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Los Alamos Field Office
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Date: APR 27 2017
Refer To: ADESH-17-032
LAUR: 17-21946
Locates Action No.: n/a

Esteban Herrera, Chief
Water Enforcement Branch (6EN)
Compliance Assurance and Enforcement Division
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Subject: NPDES Permit No. NM0030759 – Completion of Corrective Action for Eight [8] Sites in B-SMA-0.5 Following Certificates of Completion from the New Mexico Environment Department

Dear Mr. Herrera:

These documents were submitted on March 23, 2017, in accordance with the requirements of the National Pollutant Discharge Elimination System (NPDES) Permit No. NM0030759 for Los Alamos National Laboratory, issued to Los Alamos National Security, LLC, and the U.S. Department of Energy, effective November 1, 2010. However, Los Alamos National Laboratory did not receive confirmation of receipt; therefore, the package is being resubmitted.

Completion of corrective action is being certified to the U.S. Environmental Protection Agency as specified in Part I, Section E.2(d):

> The Site has achieved RCRA [Resource Conservation and Recovery Act] "corrective action complete without controls/corrective action complete with controls" status or a Certificate of Completion under NMED's [New Mexico Environment Department's] Consent Order....

The certification that corrective action is complete was prepared in accordance with 40 Code of Federal Regulations 122.22(b). Accordingly, the certificate of completion issued under NMED's Compliance Order on Consent for these Sites is attached. This letter includes a signed certification statement for each Site (Attachment 1) and a copy of the NMED certificates of completion (Attachment 2). This certified document can be accessed at the following website http://www.lanl.gov/ and searching using the key words "Individual Permit."

Certificates of Completion for Eight Sites in One SMA

Site Number	Associated SMA Number	Permitted Feature	Watershed	Site Priority
10-001(a)	B-SMA-0.5	B001	Los Alamos/Pueblo	Moderate
10-001(b)				
10-001(c)				
10-001(d)				
10-004(a)				
10-004(b)				
10-008				
10-009				

If you have any questions, please contact Terrill Lemke at (505) 665-2397 (tlemke@lanl.gov) or David Rhodes at (505) 665-5325 (david.rhodes@em.doe.gov).

Sincerely,

John C. Bretzke, Division Leader
Environmental Protection & Compliance Division
Los Alamos National Laboratory

Sincerely,

David S. Rhodes, Director
Office of Quality and Regulatory Compliance
Los Alamos Field Office

JB/DH/BR/SV:sm

Attachments: (1) One hard copy with electronic files – Completion of Corrective Action for Eight [8] Sites in B-SMA-0.5 Following Certificates of Completion from the New Mexico Environment Department
(2) NMED-issued certificates of completion

Cy: (w/att.)
Sarah Holcomb, NMED-SWQB, P. O. Box 5469, Santa Fe, NM 87502

Cy: (w/electronic att.)
Laurie King, EPA Region 6, Dallas, TX
Steve Yanicak, NMED-DOE-OB, MS M894
emla.docs@em.doe.gov
Tadz Kostrubala, ADEM ER Program
Terrill Lemke, ADESH-EPC-CP
Public Reading Room (EPRR)
ADESH Records
PRS Database

Cy: (w/o att./date-stamped letter emailed)
Robert Houston, EPA Region 6
Issac Chen, EPA Region 6
Brent Larsen, EPA Region 6
lasomailbox@nnsa.doe.gov
Peter Maggiore, DOE-NA-LA
Kimberly Davis Lebak, DOE-NA-LA
David Rhodes, DOE-EM-LA
Steve Veenis, ADEM ER Program
Bruce Robinson, ADEM ER Program
adeshcorrespondence@lanl.gov
John Bretzke, ADESH-EPC-EO
Michael Brandt, ADESH
William Mairson, PADOPS
Craig Leasure, PADOPS

Attachment 1

Certification of Completion of
Corrective Action for Eight Sites

Completion of Corrective Action at Sites 10-001(a), 10-001(b), 10-001(c), 10-001(d), 10-004(a), 10-004(b), 10-008, and 10-009 in B-SMA-0.5

March 23, 2017

NPDES PERMIT NO. NM0030759

LA-UR-17-21946

NPDES PERMIT NO. NM0030759 **LA-UR-17-21946**

LOS ALAMOS NATIONAL LABORATORY
CERTIFICATION OF COMPLETION OF CORRECTIVE ACTION

PF: B001 **B-SMA-0.5**

Sites:

10-001(a)	**10-001(b)**
10-001(c)	**10-001(d)**
10-004(a)	**10-004(b)**
10-008	**10-009**

The following certification was performed in accordance with NPDES Permit No.NM0030759, Part I.E.2, which requires the Permittees (i.e., DOE and LANS) to certify the completion of corrective action.

CERTIFICATION STATEMENT OF AUTHORIZATION

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

Associate Directorate for Environmental Management
Los Alamos National Laboratory

4/19/2017
Date

Environmental Management
U.S. Department of Energy

4-25-2017
Date

NPDES PERMIT NO. NM0030759 **LA-UR-17-21946**

LOS ALAMOS NATIONAL LABORATORY
CERTIFICATION OF COMPLETION OF CORRECTIVE ACTION

PF: B001 **B-SMA-0.5** **Sites:**

10-001(a) 10-001(b)
10-001(c) 10-001(d)
10-004(a) 10-004(b)
10-008 10-009

This document certifies completion of corrective action for Sites 10-001(a), 10-001(b), 10-001(c), 10-001(d), 10-004(a), 10-004(b), 10-008, and 10-009 pursuant to Part 1, E.2(d) of the Individual Permit NM0030759. Attached is a copy of the New Mexico Environment Department– (NMED-) issued certificate of completion (COC) letter for these Sites, which are designated as areas of concern and solid waste management units for the purposes of the 2016 Compliance Order on Consent (Consent Order). The Sites listed in Table 1 have achieved Resource Conservation and Recovery Act "corrective action complete without controls/corrective action complete with controls" status under the Consent Order. This certification that corrective action is complete was prepared in accordance with 40 Code of Federal Regulations 122.22(b).

In September 2013, analytical results obtained from baseline confirmation monitoring of B-SMA-0.5 exceeded target action levels for gross alpha, causing the Permittees to initiate corrective action. On October 30, 2015, the Permittees submitted to the U.S. Environmental Protection Agency a letter entitled "NPDES Permit No. NM0030759 Request for an Extension Based on Force Majeure under Part I.E.4(C) for Eighteen Sites within Ten Site Monitoring Areas" (ADESH-15-140). The eight Sites subject to this certification were part of the force majeure request. As stated in the letter, the extension request for the force majeure deadline was made because the "Sites are eligible to be approved by the New Mexico Environment Department (NMED) and certified for completion of corrective action under the 2016 Complaince Order on Consent (the Consent Order)." NMED has issued COCs; therefore, the request for an extension at these Sites is no longer applicable. A copy of the COCs from NMED is included in Attachment 2.

Table 1
Completion of Corrective Action for Eight Sites

Site	Associated SMA Number	Watershed	Site Priority
10-001(a) 10-001(b) 10-001(c) 10-001(d) 10-004(a) 10-004(b) 10-008 10-009	B-SMA-1	Los Alamos/Pueblo	Moderate

Attachment 2

New Mexico Environment Department Certificates of Completion for Eight Sites

NEW MEXICO
ENVIRONMENT DEPARTMENT

2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6313
Phone (505) 476-6000 Fax (505) 476-6030
www.env.nm.gov

SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
Lt. Governor

BUTCH TONGATE
Cabinet Secretary - Designate
J. C. BORREGO
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

January 31, 2017

Doug Hintze, Manager
U.S. Department of Energy
EM-Los Alamos Field Office, DOE
3747 West Jemez Rd, MS A316
Los Alamos, NM 87544

Michael Brandt, Associate Director
Environment, Safety, Health
Los Alamos National Laboratory
P.O. Box 1663, MS K491
Los Alamos, NM 87545

RE: REQUEST FOR CERTIFICATES OF COMPLETION FOR THREE AREAS OF CONCERN AND TWENTY-SIX SOLID WASTE MANAGEMENT UNITS IN THE BAYO CANYON AGGREGATE AREA
EPA ID #NM0890010515
HWB-LANL-15-029

Dear Messrs. Hintze and Brandt:

The New Mexico Environment Department (NMED) has received the United States Department of Energy (DOE) and the Los Alamos National Security L.L.C.'s (LANS) (collectively, the Permittees) *Request for Certificates of Completion for Three Areas of Concern and Twenty-Six Solid Waste Management Units in the Bayo Canyon Aggregate Area* (Request), dated June 15, 2015 and referenced by ADESH-15-086.

These three areas of concern (AOCs) and twenty-six solid waste management units (SWMUs) were recommended for corrective action complete in the *Investigation Report for Bayo Canyon Aggregate Area, Revision 1* (Report), dated May 2008 (LA-UR-08-3202/EP2008-0226). NMED issued a *Notice of Disapproval* (NOD) for the Report on April 24, 2008 and a *Direction to Modify* (DTM) on May 27, 2010. The Permittees have requested that twenty-six SWMUs and three AOCs be granted certificates of completion without controls.

NMED hereby issues certificates of completion without controls for the following twenty-six SWMUs and three AOCs pursuant to Section XXI of the 2016 Consent Order. Consolidated Unit (CU) 10-002(a)-99, which consists of SWMUs 10-002(a,b), 10-003(a-o), 10-004(b), and 10-007,

exceeded the residential dose limit due exclusively to strontium-90. In the April 24, 2008 DTM the Permittees were directed to submit a work plan for NMED review and approval proposing removal activities at the areas where strontium-90 contamination was present (two isolated areas south of the former radiochemistry building and SWMU 10-007). In the August 31, 2009 *Bayo Canyon Aggregate Area Stontium-90 Removal Field Implementation Plan* the Permittees stated that once the plan had been implemented, they would provide the results of the cleanup activities and confirmation sampling to NMED. According to the Request, the Permittees implemented the strontium-90 removal plan in September 2011. To date, the Permittees have not provided the results of the cleanup activities to NMED. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE and notes that the Permittees have recommended that DOE continue to maintain administrative control of the area in order to restrict the land use to recreational land use only.

SWMU 10-001(a) is one of four former firing sites built specifically for experiments with high explosives (HE) in conjunction with research on nuclear weapons. The detonations resulted in the dispersion of radioactive materials, including uranium, lanthanum-140, and strontium-90, in the form of aerosols and solid debris. Five structures are associated with the shot pad: a battery building (power source), a fire control building, an electronics chamber, an X-unit chamber, and an inspection building. All explosives testing ceased in 1961 and decontamination and decommissioning activities (D&D) were completed by 1963. Multiple surveys, surface sampling, and subsurface sampling activities were conducted between 1963 and 1986. A Phase 1 Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) was conducted in 1994 to determine if residual contamination existed in surficial deposits near the firing pads and to confirm no unacceptable human health or ecological risks were associated with the hazardous constituents found in previous investigations. A 1995 Interim Action (IA) was conducted to remove surface shrapnel. The 2005 *Investigation Work Plan for Bayo Canyon Aggregate Area* (WP) identified additional data needs for the site and was implemented in 2007. The current and reasonably foreseeable land use is recreational. The Report indicates that SWMU 10-001(a) does not pose an unacceptable risk to human health from RCRA hazardous constituents or radionuclides for the recreational, construction worker, and residential scenarios. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 10-00l(b) is one of four former firing sites built specifically for experiments with HE in conjunction with research on nuclear weapons. The detonations resulted in the dispersion of radioactive materials, including uranium, lanthanum-140, and strontium-90, in the form of aerosols and solid debris. Five structures are associated with the shot pad: a battery building (power source), a fire control building, an electronics chamber, an X-unit chamber, and an inspection building. All explosives testing ceased in 1961 and D&D was completed by 1963. Multiple surveys, surface sampling, and subsurface sampling activities were conducted between 1963 and 1986. A Phase 1 RFI was conducted in 1994 to determine if residual contamination existed in surficial deposits near the firing pads and to confirm no unacceptable human health or ecological risks were associated with the hazardous constituents found in previous investigations. A 1995 IA was conducted to remove surface shrapnel. The 2005 WP identified additional data needs for the site and was implemented in 2007. The current and reasonably foreseeable land use

is recreational. The Report indicates that SWMU 10-001(b) does not pose an unacceptable risk to human health from RCRA hazardous constituents or radionuclides for the recreational, construction worker, and residential scenarios. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 10-00l(c) is one of four former firing sites built specifically for experiments with HE in conjunction with research on nuclear weapons. The detonations resulted in the dispersion of radioactive materials, including uranium, lanthanum-140, and strontium-90, in the form of aerosols and solid debris. Five structures are associated with the shot pad: a battery building (power source), a fire control building, an electronics chamber, an X-unit chamber, and an inspection building. All explosives testing ceased in 1961 and D&D was completed by 1963. Multiple surveys, surface sampling, and subsurface sampling activities were conducted in the area between 1963 and 1986. A Phase 1 RFI was conducted in 1994 to determine if residual contamination existed in surficial deposits near the firing pads and to confirm no unacceptable human health or ecological risks were associated with the hazardous constituents found in previous investigations. A 1995 IA was conducted to remove surface shrapnel. The 2005 WP identified additional data needs for the site and was implemented in 2007. The current and reasonably foreseeable land use is recreational. The Report indicates that SWMU 10-001(c) does not pose an unacceptable risk to human health from RCRA hazardous constituents or radionuclides. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 10-001(d) is one of four former firing sites built specifically for experiments with HE in conjunction with research on nuclear weapons. The detonations resulted in the dispersion of radioactive materials, including uranium, lanthanum-140, and strontium-90, in the form of aerosols and solid debris. Five structures are associated with the shot pad: a battery building (power source), a fire control building, an electronics chamber, an X-unit chamber, and an inspection building. All explosives testing ceased in 1961 and D&D was completed by 1963. Multiple surveys, surface sampling, and subsurface sampling activities were conducted between 1963 and 1986. A Phase 1 RFI was conducted in 1994 to determine if residual contamination existed in surficial deposits near the firing pads and to confirm no unacceptable human health or ecological risks were associated with the hazardous constituents found in previous investigations. A 1995 IA was conducted to remove surface shrapnel. The 2005 WP identified additional data needs for the site and was implemented in 2007. The current and reasonably foreseeable land use is recreational. The Report indicates that SWMU 10-001(d) does not pose an unacceptable risk to human health from RCRA hazardous constituents or radionuclides. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 10-002(a) consists of a former waste disposal pit associated with a liquid waste disposal complex used during radiochemistry laboratory operations. The pit received spent chemicals, laboratory equipment, gloves, rags, and acid bottles. In 1963 the pit was excavated to a depth of 15 feet and backfilled with clean soil. In 1994 RFI activities were conducted to define the nature and extent of subsurface contamination related to historic activities at the site. In 1996 IA activities were conducted to address radioactive contamination of vegetation. The results of the Report indicate that SWMU 10-002(a) does not pose an unacceptable risk to human health from

RCRA hazardous constituents under the recreational, construction worker, and residential scenarios or from radionuclides under the recreational and construction worker scenario. There is potential unacceptable risk to human health under the residential scenario from radionuclides. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. Consolidate Unit (CU) 10-002(a)-99, which includes SWMU 10-002(a), exceeds dose guidelines under the residential scenario due exclusively to strontium-90. The excess cancer risk from radionuclides for the residential scenario is 1×10^{-4} which exceeds the NMED target risk of 1×10^{-5}. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE. The Permittees have recommended that DOE continue to maintain administrative control of the area in order to restrict the land use to recreational land use only.

SWMU 10-002(b) consists of a former waste disposal pit associated with a liquid waste disposal complex used during radiochemistry laboratory operations. In 1963 the pit was excavated to a depth of 26 feet and backfilled with clean soil. In 1994 RFI activities were conducted to define the nature and extent of subsurface contamination related to historic activities at the site. In 1996 IA activities were conducted to address radioactive contamination of vegetation. The results of the Report indicate that SWMU 10-002(b) does not pose an unacceptable risk to human health from RCRA hazardous constituents under the recreational, construction worker, and residential scenarios or from radionuclides under the recreational and construction worker scenario. There is potential unacceptable risk to human health under the residential scenario from radionuclides. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. CU 10-002(a)-99, which includes SWMU 10-002(b), exceeds dose guidelines under the residential scenario due exclusively to strontium-90. The excess cancer risk from radionuclides for the residential scenario is 1×10^{-4} which exceeds the NMED target risk of 1×10^{-5}. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE. The Permittees have recommended that DOE continue to maintain administrative control of the area in order to restrict the land use to recreational land use only.

SWMU 10-003(a) consists of a former waste disposal pit that received the liquid radioactive and chemical wastes generated by radiochemistry laboratory operations. In 1963 the pit was excavated and backfilled with clean soil. In 1994, RFI activities were conducted to define the nature and extent of subsurface contamination related to historic activities at the site. In 1996, IA activities were conducted to address radioactive contamination of vegetation. The results of the Report indicate that SWMU 10-003(a) does not pose an unacceptable risk to human health from RCRA hazardous constituents under the recreational, construction worker, and residential scenarios or from radionuclides under the recreational and construction worker scenario. There is potential unacceptable risk to human health under the residential scenario from radionuclides. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. The current and reasonably foreseeable land use is recreational. CU 10-002(a)-99, which includes SWMU 10-003(a), exceeds dose guidelines under the residential scenario due exclusively to strontium-90. The excess cancer risk from radionuclides for the residential scenario is 1×10^{-4} which exceeds the NMED target risk of 1×10^{-5}. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE. The Permittees have recommended that DOE continue to maintain administrative control of the area

in order to restrict the land use to recreational land use only. The DOE currently maintains physical controls which consist of monuments posted to prohibit excavation of the area before the year 2142, a fenced exclusion zone, and a path that directs recreational land users away from the area.

SWMU 10-003(b) consists of soil contamination from a former waste disposal pit that received the liquid radioactive and chemical wastes generated by radiochemistry laboratory operations. In 1963 the pit was excavated and backfilled with clean soil. In 1994, RFI activities were conducted to define the nature and extent of subsurface contamination related to historic activities at the site. In 1996, IA activities were conducted to address radioactive contamination of vegetation. The results of the Report indicate that SWMU 10-003(b) does not pose an unacceptable risk to human health from RCRA hazardous constituents under the recreational, construction worker, and residential scenarios or from radionuclides under the recreational and construction worker scenario. There is potential unacceptable risk to human health under the residential scenario from radionuclides. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. The current and reasonably foreseeable land use is recreational. CU 10-002(a)-99, which includes SWMU 10-003(b), exceeds dose guidelines under the residential scenario due exclusively to strontium-90. The excess cancer risk from radionuclides for the residential scenario is 1×10^{-4} which exceeds the NMED target risk of 1×10^{-5}. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE. The Permittees have recommended that DOE continue to maintain administrative control of the area in order to restrict the land use to recreational land use only.

SWMU 10-003(c) consists of soil contamination from a former waste disposal pit that received the liquid radioactive and chemical wastes generated by radiochemistry laboratory operations. In 1963 the pit was excavated and backfilled with clean soil. In 1994, RFI activities were conducted to define the nature and extent of subsurface contamination related to historic activities at the site. In 1996, IA activities were conducted to address radioactive contamination of vegetation. The results of the Report indicate that SWMU 10-003(c) does not pose an unacceptable risk to human health from RCRA hazardous constituents under the recreational, construction worker, and residential scenarios or from radionuclides under the recreational and construction worker scenario. There is potential unacceptable risk to human health under the residential scenario from radionuclides. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. The current and reasonably foreseeable land use is recreational. CU 10-002(a)-99, which includes SWMU 10-003(c), exceeds dose guidelines under the residential scenario due exclusively to strontium-90. The excess cancer risk from radionuclides for the residential scenario is 1×10^{-4} which exceeds the NMED target risk of 1×10^{-5}. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE. The Permittees have recommended that DOE continue to maintain administrative control of the area in order to restrict the land use to recreational land use only. The DOE currently maintains physical controls which consist of monuments posted to prohibit excavation of the area before the year 2142, a fenced exclusion zone, and a path that directs recreational land users away from the area.

SWMU 10-003(d) consists of a former waste disposal pit that received the liquid radioactive and chemical wastes generated by radiochemistry laboratory operations. In 1963 the pit was excavated and backfilled with clean soil. In 1994, RFI activities were conducted to define the nature and extent of subsurface contamination related to historic activities at the site. In 1996, IA activities were conducted to address radioactive contamination of vegetation. The results of the Report indicate that SWMU 10-003(d) does not pose an unacceptable risk to human health from RCRA hazardous constituents under the recreational, construction worker, and residential scenarios or from radionuclides under the recreational and construction worker scenario. There is potential unacceptable risk to human health under the residential scenario from radionuclides. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. The current and reasonably foreseeable land use is recreational. CU 10-002(a)-99, which includes SWMU 10-003(d), exceeds dose guidelines under the residential scenario due exclusively to strontium-90. The excess cancer risk from radionuclides for the residential scenario is 1×10^{-4} which exceeds the NMED target risk of 1×10^{-5}. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE. The Permittees have recommended that DOE continue to maintain administrative control of the area in order to restrict the land use to recreational land use only.

SWMU 10-003(e) consists of a former waste disposal pit that received the liquid radioactive and chemical wastes generated by radiochemistry laboratory operations. In 1963 the pit was excavated and backfilled with clean soil. In 1994, RFI activities were conducted to define the nature and extent of subsurface contamination related to historic activities at the site. In 1996, IA activities were conducted to address radioactive contamination of vegetation. The results of the Report indicate that SWMU 10-003(e) does not pose an unacceptable risk to human health from RCRA hazardous constituents under the recreational, construction worker, and residential scenarios or from radionuclides under the recreational and construction worker scenario. There is potential unacceptable risk to human health under the residential scenario from radionuclides. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. The current and reasonably foreseeable land use is recreational. CU 10-002(a)-99, which includes SWMU 10-003(e), exceeds dose guidelines under the residential scenario due exclusively to strontium-90. The excess cancer risk from radionuclides for the residential scenario is 1×10^{-4} which exceeds the NMED target risk of 1×10^{-5}. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE. The Permittees have recommended that DOE continue to maintain administrative control of the area in order to restrict the land use to recreational land use only. The DOE currently maintains physical controls which consist of monuments posted to prohibit excavation of the area before the year 2142, a fenced exclusion zone, and a path that directs recreational land users away from the area.

SWMU 10-003(f) consists of a former waste disposal pit that received the liquid radioactive and chemical wastes generated by radiochemistry laboratory operations. In 1963 the pit was excavated and backfilled with clean soil. In 1994, RFI activities were conducted to define the nature and extent of subsurface contamination related to historic activities at the site. In 1996, IA activities were conducted to address radioactive contamination of vegetation. The results of the Report indicate that SWMU 10-003(f) does not pose an unacceptable risk to human health from

RCRA hazardous constituents under the recreational, construction worker, and residential scenarios or from radionuclides under the recreational and construction worker scenario. There is potential unacceptable risk to human health under the residential scenario from radionuclides. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. The current and reasonably foreseeable land use is recreational. CU 10-002(a)-99, which includes SWMU 10-003(f), exceeds dose guidelines under the residential scenario due exclusively to strontium-90. The excess cancer risk from radionuclides for the residential scenario is 1×10^{-4} which exceeds the NMED target risk of 1×10^{-5}. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE. The Permittees have recommended that DOE continue to maintain administrative control of the area in order to restrict the land use to recreational land use only. The DOE currently maintains physical controls which consist of monuments posted to prohibit excavation of the area before the year 2142, a fenced exclusion zone, and a path that directs recreational land users away from the area.

SWMU 10-003(g) consists of manholes that received the liquid radioactive and chemical wastes generated by radiochemistry laboratory operations. In 1963 the site was excavated and backfilled with clean soil. In 1994, RFI activities were conducted to define the nature and extent of subsurface contamination related to historic activities at the site. In 1996, IA activities were conducted to address radioactive contamination of vegetation. The results of the Report indicate that SWMU 10-003(g) does not pose an unacceptable risk to human health from RCRA hazardous constituents under the recreational, construction worker, and residential scenarios or from radionuclides under the recreational and construction worker scenario. There is potential unacceptable risk to human health under the residential scenario. from radionuclides. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. The current and reasonably foreseeable land use is recreational. CU 10-002(a)-99, which includes SWMU 10-003(g), exceeds dose guidelines under the residential scenario due exclusively to strontium-90. The excess cancer risk from radionuclides for the residential scenario is 1×10^{-4} which exceeds the NMED target risk of 1×10^{-5}. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE. The Permittees have recommended that DOE continue to maintain administrative control of the area in order to restrict the land use to recreational land use only. The DOE currently maintains physical controls which consist of monuments posted to prohibit excavation of the area before the year 2142, a fenced exclusion zone, and a path that directs recreational land users away from the area.

SWMU 10-003(h) consists of soil contamination from a former manhole that received the liquid radioactive and chemical wastes generated by radiochemistry laboratory operations. In 1963 the site was excavated and backfilled with clean soil. In 1994, RFI activities were conducted to define the nature and extent of subsurface contamination related to historic activities at the site. In 1996, IA activities were conducted to address radioactive contamination of vegetation. The results of the Report indicate that SWMU 10-003(h) does not pose an unacceptable risk to human health from RCRA hazardous constituents under the recreational, construction worker, and residential scenarios or from radionuclides under the recreational and construction worker scenario. There is potential unacceptable risk to human health under the residential scenario from

radionuclides. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. The current and reasonably foreseeable land use is recreational. CU 10-002(a)-99, which includes SWMU 10-003(h), exceeds dose guidelines under the residential scenario due exclusively to strontium-90. The excess cancer risk from radionuclides for the residential scenario is 1×10^{-4} which exceeds the NMED target risk of 1×10^{-5}. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE. The Permittees have recommended that DOE continue to maintain administrative control of the area in order to restrict the land use to recreational land use only.

SWMU 10-003(i) consists of a septic tank that received the liquid radioactive and chemical wastes generated by radiochemistry laboratory operations. In 1963 the site was excavated and backfilled with clean soil. In 1994, RFI activities were conducted to define the nature and extent of subsurface contamination related to historic activities at the site. In 1996, IA activities were conducted to address radioactive contamination of vegetation. The results of the Report indicate that SWMU 10-003(i) does not pose an unacceptable risk to human health from RCRA hazardous constituents under the recreational, construction worker, and residential scenarios or from radionuclides under the recreational and construction worker scenario. There is potential unacceptable risk to human health under the residential scenario from radionuclides. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. The current and reasonably foreseeable land use is recreational. CU 10-002(a)-99, which includes SWMU 10-003(i), exceeds dose guidelines under the residential scenario due exclusively to strontium-90. The excess cancer risk from radionuclides for the residential scenario is 1×10^{-4} which exceeds the NMED target risk of 1×10^{-5}. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE. The Permittees have recommended that DOE continue to maintain administrative control of the area in order to restrict the land use to recreational land use only. The DOE currently maintains physical controls which consist of monuments posted to prohibit excavation of the area before the year 2142, a fenced exclusion zone, and a path that directs recreational land users away from the area.

SWMU 10-003(j) consists of a tank that received the liquid radioactive and chemical wastes generated by radiochemistry laboratory operations. In 1963 the site was excavated and backfilled with clean soil. In 1994 RFI activities were conducted to define the nature and extent of potential subsurface contamination related to historic activities at the site. In 1996 IA activities were conducted to address radioactive contamination of vegetation. The results of the Report indicate that SWMU 10-003(j) does not pose an unacceptable risk to human health from RCRA hazardous constituents under the recreational, construction worker, and residential scenarios or from radionuclides under the recreational and construction worker scenario. There is potential unacceptable risk to human health under the residential scenario from radionuclides. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. The current and reasonably foreseeable land use is recreational. CU 10-002(a)-99, which includes SWMU 10-003(j), exceeds dose guidelines under the residential scenario due exclusively to strontium-90. The excess cancer risk from radionuclides for the residential scenario is 1×10^{-4} which exceeds the NMED target risk of 1×10^{-5}. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE. The

Permittees have recommended that DOE continue to maintain administrative control of the area in order to restrict the land use to recreational land use only. The DOE currently maintains physical controls which consist of monuments posted to prohibit excavation of the area before the year 2142, a fenced exclusion zone, and a path that directs recreational land users away from the area.

SWMU 10-003(k) consists of soil contamination from a former tank that received the liquid radioactive and chemical wastes generated by radiochemistry laboratory operations. In 1963 the site was excavated and backfilled with clean soil. In 1994, RFI activities were conducted to define the nature and extent of subsurface contamination related to historic activities at the site. In 1996, IA activities were conducted to address radioactive contamination of vegetation. The results of the Report indicate that SWMU 10-003(k) does not pose an unacceptable risk to human health from RCRA hazardous constituents under the recreational, construction worker, and residential scenarios or from radionuclides under the recreational and construction worker scenario. There is potential unacceptable risk to human health under the residential scenario from radionuclides. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. The current and reasonably foreseeable land use is recreational. CU 10-002(a)-99, which includes SWMU 10-003(k), exceeds dose guidelines under the residential scenario due exclusively to strontium-90. The excess cancer risk from radionuclides for the residential scenario is 1×10^{-4} which exceeds the NMED target risk of 1×10^{-5}. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE. The Permittees have recommended that DOE continue to maintain administrative control of the area in order to restrict the land use to recreational land use only. The DOE currently maintains physical controls which consist of monuments posted to prohibit excavation of the area before the year 2142, a fenced exclusion zone, and a path that directs recreational land users away from the area.

SWMU 10-003(l) consists of a tank that received the liquid radioactive and chemical wastes generated by radiochemistry laboratory operations. In 1963 the site was excavated and backfilled with clean soil. In 1994 RFI activities were conducted to define the nature and extent of potential subsurface contamination related to historic activities at the site. In 1996 IA activities were conducted to address radioactive contamination of vegetation. The results of the Report indicate that SWMU 10-003(l) does not pose an unacceptable risk to human health from RCRA hazardous constituents under the recreational, construction worker, and residential scenarios or from radionuclides under the recreational and construction worker scenario. There is potential unacceptable risk to human health under the residential scenario from radionuclides. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. The current and reasonably foreseeable land use is recreational. CU 10-002(a)-99, which includes SWMU 10-003(l), exceeds dose guidelines under the residential scenario due exclusively to strontium-90. The excess cancer risk from radionuclides for the residential scenario is 1×10^{-4} which exceeds the NMED target risk of 1×10^{-5}. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE. The Permittees have recommended that DOE continue to maintain administrative control of the area in order to restrict the land use to recreational land use only. The DOE currently maintains physical controls which consist of monuments posted to prohibit excavation of the area before

the year 2142, a fenced exclusion zone, and a path that directs recreational land users away from the area.

SWMU 10-003(m) consists of a soil contamination from a former waste line that received the liquid radioactive and chemical wastes generated by radiochemistry laboratory operations. In 1963 the site was excavated and backfilled with clean soil. In 1994 RFI activities were conducted define the nature and extent of subsurface contamination related to historic activities at the site. In 1996 IA activities were conducted to address radioactive contamination of vegetation. The results of the Report indicate that SWMU 10-003(m) does not pose an unacceptable risk to human health from RCRA hazardous constituents under the recreational, construction worker, and residential scenarios or from radionuclides under the recreational and construction worker scenario. There is potential unacceptable risk to human health under the residential scenario from radionuclides. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. The current and reasonably foreseeable land use is recreational. CU 10-002(a)-99, which includes SWMU 10-003(m), exceeds dose guidelines under the residential scenario due exclusively to strontium-90. The excess cancer risk from radionuclides for the residential scenario is 1×10^{-4} which exceeds the NMED target risk of 1×10^{-5}. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE. The Permittees have recommended that DOE continue to maintain administrative control of the area in order to restrict the land use to recreational land use only. The DOE currently maintains physical controls which consist of monuments posted to prohibit excavation of the area before the year 2142, a fenced exclusion zone, and a path that directs recreational land users away from the area.

SWMU 10-003(n) consists of a soil contamination from a former leach field that received the liquid radioactive and chemical wastes generated by radiochemistry laboratory operations. In 1963 the site was excavated and backfilled with clean soil. In 1994 RFI activities were conducted to define the nature and extent of subsurface contamination related to historic activities at the site. In 1996 IA activities were conducted to address radioactive contamination of vegetation. The results of the Report indicate that SWMU 10-003(n) does not pose an unacceptable risk to human health from RCRA hazardous constituents under the recreational, construction worker, and residential scenarios or from radionuclides under the recreational and construction worker scenario. There is potential unacceptable risk to human health under the residential scenario from radionuclides. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. The current and reasonably foreseeable land use is recreational. CU 10-002(a)-99, which includes SWMU 10-003(n), exceeds dose guidelines under the residential scenario due exclusively to strontium-90. The excess cancer risk from radionuclides for the residential scenario is 1×10^{-4} which exceeds the NMED target risk of 1×10^{-5}. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE. The Permittees have recommended that DOE continue to maintain administrative control of the area in order to restrict the land use to recreational land use only.

SWMU 10-003(o) consists of soil contamination from decontamination holes that received the liquid radioactive and chemical wastes generated by radiochemistry laboratory operations. In 1963 the site was excavated and backfilled with clean soil. In 1994 RFI activities were conducted

to define the nature and extent of subsurface contamination related to historic activities at the site. In 1996 IA activities were conducted to address radioactive contamination of vegetation. The results of the Report indicate that SWMU 10-003(o) does not pose an unacceptable risk to human health from RCRA hazardous constituents under the recreational, construction worker, and residential scenarios or from radionuclides under the recreational and construction worker scenario. There is potential unacceptable risk to human health under the residential scenario from radionuclides. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. The current and reasonably foreseeable land use is recreational. CU 10-002(a)-99, which includes SWMU 10-003(o), exceeds dose guidelines under the residential scenario due exclusively to strontium-90. The excess cancer risk from radionuclides for the residential scenario is 1×10^{-4} which exceeds the NMED target risk of 1×10^{-5}. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE. The Permittees have recommended that DOE continue to maintain administrative control of the area in order to restrict the land use to recreational land use only.

SWMU 10-004(a) is a former septic tank which was once part of a liquid waste disposal complex and was removed during D&D activities in 1963. The resulting excavation was backfilled and the tank was disposed at Technical Area (TA)-54. A Phase 1 RFI was conducted in 1994 to determine if residual contamination existed in surficial deposits near the site and to confirm no unacceptable human health or ecological risks were associated with the hazardous constituents found in previous investigations. A 1995 IA was conducted to remove surface shrapnel. The 2005 WP identified additional data needs for the site and was implemented in 2007. The current and reasonably foreseeable land use is recreational. The Report indicates that SWMU 10-004 does not pose an unacceptable risk to human health from RCRA hazardous constituents or radionuclides. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 10-004(b) consists of a reinforced sanitary septic tank that served the radiochemistry lab and may have also received liquid waste from the radiochemistry lab operations. In 1963 the site was excavated and backfilled with clean soil. In 1994 RFI activities were conducted to define the nature and extent of subsurface contamination related to historic activities at the site. In 1996 IA activities were conducted to address radioactive contamination of vegetation. The results of the Report indicate that SWMU 10-004(b) does not pose an unacceptable risk to human health from RCRA hazardous constituents under the recreational, construction worker, and residential scenarios or from radionuclides under the recreational and construction worker scenario. There is potential unacceptable risk to human health under the residential scenario from radionuclides. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. The current and reasonably foreseeable land use is recreational. CU 10-002(a)-99, which includes SWMU 10-004(b), exceeds dose guidelines under the residential scenario due exclusively to strontium-90. The excess cancer risk from radionuclides for the residential scenario is 1×10^{-4} which exceeds the NMED target risk of 1×10^{-5}. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE. The Permittees have recommended that DOE continue to maintain administrative control of the area in order to restrict the land use to recreational land use only.

SWMU 10-005 consists of a former open disposal pit used in conjunction with test shot operations during the 1940s and 1950s. No documented quantity of debris disposed of in the pit can be found. A Phase 1 RFI was conducted in 1994 to determine if residual contamination existed in surficial deposits near the pit and to confirm no unacceptable human health or ecological risks were associated with the hazardous constituents found in previous investigations. A 1995 IA was conducted to remove surface shrapnel. The 2005 WP identified additional data needs for the site and was implemented in 2007. The current and reasonably foreseeable land use is recreational. The Report indicates that SWMU 10-005 does not pose an unacceptable risk to human health from RCRA hazardous constituents or radionuclides. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 10-006 consist of multiple locations where burning operations at TA-10 were conducted, primarily in the 1950s and early 1960s. The exact location of this SMWU is not known. As part of the 2007 investigation activities, efforts were made to locate this SWMU. The suspect area was located, and test pits and hand-auger holes were excavated to look for evidence of burning, such as ash, charcoal, and charred debris. The Report concludes that there is no indication that the site exists or that it may have been cleaned up during D&D of former TA-10. The Report indicates that SWMU 10-006 does not pose an unacceptable risk to human health from RCRA hazardous constituents or radionuclides. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 10-007 consists of a landfill containing the waste and building debris generated during the 1963 D&D activities associated with the former liquid disposal complex and firing sites. The landfill is covered with soil and sparse vegetation and is enclosed by a posted fenced area with a wattle-bermed barrier. In 1994 RFI activities were conducted to define the nature and extent of subsurface contamination related to historic activities at the site. In 1996 IA activities were conducted to address radioactive contamination of vegetation. The results of the Report indicate that SWMU 10-007 does not pose an unacceptable risk to human health from RCRA hazardous constituents under the recreational, construction worker, and residential scenarios or from radionuclides under the recreational and construction worker scenario. There is potential unacceptable risk to human health under the residential scenario from radionuclides. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. The current and reasonably foreseeable land use is recreational. CU 10-002(a)-99, which includes SWMU 10-007, exceeds dose guidelines under the residential scenario due exclusively to strontium-90. The excess cancer risk from radionuclides for the residential scenario is 1×10^{-4} which exceeds the NMED target risk of 1×10^{-5}. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE. The Permittees have recommended that DOE continue to maintain administrative control of the area in order to restrict the land use to recreational land use only. The DOE currently maintains physical controls which consist of monuments posted to prohibit excavation of the area before the year 2142, a fenced exclusion zone, and a path that directs recreational land users away from the area.

AOC 10-008 consists of a tree rimmed, nonradioactive, satellite firing site. The site was identified during the 1994 IA and evaluated during the RFI. A 1995 IA was conducted to

remove surface shrapnel. The 2005 WP identified additional data needs for the site and was implemented in 2007. The current and reasonably foreseeable land use is recreational. The Report indicates that AOC 10-008 does not pose an unacceptable risk to human health from RCRA hazardous constituents or radionuclides. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

AOC 10-009 is a suspected former disposal site discovered during IA operations in Bayo Canyon in 1994. A 1995 IA was conducted to remove surface shrapnel. The 2005 WP identified additional data needs for the site and was implemented in 2007. The current and reasonably foreseeable land use is recreational. The Report indicates that AOC 10-009 does not pose an unacceptable risk to human health from RCRA hazardous constituents under the recreational, construction worker, and residential scenarios or from radionuclides under the recreational and construction worker scenario. There is an unacceptable risk to human health under the residential scenario from radionuclides. The excess cancer risk from radionuclides for the residential scenario is 2×10^{-5} which exceeds the NMED target risk of 1×10^{-5}. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE. The DOE currently maintains physical controls to prevent access by recreational land users which consist of a locked chain-link fence surrounding the area encompassing AOC 10-009.

AOC C-10-001 is located within the fenced area and consists of two former radioactive (strontium-90) soil contamination areas. These areas were bulldozed during 1963 D&D activities but were rediscovered during shrapnel-removal operations in 1994. A voluntary corrective action (VCA) was conducted in 1995 to excavate the radioactive soil and restore the site with clean fill material. The 2005 WP identified additional data needs for the site and was implemented in 2007. The current and reasonably foreseeable land use is recreational. The Report indicates that AOC C-10-001 does not pose an unacceptable risk to human health from RCRA hazardous constituents under the recreational, construction worker, and residential scenarios or from radionuclides under the recreational and construction worker scenario. There is an unacceptable risk to human health under the residential scenario from radionuclides. The excess cancer risk from radionuclides for the residential scenario is 2×10^{-5} which exceeds the NMED target risk of 1×10^{-5}. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site. NMED acknowledges that activities concerning radionuclides are regulated solely by the DOE. The DOE currently maintains physical controls to prevent access by recreational land users which consist of a locked chain-link fence surrounding the area encompassing AOC C-10-001.

NMED has determined that the above mentioned sites qualify for certificates of completion. Site controls are appropriate for AOC 10-009, AOC C-10-001, and CU 10-002(a)-99 (SWMUs 10-002(a,b), 10-003(a-o), 10-004(b), and 10-007), however, the controls are limited exclusively to radionuclides and, therefore, are not enforceable under the Consent Order. Although corrective action is complete under the Consent Order, the Permittees must continue to comply with all applicable state and federal regulations. If new information becomes available that indicates that these sites potentially pose a risk to human health or the environment, NMED may require additional corrective action at these sites.

Please contact Robert Murphy at (505) 476-6022, if you have any questions.

Sincerely,

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