

FFCO



Department of Energy
Albuquerque Operations Office
Los Alamos Area Office
Los Alamos, New Mexico 87544
SEP 10 1997



CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

Dear Ms. Archuleta:

Subject: Treatability Group "*Soil with Heavy Metals*" - Request for Transfer to
Treatability Group LA-W910, Los Alamos National Laboratory (LANL) Site
Treatment Plan (STP)

The purpose of this letter is to request that the New Mexico Environment Department (NMED) transfer six (6) of the 59 items listed in the LANL STP in the treatability group "*soil with heavy metals*," MWIR waste ID LA-W904, to another treatability group (MWIR waste ID no. LA-W910, "*PCB wastes with RCRA components*"). This was issue (2) of the five issues we discussed with you in our August 14, 1997 meeting, as documented in our August 26, 1997 letter. Others will be addressed in separate transmittals.

The transfer of these wastes from MWIR waste ID LA-W904 to LA-W910 is proposed to be conducted in accordance with the Federal Facility Compliance Order (FFCO) requirements in Section XI, "*Deletion of Waste*," as amended May 20, 1997; Section VIII, "*Addition of New Covered Waste*"; and Section X.B.4, "*Revisions*," as amended May 20, 1997. The details of this request are presented in the following sections of this letter.

1. Background.

Activity 3.1.2B, in Section 3.1.2 of the CPV (Revisions 1.0, 2.0, 3.0, February 25, 1997) currently requires that the Department of Energy (DOE) and the University of California (UC) "[C]omplete shipping waste" in three treatability groups off-site for treatment by September 30, 1997. These shipments have been completed for all wastes in two of the treatability groups, and for 46 of the 59 items in the treatability group "*soil with heavy metals*," MWIR waste ID no. LA-W904. For the remaining 13 items in this treatability group, DOE and UC requested an extension to the September 30, 1997 compliance date for Activity 3.1.2B to December 29, 1997. DOE and UC believe that once four of these 13 items can be shipped, Activity 3.1.2B will have been completed for all *applicable* waste in the treatability group "*soil with heavy metals*," and that the remaining nine items in this treatability group should more appropriately be addressed in other ways.

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During the recharacterization effort associated with the original October 18, 1996 reclassification request for some of these 59 LA-W904 waste items, eight items (six from TA-64 and two from TA-2) were found to be incorrectly assigned to this treatability group (and a ninth was verified not to exist). The following table, excerpted from our August 26, 1997 letter, recaps the status of the nine covered waste items proposed to be removed from this treatability group (item groupings correspond to those presented in our October 18, 1996 and March 26, 1997 letters). This letter focuses on the six TA-64 items (unshaded in Table 1).

Table 1. Items to be Removed From LA-W904

Waste Sub-Stream Source (LANL Technical Area #)	Number of Items	Current Status	Next Steps
TA-64	6 items (were bulked into 2)	PCB>52 ppm present	Transfer will be requested to move items to appropriate treatability group (LA-W910, <i>PCB wastes with RCRA components</i>) (See Part 2 of letter).
TA-2	2	Items verified as incorrectly assigned to LA-W904	Transfer will be requested to move items to appropriate treatability group (LA-W911, <i>Organic-contaminated combustible solids</i>).
TA-35	1	Item verified as never received into storage	Deletion will be requested.
Subtotal	9 Items		To Be Removed From LA-W904

This treatability group consists of a number of waste sub-streams originating from different LANL Technical Areas, as described in our October 18, 1996 letter.

2. Transfer to Another Treatability Group.

Based on recent analytical data, DOE and UC are requesting that the six bulked LA-W904 items (0.62456 m³) from TA-64 be moved to another treatability group (MWIR waste ID no. LA-W910, "*PCB wastes with RCRA components*") (see Enclosure A). As such, they will become subject to the already-existing Activities and Compliance Dates specified for LA-W910 wastes in Section 3.2.1 of the STP. No new Compliance Dates are requested.

The transfer of these wastes from MWIR waste ID LA-W904 to LA-W910 is proposed to be conducted in accordance with the Federal Facility Compliance Order (FFCO) requirements in Section XI, "*Deletion of Waste*," as amended May 20, 1997; Section VIII, "*Addition of New Covered Waste*"; and Section X.B.4, "*Revisions*," as amended May 20, 1997. This transfer is a two-step process. First, DOE and UC are requesting that the six bulked LA-W904 items be deleted from LA-W904. Second, they are to be transferred into LA-W910 (a shift of existing wastes is considered an addition of waste under FFCO Section VIII, because the shift results in an increased volume in LA-W910). For a small volume such as this one, this increase falls below the threshold established in Section X.B.4; therefore, the addition is exempt from the revision requirements of FFCO Section X.

Janice Archuleta

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Enclosure A presents the information required for deletions in FFCO Section IX.B, and supports the requirements of Sections VIII and X. Enclosure B provides replacement language for the affected portions of the CPV for NMED's approval.

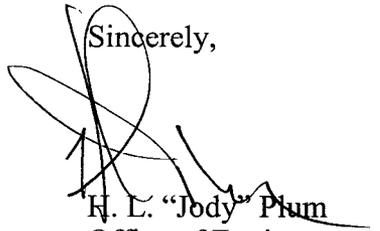
Summary.

In this letter, DOE and UC are requesting that the six bulked LA-W904 items (0.62456 m³) from TA-64 be moved to another treatability group (MWIR waste ID no. LA-W910, "PCB wastes with RCRA components"). The other LA-W904 transfer and deletion requests discussed in our August 26, 1997 letter will be transmitted in separate documents to simplify tracking and processing.

A Certification Statement prepared in accordance with the requirements of Section XX, "Documents, Information, and Reporting Requirements," of the FFCO is enclosed herewith (Enclosure C).

We are available to discuss this information with you at any time. If you have any questions, please call me at (505) 665-5042 or Mr. Ken Hargis at (505) 667-2347. Thank you again for meeting with us on August 14, 1997, and for your consideration of these requests.

Sincerely,



H. L. "Jody" Plum
Office of Environment

LAAMEP:6JP-037

Enclosures

cc w/enclosures:

B. Garcia, Bureau Chief
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ENCLOSURE A

TREATABILITY GROUP "SOIL WITH HEAVY METALS" - REQUEST FOR TRANSFER TO TREATABILITY GROUP LA-W910, LOS ALAMOS NATIONAL LABORATORY (LANL) SITE TREATMENT PLAN

The following portions of this enclosure follow the requirements of Section IX.B, "Deletion of Waste," of the FFCO, as amended May 20, 1997; Section VIII, "Addition of New Covered Waste"; and Section X.B.4, "Revisions," as amended May 20, 1997. Enclosure B provides replacement language for the affected portions of the CPV for NMED's approval.

A.1. Description of the proposed transfer. Activity 3.1.2B, in Section 3.1.2 of the CPV (Revisions 1.0, 2.0, 3.0, February 25, 1997) currently requires that DOE and UC "[C]omplete shipping waste" in three treatability groups off-site for treatment by September 30, 1997. These shipments have been completed for all wastes in two of the treatability groups, and for 46 of the 59 items in the treatability group "soil with heavy metals," MWIR waste ID no. LA-W904. For the remaining 13 items in this treatability group, DOE and UC requested an extension to the September 30, 1997 compliance date for Activity 3.1.2B to December 29, 1997. DOE and UC believe that once four of these 13 items can be shipped, Activity 3.1.2B will have been completed for all *applicable* waste in the treatability group "soil with heavy metals," and that the remaining nine LA-W904 items should more appropriately be addressed in other ways.

During the recharacterization effort associated with the original October 18, 1996 reclassification request for some of these 59 LA-W904 waste items, eight items (six from TA-64 and two from TA-2) were found to be incorrectly assigned to this treatability group (and a ninth was verified not to exist). Based on this recent analytical data, DOE and UC are requesting that the six bulked LA-W904 items (0.62456 m³) from TA-64 be moved to another treatability group (MWIR waste ID no. LA-W910, "PCB wastes with RCRA components"). As such, they will become subject to the already-existing Activities and Compliance Dates specified for LA-W910 wastes in Section 3.2.1 of the STP.

This recent analytical data indicated that the six LA-W904 items (0.62456 m³) from TA-64 (which were bulked into a single container at the time of resampling) did not contain regulated levels of hazardous wastes, but did contain radionuclides, as well as polychlorinated biphenyls (PCBs) at levels of approximately 52 ppm.

These six items, currently subject to the STP, are also regulated as radioactive PCB items subject to the August 8, 1996 EPA/DOE/U.S. Navy Federal Facility Compliance Agreement (FFCAgreement) on storage of PCBs. Under the radioactive PCB FFCAgreement, these items are required to be treated in the Toxic Substances Control Act (TSCA) Incinerator at Oak Ridge National Laboratory (ORNL).

A.2. Transfer Process. The transfer of these wastes from MWIR waste ID LA-W904 to LA-W910 is proposed to be conducted in accordance with the Federal Facility Compliance Order (FFCO) requirements in Section XI, "Deletion of Waste," as amended May 20, 1997;

Section VIII, "Addition of New Covered Waste"; and Section X.B.4, "Revisions," as amended May 20, 1997. This transfer is a two-step process. First, DOE and UC are requesting that the six LA-W904 items be deleted from LA-W904. Second, they are to be transferred into LA-W910 (a shift of existing wastes is considered an addition of waste under FFCO Section VIII, because the shift results in an increased volume in LA-W910).

A.3. Deletion Information. The first step is to delete the items from LA-W904. The following table provides the rationale for this transfer. It presents the information required for deletions in FFCO Section IX.B, and to support the requirements of Sections VIII and X.. This is as follows: "...a description of the applicable waste code, waste form and volumes; if applicable, characterization methodology used along with supporting information; and other relevant information regarding deleted waste..."

The characterization methodology employed for these items included file searches; reviews of generator information; visual inspection of contents; and sampling and analysis of the bulked waste items, in accordance with USEPA SW-846.

Table A-1. Items to be Removed From LA-W904

Item ID#	Volume (cu. meters)	Item Desc. on Waste Data Form	Rationale for Assignment to New Group
35661 35660	0.07571	RAD (suspect) Hg- and Pb-contaminated soil samples collected from TA-1 field study	This container is the result of bulking drum #'s 94041752 and 94041751. The drums contained many sampling bottles of soil which made it difficult to sample individual sampling containers. Therefore the drums were bulked. An analysis was performed on this sub waste stream and it was found to be contaminated with PCB with levels of 52 ppm. This sub waste stream cannot go to Envirocare, and would be best suited for treatability group LA-W910 (<i>PCB Wastes with RCRA Components</i>)
37169 37168 28793 28794	0.54885	Soil samples contaminated with Hg and RAD from TA-1 soil investigation	This container is the result of bulking drum #'s 94041821, 94041820, 93037782 and 93037781. The drums contained many sampling bottles of soil which made it difficult to sample individual sampling containers. Therefore the drums were bulked. An analysis was performed on this sub waste stream and it was found to be contaminated with PCB with levels of 52 ppm. This sub waste stream cannot go to Envirocare, and would be best suited for treatability group LA-W910 (<i>PCB Wastes with RCRA Components</i>)
Total (6 items)	0.62456		

A.4. Need for a Revision. The second step is to add the items to LA-W910. FFCO Section VIII requires that waste additions follow the revision requirements specified in Section X.B. For a small volume such as this one, however, this volume increase (0.62456 cu. m.) falls below the threshold established in Section X.B.4, as amended (i.e., it is less than 1 cu. m.). Therefore, the addition is exempt from the revision requirements of FFCO Section X.

Enclosure B provides replacement language for the affected portions of the CPV for NMED's approval.

**ENCLOSURE B
PROPOSED CPV AMENDMENT TEXT**

[B.1 Redline/strikeout version]

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

3.1.2 Commercial Off-site Treatment by Stabilization or Macroencapsulation

Treatability Group(s):

LLMW for Commercial Stabilization

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m ³)
Lead blankets	LA-W903	D007, D008	4	0.74
Soil with heavy metals	LA-W904	D004, D005, D006, D007, D008, D009, D010, D011	5159	9.4810.53
ER soils	LA-W905	D028, D029, F001, F005 D010, D011	36	39.32
Totals			9199	49.5550.59

Treatment Technology:

The waste will be treated at an off-site facility that stabilizes or macroencapsulates wastes. Should DOE decide to treat waste at an off-site non-commercial facility, 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.

Activity	Compliance Dates
A. Complete all regulatory requirements prior to shipping waste	05/30/97
B. Complete shipping waste	12/29/97 09/30/97
C. Provide documentation to NMED that waste was received at off-site facility	Within 45 days of receipt of waste at treatment facility

3.2 Mixed Waste Streams for Which Technology Requires Adaptation or for Which No Technology Exists

The following subsections summarize mixed waste streams for which technology requires adaptation or for which no technology exists.

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 (m ³)
Halogenated organic liquids	LA-W907	D001, D002, D003, D007, D009, D018, D019, D022, D028, D029, D035, D043, F001, F002, F003, F005, U077, U080, U226, U227, U228, U236	385	16.58
Nonhalogenated organic liquids	LA-W908	D001, D002, D003, D004, D007, D008, D009, D011, D018, D038, D040, F002, F003, F004, F005, U002, U019, U169, U188, U220, U246	275	14.34
Bulk oils	LA-W909	D002, D004, D005, D006, D007, D008, D009, D010, D011, D021, D027, D039, F001, F002, F003, F005	28	3.75
PCB wastes with RCRA components	LA-W910	D004, D005, D006, D008, D009, D039, F002	104	1.366.74
Totals			698692	36.0335.41

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m ³)
Inorganic solid oxidizers	LA-W923	D001, D003, D005	55	0.20
Totals			55	0.20

Treatment Technology:

The preferred destruction treatment technology option for this treatability group is Hydrothermal Processing which is a technology that needs development for adaptation to treat radioactive and PCB-bearing waste. This treatment technology is being adapted at LANL and is expected to be developed into a mobile treatment unit. The GJPO schedule for deployment of the unit indicates its possible availability to LANL after February 2002. Shipment off-site for treatment is a parallel preferred option. Respondents shall submit treatment or off-site shipment schedules and options for NMED's approval by November 30, 1998. Treatment or other options other than off-site shipment shall be carried out pursuant to the revision process. Off-site shipments must be completed by February 2002.

Should DOE decide to treat waste at an off-site non-commercial facility in lieu of plans to treat such waste on-site, 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.

Any and all requirements imposed by the off-site (commercial or non-commercial) treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment facility.

**ENCLOSURE B
PROPOSED CPV AMENDMENT TEXT**

[B.2 Clean copy version]

3.1.2 Off-site Treatment by Stabilization or Macroencapsulation

Treatability Group(s):

LLMW for Stabilization

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m ³)
Lead blankets	LA-W903	D007, D008	4	0.74
Soil with heavy metals	LA-W904	D004, D005, D006, D007, D008, D009, D010, D011	51	9.48
ER soils	LA-W905	D028, D029, F001, F005, D010, D011	36	39.32
Totals			91	49.55

Treatment Technology:

The waste will be treated at an off-site facility that stabilizes or macroencapsulates wastes. Should DOE decide to treat waste at an off-site non-commercial facility, 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.

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Nonhalogenated organic liquids	LA-W908	D001, D002, D003, D004, D007, D008, D009, D011, D018, D038, D040, F002, F003, F004, F005, U002, U019, U169, U188, U220, U246	275	14.34
Bulk oils	LA-W909	D002, D004, D005, D006, D007, D008, D009, D010, D011, D021, D027, D039, F001, F002, F003, F005	28	3.75
PCB wastes with RCRA components	LA-W910	D004, D005, D006, D008, D009, D039, F002	10	1.36
Totals			698	36.03

Treatability group	MWIR waste ID	RCRA codes	Number of items	Net volume (m ³)
Inorganic solid oxidizers	LA-W923	D001, D003, D005	55	0.20
Totals			55	0.20

Treatment Technology:

The preferred destruction treatment technology option for this treatability group is Hydrothermal Processing which is a technology that needs development for adaptation to treat radioactive and PCB-bearing waste. This treatment technology is being adapted at LANL and is expected to be developed into a mobile treatment unit. The GJPO schedule for deployment of the unit indicates its possible availability to LANL after February 2002. Shipment off-site for treatment is a parallel preferred option. Respondents shall submit treatment or off-site shipment schedules and options for NMED's approval by November 30, 1998. Treatment or other options other than off-site shipment shall be carried out pursuant to the revision process. Off-site shipments must be completed by February 2002.

Should DOE decide to treat waste at an off-site non-commercial facility in lieu of plans to treat such waste on-site, 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.

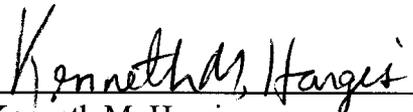
Any and all requirements imposed by the off-site (commercial or non-commercial) treatment facility and state regulatory, federal regulatory or other regulatory requirements applicable at the treatment site shall be met by DOE. DOE will notify the NMED Project Manager in writing as soon as possible and in any event within forty-five (45) working days of receipt of waste at the treatment facility.

ENCLOSURE C

CERTIFICATION

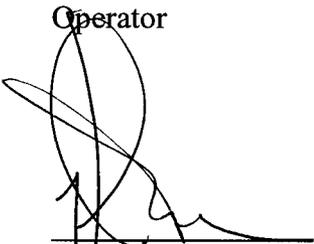
**TREATABILITY GROUP "SOIL WITH HEAVY METALS" - REQUEST FOR
TRANSFER TO TREATABILITY GROUP LA-W910, LOS ALAMOS
NATIONAL LABORATORY (LANL) SITE TREATMENT PLAN**

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 Sept. 1997
Date Signed



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

9/8/97
Date Signed