



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

SEP 29 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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



Dear Ms. Archuleta:

Subject: Sort, Survey, and Decontamination (SSD) Activities, Los Alamos National Laboratory (LANL) Federal Facility Compliance Order (FFCO) - Notification of Completion of Activity 3.4.2I, and Corrections to Revision 4.0 Request

The purposes of this letter are (1) to notify the New Mexico Environment Department (NMED) of completion of a required activity set forth in Rev. 3.0 of the FFCO (as revised January 27, 1997); (2) to formally document our responses to the five questions in your March 5, 1997 letter; and (3) to make corrections to our February 28, 1997 request for Revision 4.0 of the Site Treatment Plan (STP). This notification is required by Section XX of the October 4, 1995 FFCO issued to LANL. The following sections of this letter discuss how the corrections to the revision request address this Activity 3.4.2I requirement.

**1.0 Completion of STP Activity 3.4.2I**

Activity 3.4.2I in the Compliance Plan Volume requires that the Department of Energy (DOE) and University of California (UC) "*propose additional compliance dates if necessary*" for covered waste items in the treatability group for SSD, MWIR ID LA-W929, by September 30, 1997. In our February 28, 1997 Revision 4.0 package, DOE and UC requested to revise the Compliance Plan Volume (CPV) language in Section 3.4.2, and proposed assignments for all the 1,250 MWIR ID LA-W929 items to other Treatability Groups (TG). In the February 28, 1997 package, we stated that, at that time, DOE and UC were not requesting new compliance dates, and in our April 29, 1997 SSD letter, we stated that all items being transferred to other TGs would be treated according to the compliance dates already existing for those TGs. Any future need for new compliance dates was to be addressed in a separate revision request.

As part of the February 28, 1997 Revision 4.0 letter, DOE and UC requested that two new TGs, "*Labpacks*" and "*Explosives*," be established to accept some of the LA-W929 items, and identified an additional group of 41 missing items. The Revision 4.0 request, however, was incomplete in the following respects:

- it neglected to specify that the "*Missing*" group should also be established as a new TG;
- it did not propose new CPV text or compliance dates for the new TGs; and
- it did not include an electronic version of the replacement CPV language (to be provided in response to NMED's requests).



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There was also an error in the February 28, 1997 submittal regarding the volumes being transferred to LA-W925, which we wish to formally correct herein.

Therefore, while no new compliance dates are required for the 1,081 LA-W929 items being transferred to existing TGs (as stated in our April 29, 1997 SSD letter), compliance dates are needed for the 156 LA-W929 items proposed for transfer to the new "Labpacks," "Explosives," and "Missing" TGs. We are hereby correcting our February 28, 1997 Revision 4.0 request to propose new CPV text and compliance dates for the three new TGs, thereby meeting the Activity 3.4.2I requirement for the 156 LA-W929 items proposed for transfer to these new TGs.

## 2.0 Corrections to February 28, 1997 Revision 4.0 Request

Enclosure A is submitted to replace Enclosure A of the February 28, 1997 Revision 4.0 request. It provides the information required by Section X.C.2, "Revisions," of the FFCO. Corrected text for our revision request is proposed in Enclosure B to this letter. DOE and UC are updating our February 28, 1997 proposal to revise the CPV language as follows:

- by transferring all 1,250 items in the SSD treatability group to other treatability groups;
- by providing language to add "Labpacks," "Explosives," and the "Missing" group as new treatability groups; and
- by providing compliance dates for the 156 LA-W929 items proposed for transfer to these new TGs (thereby completing STP Activity 3.4.2I).

DOE and UC are also requesting to change the volume and item count for LA-W929 to zero, since the three subgroups of LA-W929 will no longer contain waste items under the approved revision.

## 3.0 Response to March 5, 1997 Letter

This section documents DOE's and UC's responses to the five questions in NMED's March 5, 1997 letter regarding our February 28, 1997 Revision 4.0 request. Most of these we have already discussed with you in telephone conferences or meetings.

### Question 1:

*"...For which TGs would the request of compliance date extensions for Activity C and F (and the standing compliance date proposals for Activity I) apply? Would potential changes apply to any TG for which the waste was assigned, or for only the new TGs? In the case for any TG, would the compliance dates change for the entire TG, or only for the subsets of items from the SSD efforts?..."*

### Response:

In our April 29, 1997 SSD letter, DOE and UC withdrew the request for extension of compliance dates for Activities C and F, and stated that it was not necessary to propose additional compliance dates at that time. We stated that all items being transferred to other TGs would be treated according to the compliance dates already existing for those TGs, and that any future need for new compliance dates would be addressed in a revision request. As discussed above, however, compliance dates were not submitted for the proposed new TGs. They are being proposed in this submittal.

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**Question 2:**

*"...HRMB requests that the volumes and items associated with the SSD revision be incorporated into the Annual Update revision request."*

**Response:**

DOE and UC agree. The enclosures to this letter, therefore, contain only the proposed CPV language relating to the removal of items from LA-W929, and the establishment of the new TGs. The volume changes for each existing TG will be submitted with the electronic copy of the CPV changes, which is currently being prepared to incorporate both these (Rev. 4.0) and the Annual Update-related (Rev. 5.0) volume changes.

**Question 3:**

*"...Concerning the newly proposed TG labeled 'Labpacks,' HRMB takes the position that any new RCRA codes added to this TG would meet the definition for a new TG, and the new TG would have to be modified by the revision process..."*

**Response:**

DOE and UC agree. The enclosures to this letter, therefore, contain corrections to our February 28, 1997 revision request to add the new treatability groups and compliance dates, and transfer the missing LA-W929 wastes thereto.

**Question 4:**

*"...(T)here is a chance that the revision will not be finalized by April 30, 1997. In such a case, the [DOE and UC] may prepare an amendment..."*

**Response:**

In our April 29, 1997 SSD letter, DOE and UC withdrew the request for extension of compliance dates for Activities C and F, and stated that it was not necessary to propose additional compliance dates at that time. Therefore, the amendment was no longer necessary, and was not requested.

**Question 5:**

*"In order to expedite...(W)e would like a hard copy and a disk copy of these tentative changes."*

**Response:**

The electronic copy of the CPV changes is currently being prepared to incorporate both of these (Rev. 4.0) and the Annual Update-related (Rev. 5.0) volume changes. It will be provided as a courtesy in response to NMED's request, and will be forwarded to NMED at the earliest possible opportunity.

**4.0 Summary**

In summary, we are presenting documentation supporting completion of STP Activity 3.4.2I in the form of the enclosed corrections to our February 28, 1997 revision request. In the request, DOE and UC seek to revise the CPV language in Section 3.4.2 to assign all 1,250 LA-W929 items to other treatability groups, and to add new treatability groups and compliance dates

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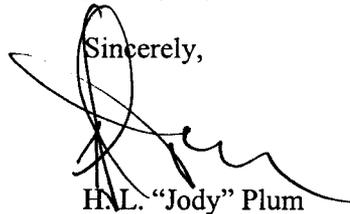
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deemed necessary to accommodate some of the affected waste items. Corrected text for our revision request is proposed in Enclosure B to this letter.

A Certification Statement is provided as Enclosure C. We will forward an electronic version of the replacement CPV language at the earliest possible opportunity; it is still being reworked to incorporate all changes we have discussed with you regarding both Revisions 4.0 and 5.0.

Please contact me at (505) 665-5042 or Ken Hargis at (505) 667-2347 if you have any questions.

Sincerely,



H.L. "Jody" Plum  
Office of Environment

LAAMEP:3JP-063

Enclosures

cc w/enclosures:

Mr. Benito Garcia, Bureau Chief  
Hazardous and Radioactive Materials Bureau  
New Mexico Environment Department  
2044 Galisteo Street, Bldg. A  
P. O. Box 26110  
Santa Fe, NM 87505

Mr. Walter Medina  
Hazardous and Radioactive Materials Bureau  
New Mexico Environment Department  
2044 Galisteo Street, Bldg. A  
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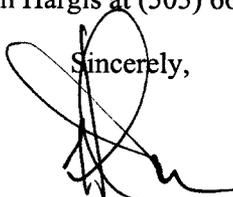
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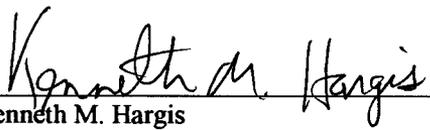
bcc w/enclosures:

H. Haynes, Office of Counsel, LAAO  
J. Seubert, Scientech, LAAO  
K. Hargis, EM-WM, LANL, MS-J591  
J. Rochelle, LC-GL, LANL, MS-A187  
S. Brown, LC-GL, LANL, MS-A187  
T. Stanford, EM-SWO, LANL, MS-J595  
R. Murphy, EM-SWO, LANL, MS-J593  
J. Kelly, EM-SWO, LANL, MS-J593  
A. Millensted, EM-SWO, LANL, MS-J593  
J. White, ESH-19, LANL, MS-K490  
P. Schumann, ESH-19, LANL, MS-K498  
ESH-19 Group File, LANL, MS-K490  
J. Grimm, WMD, AL

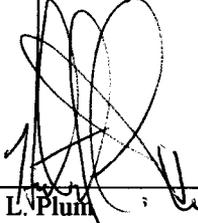
**ENCLOSURE C  
CERTIFICATION**

**SORT, SURVEY AND DECONTAMINATION (SSD) ACTIVITIES, LOS ALAMOS NATIONAL  
LABORATORY (LANL) FEDERAL FACILITY COMPLIANCE ORDER (FFCO) - NOTIFICATION OF  
COMPLETION OF ACTIVITY 3.4.2 I, AND CORRECTIONS TO REVISION 4.0 REQUEST**

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

25 September 1997  
Date Signed

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

9/29/97  
Date Signed

## ENCLOSURE A

### LANL STP PROPOSED REVISION 4.0 SORT, SURVEY AND DECONTAMINATION (SSD) ACTIVITIES, LOS ALAMOS NATIONAL LABORATORY (LANL) FEDERAL FACILITY COMPLIANCE ORDER (FFCO)

The purpose of this revision is to document the final steps to complete and close out the activities in Section 3.4.2, *Sorting, Surveying and Decontamination*, in the Compliance Plan Volume of the Site Treatment Plan (STP). As a result of this revision, all of the 1,250 items in treatability group LA-W929, "*Nonradioactive or suspect items to be surveyed*," will be transferred to new treatability groups. The following portions of this enclosure follow the requirements of Section X.C.2, "*Revisions*," of the FFCO. Proposed STP text is provided in Enclosure B.

**Section X.C.2.a. Detailed description of the proposed revision.** For the reasons given in the following paragraphs, DOE and UC are proposing to revise the Compliance Plan Volume (CPV) language in Section 3.4.2 as follows: (1) to assign the referenced items to treatability groups; (2) to add three new treatability groups deemed necessary to accommodate some of the affected waste items; and (3) to establish activities and compliance dates for the three new treatability groups. DOE and UC propose that all SSD items being transferred to other existing TGs will be treated according to the compliance dates already existing for those TGs.

The three new TGs are proposed to be added to CPV Section 3.3, "*Mixed Waste Requiring Further Characterization or for Which Technology Assessment Has Not Been Done*." Since all items from SSD subgroups 1, 2, and 3 are herein being reassigned to other TGs (including the three new TGs), the three subgroups of LA-W929 will no longer contain any waste items under the approved revision.

In addition, DOE and UC identified that eleven of the SSD mixed waste items are liquid oxidizers. It is requested that the treatability group name for MWIR ID no. LA-W923 be changed to "*Liquid and solid oxidizers*," as shown in Enclosure B, and that the eleven items be added to this group.

**Background of the SSD Project.** The SSD activity consisted originally 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 October 4, 1995 STP required that DOE and UC "*complete [a] survey*" (of the 1,250 "*nonradioactive or suspect waste items to be surveyed*") by 10/30/96. 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 was followed to 10/30/96.

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 Mixed Low-Level Wastes (MLLW), they would necessarily remain in the STP inventory.

Implicit but not stated in the October 4, 1995 STP language are two assumptions. The first assumption was that SSD wastes in the first category (items determined not to be radioactively contaminated) would 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 that remained 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 were 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 were specified in the October 4, 1995 STP.

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 m<sup>3</sup>. 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 radiological analysis off-site. These activities were conducted on approximately 1,049 of the 1,250 waste items (or 84 percent of the SSD total) prior to October 30, 1996.

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 MLLW treatment/disposal facilities, full sampling and characterization for RCRA and radiological constituents were conducted on the remaining items in SSD subgroup 2. The field survey activity included RCRA as well as radiological characterization of these items.

DOE and UC found that the unsampled waste items in SSD subgroup 3 (such as lead-acid batteries with potential internal radioactive contamination) were not amenable to sampling using currently approved field methods. DOE and UC conducted visual verification of all containers holding these items, to confirm the available information on those that cannot be sampled.

The October 30, 1996 STP Amendment provided for this field survey/sampling work to be performed on subgroups 2 and 3 of these SSD items. This work was completed for SSD subgroups 2 and 3 on January 28, 1997, as described in our February 11, 1997 notification letter to NMED. As further stated in that letter, three of the original SSD subgroup 3 items were moved to SSD subgroup 2 and sampled for RCRA characterization.

In verifying completion of the SSD subgroups 2 and 3 activities, however, it was discovered that between ten and fifteen percent of the 1,049 SSD subgroup 1 items had been incorrectly counted as completed prior to the October 30, 1996 due date for Activity A, as stated in our February 11, 1997 correction letter. Also, as stated in the February 11, 1997 notification letter, of the 162 items assigned originally to SSD subgroup 2, 82 were moved to SSD subgroup 3 and visually inspected. Assignments to new treatability groups were completed for all these items by reviewing and verifying (to the extent possible) existing data.

**Additional Treatability Groups.** DOE and UC determined, during reviews of the data for the 1250 SSD waste items, that in a number of instances waste items did not fit appropriately into the existing treatability groups. DOE and UC therefore propose three new treatability groups be added to address such items - "*Labpacks*," "*Explosives*," and the "*Missing*" group.

**Section X.C.2.b. Rationale for the proposed revision.** DOE and UC have the following reasons for requesting this revision. First, assignment to new treatability groups currently requires revision of the STP, unless the wastes to be transferred fall below the volume thresholds established in the FFCO as recently amended (FFCO Amendment 1.0). The total volume of wastes being transferred, and total number of transfers, are significant enough to require revision of the STP, even though some of the additions to specific TGs may fall below the volume thresholds established in the FFCO.

Second, at the time of development of the SSD project, commercial and non-commercial treatment capabilities for MLLW were lacking. 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 MLLW has expanded significantly.

Third, regarding nonradioactive determinations using the FFCO Section V.B process, 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 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. DOE and UC believe it is not cost-effective to complete this review process simply to declare some of these waste items non-radioactive, even if so indicated by the analytical results.

Our operational experience with the field survey activities has indicated that the treatment and disposal of this nonradioactive or suspect radioactive waste as MLLW is more conservative, efficient, and cost effective than performing field survey activities for the sole purpose of declaring waste as non-radioactive, and undergoing additional characterization and detailed analyses to verify the nonradioactive status of a waste item. Therefore, at this time, DOE and UC intend to pursue treatment and disposal of the 1250 SSD waste items as MLLW, even though analytical results might allow some of them to be shipped offsite as nonradioactive hazardous waste upon NMED approval.

For the present, this management approach includes items identified as "Empty" in our February 11, 1997 notification letter. In such cases, waste materials were not present, but the item's container may not yet be determined to meet the definition of "RCRA empty." They must be either so identified, or will be disposed as MLLW. Therefore, such items will be maintained in the applicable treatability groups at this time.

In summary, all 1,250 items will continue to be managed as MLLW at this time, and are being assigned to these treatability groups based on existing data, records, and knowledge of process (for instance, the lead-acid batteries would be assigned to a treatability group for macroencapsulation). They will be sent off-site to appropriate treatment facilities, when the available waste characterization data for the items is sufficient for shipment to the treatment facility and for ensuring compliance with RCRA land disposal restrictions requirements.

#### **Rationale for the Additional Treatability Groups.**

**Explosives (proposed ID no. LA-W932).** DOE and UC identified one mixed waste item during the SSD sampling and visual inspections, a stable explosive waste, which did not fit appropriately into the existing treatability groups, and which does not currently have a treatment pathway identified in the STP.

Typically, all explosive wastes generated at LANL are managed at its existing explosives research and development facilities. Explosive wastes may not be released from these facilities for transfer to other LANL sites, including TA-54, or off-site, until the explosive components have been deactivated in accordance with methods approved by DOE and NMED. DOE and UC therefore propose a new treatability group be added to CPV Section 3.3 to address such waste items, called "*Explosives*."

LANL's experience in managing similar non-radioactive hazardous wastes is that currently there are few commercial hazardous waste management facilities available to manage such wastes, and no known commercial capability for explosive-containing mixed waste. On-site methods and typical industry approaches would include incineration, other thermal treatment methods, or some type of chemical deactivation. Incineration or other thermal methods ensure appropriate treatment of any other regulated organic constituents that might be present in the material, even if present only in nonregulated trace

amounts. New technologies are currently being investigated that may offer alternatives to incineration/thermal/chemical treatment. DOE and UC may elect to pursue an on-site treatment approach, if no off-site alternatives become available. It is thus recommended that a specific technology should not be assigned to this TG at this time.

**Labpacks (proposed ID no. LA-W933).** Typically the affected wastes are small-volume, solid waste items containing metals, often commercial laboratory chemicals such as cadmium chloride (D006), chromium oxide (D007), vanadium pentoxide (P120), or thallium chloride (U216). These chemicals are typically managed in labpacks, and did not meet the definition of debris. However, the only treatability groups for MLLW solids currently in the STP are “*Combustible Debris*” (MWIR LA-W912) and “*Non-Combustible Solids*” (MWIR LA-W922), which do not appropriately address such waste items. DOE and UC therefore propose a new treatability group be added to address such non-debris solids, and certain other labpacked items not fitting clearly into other existing treatability groups, called “*Labpacks*” (proposed new MWIR LA-W932).

LANL’s experience in managing similar non-radioactive hazardous wastes is that current management practices in the commercial hazardous waste management industry frequently involve stabilization as the final treatment step to meet RCRA land disposal restriction requirements. However, the typical pretreatment is incineration of the full, unopened labpacks, because of the cost and safety issues that would be involved if the labpacks were to be opened, managed, and sorted prior to stabilization. In addition, incineration ensures appropriate treatment of any regulated organic constituents that might be present in the labpacked material, even if present in nonregulated trace amounts. LANL is aware that many new technologies are currently being investigated that offer alternatives to the incineration/stabilization treatment train, including vitrification, molten metal processes, and other methods. It is thus recommended that a specific technology should not be assigned to this TG at this time.

**“Missing” Items (proposed ID no. LA-W934).** During the visual inspections and sampling activities of the SSD field effort, forty-one (41) of the 1,250 SSD items were not found, or were not located in the containers they were expected to be in according to the LANL data files for those waste items. DOE and UC, and their contractors, performed a thorough inspection of the SSD containers for subgroups 2 and 3; however, these investigations did not turn up the missing items. It is believed that one or more of the following explanations applies to each of the 41 missing items.

- In some instances, the item could not be verified as having ever been received in storage at LANL. In these cases, it is believed that the generator had submitted paperwork to TA-54 requesting pick-up of certain waste items, in anticipation that they would be generated by the pickup date. For various reasons, they were never in fact generated. However, they still were included in the original STP inventory because of the timing of the original data call (i.e., the original STP data call included all MLLW items present [or expected to be present] in the TA-54 MLLW storage area on a certain date. Thus, some items awaiting pickup were included in the STP inventory data call because their pickup requests had already been entered into LANL’s data system). Diligent searches of the paper records and discussions with the waste generator did not yield convincing evidence that these items, although existing on paper, ever existed in fact.
- In some instances, the waste description in the LANL database disagreed with reality, particularly for some of the older containers received into storage at TA-54 before paperwork and database requirements were standardized. For example, some containers listed as containing a certain number of waste items may have in actuality contained more or fewer items than were specified (e.g., a drum listed as containing three SSD items only held two of the specified items. The third expected item was absent entirely, or the container might have held an entirely different third item that was not specified in the records).

- In some instances, when a drum (e.g., a labpack container) was opened for visual inspection, an expected SSD item was missing, but broken glass was discovered in the bottom of the drum, sometimes in the presence of discolored sorbent material. This indicated that the missing waste item may have been a glass bottle that broke inside the labpack container sometime during its life in storage, or during transportation to the storage facility. Either the wastes were still contained in the sorbent material, or in some cases, they may have escaped through volatilization over time and could not be retrieved by the survey team.

DOE and UC will re-verify the absence of the items in the "Missing" TG. In the meantime, this TG will be established as a placeholder, to ensure appropriate management of the items under the STP until each item's presence or absence is fully verified. In order to minimize unnecessary exposure hazards to facility personnel, it is suggested that re-verification be done container-by-container, as each STP waste item is treated. Therefore, the final verification that all "Missing" items are in fact nonexistent will be completed by April 21, 2004, at which time all remaining MLLW items in the original STP inventory will have been treated. At that time DOE and UC will request their deletion from the STP. Should any of these "Missing" items be discovered to exist, at any time during the re-verification process, they will be transferred to the appropriate TG with NMED approval, and if necessary, assigned new Activities and compliance dates.

**Compliance Dates.** DOE and UC propose that these three new TGs be added to CPV Section 3.3, "*Mixed Waste Requiring Further Characterization or for Which Technology Assessment Has Not Been Done*" (MWIR Treatment ID LA-S701), and that the Activities and compliance dates applicable to "Labpacks" and "Explosives" would be existing Activities C, D, E, and F in CPV Section 3.3. New compliance dates are proposed at this time only for the third TG, the "Missing" item (see Enclosure B).

Revision 3.0 to the CPV Section 3.4.2 states that SSD wastes may either be assigned to applicable treatability groups, sent to off-site facilities for appropriate treatment, or both. All LA-W929 items being transferred to other treatability groups will continue to be managed as mixed low-level waste. DOE and UC believe the available information is sufficient to support the treatability assignments given in the enclosed table.

**Section X.C.2.c. Anticipated length of any delay in performance.** Sampling and/or field survey work corresponding to the SSD field survey requirements of Activities A, D, and G, and sufficient to support the treatability group assignments, has been completed. Expedient review of this revision is requested, so that DOE and UC can commence shipment of some of these wastes to off-site treatment facilities as soon as possible.

**Section X.C.2.d. Plan and schedule for implementing all reasonable measures.** We request that NMED advise DOE and UC expeditiously if NMED will require any additional information regarding CPV Section 3.4.2, or these wastes, prior to the amended compliance date of December 29, 1997 for Activity 3.1.2B (by that date, assuming approval of this revision, DOE and UC will request to add one LA-W904 item to the "Missing" TG proposed herein. That request will be made separately.)

**TABLE 1**  
**PROPOSED TREATABILITY GROUP ASSIGNMENTS FOR LA-W929 SSD ITEMS**  
New/modified treatability groups are shown in *italics*

<b>Treatability group</b>	<b>MWIR waste ID</b>	<b>RCRA codes</b>	<b>Number of items</b>	<b>Net volume (m<sup>3</sup>)</b>
aqueous organic liquids	LA-W906	D008 D010 D022 D027 D028 D030 D032 D033 D034 D037 D041 D042 D043 F001 F002 F003 F005 U002 U003 U154	27	0.36
halogenated organic liquids	LA-W907	D001 D002 D004 D007 D018 D019 D022 D039 F002 F003 F005 U022 U044 U045 U077 U080 U188 U210 U211 U225 U226 U227 U228	97	1.05
non-halogenated organic liquids	LA-W908	D001 D002 D003 D004 D005 D007 D008 D009 D011 D018 D030 D035 D043 F003 F005 U002 U003 U012 U019 U052 U056 U057 U080 U117 U122 U140 U154 U159 U213 U226 U239 U359	409	3.38
bulk oils	LA-W909	F001 D001	8	1.48
organic-contaminated combustible solids	LA-W911	D001 D003 D004 D018 D022 D038 F001 F002 F003 F005 U165	33	0.68
combustible debris	LA-W912	D001 D002 D003 D008 D011 F002	9	0.75
aqueous waste with heavy metals	LA-W913	D001 D002 D003 D004 D005 D006 D007 D008 D009 D010 D011 F001 F003 F005	25	0.40
corrosive solutions	LA-W914	D001 D002 D003 D005 D009 D010 D011 U133 U134	90	0.36
aqueous cyanides, nitrates, chromates, and arsenates	LA-W915	D001 D002 D003 D007 D009	3	0.002
water reactive wastes	LA-W916	D001 D003 D005 F002	26	0.31

**TABLE 1 (continued)**  
**PROPOSED TREATABILITY GROUP ASSIGNMENTS FOR LA-W929 SSD ITEMS**  
New/modified treatability groups are shown in *italics*

<b>Treatability group</b>	<b>MWIR waste ID</b>	<b>RCRA codes</b>	<b>Number of items</b>	<b>Net volume (m<sup>3</sup>)</b>
compressed gases requiring oxidation	LA-W918	D001 D003 D007 F002 F003 P056 P056 U029 U075 U121 U226 U227 U228	168	1.23
organic-contaminated non-combustible solids	LA-W919	D001 F001 F002 F003 F005	9	0.38
elemental mercury	LA-W920	D009 U151	20	0.02
non-combustible debris	LA-W922	D002 D003 D004 D006 D007 D008 D009 D010 D011	53	2.83
mercury wastes - TBD	LA-W925	D001 D002 D003 D009 P030	37	0.42
<i>explosives</i>	<i>LA-W932</i>	<i>D003</i>	<i>1</i>	<i>0.000001</i>
<i>lab packs</i>	<i>LA-W933</i>	<i>D001 D002 D003 D004 D005 D006 D007 D008 D010 D011 P012 P029 P098 P106 P113 P120 U131 U144 U145 U188 U190 U204 U216 U219</i>	<i>114</i>	<i>0.17</i>
<i>liquid and solid oxidizers</i>	<i>LA-W923</i>	<i>D001 D003 D005 D007 D011 U160</i>	<i>67</i>	<i>0.145</i>
<i>Missing</i>	<i>LA-W934</i>	D001 D002 D003 D007 D008 D010 D035 U220 U226	41	0.26
Treated	N/A	D001 D002 D004 D005 D006 D007 D008 D009 D010 D011 F003	13	0.01
<b>Totals</b>			<b>1250</b>	<b>14.24</b>

**ENCLOSURE B-1**  
**PROPOSED CPV REVISION TEXT**  
**REVISIONS TO CPV SECTIONS 3.2.1, 3.3, AND 3.4.2**  
*(Redline/strikeout format)*

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

**3.2.1 Hydrothermal Processing**

**Treatability Group(s):**

**LLMW for Hydrothermal Processing /Off-site Treatment (preferred option)**

Treatability group	MWIR waste ID	RCRA Codes	Number of items	Net volume (m3)
<i>Liquid and inorganic</i> solid oxidizers	LA-W923	D001, D003, D005	<i>122</i> <b><u>55</u></b>	<i>0.345</i> <b><u>0.20</u></b>
<b>Totals</b>			<b><u>12255</u></b>	<b><u>0.3450.20</u></b>

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**3.3 Mixed Waste Requiring Further Characterization or for Which Technology Assessment Has Not Been Done (MWIR Treatment ID LA-S701)**

**Treatability Group(s):**

Treatability group	MWIR waste ID	RCRA Codes	Number of items	Net volume (m3)
lead wastes-TBD	LA-W924	D003, D008	186	51.44
mercury wastes-TBD	LA-W925	D007, D008, D009, F001	<i>100</i> <b><u>63</u></b>	<i>18.72</i> <b><u>18.30</u></b>
compressed gases-TBD	LA-W926	D001, D007, D009, D022, P056, U080, U226	10	1.25
biochemical laboratory wastes	LA-W927	D001, D003	9	1.34
dewatered treatment sludge	LA-W928	see Subsection 3.3 in the Background Volume	61	12.71
<i>explosives</i>	<i>LA-W932</i>	<i>D003</i>	<i>1</i>	<i>0.000001</i>

**Treatability Group(s):**

Treatability group	MWIR waste ID	RCRA Codes	Number of items	Net volume (m3)
<i>labpacks</i>	<i>LA-W933</i>	<i>D001 D002 D003 D004 D005 D006 D007 D008 D010 D011 P012 P029 P098 P106 P113 P120 U131 U144 U145 U188 U190 U204 U216 U219</i>	<i>114</i>	<i>0.17</i>
<b>Totals</b>			<b>481<u>329</u></b>	<b>85.63<u>85.00</u></b>

**Treatment Technology:**

The following steps will be taken to properly characterize this waste:

- Conduct additional generator interviews
- Prepare a sampling plan for waste not adequately characterized
- Conduct sampling and analysis
- Determine treatment options

Activity	Compliance Dates
A. Complete generator interviews	10/30/95
B. Complete sampling and analysis plan	1/30/96
C. Complete sampling and analysis	9/30/98
D. Complete determination of treatment options, or	12/20/98
E. Complete shipping of existing wastes to an off-site treatment facility.	12/20/98
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

**“Missing” Items (ID no. LA-W934).** During visual inspections and sampling activities in support of STP waste work-off, a few items could not be found, or were not located in the containers they were expected to be in according to the LANL data files for those waste items. DOE and UC, and their contractors, performed a thorough inspection of the SSD containers for subgroups 2 and 3; however, these investigations did not turn up the missing items. It is believed that one or more of the following explanations applies to each of the 41 missing items.

DOE and UC will re-verify the absence of the items in this TG. In the meantime, this TG is established as a placeholder, to ensure appropriate management of the items under the STP until each item's presence or absence is fully verified. In order to minimize unnecessary exposure hazards to facility personnel, re-verification is done container-by-container, as each STP waste item is treated. The final verification that all “Missing” items are in fact nonexistent will be completed by April 21, 2004, at which time all remaining MLLW items in the original STP inventory will have been treated. At that time DOE and UC will request their deletion from the STP. Should any of these items be discovered to exist, at any time during the re-verification process, they will be transferred to the appropriate TG with NMED approval, and if necessary, assigned new Activities and compliance dates.

<b>Treatability group</b>	<b>MWIR waste ID</b>	<b>RCRA Codes</b>	<b>Number of items</b>	<b>Net volume (m3)</b>
Missing	LA-W934	D001 D002 D003 D007 D008 D010 D035 U220 U226	41	0.26
<b>Total</b>			<b>41</b>	<b>0.26</b>

**Treatment Technology:**

The following steps will be taken to verify presence or absence of this waste:

<b>Activity</b>	<b>Compliance Dates</b>
G. Initiate re-verification process on a shipment-by shipment basis	01/03/98
H. Complete re-verification process	04/21/04
I. Re-assign any existing items to appropriate treatability groups	04/21/04
J. Complete treatment of existing wastes to applicable regulatory standards, or	10/30/04
K. Complete shipping of existing wastes to an off-site treatment facility.	10/30/04
L. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

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**3.4.2 Sorting, Surveying, and Decontamination (MWIR Treatment ID GJ-S804)**

**Treatability Group(s):**

<b>Treatability group</b>	<b>MWIR waste ID</b>	<b>Number of items</b>	<b>Net volume (m3)</b>
1. nonradioactive or suspect waste items to be surveyed	LA-W929	0 <u>1049</u>	0 <u>10.58</u>
2. nonradioactive or suspect waste items to receive RCRA and radiological characterization	LA-W929	0 <u>162</u>	0 <u>3.25</u>
3. nonradioactive or suspect waste items that cannot or should not be sampled	LA-W929	0 <u>39</u>	0 <u>0.41</u>
<b>Totals</b>		<u>01250</u>	<u>014.24</u>

**ENCLOSURE B-2**  
**PROPOSED CPV REVISION TEXT**  
**REVISIONS TO CPV SECTIONS 3.2.1, 3.3, AND 3.4.2**  
*(Clean copy format)*

**3.2.1 Hydrothermal Processing**

**Treatability Group(s):**

**LLMW for Hydrothermal Processing /Off-site Treatment (preferred option)**

<b>Treatability group</b>	<b>MWIR waste ID</b>	<b>RCRA Codes</b>	<b>Number of items</b>	<b>Net volume (m3)</b>
Liquid and solid oxidizers	LA-W923	D001, D003, D005	122	0.345
<b>Totals</b>			<b>122</b>	<b>0.345</b>

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**3.3 Mixed Waste Requiring Further Characterization or for Which Technology Assessment Has Not Been Done (MWIR Treatment ID LA-S701)**

**Treatability Group(s):**

<b>Treatability group</b>	<b>MWIR waste ID</b>	<b>RCRA Codes</b>	<b>Number of items</b>	<b>Net volume (m3)</b>
lead wastes-TBD	LA-W924	D003, D008	186	51.44
mercury wastes-TBD	LA-W925	D007, D008, D009, F001	100	18.72
compressed gases-TBD	LA-W926	D001, D007, D009, D022, P056, U080, U226	10	1.25
biochemical laboratory wastes	LA-W927	D001, D003	9	1.34
dewatered treatment sludge	LA-W928	see Subsection 3.3 in the Background Volume	61	12.71
explosives	LA-W932	D003	1	0.000001

**Treatability Group(s):**

Treatability group	MWIR waste ID	RCRA Codes	Number of items	Net volume (m3)
labpacks	LA-W933	D001 D002 D003 D004 D005 D006 D007 D008 D010 D011 P012 P029 P098 P106 P113 P120 U131 U144 U145 U188 U190 U204 U216 U219	114	0.17
<b>Totals</b>			<b>481</b>	<b>85.63</b>

**Treatment Technology:**

The following steps will be taken to properly characterize this waste:

- Conduct additional generator interviews
- Prepare a sampling plan for waste not adequately characterized
- Conduct sampling and analysis
- Determine treatment options

Activity	Compliance Dates
A. Complete generator interviews	10/30/95
B. Complete sampling and analysis plan	1/30/96
C. Complete sampling and analysis	9/30/98
D. Complete determination of treatment options, or	12/20/98
E. Complete shipping of existing wastes to an off-site treatment facility.	12/20/98
F. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

**“Missing” Items (ID no. LA-W934).** During visual inspections and sampling activities in support of STP waste work-off, a few items could not be found, or were not located in the containers they were expected to be in according to the LANL data files for those waste items. DOE and UC, and their contractors, performed a thorough inspection of the SSD containers for subgroups 2 and 3; however, these investigations did not turn up the missing items. It is believed that one or more of the following explanations applies to each of the 41 missing items.

DOE and UC will re-verify the absence of the items in this TG. In the meantime, this TG is established as a placeholder, to ensure appropriate management of the items under the STP until each item’s presence or absence is fully verified. In order to minimize unnecessary exposure hazards to facility personnel, re-verification is done container-by-container, as each STP waste item is treated. The final verification that all “Missing” items are in fact nonexistent will be completed by April 21, 2004, at which time all remaining MLLW items in the original STP inventory will have been treated. At that time DOE and UC will request their deletion from the STP. Should any of these items be discovered to exist, at any time during the re-verification process, they will be transferred to the appropriate TG with NMED approval, and if necessary, assigned new Activities and compliance dates.

Treatability group	MWIR waste ID	RCRA Codes	Number of items	Net volume (m3)
Missing	LA-W934	D001 D002 D003 D007 D008 D010 D035 U220 U226	41	0.26
<b>Total</b>			<b>41</b>	<b>0.26</b>

**Treatment Technology:**

The following steps will be taken to verify presence or absence of this waste:

Activity	Compliance Dates
G. Initiate re-verification process on a shipment-by shipment basis	01/03/98
H. Complete re-verification process	04/21/04
I. Re-assign any existing items to appropriate treatability groups	04/21/04
J. Complete treatment of existing wastes to applicable regulatory standards, or	10/30/04
K. Complete shipping of existing wastes to an off-site treatment facility.	10/30/04
L. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

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### 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)
1. nonradioactive or suspect waste items to be surveyed	LA-W929	0	0
2. nonradioactive or suspect waste items to receive RCRA and radiological characterization	LA-W929	0	0
3. nonradioactive or suspect waste items that cannot or should not be sampled	LA-W929	0	0
<b>Totals</b>		<b>0</b>	<b>0</b>