



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



OCT 21 1996

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Janice Archuleta
 Hazardous and Radioactive Materials Bureau
 New Mexico Environment Department
 2044 Galisteo St., Bldg. A
 P. O. Box 26110
 Santa Fe, New Mexico 87505

Dear Ms. Archuleta:

Subject: Los Alamos National Laboratory (LANL) Federal Facility Compliance Order (FFCO) October 4, 1995, Site Treatment Plan (STP) Sort, Survey, and Decontamination (SSD) Request for Revision No. 2 and Amendment No. 1

The purpose of this letter is to request a revision and an amendment to the STP issued by the New Mexico Environment Department (NMED). These requests have been drafted by the Department of Energy (DOE) and the University of California (UC) in accordance with the requirements of Section X.C.2, "Revisions," and Section XI, "Other Amendments to the STP," of the FFCO.

Based on our recent discussions with NMED, and in response to item 3 in your July 15, 1996 letter, we are hereby making two requests:

- To revise the Compliance Plan Volume (CPV) language in Section 3.4.2 to modify the compliance dates of the required SSD activities, and to significantly expand the scope of the SSD activities being performed on all the affected waste items (see section 2.0 of this letter). Specific text for our revision request is proposed in Enclosure A to this letter.
- By October 30, 1996, to amend the CPV language in Section 3.4.2 to extend by 90 days the compliance date with respect to the few waste items not yet surveyed, because this revision cannot be approved by the pending compliance date of October 30, 1996 (see Section 3.0 of this letter). Specific text for our amendment request is proposed in Enclosure B to this letter.

The following portions of this letter provide (1) background and current status of the SSD project; (2) our revision request; (3) our amendment request; and (4) a summary.

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1.0 Background

According to the CPV, the SSD activity consists of an on-site field operation to survey waste suspect of radioactive contamination to determine definitively whether it is radioactively contaminated, using equipment and staffing provided by another DOE site, namely the Grand Junction Project Office (GJPO). The STP currently requires that DOE and UC "complete [a] survey" (of the 1250 "nonradioactive or suspect waste items to be surveyed") by October 30, 1996. The Background Volume (BV), Section 3.4.1, page 43, provides a discussion of the basis and need for the SSD project, as well as a brief description of the process that has been followed to date.

Wastes undergoing the SSD process were expected to fall into one of two categories:

- If determined not to be radioactively contaminated, they are planned to be released for treatment to permitted commercial hazardous waste facilities.
- If confirmed to be Low-Level Mixed Wastes (LLMW), they would necessarily remain in the STP inventory.

Implicit but not stated in the current STP language are two assumptions. The first assumption was that SSD wastes in the first category (items determined not to be radioactively contaminated) will be removed from the STP inventory using the process of Section V.B, "Covered Matters," in the FFCO, prior to treatment and/or disposal as nonradioactive hazardous waste (this survey was not intended to provide data applicable to determining whether any of these wastes may be nonhazardous low-level waste). The second assumption was that new treatment milestones must be proposed for SSD wastes in the second category (items to remain in the STP inventory), in accordance with the requirements of Section X.C.2, "Revisions," of the FFCO.

In either case, for many of these waste items, further activities will be required to characterize the wastes sufficiently to verify appropriate treatment/disposal options. Often, further characterization was expected to be necessary to meet the waste acceptance criteria of a specific off-site treatment facility. However, neither the activities nor timetables for these activities are currently specified in the STP.

1.1 Current Status of SSD Project. Wastes required to undergo SSD are in MWIR ID LA-W929, which consists of 1,250 items packaged in some 495 containers, having a total estimated volume of 14.24 m³. GJPO's field procedure involved visual inspection; radiological surveys using field survey instruments; repackaging of items into new outer containers if necessary; and the taking of confirmatory samples for analysis off-site. To date, field survey activities have been completed for approximately 1,049 of the 1,250 waste items (or 84 percent of the SSD total).

In addition to the 1,049 SSD items, the GJPO team completed field surveys of approximately 513 waste items listed in other STP treatability groups, as well as approximately 1,237 additional items which were not part of the 1,250 waste items in the

SSD inventory, some of which had not been included in the original MWIR STP inventory. Thus, to date, GJPO has completed field surveys of some 2,799 suspect LLMW items in total. Only 201 of the 1,250 items in the SSD treatability group, totaling about 2.66 of the 14.24 m³ in the SSD inventory, remain to be surveyed, as of this writing. Work is proceeding on a subset of these SSD items, as described below and in the enclosures.

2.0 Request for Revision

Enclosure A provides the information required by Section X.C.2, "Revisions," of the FFCO. Proposed revision text for NMED's approval follows Section A.4.

DOE and UC are proposing (1) to subdivide the SSD wastes into three subgroups; (2) to modify the existing CPV language to allow additional sampling and analysis to proceed for some (approximately 101) of the remaining 201 unsurveyed SSD items (subgroup 2) at this time; (3) to allow for further management of the other remaining unsurveyed SSD items that cannot or should not be sampled (subgroup 3); and (4) to establish compliance dates for subsequent disposition of all 1,250 SSD waste items, once the results of the initial GJPO field surveys and the additional sampling and analyses now in progress have been received and reviewed at LANL.

Occasionally, to ensure an adequate volume of waste material is available for sampling and/or to maximize the cost effectiveness of sampling or off-site waste shipment activities, it has been found that some lab packed and other waste items need to be bulked into larger volume containers. DOE and UC will ensure correct RCRA categorization is maintained when bulking is done.

3.0 Request for Amendment

Enclosure B provides the information required by Section XI, "Other Amendments to the STP," of the FFCO. Proposed amendment text for NMED's approval follows Section B.4.

This amendment will allow our completion of field sampling and analysis of the remaining 162 items (SSD subgroup 2 wastes) in this treatability group that can be sampled, and completion of visual verification of the remaining 39 items (SSD subgroup 3 wastes) not amenable to sampling.

4.0 Summary

In summary, we have presented two requests:

- To revise the CPV language in Section 3.4.2 to modify the compliance dates of the required SSD activities, and to significantly expand the scope of the SSD activities being performed on all the affected waste items (see section 2.0 of this letter). Specific text for our revision request is proposed in Enclosure A to this letter.

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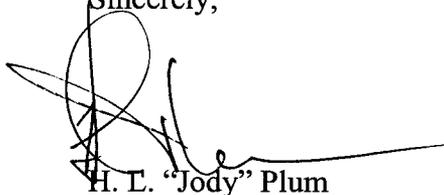
Janice Archuleta

4

- Before October 30, 1996, to amend the CPV language in Section 3.4.2 to extend by 90 days the compliance date with respect to the few waste items not yet surveyed, because this revision cannot be approved by the pending compliance date of October 30, 1996 (see Section 3.0 of this letter). Specific text for our amendment request is proposed in Enclosure B to this letter.

A Certification statement is provided as Enclosure C. LANL's records and documents related to these requests are available to NMED's staff on request. We would be happy to discuss the information contained in this letter with you at your earliest possible opportunity, and we request that you inform us in writing immediately, should you have any concerns regarding our timely and full compliance with FFCO requirements. Please contact me at (505) 665-5042; or Ken Hargis at (505) 667-2347 if you have any questions.

Sincerely,



H. E. "Jody" Plum

Office of Environment and Projects

LAAMEP:2JP-046

Enclosures

cc w/enclosures:

Benito Garcia, Bureau Chief
Hazardous and Radioactive Materials
Bureau
New Mexico Environment Department
2044 Galisteo St., Bldg. A
P. O. Box 26110
Santa Fe, New Mexico 875025

ENCLOSURE A LANL STP PROPOSED REV.2

The following portions of this enclosure follow the requirements of Section X.C.2, "Revisions," of the FFCO. Proposed text follows Section A.4.

A.1. Detailed description of the proposed revision. For the reasons given in the following paragraphs, DOE and UC are proposing (1) to subdivide the SSD wastes into three subgroups; (2) to modify the existing CPV language to allow additional sampling and analysis to proceed for some (approximately 101) of the remaining 201 unsurveyed SSD items (subgroup 2) at this time; (3) to allow for further management of the other remaining unsurveyed SSD items that cannot or should not be sampled (subgroup 3); and (4) to establish compliance dates for subsequent disposition of all 1,250 SSD waste items, once the results of the initial GJPO field surveys and the additional sampling and analyses now in progress have been received and reviewed at LANL.

Occasionally, to ensure an adequate volume of waste material is available for sampling and/or to maximize the cost effectiveness of sampling or off-site waste shipment activities, it has been found that some lab packed and other waste items need to be bulked into larger volume containers. Such items may belong to the same or a different treatability group than that represented by the other items in the container. In such instances, all RCRA waste codes will be transferred to the bulked wastes to ensure correct RCRA categorization is maintained.

A.2. Rationale for the proposed revision. DOE and UC have two fundamental reasons for requesting this revision. First, at the time of development of the SSD project, commercial and non-commercial treatment capabilities for LLMW were limited, but anticipated to expand. It was believed that many of the STP wastes, if verified to be nonradioactive, could be treated cost-effectively using commercial hazardous waste treatment facilities, provided it could be clearly determined that they need not be managed as radioactive waste. This involves both approval by NMED via the FFCO Section V.B process, and a detailed internal evaluation by DOE, before a waste package is allowed to be released from the site for management as nonradioactive material.

Since the SSD process was developed, however, commercial and non-commercial treatment capacity for LLMW has expanded significantly. Over one year of operational experience with the field survey activities has indicated that the treatment and disposal of this nonradioactive or suspect radioactive waste as LLMW is more efficient and cost effective than continuing field survey activities for the sole purpose of declaring waste as non-radioactive. Therefore, DOE and UC believe it would not be cost-effective to complete the current SSD process for the remaining 201 items in this treatability group, and propose to modify it as discussed here.

Further, please recall that part of GJPO's field procedure involved the taking of confirmatory samples, which were sent off-site to be analyzed at GJPO's laboratories. DOE and UC are still in the process of receiving and reviewing these analytical reports for many of the 1,049 waste

items field surveyed by GJPO for radioactivity. This is a lengthy process involving the preparation, review, and approval of detailed analytical and quality assurance data. Therefore, it may not prove cost-effective to complete this review process simply to declare some of these 1,049 waste items non-radioactive, even if so indicated by the analytical results. Therefore, DOE and UC would also like to reserve the option to pursue treatment and disposal of some of the 1,049 waste items as LLMW, even though analytical results might allow them to be shipped offsite as nonradioactive hazardous waste upon NMED approval. In such an instance, DOE and UC will commit to observing the time limits given in Section V.B of the FFCO, even though the wastes will not undergo NMED review for removal from the LLMW category.

To facilitate the identification of appropriate treatment technologies, the assignment of waste items to applicable treatability groups, and/or the expeditious shipment of the items to appropriate LLMW treatment/disposal facilities, full sampling and characterization for RCRA and radiological constituents will be conducted on most (approximately 162) of the remaining 201 items not subjected to the GJPO SSD process. The field survey activity will be expanded to include RCRA as well as radiological characterization of these items.

DOE's and UC's second reason for requesting this revision is that our field experience to date has indicated that some (perhaps as many as 39) of the remaining 201 unsampled waste items (such as lead-acid batteries with potential internal radioactive contamination) are 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 without yielding new or significantly different information about the waste item. DOE and UC will conduct visual verification of all containers holding these items, to confirm the available information on those that cannot be sampled, and to proceed with sampling/analysis should any items have been placed mistakenly in this category.

These items will continue to be managed as LLMW, but will not 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.

A.3. Anticipated length of any delay in performance. Sampling and/or field survey work corresponding to the SSD field survey requirements has been completed for 1,049 of the 1,250 items in this treatability group. A new compliance date of January 28, 1997 is requested for completion of field sampling and analysis of the remaining 162 items in this treatability group that can be sampled, and for completing visual verification of the remaining 39 items not amenable to sampling. Also requested are new compliance dates for subsequent management of the items following review of the data (this need was anticipated, but not addressed, by the CPV as currently written).

However, the nature of the work that will be completed for the remaining 201 items by January 28, 1997 under the proposed revision differs from that envisioned for all 1,250 items when the October 30, 1996 compliance date was initially established in the STP. This is because DOE and UC are now conducting a different sampling/analysis process on the remaining 201 waste items than that initially performed on the other 1,049 items by the GJPO team. As discussed above, different methods, equipment and personnel will now be used to conduct full RCRA and radiological sampling and characterization, for the purpose of treating these items as LLMW.

As stated above, the resultant sampling and analysis data for the remaining items is no longer intended to direct some of them toward nonradioactive hazardous waste management options (where appropriate). Therefore, the final management option for some of these items may change from that possible under the current SSD CPV language. All 201 items remaining to be sampled/analyzed (as well as some of the previously surveyed 1,049 items) will be managed as LLMW, and thus, they are likely to be treated/disposed sooner than if they were required to undergo a lengthy approval procedure for disposal as nonradioactive hazardous waste.

A.4. Plan and schedule for implementing all reasonable measures. Because of the time required for NMED to process this request and allow for full review and public comment, according to the requirements of FFCO Section X, DOE and UC are concerned that NMED may not be able to approve this revision request prior to October 30, 1996.

However, since the GJPO team has left the LANL facility and the new team has been mobilized to proceed with sampling and analysis according to the new approach, it is of utmost importance to us that, prior to October 30, 1996, NMED acknowledge our current completion of this activity as specified for 1,049 items. We are also requesting NMED's expeditious approval of the amendment requested in Enclosure B to this letter, to extend the October 30, 1996 completion date for the remaining 201 unsurveyed items to January 28, 1997. It is expected that the approved revision text would replace the amendment text.

PROPOSED CPV REVISION TEXT

[NOTE TO REVIEWERS: New language to be inserted is in italics; language to be deleted from current CPV is given in ~~strikeout text~~.]

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)
<i>1. nonradioactive or suspect waste items to be surveyed</i>	LA-W929	1049	10.58
<i>2. nonradioactive or suspect waste items to receive RCRA and radiological characterization</i>	LA-W929	162	3.25
<i>3. nonradioactive or suspect waste items that cannot or should not be sampled</i>	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 off-site 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.

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.

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.

Activities for waste items in part 1 of this treatability group.

<i>Activity</i>	<i>Compliance Dates</i>
<i>A. complete field survey</i>	<i>10/30/96</i>
<i>B. submit documentation declaring waste items as nonradioactive, or submit documentation assigning waste items to applicable treatability groups</i>	<i>2/28/97</i>
<i>C. propose additional compliance dates if necessary</i>	<i>4/30/97</i>

Activities for waste items in part 2 of this treatability group.

<i>Activity</i>	<i>Compliance Dates</i>
<i>D. complete RCRA and radiological sampling</i>	<i>1/28/97</i>
<i>E. submit documentation assigning waste items to applicable treatability groups or proposing off-site shipment dates</i>	<i>2/28/97</i>
<i>F. propose additional compliance dates if necessary</i>	<i>4/30/97</i>

Activities for waste items in part 3 of this treatability group.

<i>Activity</i>	<i>Compliance Dates</i>
<i>G. complete visual verification</i>	<i>1/28/97</i>
<i>H. submit documentation assigning waste items to applicable treatability groups or proposing off-site shipment dates</i>	<i>6/30/97</i>
<i>I. propose additional compliance dates if necessary</i>	<i>9/30/97</i>

ENCLOSURE B
LANL STP PROPOSED AMENDMENT NO. 1

The following portions of this enclosure follow the requirements of Section XI, "Other Amendments to the STP," of the FFCO. Proposed amendment text for NMED's approval follows Section B.4.

B.1. Detailed description of the proposed amendment. As stated in Enclosure A, the SSD activity has been completed as specified for 1,049 items. For the reasons given in Enclosure A and in the following paragraphs, we wish to extend the October 30, 1996 completion date for the remaining 201 unsurveyed items to January 28, 1997. This will allow our completion of field sampling and analysis of the remaining 162 items (SSD subgroup 2 wastes) in this treatability group that can be sampled, and completion of visual verification of the remaining 39 items (SSD subgroup 3 wastes) not amenable to sampling.

B.2. Rationale for the proposed amendment. As stated in Section 2.4 of this letter, DOE and UC recognize that the revision requested in Enclosure A cannot be approved prior to October 30, 1996. NMED's expeditious approval of this amendment request prior to October 30, 1996 will extend the October 30, 1996 completion date for the remaining 201 unsurveyed items to January 28, 1997, thereby allowing us to remain in compliance with the FFCO while the revision request is being processed. It is expected that the approved revision text would replace the amendment text.

It is hoped that if the revision proposed in Enclosure A to this letter is approved by January 28, 1997, DOE and UC may then proceed with the additional activities not scoped in the existing STP, once the results of the initial GJPO field surveys and the additional sampling and analyses now in progress have been received and reviewed at LANL. These are the further management of the other remaining unsurveyed SSD items that cannot or should not be sampled (SSD subgroup 3 wastes); and the establishment of compliance dates for final treatment and disposal of all 1,250 SSD waste items.

B.3. Anticipated length of any delay in performance. Please refer to the discussion in Section A.3 of Enclosure A to this letter.

B.4. Plan and schedule for implementing all reasonable measures. We are proceeding with the activities proposed in this amendment in the interim, in order to ensure that no delays in performance will result. DOE and UC believe proceeding with full RCRA and radiological sampling/analysis of the SSD subgroup 2 wastes constitutes good faith efforts to comply with the FFCO requirements, until such time as the revision proposed in Enclosure A to this letter is approved by NMED.

PROPOSED CPV AMENDMENT TEXT

[NOTE TO REVIEWERS: New language to be inserted is in italics; language to be deleted from current CPV is given in ~~strikeout text.~~]

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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 items in part 2 of this treatability group will be surveyed using complete RCRA and radiological sampling and characterization. Waste items in part 3 of this treatability group will be confirmed by visual inspection. If not amenable to sampling (e.g., lead-acid batteries, spray paint cans), they will be assigned to applicable treatability groups based on existing knowledge.

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 off-site facilities for appropriate treatment.

Activities for waste items in part 1 of this treatability group.

<i>Activity</i>	<i>Compliance Dates</i>
<i>complete field survey</i>	<i>10/30/96</i>

Activities for waste items in part 2 of this treatability group.

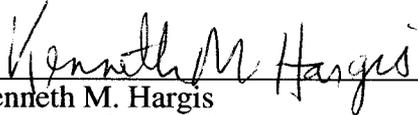
<i>Activity</i>	<i>Compliance Dates</i>
<i>complete RCRA and radiological sampling</i>	<i>1/28/97</i>

Activities for waste items in part 3 of this treatability group.

<i>Activity</i>	<i>Compliance Dates</i>
<i>complete visual verification</i>	<i>1/28/97</i>

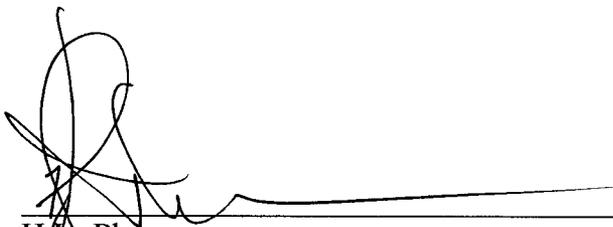
CERTIFICATION

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
Manager of Operations
Waste Management Program
Environmental Management Programs
Los Alamos National Laboratory
Operator

10/18/96
Date Signed



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

10/21/96
Date Signed