



Department of Energy
 Carlsbad Field Office
 P. O. Box 3090
 Carlsbad, New Mexico 88221



JUN 23

Mr. James Bearzi, Chief
 Hazardous Waste Bureau
 New Mexico Environment Department
 2905 Rodeo Park Drive East, Building 1
 Santa Fe, New Mexico 87505-6303

Subject: Review of Update for the WIPP Operating Record (Change Notice #2) WIPP
 Eligible OSR Sealed Sources (LA-OS-00-01.001)

Dear Mr. Bearzi:

The Department of Energy Carlsbad Field Office (CBFO) has approved the Change Notice Number 2 for the Waste Isolation Pilot Plant (WIPP) Eligible Off-site Source Recovery (OSR) Sealed Sources (LA-OS-00-01.001) by the Central Characterization Project at Los Alamos National Laboratory.

Enclosed is a copy of the form as required by Section B-5a of the WIPP Hazardous Waste Facility Permit, No. NM4890139088-TSDF.

Please contact me at (575) 234-7300 if you have any questions regarding this correspondence.

Sincerely,

David C. Moody
 Manager

Enclosure(s)

cc: w/enclosures
 S. Zappe, NMED * ED
 CBFO M&RC

cc: w/o enclosures

J. Kieling, NMED	ED	K. Watson, CBFO	ED
V. Daub, CBFO	ED	W. Most, WRES	ED
G. Basabilvazo, CBFO	ED	L. Pastorello, WRES	ED
C. Gadbury, CBFO	ED	W. Ledford, CTAC	ED
S. McCauslin, CBFO	ED	P. Gilbert, LANL	ED
N. Castaneda, CBFO	ED	G. Lyshik, LANL	ED
C. Fesmire, CBFO	ED	C. Walker, TechLaw	ED
J. R. Stroble, CBFO	ED		

ED denotes electronic distr



**WIPP Eligible OSR Sealed Sources
(LA-OS-00-01.001)
Change Notice #2
Update for WIPP Operating Record**

Please add the following information to the WIPP Operating Record for Waste Stream Profile Form (WSPF) LA-OS-00-01.001. This waste stream is WIPP Eligible OSR Sealed Sources and was approved by DOE/CBFO on July 26, 2005. Change Notice 1 was approved on December 6, 2006.

This WSPF is being revised. The WSPF components are bolded. The updates are:

1. WSPF, Date of audit report approval by New Mexico Environment Department (NMED)

Update the NMED audit approval dates to include: June 2, 2008, September 2, 2008, and July 24, 2009.

2. WSPF, Waste Stream Information, Generator Site EPA ID

Revise the Generator Site EPA ID as follows: NM0890010515.

3. WSPF, Title, version, number, and date of documents used for WAP Certification

Update the following procedure revision numbers and approval dates:

CCP-PO-001, CCP Transuranic Waste Characterization Quality Assurance Project Plan, Revision 17, June 23, 2009

CCP-PO-002, CCP Transuranic Waste Certification Plan, Revision 23, April 7, 2010

CCP-PO-012, CCP/Los Alamos National Laboratory (LANL) Interface Document, Revision 7, May 8, 2008

4. WSPF, WIPP ID

Replace the WIPP ID with the following: LA-OS-00-01.001³

Add footnote 3 to page 3 and state the following: TWBIR numbers LA-OS-00-01-S and LA-OS-00-01.001-S also apply.

5. WSPF, Description from the TWBIR

Revise the description from the TWBIR as follows:

Off-Site Source Recovery (OSR) sealed sources are radionuclide (actinide) solids (e.g., Am, Pu, AmBe, or PuBe) that are encapsulated in metal jackets. The actinides are either metal or metal oxides.

6. WSPF, Waste Stream Information, Waste Stream Information, Number of Drums

Update the Number of Drums from 681 to 2,194.

7. WSPF, Required Waste Stream Information, Which Defense Activity generated this waste

Add a footnote to this section as follows:

Defense activities entitled: defense nuclear material production, naval reactors development, defense nuclear waste and materials security and safeguard and security investigations, and defense nuclear waste and material by product management also apply to this waste stream.

8. WSPF, Required Program Information, Required Waste Stream Information, and Supplemental Documentation

Update reference CCP-AK-LANL-008, Revision 4, July 18, 2006 to Revision 8, February 22, 2010.

9. Summation of Aspects of AK Summary Report: LA-OS-00-01.001, Overview

Update reference CCP-AK-LANL-008, Revision 4, July 18, 2006 to Revision 8, February 22, 2010.

Update the reference title to: CCP-AK-LANL-008, *Central Characterization Project Acceptable Knowledge Summary Report For LOS ALAMOS NATIONAL LABORATORY OFF-SITE SOURCE RECOVERY PROJECT SEALED SOURCES: WASTE STREAMS LA-OS-00-01.001, LA-OS-00-03, AND LA-OS-00-04.*

10. Summation of Aspects of AK Summary Report: LA-OS-00-01.001, Waste Stream TWBIR Identification & footnote 1

Replace NA¹ with LA-OS-00-01.001¹

Replace footnote 1 with the following: TWBIR numbers LA-OS-00-01-S and LA-OS-00-01.001-S also apply.

11. Summation of Aspects of AK Summary Report: LA-OS-00-01.001, Waste Stream Identification Summary, Waste Stream Volume

Revise the waste stream volume as follows:

1,066 55-gallon drums (current)
1,128 55-gallon drums (projected)

12. Summation of Aspects of AK Summary Report: LA-OS-00-01.001, Waste Stream Description and Physical Form

Delete the second sentence in paragraph one and insert the following information.

The sealed sources contain varying amounts and combinations of plutonium (Pu), americium (Am), or other TRU nuclides, and may contain beryllium (Be), lithium (Li), or other light elements (such as boron, carbon and fluorine) to create neutron emission. There are also combination sources containing Cs-137 in this waste stream. Primarily, these combination sources consist of Am-241/Be, Pu-238/Li, or Am-241/Li coupled with a Cs-137 gamma emitter.

Delete paragraph 2.

13. Summation of Aspects of AK Summary Report: LA-OS-00-01.001, Ignitability, Corrosivity, Reactivity

Delete the existing references at the end of the paragraph and replace them with the following references.

(References C001, C032, C035, D002, D003, D031 and M133).

14. Summation of Aspects of AK Summary Report: LA-OS-00-01.001, Reactivity

Delete the following sentence from paragraph 1: "Although some sealed sources contain lithium, no lithium is present in the sealed sources in waste stream LA-OS-00-01.001."

Include the following information in place of the deleted information.

Lithium is present in some of the sources in this waste stream. All lithium sources are doubly encapsulated, with the nuclide/lithium mixture contained in a welded stainless steel cylinder additionally encapsulated in an outer welded stainless-steel capsule thereby rendering these sealed, special form sources non-reactive. (Reference D031)

15. Summation of Aspects of AK Summary Report: LA-OS-00-01.001, Toxicity Characteristic

Delete the existing references at the end of the first paragraph and replace them with the following references.

(References C001, C002, C032, C035, D002, D003, D031, M003, M004, M033 and M133).

16. Summation of Aspects of AK Summary Report: LA-OS-00-01.001, Listed Waste

Add the following references to the end of the first paragraph.

(References C001, C032, C035, D002, D003 and D031).

Update the following references at the end of the first paragraph entitled U, K, and P-Listed Chemicals.

(References C001, D002, M003, M005, M007, M033 and P001).

17. Summation of Aspects of AK Summary Report: LA-OS-00-01.001, Prohibited Items

Add the following information to the listing of prohibited items:

- Waste that has ever been managed as high-level waste and waste from tanks specified in Table B-8 of the WIPP HWFP, unless specifically approved through a Class 3 permit modification.
- Any waste container from a waste stream (or waste stream lot) which has not undergone either radiography or visual examination of a statistically representative subpopulation of the waste stream in each shipment, as described in WIPP HWFP Attachment B7.

18. Summation of Aspects of AK Summary Report: LA-OS-00-01.001, table entitled Waste Stream LA-OS-00-01.001 Waste Material Parameters

Revise the table entitled Waste Stream LA-OS-00-01.001 Waste Material Parameters as follows:

Waste Material Parameter	Average Weight Percent	Weight Percent Range
Iron-based Metals/Alloys	85%	0.0 - 100 %
Other Metals	15 %	0.0 – 30.0 %

19. Summation of Aspects of AK Summary Report: LA-OS-00-01.001, Radiological Information, Radiological Characterization

Revise to two most prevalent isotopes by weight to Pu-239 and Am-241.

20. Summation of Aspects of AK Summary Report: LA-OS-00-01.001, Attachment 1, AK Source Documents, Supplemental Documentation

Add the following source documents to Attachment 1:

C032, OSRP Correspondence on Lithium Sources are nonreactive and confirmation to be added into Waste Stream LA-OS-00-01.001, 03/20/08 through 07/10/08

C035, Waste Stream # LA-OS-00-01.001 Characterization of Sources Containing "Other Light Metals", 01/21/09

D003, Hazardous Waste Determination for Actinide-Bearing Sealed Sources to be Received at LANL, 02/25/05

D031, Waste Determination of Encapsulated Radioactive Sources Containing Small Quantities of Lithium, 04/00/08

M133, Characterization of Am-241/Be/Cs-137 Combination Sources, 05/31/07

Reason/Justification for the Change

The NMED audit approval dates have been updated to reflect the most recent audits.

The EPA ID has been revised to correct a typographical error.

Documents used for WAP certification and the AK Summary Report have been updated to reflect the most current revisions and titles.

The WIPP ID and Description from the TWBIR have been updated to include 2009 ATWIR numbers and the predominant ATWIR description.

The waste stream volume has been revised to reflect the current volume generated and projected for this waste stream, as well as the addition of lithium sealed sources.

The response to waste stream profile question "Which Defense Activity generated this waste?" has been revised to reflect all of the defense activities that generated this waste.

The waste stream description and physical form has been updated to reflect revision to CCP-AK-LANL-008.

References have been added for completeness and to reflect the addition of lithium sealed sources to the waste stream. References have been added to the Ignitability, Corrosivity, Reactivity, Toxicity Characteristic, and Listed Waste sections of the Summation to ensure consistency with other CCP waste stream profiles. Attachment 1 of the Summation of Aspects has also been updated to reflect the addition of five new references. AK element numbers S1-S12 do not apply to these references.

The Reactivity Section has been revised to include a discussion about lithium sealed sources. In a 2003 NMED correspondence regarding *NMED Comments on Waste Stream Profile Form LA-OS-00-01.001 (WIPP Eligible OSR Sealed Sources)*, a more detailed description of "light elements" such as lithium, and a hazardous waste determination which addressed the reactivity of lithium-bearing sealed sources was requested. At that time, the Department of Energy Carlsbad Field Office (CBFO) responded that lithium-bearing sources were not part of waste stream LA-OS-00-01.001. Subsequent evaluation of the lithium-bearing sealed sources has shown that these sources are eligible for inclusion into waste stream LA-OS-00-01.001 because they are not reactive. The basis for this determination is as follows: the lithium-bearing sources are clad in multiple welded protective layers which precludes the lithium from being exposed to the elements thereby also precluding the lithium sources from being reactive. The lithium sealed sources that are added to this waste stream are similar in material, physical form and hazardous constituents to waste currently in this waste stream.

Therefore, there is no impact to the EPA HWNs assigned to waste stream LA-OS-00-01.001.

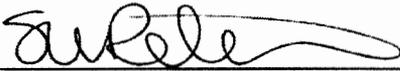
Added information to the Prohibited Items section to reflect changes to Attachment B of the permit since the WSPF was approved.

The table entitled Waste Stream LA-OS-00-01.001 Waste Material Parameters has been updated to reflect current waste stream information.

Revised the two most prevalent isotopes to reflect current analytical information.

Update for the WIPP Operating Record (LA-OS-00-01.001) certification:

I hereby certify that I have reviewed this Update for WIPP Operating Record, and it is complete and accurate to the best of my knowledge. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

	Sue Peterman, SPM	6/15/10
Signature of Site Project Manager	Printed Name and Title	Date