if still present at LANL, will continue to be managed as low-level mixed waste (LLMW), but cannot be field surveyed or sampled as part of this project. Rather, they will be assigned to treatability groups based on existing knowledge of process (for instance, the lead-acid batteries would be assigned to a treatability group for macroencapsulation), and/or will be sent off-site to appropriate treatment facilities, when the existing waste characterization data for the items is sufficient for shipment to the treatment facility and for ensuring compliance with land disposal restrictions requirements. We will document the exact status of each item as part of our deliverable to meet the February 28, 1997 due date for Activities B and E.

Discussion

In our October 21, 1996 revision request, one of the assumptions we discussed was that for many of these 1250 waste items, further activities will be required to characterize the wastes sufficiently to verify appropriate treatment/disposal options or to meet the waste acceptance criteria of a specific off-site treatment facility. However, neither these activities nor timetables for these activities are currently specified in the STP, but will be proposed as amendments or revisions pursuant to Activities C, F, and I in Section 3.4.2 of the CPV (Revision 3.0).

At this stage, we are in the process of analyzing information gathered on all of the 1250 LA-W929 items in order to prepare the February 28, 1997 deliverable for Activities B and E. In that deliverable, according to Revision 3.0, for the LA-W929 items in subgroups 1 and 2, we plan to submit documentation assigning waste items to applicable treatability groups (including dates for shipment off-site, for waste items in subgroup 2). By April 30, 1997, we will propose additional compliance dates, if necessary, for the treatment of waste in subgroups 1 and 2 (Activities C and F). The same process is being applied to the remaining unsurveyed items, following verification of available data in the files.

The Amendment 1.0 and Revision 3.0 to the CPV Section 3.4.2 language states that SSD wastes may either be assigned to applicable treatability groups, sent to off-site facilities for appropriate treatment, or both. As discussed in our October 21, 1996 Amendment 1.0 and Revision 3.0 request, as approved by NMED, all LA-W929 items remaining unsurveyed as of that date, October 21, 1996 (i.e., subgroup 2 and 3 items), as well as subgroup 1 items not declared to be non-radioactive, henceforth will continue to be managed as low-level mixed waste (see Section A3, Enclosure A of October 21, 1996 letter). Subgroup 3 items will be assigned to treatability groups based on existing knowledge of process (for instance, the lead-acid batteries would be assigned to a treatability group for macroencapsulation), and/or will be sent off-site to appropriate treatment facilities, "when the existing waste characterization data for the items is sufficient for shipment to the treatment facility and for ensuring compliance with land disposal restrictions requirements" (see Section A2, Enclosure A of October 21, 1996 letter).

This process is now being applied to the remaining unsurveyed items, following verification of available data in the files. We believe this will yield sufficient information to make the appropriate treatability assignments for the February 28, 1997 deliverable. We recognize that assignment to treatability groups will require NMED approval, and will propose this as an amendment or revision attached to the February 28 and April 30, 1997 deliverables.

Proposed Next Steps

We are continuing to verify and document the exact status of each item in the original SSD list, as stated previously, and will document their status as part of our deliverable to meet the February 28, 1997 due date for Activities B and E. In addition, we have already begun developing a plan and are implementing a more rigorous QA process to validate the MWIR ID assignments and the list of items associated with each treatability group.

Also enclosed is a Certification Statement. These documents were prepared in accordance with the requirements of Section XX, "Documents, Information, and Reporting Requirements," of the FFCO.

FEB 11 1997

Table 1
Item Shifts Between SSD LA-W929 Subgroups

Code	Explanation	Examples
A	*Absent* - Item not in drum.	
CI	*Container Integrity* - Item was not inspected due to the condition of the inner or outer drum.	Inner drum was found deteriorated - Unable to separate inner and outer drums.
E	*Empty* - Item container was present, but found to be empty.	
H	*Tritium* - Tritium level exceeded DOE safety action level of 20 microcuries per cubic meter.	
I	*Item Identification* - Unable to identify specific item within drum because of missing labels or item container deterioration.	Many drums contained multiple items; sometimes not all were listed in the original data file associated with the drum.
L	*Leaking* - Item container found leaking or broken within outer drum.	
MA	*Matrix* - Item matrix inappropriate for sampling using EPA SW-846 methods, or no method exists.	Duco Cement, Lead-acid Batteries, Aerosol Spray Cans
MD	*Missing Drum* - Drum containing specified item not currently in storage.	
S	*Safety* - Not inspected, sampled, or bulked due to safety concerns.	Mercury safety action level was exceeded when a container was opened
T	*Treated* - Treated as part of a treatability study.	Some items had been sent offsite for treatability studies in 1995, before FFCO issued (see March 1996 *Annual STP Update, Background Volume*, Sec. 2.2.1, p. 22)
U	*Unique* - Item could not be sampled or bulked because no larger quantity of a similar wastestream was available.	Cobalt Nitrate - this was the only liquid oxidizer located during field investigations
UU	*Unopened, unused* - Item was found to be in original factory sealed container. Sampling not required.	
V	*Volume* - Item volume too small for sampling or compatibility testing (required prior to bulking).	

FEB 11 1997

DOE's and UC's records and documents related to this letter are available to NMED's staff upon request. Please contact me at (505) 665-5042 or Mr. Ken Hargis at (505)667-2347 if you have any questions.

Sincerely,

H.L. "Jody" Plum
Office of Environment and Projects

Enclosure: a/s

CERTIFICATION

NOTICE OF COMPLETION OF SORT, SURVEY AND DECONTAMINATION ACTIVITIES 3.4.2D AND 3.4.2G IN THE SITE TREATMENT PLAN (STP, OCTOBER 4, 1995, REV. 3.0)

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

Kenneth M. Hargis — 7 February 1997

Kenneth M. Hargis
Manager of Operations
Waste Management Program
Environmental Management Programs
Los Alamos National Laboratory
Operator

2/11/97

H. L. Plum — Date Signed
Regulatory Permitting and Compliance Manager
Los Alamos Area Office
U.S. Department of Energy
Albuquerque Operations
Owner/Operator