

**Completion of Corrective Action  
at Site 39-002(c)  
in A-SMA-2.7**

**November 29, 2012**

**NPDES PERMIT NO. NM0030759**

**LA-UR-12-26328**



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NPDES PERMIT NO. NM0030759

LA-UR-12-26328

LOS ALAMOS NATIONAL LABORATORY  
CERTIFICATION OF COMPLETION OF CORRECTIVE ACTION

PF: A004

A-SMA-2.7

Site: 39-002(c)

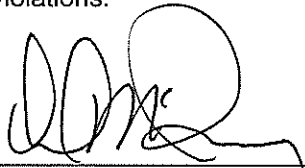
The following certification was performed in accordance with NPDES Permit No. NM0030759, Part I.E.2, which requires the Permittees (i.e., DOE and LANS) to certify the completion of corrective action.

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CERTIFICATION STATEMENT OF AUTHORIZATION

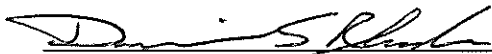
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"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based 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."



Environmental Programs  
Corrective Actions Program  
Los Alamos National Laboratory

8/16/2013  
Date



Los Alamos Site Office  
National Nuclear Security Administration

8-20-2013  
Date



This certificate indicates completion of corrective action for Site 39-002(c) pursuant to Part 1, E.2(d), of the Individual Permit NM0030759. This certification that corrective action is complete was prepared in accordance with 40 Code of Federal Regulations 122.22(b).

Table 1 presents the Sites achieving Resource Conservation and Recovery Act Corrective Action Complete without Controls status under the Compliance Order on Consent (the Consent Order). Analytical results obtained from baseline confirmation monitoring at A-SMA-2.7 exceeded target action levels for copper and gross alpha radioactivity, causing the Permittees to initiate corrective action. The Permittees are certifying completion of correction action at Site 39-002(c) through a demonstration that the Site has achieved a certificate of completion under the Consent Order. Attachment 1 contains a copy of the certificate of completion from the New Mexico Environment Department for Site 39-002(c), which is designated as Area of Concern 39-002(c) for purposes of the Consent Order.

**Table 1**  
**Site(s) Demonstrating Completion of Corrective Action**

<b>Site Number</b>	<b>Associated Site Monitoring Area Number</b>	<b>Watershed</b>	<b>Site Priority</b>
39-002(c)	A-SMA-2.7	Ancho	Moderate



# **Attachment 1**

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*Certification of Completion for Site 39-002(c)*







BILL RICHARDSON  
Governor

DIANE DENISH  
Lieutenant Governor

**NEW MEXICO  
ENVIRONMENT DEPARTMENT**

*Hazardous Waste Bureau*

**2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
Phone (505) 476-6000 Fax (505) 476-6030  
[www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)**



RON CURRY  
Secretary

SARAH COTTRELL  
Deputy Secretary

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

10 APR 7 AM 9:32

April 6, 2010

George J. Rael  
Environmental Operations Manager  
Los Alamos Site Office  
Department of Energy  
3747 West Jemez Road, MS A316  
Los Alamos, NM 87544

Michael Graham  
Associate Director Environmental Programs  
Los Alamos National Security, L.L.C.  
P.O. Box 1663, MS 991  
Los Alamos, NM 87545

**RE: APPROVAL  
REQUEST FOR CERTIFICATES OF COMPLETION FOR TWO SOLID WASTE  
MANAGEMENT UNITS AND FIVE AREAS OF CONCERN IN THE NORTH  
ANCHO CANYON AGGREGATE AREA  
LOS ALAMOS NATIONAL LABORATORY  
EPA ID #NM0890010515  
HWB-LANL-10-022**

Dear Messrs. Rael and Graham:

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 Two Solid Waste Management Units and Five Areas of Concern in North Ancho Canyon Aggregate Area* (Request), dated March 9, 2010 and referenced by EP2010-0117. Results of the associated site investigation were presented in the *Investigation Report for North Ancho Canyon Aggregate Area, Revision 1*, dated January 2010, and referenced by LA-UR-10-0125 and EP2010-0005.

SWMU 39-001(b) is an inactive disposal area consisting of three trenches that accepted debris from firing site SWMU 39-008, empty chemical containers, and office waste. Pit 1 was constructed in the late 1960s. Pit 2 was constructed parallel and directly next to Pit 1 and was

used from 1976 to 1981. Pit 3 was constructed directly south of the other two pits and was used from 1981 to 1989. In 2009, the Pits were located, excavated, and the contents were removed. Based on review of associated soil sample analytical data, the nature and extent of contamination at the site has been defined. The evaluation of potential human health and ecological risks from the site indicates SWMU 39-001(b) does not pose an unacceptable risk to human health or to ecological receptors.

AOC 39-002(c) is a former outdoor satellite accumulation are (SAA) that was located on asphalt-paved areas next to the southwest corner of the gas-gun support structure (39-56). This SAA stored waste paper, solvent-contaminated rags (ethanol, acetone, and trichloroethene), and vacuum grease. In 2009, the SAA was investigated and characterized. Based on review of associated soil sample analytical data, the nature and extent of contamination at the site has been defined. The evaluation of potential human health and ecological risks from the site indicates AOC 39-002(c) does not pose an unacceptable risk to human health or to ecological receptors.

AOC 39-002(d) is a former SAA that was removed from service, administratively closed, and is no longer used for storage. The site only operated as an SAA and met all regulatory requirements (20.4.1.300 NMAC) for SAAs.

AOC 39-002(e) is a former satellite accumulation area (SAA) that was removed from service, administratively closed, and is no longer used for storage. The site only operated as an SAA and met all regulatory requirements (20.4.1.300 NMAC) for SAAs.

AOC 39-002(f) is a former SAA located on the asphalt driveway outside the northeast corner of a support structure (39-88) for an active firing site (SWMU 39-004(e)). Before this area became a SAA, it was used to store small quantities of waste solvents (ethanol, acetone, and trichloroethene), copper sulfate, transformer oil, vacuum grease, and photographic wastes. Based on review of associated soil sample analytical data from 2009, the nature and extent of contamination at the site has been defined. The evaluation of potential human health and ecological risks from the site indicates AOC 39-002(f) does not pose an unacceptable risk to human health or to ecological receptors.

SWMU 39-005 is a former seepage pit used to dispose of HE-contaminated decant from operations at an explosives operations building (39-04). The seepage pit measured approximately 5-ft x 5-ft x 7-ft and was not lined or otherwise contained. The gravel and HE-contaminated soil that comprised the pit were removed in 1986. Based on review of associated soil sample analytical data from 2009, the nature and extent of contamination at the site has been defined. The evaluation of potential human health and ecological risks from the site indicates SWMU 39-005 does not pose an unacceptable risk to human health or to ecological receptors.

AOC 39-007(d) is a storage area (structure 39-142) consisting of a bermed asphalt pad covered with a metal roof. A valved drainpipe discharged stormwater from the bermed area across the access road toward the Ancho Road drainage. The area was initially used to store metal and at times, drums of silicon transformer oil. Later it was used as a SAA where chemicals, including dielectric fluid, ethylene glycol, solvents, and kerosene were stored. The SAA was removed in

Messrs. Rael and Graham  
April 6, 2010  
Page 3

the 1990s, but the storage area continued to be used to store nonhazardous materials such as cable and wire. Based on review of associated soil sample analytical data from 2009, the nature and extent of contamination at the site has been defined. The evaluation of potential human health and ecological risks from the site indicates AOC 39-007(d) does not pose an unacceptable risk to human health or to ecological receptors.

NMED has determined that the requirements of the Consent Order have been satisfied and the aforementioned sites qualify for "Corrective Action Complete Without Controls" status. This letter serves as the certificate of completion for SWMUs 39-001(b) and 39-005, and AOCs 39-002(c), 39-002(d), 39-002(e), 39-002(f), and 39-007(d) pursuant to Section VII.E.6.b of the Consent Order.

If, in the future, any additional information becomes available that indicates that one or more of these sites may pose a risk to human health or the environment, NMED may require the Permittees to conduct additional corrective action at these sites.

Please contact Kathryn Roberts at (505) 476-6041 should you have any questions.

Sincerely,



James P. Bearzi  
Chief  
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB  
K. Roberts, NMED HWB  
N. Dhawan, NMED HWB  
S. Yanicak, NMED DOE OB, MS J993  
L. King, EPA 6PD-N  
S. Schulman, DOE-LASO, MS A316  
L. Nonno, EP-WES-EDA, MS M992  
J. McCann, EP-CAP, MS M992  
D. McInroy, EP-CAP, MS M992  
file: Reading and LANL TA-39 '10 (SWMUs: 39-001(b) and 39-005, AOCs: 39-002(c), 39-002(d), 39-002(e), 39-002(f), and 39-007(d))



**Completion of Corrective Action  
at Site C-46-001  
in CDB-SMA-1**

**November 29, 2012**

**NPDES PERMIT NO. NM0030759**

**LA-UR-12-26325**



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NPDES PERMIT NO. NM0030759

LA-UR-12-26325

LOS ALAMOS NATIONAL LABORATORY  
CERTIFICATION OF COMPLETION OF CORRECTIVE ACTION

PF: C004

CDB-SMA-1

Site: C-46-001

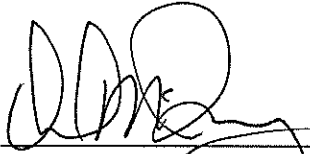
The following certification was performed in accordance with NPDES Permit No. NM0030759, Part I.E.2, which requires the Permittees (i.e., DOE and LANS) to certify the completion of corrective action.

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CERTIFICATION STATEMENT OF AUTHORIZATION

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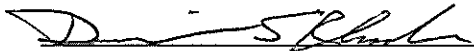
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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."



Environmental Programs  
Corrective Actions Program  
Los Alamos National Laboratory

8/16/2013

Date



Los Alamos Site Office  
National Nuclear Security Administration

8-20-2013

Date





*Completion of Corrective Action at Site C-46-001*

This certificate indicates completion of corrective action for Site C-46-001 pursuant to Part 1, E.2(d), of the Individual Permit NM0030759. This certification that corrective action is complete was prepared in accordance with 40 Code of Federal Regulations 122.22(b).

Table 1 presents the Sites achieving Resource Conservation and Recovery Act Corrective Action Complete without Controls status under the Compliance Order on Consent (the Consent Order). Analytical results obtained from baseline confirmation monitoring at CDB-SMA-1 exceeded target action levels for aluminum, copper, gross alpha radioactivity, and total polychlorinated biphenyls, causing the Permittees to initiate corrective action. The Permittees are certifying completion of correction action at Site C-46-001 through a demonstration that the Site has achieved a certificate of completion under the Consent Order. Attachment 1 contains a copy of the certificate of completion from the New Mexico Environment Department for Site C-46-001, which is designated as Area of Concern C-46-001 for purposes of the Consent Order.

**Table 1**  
**Site(s) Demonstrating Completion of Corrective Action**

<b>Site Number</b>	<b>Associated Site Monitoring Area Number</b>	<b>Watershed</b>	<b>Site Priority</b>
C-46-001	CDB-SMA-1	Mortandad	Moderate



# **Attachment 1**

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*Certificate of Completion for Site C-46-001*





SUSANA MARTINEZ  
Governor

JOHN A. SANCHEZ  
Lieutenant Governor

**NEW MEXICO  
ENVIRONMENT DEPARTMENT**

*Hazardous Waste Bureau*

2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
Phone (505) 476-6000 Fax (505) 476-6030  
[www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)



DAVE MARTIN  
Cabinet Secretary

BUTCH TONGATE  
Deputy Secretary

JAMES H. DAVIS, Ph.D.  
Director  
Resource Protection Division  
EP2012-5183

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

July 13, 2012

Peter Maggiore, Assistant Manager  
Environmental Projects Office  
Los Alamos Site Office  
3747 West Jemez Road, MS A316  
Los Alamos, NM 87544

Michael J. Graham, Associate Director  
Environmental Programs  
Los Alamos National Security, L.L.C.  
P.O. Box 1663, MS M991  
Los Alamos, NM 87545

**RE: APPROVAL OF REQUEST FOR CERTIFICATES OF COMPLETION FOR SIX  
SOLID WASTE MANAGEMENT UNITS AND ONE AREA OF CONCERN IN  
THE UPPER CAÑADA DEL BUEY AGGREGATE AREA  
LOS ALAMOS NATIONAL LABORATORY  
EPA ID #NM0890010515  
HWB-LANL-11-049**

Dear Messrs. Rael and Graham:

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 Six Solid Waste Management Units and One Area of Concern in the Upper Cañada Del Buey Aggregate Area* (Request), dated July 14, 2011, and referenced by EP2011-0242.

The request included the following Solid Waste Management Units (SWMUs) and Area of Concern (AOC):

SWMU 46-002, Surface Impoundment  
SWMU 46-004(m), Inactive Outfall  
SWMU 46-004(p), Inactive Dry Well  
SWMU 46-006(b), Former Storage Shed

SWMU 46-006(g), Storage Area  
SWMU 52-001(d), Former Facility Equipment  
AOC C-46-001, Spill/Release Area

These SWMUs and the AOC were recommended for corrective action complete in the report entitled *Investigation Report for Upper Cañada del Buey Aggregate Area, Revision 1* (Report), dated May 2011 that summarized work completed in 2010. NMED approved the Report on May 31, 2011. The Permittees have satisfied the requirements of the March 1, 2005 Consent Order for completion of corrective action at these sites.

SWMU 46-002 is a surface impoundment system located at the eastern end of TA-46, southeast of the prototype fabrication building (46-77). The impoundment system was constructed in the early 1970s to receive sanitary wastewater from buildings located within the restricted access area of Technical Area (TA)-46. The lagoon was removed from service in the early 1990s when the Sanitary Wastewater System Consolidation (SWSC) plant came online. The outfall from the surface impoundment system had been removed from the National Pollutant Discharge Elimination System (NPDES) permit by 1993. Based on the risk screening assessment results, no potential unacceptable risks or doses from contaminants of potential concern (COPCs) exist for the industrial, construction worker, and residential scenarios. No potential ecological risks exist for any receptor following evaluations based on minimum ecological screening levels (ESLs), hazard index (HI) analyses, comparison with background concentrations, potential effects to plant and animal populations, and lowest observed adverse effect level (LOAEL) analyses.

SWMU 46-004(m) is a former NPDES-permitted outfall located approximately 60 ft north of building 46-30 at TA-46. The outfall protrudes from a slope on the hillside north of building 46-30. The outfall discharged effluent from an industrial drainline in building 46-30 to a ditch at the foot of the bank. In December 1995, the outfall was removed from the NPDES permit. Before the outfall was removed from the NPDES permit, all discharges to the outfall from building 46-30 ceased. Based on the risk screening assessment results, no potential unacceptable risks or doses from COPCs exist for the industrial, construction worker, and residential scenarios. No potential ecological risks exist for any receptor following evaluations based on minimum ESLs, HI analyses, comparison with background concentrations, potential effects to plant and animal populations, and LOAEL analyses.

SWMU 46-004(p) is an inactive dry well located next to the southwest corner of building 46-1 at TA-46. The dry well consists of corrugated metal pipe, approximately two feet in diameter and 10 feet in length, placed vertically in the ground, with a square concrete pad around the top three feet of the pipe, and covered with a hinged-metal lid. Building 46-1 housed offices, two assembly bays, a machine shop, several laboratories for the assembly and checkout of electrical components, general laboratories, and a uranium polishing area. All COPCs identified for

SWMU 46-004(p) were reported in samples collected from depths greater than 10 feet below ground surface (bgs). Therefore, no complete pathways to receptors for any of the exposure scenarios exist, and human health risk-screening assessments were not conducted for this site. All COPCs identified for SWMU 46-004(p) were reported in samples collected from depths greater than 10 feet bgs. Therefore, no complete pathways to any ecological receptors exist, and an ecological risk screening assessment was not conducted for this site.

SWMU 46-006(b) is a former storage shed that was located approximately 40 feet north of the Laser Isotope Support Facility at TA-46. The shed was installed sometime before 1977. The site of the shed is paved with asphalt and slopes toward a storm drain to the southeast. The shed was removed in 1990. Based on the risk-screening assessment results, no potential unacceptable risks from COPCs exist for the industrial, construction worker, and residential scenarios. No potential ecological risks exist for any receptor following evaluations based on minimum ESLs, HI analyses, comparison with background concentrations, potential effects to populations (individuals for threatened and endangered species), and LOAEL analyses.

SWMU 46-006(g) is a storage shed located at the west end of building 46-31 at TA-46. The shed is of corrugated-steel construction and measures 10 feet by 20 feet. From 1982 to 1984, the shed housed vacuum pumps used in experiments involving plasma vaporization of depleted uranium powder. The area around the shed is level and paved. Based on the risk-screening assessment results, no potential unacceptable risks from COPCs exist for the industrial, construction worker, and residential scenarios. No potential ecological risk was found for any receptor following evaluations based on minimum ESL, HI analyses, comparison with background concentrations, potential effects to populations (individuals for threatened and endangered species), and LOAEL analyses.

SWMU 52-001(d) used to contain various facility equipment. This site operated from 1967 to 1968 and underwent decontamination and decommissioning in 1989. Supplemental information provided to NMED in 2008 demonstrated that any releases outside building 52-01 would be associated with the other SWMUs associated with the building and additional sampling of SWMU 52-001(d) was not necessary.

AOC C-46-001 is the location of a one-time spill of mercury in the vicinity of building 46-75 at TA-46. On July 22, 1975, 0.55 to 1.1 lb of mercury spilled on the ground near building 46-75. The spill was cleaned up shortly after it occurred and aerial photos show the entire area surrounding building 46-75 was paved at the time of the spill. A human health risk assessment was not performed for AOC C-46-001 because no COPCs were identified for the site. Therefore, no potential unacceptable risks from COPCs exist for the industrial, construction worker, and residential scenarios. An ecological risk assessment was not performed for AOC C-46-001 because no COPCs were identified for the site. Therefore, no potential risks from COPCs to ecological receptors exist.

NMED has reviewed the Request and, based on review of associated soil sample analytical data, the nature and extent of contamination at the SWMUs and AOC have been defined. NMED has

Messrs. Rael and Graham  
July 13, 2012  
Page 4

determined that the requirements of the Consent Order have been satisfied and the sites qualify for "Corrective Action Complete Without Controls" status. NMED hereby issues this certificate for the SWMUs and AOC listed above pursuant to Section VII.E.6.b of the Consent Order.

If, in the future, any additional information becomes available that indicates the site(s) may pose a risk to human health or the environment, NMED may require the Permittees to conduct additional corrective action at the site(s).

If you have any questions regarding this letter, please contact Daniel Comeau at (505) 476-6043.

Sincerely,



John E. Kieling  
Acting Chief  
Hazardous Waste Bureau

cc: N. Dhawan, NMED HWB  
D. Cobrain, NMED HWB  
D. Comeau, NMED HWB  
S. Yanicak, NMED DOE OB, MS J993  
T. Skibitski, NMED DOE OB  
L. King, EPA 6PD-N  
C. Rodriguez, DOE-LASO, MS A316  
K. Rich, EP-CAP, MS M992

File: 2011 - Approval\_Rqst\_for\_CoCs, Upper CdB AA; LANL-11-049

'12 JLE 2:22P

NR-EP-7-17-2012-452698



**Completion of Corrective Action  
at Site 16-030(c)  
in CDV-SMA-1.4**

**November 29, 2012**

**NPDES PERMIT NO. NM0030759**

**LA-UR-12-26322**



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NPDES PERMIT NO. NM0030759

LA-UR-12-26322

LOS ALAMOS NATIONAL LABORATORY  
CERTIFICATION OF COMPLETION OF CORRECTIVE ACTION

PF: V003

CDV-SMA-1.4

Site: 16-030(c)

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.

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CERTIFICATION STATEMENT OF AUTHORIZATION

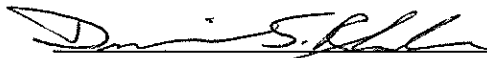
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"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based 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."



Environmental Programs  
Corrective Actions Program  
Los Alamos National Laboratory

8/16/2013  
Date



Los Alamos Site Office  
National Nuclear Security Administration

8-20-2013  
Date



*Completion of Corrective Action at Site 16-030(c)*

This certificate indicates completion of corrective action for Site 16-030(c) pursuant to Part 1, E.2(d), of the Individual Permit NM0030759. This certification that corrective action is complete was prepared in accordance with 40 Code of Federal Regulations 122.22(b).

Table 1 presents the Sites achieving Resource Conservation and Recovery Act Corrective Action Complete without Controls status under the Compliance Order on Consent (the Consent Order). Analytical results obtained from baseline confirmation monitoring at CDV-SMA-1.4 exceeded target action levels for silver, causing the Permittees to initiate corrective action. The Permittees are certifying completion of correction action at Site 16-030(c) through a demonstration that the Site has achieved a certificate of completion under the Consent Order. Attachment 1 contains a copy of the certificate of completion from the New Mexico Environment Department for Site 16-030(c), which is designated as Solid Waste Management Unit 16-030(c) for purposes of the Consent Order.

**Table 1**  
**Site(s) Demonstrating Completion of Corrective Action**

<b>Site Number</b>	<b>Associated Site Monitoring Area Number</b>	<b>Watershed</b>	<b>Site Priority</b>
16-030(c)	CDV-SMA-1.4	Water/Cañon de Valle	Moderate



# **Attachment 1**

---

*Certificate of Completion for Site 16-030(c)*







BILL RICHARDSON  
Governor

DIANE DENISH  
Lieutenant Governor

**NEW MEXICO  
ENVIRONMENT DEPARTMENT**

***Hazardous Waste Bureau***

**2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
Phone (505) 476-6000 Fax (505) 476-6030  
[www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)**



RON CURRY  
Secretary

JON GOLDSTEIN  
Deputy Secretary

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

January 23, 2008

David Gregory  
Federal Project Director  
Los Alamos Site Office  
Department of Energy  
528 35<sup>th</sup> Street, Mail Stop A316  
Los Alamos, NM 87544

David McInroy  
Remediation Services Deputy Project Director  
Los Alamos National Laboratory  
P.O. Box 1663, MS M992  
Los Alamos, NM 87545

**RE: APPROVAL OF LOS ALAMOS NATIONAL LABORATORY  
PROPOSAL FOR NO FURTHER ACTION  
LOS ALAMOS NATIONAL LABORATORY  
EPA ID #NM0890010515  
HWB-LANL-02-019**

2008 JAN 25 AM 11:51

Dear Messrs. Gregory and McInroy:

The New Mexico Environment Department (NMED) has received and reviewed the United States Department of Energy (DOE) and the Los Alamos National Security, LLC (LANS) (collectively, the Permittees) *Los Alamos National Laboratory Proposal for No Further Action*, dated September 2002 and referenced by LA-UR-02-5883/ER2002-0624. The Permittees provided additional information (via an email sent by Linda Nonno to Neclam Dhawan on October 2, 2007) subsequent to conferring with NMED.

NMED has reviewed the document and the additional information, and agrees that no further corrective action is necessary at solid waste management units (SWMUs) 03-011, 03-046, 16-026(f), 16-030(c) and 73-004(c). NMED concurs that the above mentioned SWMUs do not pose unacceptable risk to human health and the environment. NMED has determined that a corrective action complete without controls designation is appropriate for these SWMUs. However, if in the future any additional information becomes available that indicates that the site may pose a risk to human health or the environment, NMED will require the Permittees to conduct additional corrective action at these sites.

NMED is hereby providing this letter as a 'Certificate of Completion,' which satisfies the requirements outlined in the Section VII.E.6.b of the Consent Order. The Permittees may now request a Class 3 Permit Modification for Corrective Action Complete for SWMUs 03-011, 03-046, 16-026(f), 16-030(c) and 73-004(c) pursuant to terms of the Permit and Section III.W.3.b of the Consent Order, to remove these sites from the Module VIII of the Permit.

Please contact Neelam Dhawan of my staff at (505) 476-6042 should you have any questions.

Sincerely,



James P. Bearzi  
Chief  
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB  
N. Dhawan, NMED HWB  
K. Roberts, NMED HWB  
S. Yanicak, NMED DOE OB, MS J993  
T. Skibitski, NMED DOE OB  
L. King, EPA 6PD-N  
G. Rael, DOE LASO, MS A316  
S. Stiger ENV MS J591

File: LANL, NFA (SWMUs 03-011, 03-046, 16-026(f), 16-030(c) and 73-004(c)), 2008

**Completion of Corrective Action  
at Site 43-001(b2)  
in LA-SMA-1.1**

**November 29, 2012**

**NPDES PERMIT NO. NM0030759**

**LA-UR-12-26327**



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NPDES PERMIT NO. NM0030759

LA-UR-12-26327

LOS ALAMOS NATIONAL LABORATORY  
CERTIFICATION OF COMPLETION OF CORRECTIVE ACTION

PF: L004

LA-SMA-1.1

Site: 43-001(b2)

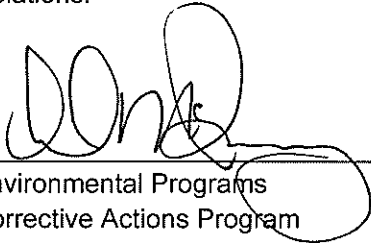
The following certification was performed in accordance with NPDES Permit No. NM0030759, Part I.E.2, which requires the Permittees (i.e., DOE and LANS) to certify the completion of corrective action.

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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."



Environmental Programs  
Corrective Actions Program  
Los Alamos National Laboratory

8/13/2013  
Date



Los Alamos Site Office  
National Nuclear Security Administration

8-20-2013  
Date



This certificate indicates completion of corrective action for Site 43-001(b2) pursuant to Part 1, E.2(d), of the Individual Permit NM0030759. This certification that corrective action is complete was prepared in accordance with 40 Code of Federal Regulations 122.22(b).

Table 1 presents the Site achieving Resource Conservation and Recovery Act Corrective Action Complete with Controls status under the Compliance Order on Consent (the Consent Order). Analytical results obtained from baseline confirmation monitoring at LA-SMA-1.1 exceeded target action levels for copper, gross alpha radioactivity, and zinc, causing the Permittees to initiate corrective action. The Permittees are certifying completion of correction action at Site 43-001(b2) through a demonstration that the Site has achieved a certificate of completion under the Consent Order. Attachment 1 contains a copy of the certificate of completion from the New Mexico Environment Department for Site 43-001(b2), which is designated as Area of Concern 43-001(b2) for purposes of the Consent Order.

**Table 1**  
**Site(s) Demonstrating Completion of Corrective Action**

<b>Site Number</b>	<b>Associated Site Monitoring Area Number</b>	<b>Watershed</b>	<b>Site Priority</b>
43-001(b2)	LA-SMA-1.1	Los Alamos/Pueblo	Moderate





# **Attachment 1**

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*Certificate of Completion for Site 43-001(b2)*





BILL RICHARDSON  
Governor

DIANE DENISH  
Lieutenant Governor

**NEW MEXICO  
ENVIRONMENT DEPARTMENT**

*Hazardous Waste Bureau*

**2905 Rodeo Park Drive East, Building 1**

**Santa Fe, New Mexico 87505-6303**

**Phone (505) 476-6000 Fax (505) 476-6030**

*www.nmenv.state.nm.us*



RON CURRY  
Secretary

SARAH COTTRELL  
Deputy Secretary

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

September 10, 2010

George J. Rael, Federal Projects Director  
Environmental Projects Office  
U.S. Department. of Energy / National  
Nuclear Security Administration  
Los Alamos Site Office  
3747 West Jemez Road, MS A316  
Los Alamos, NM 87544

Michael J. Graham, Associate Director  
Environmental Programs  
Los Alamos National Security, L.L.C.  
P.O. Box 1663, MS M991  
Los Alamos, NM 87545

**RE: CERTIFICATES OF COMPLETION  
UPPER LOS ALAMOS CANYON AGGREGATE AREA  
LOS ALAMOS NATIONAL LABORATORY  
EPA ID #NM0890010515  
HWB-LANL-10-056**

Dear Messrs. Rael and Graham:

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 Sixteen SWMUs and Nine AOCs in the Upper Los Alamos Canyon Aggregate Area* (Request), dated June 15, 2010 and referenced by EP2010-01284. Results of the site investigations were presented in the *Investigation Report for the Upper Los Alamos Canyon Aggregate Area, Revision 1*, dated February 2010.

The Permittees have satisfied the requirements of the March 1, 2005 Consent Order for corrective action at following solid waste management units/ areas of concern (SWMUs/AOCs). The sites qualify for Corrective Action Complete without Controls status.

1. AOC 00-031(a) is the potentially contaminated soil beneath a former service station. Historical information and investigations conducted during 2008-2009 confirmed that the

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underground storage tanks (USTs) were no longer in place and the analytical results indicated that no residual contamination related to the tanks is present at the site. Evaluation of human health and ecological risks indicates that there is no potential unacceptable risk posed by AOC 00-031(a). NMED hereby issues this Certificate of Completion for AOC 00-031(a) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

2. AOC 00-034(b) was a suspected pit identified from a 1946 aerial photograph. Based on interviews and examination of aerial photographs it was determined that the identified pit was actually a staging area for soil or tuff fill material used for building roads and home sites and it was never used for land disposal of waste. No documentation of the pit was found. Based on the information provided by the Permittees, NMED has determined that the site does not need further corrective action. NMED hereby issues this Certificate of Completion for AOC 00-034(b) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
3. SWMU 01-001(t), known as the eastern sanitary waste line, served several former buildings. Currently, the entire SWMU area is either landscaped or beneath streets, parking lots, and commercial buildings. Investigations were conducted in 1993 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-001(t). NMED hereby issues this Certificate of Completion for SWMU 01-001(t) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
4. SWMU 01-001(u) is a branch of the western sanitary waste line that served former building J-2. Based on field screening and soil sample data collected during the radiological survey conducted in 1974-76, the site was not considered contaminated. Currently, the entire SWMU area is beneath residential buildings, parking lots, and a wooded area behind residential buildings. No piping was encountered during the 1994 borehole drilling. Investigations were conducted in 1994 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-001(u). NMED hereby issues this Certificate of Completion for SWMU 01-001(u) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
5. AOC 01-003(c) was a surface disposal area located below the north rim of Los Alamos Canyon. During 1988 and 1996 site visits, no debris was located. During 1996 a few scattered pieces of nonhazardous debris were found near the site. Another site visit was conducted during 2008-2009, revealing that the area is bare with boulders; no debris was observed on the cliff face. The site does not exist anymore. NMED hereby issues this Certificate of Completion for AOC 01-003(c) pursuant to Section VII.E.6.b of the

Consent Order. Based on the information provided, no controls are necessary for this site.

6. AOC 01-006(g) is a storm drainage system that served several buildings and discharged to Los Alamos Canyon. The entire area where drainlines were located has been regraded and developed for residential use. Investigations were conducted in 1992 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by AOC 01-006(g). NMED hereby issues this Certificate of Completion for AOC 01-006(g) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
7. SWMU 01-006(o) is a storm drainage system that served several buildings and discharged to Los Alamos Canyon. The entire area where drainlines were located has been completely regraded and rebuilt. Currently, the majority of the SWMU area is located beneath pavement and residential buildings. Investigations were conducted in 1992 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-006(o). NMED hereby issues this Certificate of Completion for SWMU 01-006(o) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
8. SWMU 01-007(d) refers to four areas of suspected subsurface soil radiological contamination between buildings because of overflow of an industrial waste line in 1946. After the overflow all contaminated soil that could be removed was excavated and gravel was spread over the area. Investigations were conducted in 1994 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-007(d). NMED hereby issues this Certificate of Completion for SWMU 01-007(d) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
9. SWMU 01-007(e) refers to suspected subsurface soil radiological contamination within the footprint of the former Sigma Building. Contaminated soil was excavated from three small areas within the footprint of Sigma Building. Investigations were conducted in 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-007(e). NMED hereby issues this Certificate of Completion for SWMU 01-007(e) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
10. SWMU 03-009(j) is a surface disposal area located west of warehouse 03-142. Interviews with site workers indicated that the soil fill contained construction debris. The site was never used for management of hazardous waste or hazardous constituents. The

area is partially covered by a paved road/parking lot. Investigations were conducted in 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 03-009(j). NMED hereby issues this Certificate of Completion for SWMU 03-009(j) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

11. SWMU 32-001 is the location of a former incinerator that was removed in 1954. It received combustible wastes from a medical research facility; the ash from the incinerator was disposed off-site. Investigations were conducted in 1993, 1996, and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 32-001. NMED hereby issues this Certificate of Completion for SWMU 32-001 pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
12. SWMU 41-001 is an inactive septic system that received sanitary waste from a guard house. Investigations were conducted in 1995, 2000, and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 41-001. NMED hereby issues this Certificate of Completion for SWMU 41-001 pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

The following sites have been investigated and found to pose no unacceptable risk under current and proposed future land use. The sites require controls and are eligible for Corrective Action Complete status with Controls.

13. SWMU 01-001(b), septic tank 135, served two former buildings that were determined by the Laboratory to be free of contamination in 1964. A radiological survey was conducted in 1974-76 that indicated that the tank and drainlines were not contaminated. The tank and drainlines were removed during 1974-1976 survey. Further investigations were conducted in 1992 and 2008-2009 to define the nature and extent of contamination, if any. Evaluation of human health and ecological risks indicates that there is no potential unacceptable risk posed by the site. However, storm water discharge may mobilize residual contamination from the site. The Permittees must institute a control on the site by monitoring storm water discharge for potential transport of residual contamination. This is currently being accomplished under the National Pollutant Discharge Elimination System (NPDES) "Stormwater" Permit. NMED hereby issues this Certificate of Completion for Corrective Action Complete with Controls for SWMU 01-001(b) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.
14. SWMU 01-001(c), septic tank 137, served former building D-2. The tank and its outfall were removed in 1975. Contaminated soil around the tank, drainlines and building D-2

were also removed in 1975. Investigations to define the nature and extent were conducted in 1992, 1993, and 2008-2009. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-001(c). However, storm water discharge may mobilize residual contamination from the site. The Permittees must institute a control on the site by monitoring storm water discharge for potential transport of residual contamination. This is currently being accomplished under the NPDES "Stormwater" Permit. NMED hereby issues this Certificate of Completion for SWMU 01-001(c) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.

15. SWMU 01-001(e), septic tank 139, served three former buildings. The tank became inactive in 1965 and was left in place. The tank was not located during the 1974-76 radiological survey and it was concluded that the tank had been previously removed. The entire SWMU area is under roads, residential buildings, driveways and sidewalks. Investigations were conducted in 1992 and 2008-2009 of the accessible areas. Evaluation of human health and ecological risk conducted on samples collected from accessible areas indicates that there is no potential unacceptable risk posed by SWMU 01-001(e). However, storm water discharge may mobilize residual contamination from the site. The Permittees must monitor storm water discharge for potential transport of residual contamination. This is currently being accomplished under the NPDES "Stormwater" Permit. Additionally, the Permittees must investigate the areas of potential contamination that are currently inaccessible due to the presence of structures when they become accessible. The controls for the site are to monitor the storm water discharge for potential transport of contamination from the site, and to prevent exposure of receptors to potential subsurface contamination. This latter control is accomplished so long as the existing structures remain intact. NMED hereby issues this Certificate of Completion for SWMU 01-001(e) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned controls.
16. SWMU 01-003(e) was a surface disposal area located along the northern wall of Los Alamos Canyon. Concrete construction debris, piping, and other miscellaneous objects were observed at the site in the past. A major portion of this site is under fill material brought in by the private owner to extend the canyon rim farther south. Investigations were conducted in 1992 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risks indicate that there is no potential unacceptable risk posed by SWMU 01-003(e). However, storm water discharge may mobilize residual contamination from the site. The Permittees must institute a control on the site by monitoring storm water discharge for potential transport of residual contamination. This is currently being accomplished under the NPDES "Stormwater" Permit. NMED hereby issues this Certificate of Completion for SWMU 01-003(e) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.
17. SWMU 01-006(d) is a drainline and associated outfall that served Building D-3 and discharged to hillside 137. Investigations were conducted in 1992, 1993, and 2008-2009

to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-006(d). However, storm water discharge may mobilize residual contamination from the site. The Permittees must institute a control on the site by monitoring storm water discharge for potential transport of residual contamination. This is currently being accomplished under the NPDES "Stormwater" Permit. NMED hereby issues this Certificate of Completion for SWMU 01-006(d) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.

18. SWMU 01-007(j) consists of twelve areas of suspected subsurface soil radiological contamination. These are small isolated contaminated areas in former Technical Area 1 discovered during a radiological survey conducted in 1976. Most of the contaminated soil was removed. These areas are developed with buildings, sidewalks, and roads. Investigations were conducted in 2008-2009 to define the nature and extent of contamination of accessible areas. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-007(j). The Permittees must address the potential contamination beneath the structures when buildings and roadways are demolished or otherwise become accessible. The control for the site is to prevent exposure to receptors from potential subsurface contamination, which is accomplished so long as the existing structures remain intact. NMED hereby issues this Certificate of Completion for SWMU 01-007(j) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.
19. AOC 01-007(k) was a suspected soil contamination area located near the U and W buildings. The area is now developed and contains structures and parking lots. Investigations were conducted in 1993 and 2008-2009 to define the nature and extent of contamination in accessible areas. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by AOC 01-007(k). The Permittees must investigate the areas beneath the structures for potential contamination at the time of demolition of these structures. The control for the site is to prevent exposure to receptors from potential subsurface contamination, which is accomplished so long as the existing structures remain intact. NMED hereby issues this Certificate of Completion for AOC 01-007(k) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.
20. AOC 03-008(a) is a firing site that was decommissioned in 1949. Review of engineering drawings and aerial photographs indicates that site would have been located near the intersection of Diamond Drive and Jemez Road and is no longer discernible. Currently the site is overlain by a parking garage. The Permittees must address the potential contamination beneath the site when the parking lot is decommissioned. The control for the site is to prevent exposure to receptors from potential subsurface contamination, which is accomplished so long as the existing structures remain intact. NMED hereby issues this Certificate of Completion for AOC 03-008(a) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.



21. AOC 43-001(b2) is a storm-drain outfall. It was permitted under the Laboratory's NPDES permit and was removed from the permit on January 11, 1999. Investigations conducted in 2008-2009 defined the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there are potential unacceptable risks under the residential scenario. However, there is no potential unacceptable risk posed under the recreational scenario. The current and reasonably foreseeable future land use for the site is recreational; the control is that the site cannot be used for residential purposes. NMED hereby issues this Certificate of Completion for SWMU 43-001(b2) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.

Certificates of Completion are not issued for the following sites because the Permittees have not demonstrated that they do not pose unacceptable risk to human health or environment based on the current applicable standards.

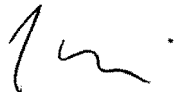
22. AOC 00-031(b), is the potentially contaminated soil associated with the Zia Company motor pool facility. Two USTs and associated piping were removed in 1994. Soil contaminated with petroleum hydrocarbons was removed and the excavation was backfilled and compacted. The Permittees must submit human health and ecological risk evaluations for NMED review and approval. The results of the risk evaluations may be included in the Upper Los Alamos Canyon Aggregate Area Phase II investigation report. NMED hereby denies the Certificate of Completion for the site.
23. AOC C-00-042 was a 2500-gallon steel waste-oil UST associated with the former automotive maintenance hanger at the Zia Company motor pool facility. The hanger was decommissioned and removed in 1962, and the land was subsequently transferred to Los Alamos County in 1967. The area was covered with fill material and asphalt. The tank and surrounding soil were removed in 1995 during VCA activities. The Permittees must conduct human health and risk evaluations using current standards. The results of the risk evaluations may be included in the Upper Los Alamos Canyon Aggregate Area Phase II investigation report. NMED hereby denies the Certificate of Completion for the site.
24. SWMU 01-002 is an outfall and associated industrial waste line that is located in the southern and western portion of Technical Area 1. Several former buildings with various processes discharged waste to the industrial waste lines. In 2000, the SWMU was split into two portions: the waste line portion of the SWMU was designated SWMU 01-002(a)-00, and the outfall was designated as SWMU 01-002(b)-00. For investigation purposes SWMU 01-002(b)-00 was included in the consolidated unit 45-001-00. The Permittees have completed corrective action at SWMU 01-002(a)-00. However, NMED will not issue the Certificate of Completion for the site until risk assessments are conducted by comparing contaminant concentrations to current standards for both sites. NMED hereby denies the certificate of completion for SWMU 01-002.

25. SWMU 01-007(1) is an area of potentially contaminated fill material located under Trinity Drive. The fill material is suspected of containing construction debris and other potentially radioactively contaminated soil from the Building D area. Investigations were conducted in 1993 and 1996. Currently, the site is overlain by Trinity Drive. The Permittees must conduct risk assessments using current standards and demonstrate that the site does not pose an unacceptable threat to human health or the environment. NMED hereby denies the Certificate of Completion for the site.

If new information becomes available that indicates that these sites may pose a risk to human health or the environment, NMED may require the Permittees to conduct additional corrective action at these sites.

Please contact Neelam Dhawan at (505) 476-6042, if you have any questions.

Sincerely,



James P. Bearzi  
Chief  
Hazardous Waste Bureau

BRZ:nmd

cc: J. Kieling, NMED HWB  
D. Cobrain, NMED HWB  
N. Dhawan, NMED HWB  
S. Yanicak, NMED DOE OB, MS J993  
T. Skibitski, NMED DOE OB  
L. King, EPA 6PD-N  
C. Rodriguez, DOE LASO, MS A316

File: 2010 LANL, Certificates of Completion, Upper Los Alamos Canyon Aggregate Area  
SWMUs/AOCs

**Completion of Corrective Action  
at Site 01-001(b)  
in LA-SMA-2.3**

**November 29, 2012**

**NPDES PERMIT NO. NM0030759**

**LA-UR-12-26324**



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NPDES PERMIT NO. NM0030759

LA-UR-12-26324

**LOS ALAMOS NATIONAL LABORATORY  
CERTIFICATION OF COMPLETION OF CORRECTIVE ACTION**

PF: L007

LA-SMA-2.3

Site: 01-001(b)

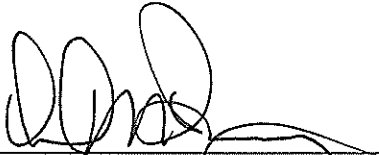
The following certification was performed in accordance with NPDES Permit No. NM0030759, Part I.E.2, which requires the Permittees (i.e., DOE and LANS) to certify the completion of corrective action.

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**CERTIFICATION STATEMENT OF AUTHORIZATION**


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"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."



Environmental Programs  
Corrective Actions Program  
Los Alamos National Laboratory

8/16/2013  
Date



Los Alamos Site Office  
National Nuclear Security Administration

8-20-2013  
Date



This certificate completion of corrective action for Site 01-001(b) pursuant to Part 1, E.2(d), of the Individual Permit NM0030759. This certification that corrective action is complete was prepared in accordance with 40 Code of Federal Regulations 122.22(b).

Table 1 presents the Sites achieving Resource Conversation and Recovery Act Corrective Action Complete with Controls status under the Compliance Order on Consent (the Consent Order). Analytical results obtained from baseline confirmation monitoring at LA-SMA-2.3 exceeded target action levels for gross alpha radioactivity, causing the Permittees to initiate corrective action. The Permittees are certifying completion of correction action at Site 01-001(b) through a demonstration that the Site has achieved a certificate of completion under the Consent Order. Attachment 1 contains a copy of the certificate of completion from the New Mexico Environment Department for Site 01-001(b), which is designated as Solid Waste Management Unit 01-001(b) for purposes of the Consent Order.

**Table 1**  
**Site(s) Demonstrating Completion of Corrective Action**

<b>Site Number</b>	<b>Associated SMA Number</b>	<b>Watershed</b>	<b>Site Priority</b>
01-001(b)	LA-SMA-2.3	Los Alamos/Pueblo	Moderate





# **Attachment 1**

---

*Certificate of Completion for Site 01-001(b)*





BILL RICHARDSON  
Governor

DIANE DENISH  
Lieutenant Governor

**NEW MEXICO  
ENVIRONMENT DEPARTMENT**

*Hazardous Waste Bureau*

**2905 Rodeo Park Drive East, Building 1**

**Santa Fe, New Mexico 87505-6303**

**Phone (505) 476-6000 Fax (505) 476-6030**

*www.nmenv.state.nm.us*



RON CURRY  
Secretary

SARAH COTTRELL  
Deputy Secretary

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

September 10, 2010

George J. Rael, Federal Projects Director  
Environmental Projects Office  
U.S. Department. of Energy / National  
Nuclear Security Administration  
Los Alamos Site Office  
3747 West Jemez Road, MS A316  
Los Alamos, NM 87544

Michael J. Graham, Associate Director  
Environmental Programs  
Los Alamos National Security, L.L.C.  
P.O. Box 1663, MS M991  
Los Alamos, NM 87545

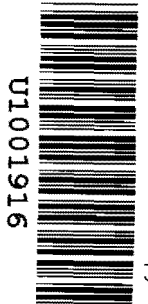
**RE: CERTIFICATES OF COMPLETION  
UPPER LOS ALAMOS CANYON AGGREGATE AREA  
LOS ALAMOS NATIONAL LABORATORY  
EPA ID #NM0890010515  
HWB-LANL-10-056**

Dear Messrs. Rael and Graham:

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 Sixteen SWMUs and Nine AOCs in the Upper Los Alamos Canyon Aggregate Area* (Request), dated June 15, 2010 and referenced by EP2010-01284. Results of the site investigations were presented in the *Investigation Report for the Upper Los Alamos Canyon Aggregate Area, Revision 1*, dated February 2010.

The Permittees have satisfied the requirements of the March 1, 2005 Consent Order for corrective action at following solid waste management units/ areas of concern (SWMUs/AOCs). The sites qualify for Corrective Action Complete without Controls status.

1. AOC 00-031(a) is the potentially contaminated soil beneath a former service station. Historical information and investigations conducted during 2008-2009 confirmed that the



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underground storage tanks (USTs) were no longer in place and the analytical results indicated that no residual contamination related to the tanks is present at the site. Evaluation of human health and ecological risks indicates that there is no potential unacceptable risk posed by AOC 00-031(a). NMED hereby issues this Certificate of Completion for AOC 00-031(a) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

2. AOC 00-034(b) was a suspected pit identified from a 1946 aerial photograph. Based on interviews and examination of aerial photographs it was determined that the identified pit was actually a staging area for soil or tuff fill material used for building roads and home sites and it was never used for land disposal of waste. No documentation of the pit was found. Based on the information provided by the Permittees, NMED has determined that the site does not need further corrective action. NMED hereby issues this Certificate of Completion for AOC 00-034(b) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
3. SWMU 01-001(t), known as the eastern sanitary waste line, served several former buildings. Currently, the entire SWMU area is either landscaped or beneath streets, parking lots, and commercial buildings. Investigations were conducted in 1993 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-001(t). NMED hereby issues this Certificate of Completion for SWMU 01-001(t) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
4. SWMU 01-001(u) is a branch of the western sanitary waste line that served former building J-2. Based on field screening and soil sample data collected during the radiological survey conducted in 1974-76, the site was not considered contaminated. Currently, the entire SWMU area is beneath residential buildings, parking lots, and a wooded area behind residential buildings. No piping was encountered during the 1994 borehole drilling. Investigations were conducted in 1994 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-001(u). NMED hereby issues this Certificate of Completion for SWMU 01-001(u) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
5. AOC 01-003(c) was a surface disposal area located below the north rim of Los Alamos Canyon. During 1988 and 1996 site visits, no debris was located. During 1996 a few scattered pieces of nonhazardous debris were found near the site. Another site visit was conducted during 2008-2009, revealing that the area is bare with boulders; no debris was observed on the cliff face. The site does not exist anymore. NMED hereby issues this Certificate of Completion for AOC 01-003(c) pursuant to Section VII.E.6.b of the

Consent Order. Based on the information provided, no controls are necessary for this site.

6. AOC 01-006(g) is a storm drainage system that served several buildings and discharged to Los Alamos Canyon. The entire area where drainlines were located has been regraded and developed for residential use. Investigations were conducted in 1992 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by AOC 01-006(g). NMED hereby issues this Certificate of Completion for AOC 01-006(g) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
7. SWMU 01-006(o) is a storm drainage system that served several buildings and discharged to Los Alamos Canyon. The entire area where drainlines were located has been completely regraded and rebuilt. Currently, the majority of the SWMU area is located beneath pavement and residential buildings. Investigations were conducted in 1992 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-006(o). NMED hereby issues this Certificate of Completion for SWMU 01-006(o) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
8. SWMU 01-007(d) refers to four areas of suspected subsurface soil radiological contamination between buildings because of overflow of an industrial waste line in 1946. After the overflow all contaminated soil that could be removed was excavated and gravel was spread over the area. Investigations were conducted in 1994 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-007(d). NMED hereby issues this Certificate of Completion for SWMU 01-007(d) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
9. SWMU 01-007(e) refers to suspected subsurface soil radiological contamination within the footprint of the former Sigma Building. Contaminated soil was excavated from three small areas within the footprint of Sigma Building. Investigations were conducted in 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-007(e). NMED hereby issues this Certificate of Completion for SWMU 01-007(e) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
10. SWMU 03-009(j) is a surface disposal area located west of warehouse 03-142. Interviews with site workers indicated that the soil fill contained construction debris. The site was never used for management of hazardous waste or hazardous constituents. The

area is partially covered by a paved road/parking lot. Investigations were conducted in 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 03-009(j). NMED hereby issues this Certificate of Completion for SWMU 03-009(j) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

11. SWMU 32-001 is the location of a former incinerator that was removed in 1954. It received combustible wastes from a medical research facility; the ash from the incinerator was disposed off-site. Investigations were conducted in 1993, 1996, and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 32-001. NMED hereby issues this Certificate of Completion for SWMU 32-001 pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
12. SWMU 41-001 is an inactive septic system that received sanitary waste from a guard house. Investigations were conducted in 1995, 2000, and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 41-001. NMED hereby issues this Certificate of Completion for SWMU 41-001 pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

The following sites have been investigated and found to pose no unacceptable risk under current and proposed future land use. The sites require controls and are eligible for Corrective Action Complete status with Controls.

13. SWMU 01-001(b), septic tank 135, served two former buildings that were determined by the Laboratory to be free of contamination in 1964. A radiological survey was conducted in 1974-76 that indicated that the tank and drainlines were not contaminated. The tank and drainlines were removed during 1974-1976 survey. Further investigations were conducted in 1992 and 2008-2009 to define the nature and extent of contamination, if any. Evaluation of human health and ecological risks indicates that there is no potential unacceptable risk posed by the site. However, storm water discharge may mobilize residual contamination from the site. The Permittees must institute a control on the site by monitoring storm water discharge for potential transport of residual contamination. This is currently being accomplished under the National Pollutant Discharge Elimination System (NPDES) "Stormwater" Permit. NMED hereby issues this Certificate of Completion for Corrective Action Complete with Controls for SWMU 01-001(b) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.
14. SWMU 01-001(c), septic tank 137, served former building D-2. The tank and its outfall were removed in 1975. Contaminated soil around the tank, drainlines and building D-2

were also removed in 1975. Investigations to define the nature and extent were conducted in 1992, 1993, and 2008-2009. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-001(c). However, storm water discharge may mobilize residual contamination from the site. The Permittees must institute a control on the site by monitoring storm water discharge for potential transport of residual contamination. This is currently being accomplished under the NPDES "Stormwater" Permit. NMED hereby issues this Certificate of Completion for SWMU 01-001(c) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.

15. SWMU 01-001(e), septic tank 139, served three former buildings. The tank became inactive in 1965 and was left in place. The tank was not located during the 1974-76 radiological survey and it was concluded that the tank had been previously removed. The entire SWMU area is under roads, residential buildings, driveways and sidewalks. Investigations were conducted in 1992 and 2008-2009 of the accessible areas. Evaluation of human health and ecological risk conducted on samples collected from accessible areas indicates that there is no potential unacceptable risk posed by SWMU 01-001(e). However, storm water discharge may mobilize residual contamination from the site. The Permittees must monitor storm water discharge for potential transport of residual contamination. This is currently being accomplished under the NPDES "Stormwater" Permit. Additionally, the Permittees must investigate the areas of potential contamination that are currently inaccessible due to the presence of structures when they become accessible. The controls for the site are to monitor the storm water discharge for potential transport of contamination from the site, and to prevent exposure of receptors to potential subsurface contamination. This latter control is accomplished so long as the existing structures remain intact. NMED hereby issues this Certificate of Completion for SWMU 01-001(e) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned controls.
16. SWMU 01-003(e) was a surface disposal area located along the northern wall of Los Alamos Canyon. Concrete construction debris, piping, and other miscellaneous objects were observed at the site in the past. A major portion of this site is under fill material brought in by the private owner to extend the canyon rim farther south. Investigations were conducted in 1992 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risks indicate that there is no potential unacceptable risk posed by SWMU 01-003(e). However, storm water discharge may mobilize residual contamination from the site. The Permittees must institute a control on the site by monitoring storm water discharge for potential transport of residual contamination. This is currently being accomplished under the NPDES "Stormwater" Permit. NMED hereby issues this Certificate of Completion for SWMU 01-003(e) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.
17. SWMU 01-006(d) is a drainline and associated outfall that served Building D-3 and discharged to hillside 137. Investigations were conducted in 1992, 1993, and 2008-2009

to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-006(d). However, storm water discharge may mobilize residual contamination from the site. The Permittees must institute a control on the site by monitoring storm water discharge for potential transport of residual contamination. This is currently being accomplished under the NPDES "Stormwater" Permit. NMED hereby issues this Certificate of Completion for SWMU 01-006(d) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.

18. SWMU 01-007(j) consists of twelve areas of suspected subsurface soil radiological contamination. These are small isolated contaminated areas in former Technical Area 1 discovered during a radiological survey conducted in 1976. Most of the contaminated soil was removed. These areas are developed with buildings, sidewalks, and roads. Investigations were conducted in 2008-2009 to define the nature and extent of contamination of accessible areas. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-007(j). The Permittees must address the potential contamination beneath the structures when buildings and roadways are demolished or otherwise become accessible. The control for the site is to prevent exposure to receptors from potential subsurface contamination, which is accomplished so long as the existing structures remain intact. NMED hereby issues this Certificate of Completion for SWMU 01-007(j) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.
19. AOC 01-007(k) was a suspected soil contamination area located near the U and W buildings. The area is now developed and contains structures and parking lots. Investigations were conducted in 1993 and 2008-2009 to define the nature and extent of contamination in accessible areas. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by AOC 01-007(k). The Permittees must investigate the areas beneath the structures for potential contamination at the time of demolition of these structures. The control for the site is to prevent exposure to receptors from potential subsurface contamination, which is accomplished so long as the existing structures remain intact. NMED hereby issues this Certificate of Completion for AOC 01-007(k) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.
20. AOC 03-008(a) is a firing site that was decommissioned in 1949. Review of engineering drawings and aerial photographs indicates that site would have been located near the intersection of Diamond Drive and Jemez Road and is no longer discernible. Currently the site is overlain by a parking garage. The Permittees must address the potential contamination beneath the site when the parking lot is decommissioned. The control for the site is to prevent exposure to receptors from potential subsurface contamination, which is accomplished so long as the existing structures remain intact. NMED hereby issues this Certificate of Completion for AOC 03-008(a) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.



21. AOC 43-001(b2) is a storm-drain outfall. It was permitted under the Laboratory's NPDES permit and was removed from the permit on January 11, 1999. Investigations conducted in 2008-2009 defined the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there are potential unacceptable risks under the residential scenario. However, there is no potential unacceptable risk posed under the recreational scenario. The current and reasonably foreseeable future land use for the site is recreational; the control is that the site cannot be used for residential purposes. NMED hereby issues this Certificate of Completion for SWMU 43-001(b2) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.

Certificates of Completion are not issued for the following sites because the Permittees have not demonstrated that they do not pose unacceptable risk to human health or environment based on the current applicable standards.

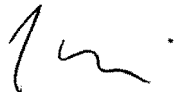
22. AOC 00-031(b), is the potentially contaminated soil associated with the Zia Company motor pool facility. Two USTs and associated piping were removed in 1994. Soil contaminated with petroleum hydrocarbons was removed and the excavation was backfilled and compacted. The Permittees must submit human health and ecological risk evaluations for NMED review and approval. The results of the risk evaluations may be included in the Upper Los Alamos Canyon Aggregate Area Phase II investigation report. NMED hereby denies the Certificate of Completion for the site.
23. AOC C-00-042 was a 2500-gallon steel waste-oil UST associated with the former automotive maintenance hanger at the Zia Company motor pool facility. The hanger was decommissioned and removed in 1962, and the land was subsequently transferred to Los Alamos County in 1967. The area was covered with fill material and asphalt. The tank and surrounding soil were removed in 1995 during VCA activities. The Permittees must conduct human health and risk evaluations using current standards. The results of the risk evaluations may be included in the Upper Los Alamos Canyon Aggregate Area Phase II investigation report. NMED hereby denies the Certificate of Completion for the site.
24. SWMU 01-002 is an outfall and associated industrial waste line that is located in the southern and western portion of Technical Area 1. Several former buildings with various processes discharged waste to the industrial waste lines. In 2000, the SWMU was split into two portions: the waste line portion of the SWMU was designated SWMU 01-002(a)-00, and the outfall was designated as SWMU 01-002(b)-00. For investigation purposes SWMU 01-002(b)-00 was included in the consolidated unit 45-001-00. The Permittees have completed corrective action at SWMU 01-002(a)-00. However, NMED will not issue the Certificate of Completion for the site until risk assessments are conducted by comparing contaminant concentrations to current standards for both sites. NMED hereby denies the certificate of completion for SWMU 01-002.

25. SWMU 01-007(1) is an area of potentially contaminated fill material located under Trinity Drive. The fill material is suspected of containing construction debris and other potentially radioactively contaminated soil from the Building D area. Investigations were conducted in 1993 and 1996. Currently, the site is overlain by Trinity Drive. The Permittees must conduct risk assessments using current standards and demonstrate that the site does not pose an unacceptable threat to human health or the environment. NMED hereby denies the Certificate of Completion for the site.

If new information becomes available that indicates that these sites may pose a risk to human health or the environment, NMED may require the Permittees to conduct additional corrective action at these sites.

Please contact Neelam Dhawan at (505) 476-6042, if you have any questions.

Sincerely,



James P. Bearzi  
Chief  
Hazardous Waste Bureau

BRZ:nmd

cc: J. Kieling, NMED HWB  
D. Cobrain, NMED HWB  
N. Dhawan, NMED HWB  
S. Yanicak, NMED DOE OB, MS J993  
T. Skibitski, NMED DOE OB  
L. King, EPA 6PD-N  
C. Rodriguez, DOE LASO, MS A316

File: 2010 LANL, Certificates of Completion, Upper Los Alamos Canyon Aggregate Area  
SWMUs/AOCs

**Completion of Corrective Action  
at Site 01-003(e)  
in LA-SMA-5.02**

**November 29, 2012**

**NPDES PERMIT NO. NM0030759**

**LA-UR-12-26321**



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NPDES PERMIT NO. NM0030759

LA-UR-12-26321

**LOS ALAMOS NATIONAL LABORATORY  
CERTIFICATION OF COMPLETION OF CORRECTIVE ACTION**

PF: L012A

LA-SMA-5.02

Site: 01-003(e)


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.

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**CERTIFICATION STATEMENT OF AUTHORIZATION**

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"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."

  
\_\_\_\_\_  
Environmental Programs  
Corrective Actions Program  
Los Alamos National Laboratory

8/16/2013  
Date

  
\_\_\_\_\_  
Los Alamos Site Office  
National Nuclear Security Administration

8-20-2013  
Date



*Completion of Corrective Action at Site 01-003(e)*

This certificate indicates completion of corrective action for Site 01-003(e) pursuant to Part 1, E.2(d), of the Individual Permit NM0030759. This certification that corrective action is complete was prepared in accordance with 40 Code of Federal Regulations 122.22(b).

Table 1 presents the Sites achieving Resource Conservation and Recovery Act Corrective Action Complete with Controls status under the Compliance Order on Consent (the Consent Order). Analytical results obtained from baseline confirmation monitoring at LA-SMA-5.02 exceeded target action levels for copper and total polychlorinated biphenyls, causing the Permittees to initiate corrective action. The Permittees are certifying completion of correction action at Site 01-003(e) through a demonstration that the Site has achieved a certificate of completion under the Consent Order. Attachment 1 contains a copy of the certificate of completion from the New Mexico Environment Department for Site 01-003(e), which is designated as Solid Waste Management Unit 01-003(e) for purposes of the Consent Order.

**Table 1**  
**Site(s) Demonstrating Completion of Corrective Action**

<b>Site Number</b>	<b>Associated Site Monitoring Area Number</b>	<b>Watershed</b>	<b>Site Priority</b>
01-003(e)	LA-SMA-5.02	Los Alamos/Pueblo	High





# **Attachment 1**

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*Certificate of Completion for Site 01-003(e)*





BILL RICHARDSON  
Governor

DIANE DENISH  
Lieutenant Governor

**NEW MEXICO  
ENVIRONMENT DEPARTMENT**

*Hazardous Waste Bureau*

**2905 Rodeo Park Drive East, Building 1**

**Santa Fe, New Mexico 87505-6303**

**Phone (505) 476-6000 Fax (505) 476-6030**

*www.nmenv.state.nm.us*



RON CURRY  
Secretary

SARAH COTTRELL  
Deputy Secretary

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

September 10, 2010

George J. Rael, Federal Projects Director  
Environmental Projects Office  
U.S. Department. of Energy / National  
Nuclear Security Administration  
Los Alamos Site Office  
3747 West Jemez Road, MS A316  
Los Alamos, NM 87544

Michael J. Graham, Associate Director  
Environmental Programs  
Los Alamos National Security, L.L.C.  
P.O. Box 1663, MS M991  
Los Alamos, NM 87545

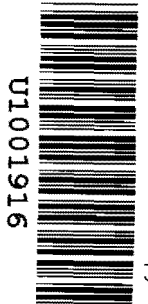
**RE: CERTIFICATES OF COMPLETION  
UPPER LOS ALAMOS CANYON AGGREGATE AREA  
LOS ALAMOS NATIONAL LABORATORY  
EPA ID #NM0890010515  
HWB-LANL-10-056**

Dear Messrs. Rael and Graham:

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 Sixteen SWMUs and Nine AOCs in the Upper Los Alamos Canyon Aggregate Area* (Request), dated June 15, 2010 and referenced by EP2010-01284. Results of the site investigations were presented in the *Investigation Report for the Upper Los Alamos Canyon Aggregate Area, Revision 1*, dated February 2010.

The Permittees have satisfied the requirements of the March 1, 2005 Consent Order for corrective action at following solid waste management units/ areas of concern (SWMUs/AOCs). The sites qualify for Corrective Action Complete without Controls status.

1. AOC 00-031(a) is the potentially contaminated soil beneath a former service station. Historical information and investigations conducted during 2008-2009 confirmed that the



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underground storage tanks (USTs) were no longer in place and the analytical results indicated that no residual contamination related to the tanks is present at the site. Evaluation of human health and ecological risks indicates that there is no potential unacceptable risk posed by AOC 00-031(a). NMED hereby issues this Certificate of Completion for AOC 00-031(a) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

2. AOC 00-034(b) was a suspected pit identified from a 1946 aerial photograph. Based on interviews and examination of aerial photographs it was determined that the identified pit was actually a staging area for soil or tuff fill material used for building roads and home sites and it was never used for land disposal of waste. No documentation of the pit was found. Based on the information provided by the Permittees, NMED has determined that the site does not need further corrective action. NMED hereby issues this Certificate of Completion for AOC 00-034(b) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
3. SWMU 01-001(t), known as the eastern sanitary waste line, served several former buildings. Currently, the entire SWMU area is either landscaped or beneath streets, parking lots, and commercial buildings. Investigations were conducted in 1993 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-001(t). NMED hereby issues this Certificate of Completion for SWMU 01-001(t) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
4. SWMU 01-001(u) is a branch of the western sanitary waste line that served former building J-2. Based on field screening and soil sample data collected during the radiological survey conducted in 1974-76, the site was not considered contaminated. Currently, the entire SWMU area is beneath residential buildings, parking lots, and a wooded area behind residential buildings. No piping was encountered during the 1994 borehole drilling. Investigations were conducted in 1994 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-001(u). NMED hereby issues this Certificate of Completion for SWMU 01-001(u) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
5. AOC 01-003(c) was a surface disposal area located below the north rim of Los Alamos Canyon. During 1988 and 1996 site visits, no debris was located. During 1996 a few scattered pieces of nonhazardous debris were found near the site. Another site visit was conducted during 2008-2009, revealing that the area is bare with boulders; no debris was observed on the cliff face. The site does not exist anymore. NMED hereby issues this Certificate of Completion for AOC 01-003(c) pursuant to Section VII.E.6.b of the

Consent Order. Based on the information provided, no controls are necessary for this site.

6. AOC 01-006(g) is a storm drainage system that served several buildings and discharged to Los Alamos Canyon. The entire area where drainlines were located has been regraded and developed for residential use. Investigations were conducted in 1992 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by AOC 01-006(g). NMED hereby issues this Certificate of Completion for AOC 01-006(g) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
7. SWMU 01-006(o) is a storm drainage system that served several buildings and discharged to Los Alamos Canyon. The entire area where drainlines were located has been completely regraded and rebuilt. Currently, the majority of the SWMU area is located beneath pavement and residential buildings. Investigations were conducted in 1992 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-006(o). NMED hereby issues this Certificate of Completion for SWMU 01-006(o) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
8. SWMU 01-007(d) refers to four areas of suspected subsurface soil radiological contamination between buildings because of overflow of an industrial waste line in 1946. After the overflow all contaminated soil that could be removed was excavated and gravel was spread over the area. Investigations were conducted in 1994 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-007(d). NMED hereby issues this Certificate of Completion for SWMU 01-007(d) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
9. SWMU 01-007(e) refers to suspected subsurface soil radiological contamination within the footprint of the former Sigma Building. Contaminated soil was excavated from three small areas within the footprint of Sigma Building. Investigations were conducted in 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-007(e). NMED hereby issues this Certificate of Completion for SWMU 01-007(e) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
10. SWMU 03-009(j) is a surface disposal area located west of warehouse 03-142. Interviews with site workers indicated that the soil fill contained construction debris. The site was never used for management of hazardous waste or hazardous constituents. The

area is partially covered by a paved road/parking lot. Investigations were conducted in 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 03-009(j). NMED hereby issues this Certificate of Completion for SWMU 03-009(j) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

11. SWMU 32-001 is the location of a former incinerator that was removed in 1954. It received combustible wastes from a medical research facility; the ash from the incinerator was disposed off-site. Investigations were conducted in 1993, 1996, and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 32-001. NMED hereby issues this Certificate of Completion for SWMU 32-001 pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
12. SWMU 41-001 is an inactive septic system that received sanitary waste from a guard house. Investigations were conducted in 1995, 2000, and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 41-001. NMED hereby issues this Certificate of Completion for SWMU 41-001 pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

The following sites have been investigated and found to pose no unacceptable risk under current and proposed future land use. The sites require controls and are eligible for Corrective Action Complete status with Controls.

13. SWMU 01-001(b), septic tank 135, served two former buildings that were determined by the Laboratory to be free of contamination in 1964. A radiological survey was conducted in 1974-76 that indicated that the tank and drainlines were not contaminated. The tank and drainlines were removed during 1974-1976 survey. Further investigations were conducted in 1992 and 2008-2009 to define the nature and extent of contamination, if any. Evaluation of human health and ecological risks indicates that there is no potential unacceptable risk posed by the site. However, storm water discharge may mobilize residual contamination from the site. The Permittees must institute a control on the site by monitoring storm water discharge for potential transport of residual contamination. This is currently being accomplished under the National Pollutant Discharge Elimination System (NPDES) "Stormwater" Permit. NMED hereby issues this Certificate of Completion for Corrective Action Complete with Controls for SWMU 01-001(b) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.
14. SWMU 01-001(c), septic tank 137, served former building D-2. The tank and its outfall were removed in 1975. Contaminated soil around the tank, drainlines and building D-2

were also removed in 1975. Investigations to define the nature and extent were conducted in 1992, 1993, and 2008-2009. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-001(c). However, storm water discharge may mobilize residual contamination from the site. The Permittees must institute a control on the site by monitoring storm water discharge for potential transport of residual contamination. This is currently being accomplished under the NPDES "Stormwater" Permit. NMED hereby issues this Certificate of Completion for SWMU 01-001(c) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.

15. SWMU 01-001(e), septic tank 139, served three former buildings. The tank became inactive in 1965 and was left in place. The tank was not located during the 1974-76 radiological survey and it was concluded that the tank had been previously removed. The entire SWMU area is under roads, residential buildings, driveways and sidewalks. Investigations were conducted in 1992 and 2008-2009 of the accessible areas. Evaluation of human health and ecological risk conducted on samples collected from accessible areas indicates that there is no potential unacceptable risk posed by SWMU 01-001(e). However, storm water discharge may mobilize residual contamination from the site. The Permittees must monitor storm water discharge for potential transport of residual contamination. This is currently being accomplished under the NPDES "Stormwater" Permit. Additionally, the Permittees must investigate the areas of potential contamination that are currently inaccessible due to the presence of structures when they become accessible. The controls for the site are to monitor the storm water discharge for potential transport of contamination from the site, and to prevent exposure of receptors to potential subsurface contamination. This latter control is accomplished so long as the existing structures remain intact. NMED hereby issues this Certificate of Completion for SWMU 01-001(e) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned controls.
16. SWMU 01-003(e) was a surface disposal area located along the northern wall of Los Alamos Canyon. Concrete construction debris, piping, and other miscellaneous objects were observed at the site in the past. A major portion of this site is under fill material brought in by the private owner to extend the canyon rim farther south. Investigations were conducted in 1992 and 2008-2009 to define the nature and extent of contamination. Evaluation of human health and ecological risks indicate that there is no potential unacceptable risk posed by SWMU 01-003(e). However, storm water discharge may mobilize residual contamination from the site. The Permittees must institute a control on the site by monitoring storm water discharge for potential transport of residual contamination. This is currently being accomplished under the NPDES "Stormwater" Permit. NMED hereby issues this Certificate of Completion for SWMU 01-003(e) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.
17. SWMU 01-006(d) is a drainline and associated outfall that served Building D-3 and discharged to hillside 137. Investigations were conducted in 1992, 1993, and 2008-2009

to define the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-006(d). However, storm water discharge may mobilize residual contamination from the site. The Permittees must institute a control on the site by monitoring storm water discharge for potential transport of residual contamination. This is currently being accomplished under the NPDES "Stormwater" Permit. NMED hereby issues this Certificate of Completion for SWMU 01-006(d) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.

18. SWMU 01-007(j) consists of twelve areas of suspected subsurface soil radiological contamination. These are small isolated contaminated areas in former Technical Area 1 discovered during a radiological survey conducted in 1976. Most of the contaminated soil was removed. These areas are developed with buildings, sidewalks, and roads. Investigations were conducted in 2008-2009 to define the nature and extent of contamination of accessible areas. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by SWMU 01-007(j). The Permittees must address the potential contamination beneath the structures when buildings and roadways are demolished or otherwise become accessible. The control for the site is to prevent exposure to receptors from potential subsurface contamination, which is accomplished so long as the existing structures remain intact. NMED hereby issues this Certificate of Completion for SWMU 01-007(j) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.
19. AOC 01-007(k) was a suspected soil contamination area located near the U and W buildings. The area is now developed and contains structures and parking lots. Investigations were conducted in 1993 and 2008-2009 to define the nature and extent of contamination in accessible areas. Evaluation of human health and ecological risk indicates that there is no potential unacceptable risk posed by AOC 01-007(k). The Permittees must investigate the areas beneath the structures for potential contamination at the time of demolition of these structures. The control for the site is to prevent exposure to receptors from potential subsurface contamination, which is accomplished so long as the existing structures remain intact. NMED hereby issues this Certificate of Completion for AOC 01-007(k) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.
20. AOC 03-008(a) is a firing site that was decommissioned in 1949. Review of engineering drawings and aerial photographs indicates that site would have been located near the intersection of Diamond Drive and Jemez Road and is no longer discernible. Currently the site is overlain by a parking garage. The Permittees must address the potential contamination beneath the site when the parking lot is decommissioned. The control for the site is to prevent exposure to receptors from potential subsurface contamination, which is accomplished so long as the existing structures remain intact. NMED hereby issues this Certificate of Completion for AOC 03-008(a) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.



21. AOC 43-001(b2) is a storm-drain outfall. It was permitted under the Laboratory's NPDES permit and was removed from the permit on January 11, 1999. Investigations conducted in 2008-2009 defined the nature and extent of contamination. Evaluation of human health and ecological risk indicates that there are potential unacceptable risks under the residential scenario. However, there is no potential unacceptable risk posed under the recreational scenario. The current and reasonably foreseeable future land use for the site is recreational; the control is that the site cannot be used for residential purposes. NMED hereby issues this Certificate of Completion for SWMU 43-001(b2) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.

Certificates of Completion are not issued for the following sites because the Permittees have not demonstrated that they do not pose unacceptable risk to human health or environment based on the current applicable standards.

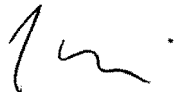
22. AOC 00-031(b), is the potentially contaminated soil associated with the Zia Company motor pool facility. Two USTs and associated piping were removed in 1994. Soil contaminated with petroleum hydrocarbons was removed and the excavation was backfilled and compacted. The Permittees must submit human health and ecological risk evaluations for NMED review and approval. The results of the risk evaluations may be included in the Upper Los Alamos Canyon Aggregate Area Phase II investigation report. NMED hereby denies the Certificate of Completion for the site.
23. AOC C-00-042 was a 2500-gallon steel waste-oil UST associated with the former automotive maintenance hanger at the Zia Company motor pool facility. The hanger was decommissioned and removed in 1962, and the land was subsequently transferred to Los Alamos County in 1967. The area was covered with fill material and asphalt. The tank and surrounding soil were removed in 1995 during VCA activities. The Permittees must conduct human health and risk evaluations using current standards. The results of the risk evaluations may be included in the Upper Los Alamos Canyon Aggregate Area Phase II investigation report. NMED hereby denies the Certificate of Completion for the site.
24. SWMU 01-002 is an outfall and associated industrial waste line that is located in the southern and western portion of Technical Area 1. Several former buildings with various processes discharged waste to the industrial waste lines. In 2000, the SWMU was split into two portions: the waste line portion of the SWMU was designated SWMU 01-002(a)-00, and the outfall was designated as SWMU 01-002(b)-00. For investigation purposes SWMU 01-002(b)-00 was included in the consolidated unit 45-001-00. The Permittees have completed corrective action at SWMU 01-002(a)-00. However, NMED will not issue the Certificate of Completion for the site until risk assessments are conducted by comparing contaminant concentrations to current standards for both sites. NMED hereby denies the certificate of completion for SWMU 01-002.

25. SWMU 01-007(1) is an area of potentially contaminated fill material located under Trinity Drive. The fill material is suspected of containing construction debris and other potentially radioactively contaminated soil from the Building D area. Investigations were conducted in 1993 and 1996. Currently, the site is overlain by Trinity Drive. The Permittees must conduct risk assessments using current standards and demonstrate that the site does not pose an unacceptable threat to human health or the environment. NMED hereby denies the Certificate of Completion for the site.

If new information becomes available that indicates that these sites may pose a risk to human health or the environment, NMED may require the Permittees to conduct additional corrective action at these sites.

Please contact Neelam Dhawan at (505) 476-6042, if you have any questions.

Sincerely,



James P. Bearzi  
Chief  
Hazardous Waste Bureau

BRZ:nmd

cc: J. Kieling, NMED HWB  
D. Cobrain, NMED HWB  
N. Dhawan, NMED HWB  
S. Yanicak, NMED DOE OB, MS J993  
T. Skibitski, NMED DOE OB  
L. King, EPA 6PD-N  
C. Rodriguez, DOE LASO, MS A316

File: 2010 LANL, Certificates of Completion, Upper Los Alamos Canyon Aggregate Area  
SWMUs/AOCs

**Completion of Corrective Action  
at Site 21-023(c)  
in LA-SMA-5.91**

**November 29, 2012**

**NPDES PERMIT NO. NM0030759**

**LA-UR-12-26326**



---

NPDES PERMIT NO. NM0030759

LA-UR-12-26326

**LOS ALAMOS NATIONAL LABORATORY  
CERTIFICATION OF COMPLETION OF CORRECTIVE ACTION**

PF: L019

LA-SMA-5.91

Site: 21-023(c)

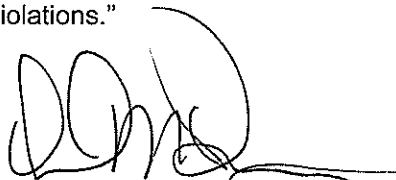
The following certification was performed in accordance with NPDES Permit No. NM0030759, Part I.E.2, which requires the Permittees (i.e., DOE and LANS) to certify the completion of corrective action.

---

**CERTIFICATION STATEMENT OF AUTHORIZATION**

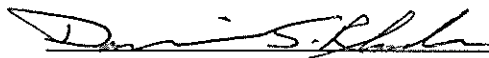
---

"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."



Environmental Programs  
Corrective Actions Program  
Los Alamos National Laboratory

8/16/2013  
Date



Los Alamos Site Office  
National Nuclear Security Administration

8-20-2013  
Date



*Completion of Corrective Action at Site 21-023(c)*

This certification indicates completion of corrective action for Site 21-023(c) pursuant to Part 1, E.2(d), of the Individual Permit NM0030759. This certification that corrective action is complete was prepared in accordance with 40 Code of Federal Regulations 122.22(b).

Table 1 presents the Sites achieving Resource Conservation and Recovery Act Corrective Action Complete with Controls status under the Compliance Order on Consent (the Consent Order). Analytical results obtained from baseline confirmation monitoring at LA-SMA-5.91 exceeded target action levels for gross alpha radioactivity, causing the Permittees to initiate corrective action. The Permittees are certifying completion of correction action at Site 21-023(c) through a demonstration that the Site has achieved a certificate of completion under the Consent Order. Attachment 1 contains a copy of the certificate of completion from the New Mexico Environment Department for Site 21-023(c), which is designated as Solid Waste Management Unit 21-023(c) for purposes of the Consent Order.

**Table 1**  
**Site(s) Demonstrating Completion of Corrective Action**

<b>Site Number</b>	<b>Associated Site Monitoring Area Number</b>	<b>Watershed</b>	<b>Site Priority</b>
21-023(c)	LA-SMA-5.91	Los Alamos/Pueblo	Moderate





# **Attachment 1**

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*Certificate of Completion for Site 21-023(c)*





SUSANA MARTINEZ  
Governor

JOHN A. SANCHEZ  
Lieutenant Governor

NEW MEXICO  
ENVIRONMENT DEPARTMENT

*Hazardous Waste Bureau*

2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
Phone (505) 476-6000 Fax (505) 476-6030  
[www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)



DAVE MARTIN  
Cabinet Secretary

RAJ SOLOMON, P.E.  
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

June 3, 2011

George J. Rael, Assistant Manager  
Environmental Projects Office  
Department of Energy/National  
Nuclear Security Administration  
Los Alamos Site Office  
3747 West Jemez Road, MS A316  
Los Alamos, NM 87544

Michael J. Graham, Associate Director  
Environmental Programs  
Los Alamos National Security, LLC  
P.O. Box 1663, MS M991  
Los Alamos, NM 87545

RE: **CERTIFICATES OF COMPLETION  
MATERIAL DISPOSAL AREA V, TECHNICAL AREA 21  
LOS ALAMOS NATIONAL LABORATORY  
EPA ID #NM0890010515  
HWB-LANL-11-030**

Dear Messrs. Rael and Graham:

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 Four Solid Waste Management Units and One Area of Concern at Material Disposal Area V, Technical Area 21* (Request), dated May 13, 2011 and referenced by EP2011-0138. Results of the site investigations were presented in the *Investigation Report for Consolidated Unit 21-018(a)-99, Material Disposal Area V, at Technical Area 21, Revision 1*, dated July 2007 and the *Supplemental Investigation Report for Consolidated Unit 21-018(a)-99, Material Disposal Area V, at Technical Area 21, Revision 1*, dated April 2008.

To determine extent of subsurface tritium contamination, the Permittees implemented the *Vadose Zone Subsurface Characterization and Vapor-Monitoring Well Installation Work Plan for Material Disposal Area V, Consolidated Unit 21-018(a)-99, Revision 1*, dated August 2009. Four rounds of quarterly sampling were conducted and periodic monitoring reports were submitted to

NMED in December 2009, March 2010, June 2010, and October 2010. The Permittees have satisfied the requirements of the March 1, 2005 Consent Order for corrective action at the following Solid Waste Management Units/Areas of Concern (SWMUs/AOCs).

**SWMU 21-013(b)** is the location of a former surface debris disposal site located immediately south of MDA V on the south-facing slope leading into BV Canyon. It is not known how long this site received building debris; however, it did not receive waste after 1994. SWMU 21-013(b) contained the external concrete piers, the concrete building foundations, and other building debris derived from the 1965 demolition of the laundry facility (building 21-20 [SWMU 21-018(b)]) and a waste treatment laboratory (building 21-33 [AOC 21-009]). The debris was removed in 2005 and investigations were conducted between 2005 and 2007 to define the nature and extent of contamination. Evaluation of both human health and ecological risk indicates that there is no potential unacceptable risk posed at the site. However, storm water discharge may mobilize residual contamination from the site. The Permittees must monitor storm water discharge for potential off-site transport of residual contamination. This is currently being accomplished under the National Pollutant Discharge Elimination System (NPDES) "Stormwater" Permit. NMED hereby issues this Certificate of Completion for Corrective Action Complete with Controls for SWMU 21-013(b) pursuant to Section VII.E.6.b of the Consent Order.

**SWMU 21-018(a)**, more commonly referred to as Material Disposal Area (MDA) V, is an approximately 1-acre site located immediately south of the former laundry facility [building 21-20; SWMU 21-018(b)]. The SWMU consists of three interconnected liquid waste absorption beds. MDA V was constructed to receive radioactive liquid wastewater from the laundry facility and was designed to enhance the infiltration of liquids into the tuff bedrock. The absorption beds were constructed in 1945 and operated until 1961. They remained on stand-by status until September 1963 when they were permanently removed from service. All absorption bed material and associated piping was removed and investigations were conducted between 2005 and 2007 to define the nature and extent of contamination. Evaluation of both human health and ecological risk indicates that there is no potential unacceptable risk posed at the site. However, storm water discharge may mobilize residual contamination from the site. The Permittees must monitor storm water discharge for potential off-site transport of residual contamination. This is currently being accomplished under the National Pollutant Discharge Elimination System (NPDES) "Stormwater" Permit. In addition, in the letter entitled *Extended Tritium Sampling at Material Disposal Area V*, dated February 15, 2011 and referenced by EP2011-0058, the Permittees commit to continue quarterly vapor monitoring at MDA V in connection with remedial actions currently in progress at MDA B. The need for continued vapor monitoring at MDA V will be reconsidered upon completion of the review of the final report detailing remedial actions at MDA B. NMED hereby issues this Certificate of Completion for Corrective Action Complete with Controls for SWMU 21-018(a) pursuant to Section VII.E.6.b of the Consent Order.

**SWMU 21-018(b)** is a former laundry facility (building 21-20) located at the eastern end and south of DP Road, immediately west of the security fence that encloses other former TA-21 facilities. Operational from 1945 to 1961, the laundry facility was used to wash personal protective clothing and other reusable cloth items used in both research and production operations involving radioactive materials at TA-21. It is estimated that the laundry facility

generated approximately two million gallons of effluent annually, which was discharged to MDA V. The laundry facility was a wood-frame structure with both concrete slab and wood-framing-on-pier floors. The wood portions of the building were decommissioned and demolished in 1965 and taken to MDA G where the debris was burned. The concrete foundation and associated piping were bulldozed over the edge of DP Mesa onto the south-facing slope of BV Canyon. Investigations were conducted between 2005 and 2007 to define the nature and extent of contamination. Evaluation of both human health and ecological risk indicates that there is no potential unacceptable risk posed at the site. NMED hereby issues this Certificate of Completion for SWMU 21-018(b) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

**SWMU 21-023(c)** is a former septic system that consisted of a tank, inlet and outlet lines, and an outfall that served a waste treatment laboratory (building 21-33 [AOC 21-009]). The septic tank was located immediately west of the MDA V absorption beds and was constructed of reinforced concrete. The inlet and outlet lines were 4-inch vitrified clay pipe (VCP); the outlet line surfaced 40 feet southwest from the tank, approximately 30 feet from the canyon edge above BV Canyon. The outfall area extended south into BV Canyon. The waste treatment laboratory septic system was put into service in 1948. Wastewater was pumped from a sump in building 21-33 through the septic system. The tank was removed in 1965 and taken to MDA G. Investigations were conducted between 2005 and 2007 to define the nature and extent of contamination. Evaluation of both human health and ecological risk indicates that there is no potential unacceptable risk posed at the site. However, storm water discharge may mobilize residual contamination from the site. The Permittees must monitor storm water discharge for potential off-site transport of residual contamination. This is currently being accomplished under the National Pollutant Discharge Elimination System (NPDES) "Stormwater" Permit. NMED hereby issues this Certificate of Completion for Corrective Action Complete with Controls for SWMU 21-023(c) pursuant to Section VII.E.6.b of the Consent Order.

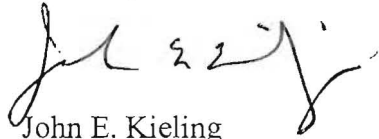
**AOC 21-013(g)** is located immediately south of MDA V on the south-facing slope leading into BV Canyon and has historically been described as a surface debris disposal site. It is not known how long the site received building debris; however, it did not receive waste after 1994. AOC 21-013(g) consisted of two discarded drainlines and miscellaneous building materials of unknown origin. The debris was removed in 2005 and investigations were conducted between 2005 and 2007 to define the nature and extent of contamination. Evaluation of both human health and ecological risk indicates that there is no potential unacceptable risk posed at the site. However, storm water discharge may mobilize residual contamination from the site. The Permittees must monitor storm water discharge for potential off-site transport of residual contamination. This is currently being accomplished under the National Pollutant Discharge Elimination System (NPDES) "Stormwater" Permit. NMED hereby issues this Certificate of Completion for Corrective Action Complete with Controls for SWMU 21-013(g) pursuant to Section VII.E.6.b of the Consent Order.

If new information becomes available that indicates that these sites pose a potential risk to human health or the environment, NMED may require the Permittees to conduct additional corrective action at these sites in the future.

Messrs. Rael and Graham  
June 3, 2011  
Page 4

Please contact Ben Wear at (505) 476-6041, if you have any questions.

Sincerely,



John E. Kieling  
Acting Chief  
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB  
N. Dhawan, NMED HWB  
S. Yanicak, NMED DOE OB, MS J993  
T. Skibitski, NMED DOE OB  
L. King, EPA 6PD-N  
W. Woodworth, DOE LASO, MS A316  
A. Russell, DOE-LASO  
B. Wedgeworth, EP-TA-21 Closure Project, MS M992  
D. McInroy, EP-CAP, MS M992  
W. Alexander, EP-BPS, MS M992

File: 2011 LANL, Certificates of Completion, MDA V, TA-21 SWMUs/AOCs

**Completion of Corrective Action  
at Sites 48-007(a), 48-007(d), and 48-010  
in M-SMA-4**

**November 29, 2012**

**NPDES PERMIT NO. NM0030759**

**LA-UR-12-26323**





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NPDES PERMIT NO. NM0030759

LA-UR-12-26323

**LOS ALAMOS NATIONAL LABORATORY  
CERTIFICATION OF COMPLETION OF CORRECTIVE ACTION**

PF: M006

M-SMA-4

Sites: 48-007(a)  
48-007(d)  
48-010


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."



---

Environmental Programs  
Corrective Actions Program  
Los Alamos National Laboratory

8/13/2013  
Date



---

Los Alamos Site Office  
National Nuclear Security Administration

8-20-2013  
Date



*Completion of Corrective Action at Sites 48-007(a), 48-007(d), and 48-010*

This certificate indicates completion of corrective action for Sites 48-007(a), 48-007(d), and 48-010 pursuant to Part 1, E.2(d), of the Individual Permit NM0030759. This certification that corrective action is complete was prepared in accordance with 40 Code of Federal Regulations 122.22(b).

Table 1 presents the Sites achieving Resource Conservation and Recovery Act Corrective Action Complete with Controls status under the Compliance Order on Consent (the Consent Order). Analytical results obtained from baseline confirmation monitoring at M-SMA-4 exceeded target action levels for copper, radium-226 and radium-228, and total polychlorinated biphenyls, causing the Permittees to initiate corrective action. The Permittees are certifying completion of corrective action at Sites 48-007(a), 48-007(d), and 48-010 through a demonstration that the Sites have achieved a certificate of completion under the Consent Order. Attachment 1 contains a copy of the certificates of completion from the New Mexico Environment Department for Sites 48-007(a), 48-007(d), and 48-010, which are designated as Solid Waste Management Units 48-007(a), 48-007(c), and 48-010 for purposes of the Consent Order.

**Table 1**  
**Site(s) Demonstrating Completion of Corrective Action**

<b>Site Number</b>	<b>Associated Site Monitoring Area Number</b>	<b>Watershed</b>	<b>Site Priority</b>
48-007(a)	M-SMA-4	Mortandad	Moderate
48-007(d)			
48-010			

*Completion of Corrective Action at Sites 48-007(a), 48-007(d), and 48-010*

# **Attachment 1**

---

*Certificate of Completion for Sites 48-007(a),  
48-007(d), and 48-010*





BILL RICHARDSON  
Governor

DIANE DENISH  
Lieutenant Governor

NEW MEXICO  
ENVIRONMENT DEPARTMENT

*Hazardous Waste Bureau*

2905 Rodeo Park Drive East, Building 1

Santa Fe, New Mexico 87505-6303

Phone (505) 476-6000 Fax (505) 476-6030

[www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)



RON CURRY  
Secretary

SARAH COTTRELL  
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

September 7, 2010

George J. Rael, Federal Projects Director  
Environmental Projects Office  
U.S. Department of Energy / National  
Nuclear Security Administration  
Los Alamos Site Office  
3747 West Jemez Road, MS A316  
Los Alamos, NM 87544

Michael J. Graham, Associate Director  
Environmental Programs  
Los Alamos National Security, L.L.C.  
P.O. Box 1663, MS M991  
Los Alamos, NM 87545

**RE: CERTIFICATES OF COMPLETION  
UPPER MORTANDAD CANYON AGGREGATE AREA  
LOS ALAMOS NATIONAL LABORATORY  
EPA ID #NM0890010515  
HWB-LANL-10-055**



Dear Messrs. Rael and Graham:

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 SWMUs and Three AOCs in the Upper Mortandad Canyon Aggregate Area* (Request), dated July 01, 2010 and referenced by EP2010-01293. Results of the site investigations were presented in the *Investigation Report for the Upper Mortandad Canyon Aggregate Area, Revision 1*, dated April 2010.

The Permittees have satisfied the requirements of the March 1, 2005 Consent Order for corrective action at the following solid waste management units/ areas of concern (SWMUs/AOCs) and the sites qualify for "Corrective Action Complete".

1. AOC 03-041 is an underground holding tank for industrial low-level radioactive wastewater. The tank is a 15 ft x 20 ft x 15ft double-walled fiberglass corrosion-proof

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- tank with a leak-detection system. It is located in a below grade concrete-lined vault and the base of the vault is 15 ft below ground surface. Although it is currently on active status, it has never been used. Investigations conducted during 2009 defined the nature and extent of contamination. Evaluation of human health and ecological risks indicates that there is no potential unacceptable risk posed by AOC 03-041. NMED hereby issues the Certificate of Completion for AOC 03-041 pursuant to Section VII.E.6.b of the Consent Order. Controls are not required at the site.
2. AOC 48-002(e) was a container storage area located on the east side of building 48-0001. The storage area is mostly paved except for a small portion of soil left unpaved to allow access to underground utilities. Investigations conducted during 1993, 1997, and 2009 defined the nature and extent of contamination at the site. Evaluation of human health and ecological risks indicates that there is no potential unacceptable risk posed by the site. NMED hereby issues the Certificate of Completion for AOC 48-002(e) pursuant to Section VII.E.6.b of the Consent Order. Controls are not required at the site
  3. SWMU 48-007(a) is an outfall formerly used to discharge treated cooling tower blowdown from two cooling towers. Water used in these cooling towers was treated to control scale, corrosion, and biological growth. The outfall was formerly listed on the National Pollutant Discharge Elimination System (NPDES) permit but was removed from the NPDES permit in 1999. Investigations conducted during 1993 and 2009 defined the nature and extent of contamination at the site. Evaluation of human health and ecological risks indicates that there is no potential unacceptable risk posed by the site. Storm water continues to flow through the outfall and may mobilize the residual contamination at the site. The SWMU is monitored under the current NPDES permit. The control for the site is continuation of storm water monitoring under NPDES permit for potential transportation of residual contamination. NMED hereby issues the Certificate of Completion for SWMU 48-007(a) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.
  4. SWMU 48-007(d) is an outfall formerly used to discharge noncontact cooling water that cooled a vacuum pump. The outfall was formerly listed on the NPDES permit, but was removed from the permit in 1998. Investigations conducted during 1993 and 2009 defined the nature and extent of contamination at the site. Evaluation of human health and ecological risks indicates that there is no potential unacceptable risk posed by the site. Storm water continues to flow through the outfall and may result in mobilization of the residual contamination at the site. The SWMU is monitored under the current NPDES permit. The control for the site is continuation of storm water monitoring under NPDES permit for potential transportation of residual contamination. NMED hereby issues the Certificate of Completion for SWMU 48-007(d) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.
  5. SWMU 48-010 is an unlined surface impoundment that received discharge from SWMUs 48-007(a) and 48-007(d). Investigations conducted during 1993, 1995, and 2009 defined



the nature and extent of contamination at the site. Evaluation of human health and ecological risks indicates that there is no potential unacceptable risk posed by the site. Storm water continues to flow across the site and it is monitored under current NPDES permit. The control for the site is continuation of storm water monitoring under NPDES permit for potential transportation of residual contamination. NMED hereby issues the Certificate of Completion for SWMU 48-010 pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.

6. AOC 48-012 is a small area of stained soil that was discovered during routine trenching operations conducted in 2002. The site was reported as a one-time spill. Removal of the contaminated soil was conducted as a voluntary corrective action in 2002. Additional samples were collected in 2009 to define the nature and extent of contamination. Evaluation of human health risk indicates that there is potential unacceptable risk posed by the site under residential scenario, but not under the industrial and construction worker scenario. There are no complete exposure pathways to ecological receptors. The control for the site is industrial land use, the site cannot be used for residential purposes. NMED hereby issues the Certificate of Completion for AOC 48-012 pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.

If new information becomes available that indicates that these sites may pose a risk to human health or the environment, NMED may require the Permittees to conduct additional corrective action at these sites. Please contact Neelam Dhawan at (505) 476-6042, if you have any questions.

Sincerely,



James P. Bearzi  
Chief  
Hazardous Waste Bureau

BRZ:nmd

cc: J. Kieling, NMED HWB  
D. Cobrain, NMED HWB  
N. Dhawan, NMED HWB  
S. Yanicak, NMED DOE OB, MS J993  
T. Skibitski, NMED DOE OB  
L. King, EPA 6PD-N  
C. Rodriguez, DOE LASO, MS A316  
K. Rich, LANS, EP-CAP, MS M992

File: 2010 LANL, Certificates of Completion Upper Mortandad Aggregate Area (AOC 03-041, AOC 48-002(e), SWMU 48-007(a), SWMU 48-007(d), & SWMU 48-010).



**Completion of Corrective Action  
at Site C-00-020  
in R-SMA-0.5**

**November 29, 2012**

**NPDES PERMIT NO. NM0030759**

**LA-UR-12-26320**



---

NPDES PERMIT NO. NM0030759

LA-UR-12-26320

**LOS ALAMOS NATIONAL LABORATORY  
CERTIFICATION OF COMPLETION OF CORRECTIVE ACTION**

PF: R001

R-SMA-0.5

Site: C-00-020

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.

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**CERTIFICATION STATEMENT OF AUTHORIZATION**

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"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."



Environmental Programs  
Corrective Actions Program  
Los Alamos National Laboratory

8/16/2013  
Date



Los Alamos Site Office  
National Nuclear Security Administration

8-20-2013  
Date



This certification indicates completion of corrective action for Site C-00-020 pursuant to Part 1, E.2(d), of the Individual Permit NM0030759. This certification that corrective action is complete was prepared in accordance with 40 Code of Federal Regulations 122.22(b).

Table 1 presents the Sites achieving Resource Conservation and Recovery Act Corrective Action Complete without Controls status under the Compliance Order on Consent (the Consent Order). Analytical results obtained from baseline confirmation monitoring at R-SMA-0.5 exceeded target action levels for gross alpha radioactivity, causing the Permittees to initiate corrective action. The Permittees are certifying completion of correction action at Site C-00-020 through a demonstration that the Site has achieved a certificate of completion under the Consent Order. Attachment 1 contains a copy of the certificate of completion from the New Mexico Environment Department for Site C-00-020, which is designated as Area of Concern C-00-020 for purposes of the Consent Order.

**Table 1**  
**Site(s) Demonstrating Completion of Corrective Action**

<b>Site Number</b>	<b>Associated Site Monitoring Area Number</b>	<b>Watershed</b>	<b>Site Priority</b>
C-00-020	R-SMA-0.5	Los Alamos/Pueblo	Moderate





# **Attachment 1**

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*Certificate of Completion for Site C-00-020*





SUSANA MARTINEZ  
Governor

JOHN A. SANCHEZ  
Lieutenant Governor

**NEW MEXICO  
ENVIRONMENT DEPARTMENT**

***Hazardous Waste Bureau***

**2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
Phone (505) 476-6000 Fax (505) 476-6030  
[www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)**



DAVE MARTIN  
Secretary

BUTCH TONGATE  
Deputy Secretary

EP2012-5112

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

May 16, 2012

Pete Maggiore  
Assistant Manager  
Environmental Projects Office  
National Nuclear Security Administration  
Los Alamos Site Office  
3747 West Jemez Road, MS A316  
Los Alamos, NM 87544

Michael J. Graham  
Associate Director  
Environmental Programs  
Los Alamos National Security, L.L.C.  
P.O. Box 1663, MS M991  
Los Alamos, NM 87545

**RE: CERTIFICATES OF COMPLETION  
ONE SOLID WASTE MANAGEMENT UNIT AND ONE AREA OF CONCERN  
IN THE GUAJE/BARRANCAS/RENDIJA CANYONS AGGREGATE AREA  
EPA ID #NM0890010515  
HWB-LANL-12-008**

Dear Messrs. Maggiore and Graham:

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 One Solid Waste Management Unit and One Area of Concern in the Guaje/Barrancas/Rendija Canyons Aggregate Area*, dated February 02, 2012 and referenced by EP2012-0026.

One solid waste management unit (SWMU) 00-011(c) and one area of concern (AOC) C-00-020 were recommended for corrective action complete without controls in the *2011 Biennial Ordnance Survey Report* (Report), dated December 2011 (LA-UR-11-6766/EP2011-0383). NMED reviewed the Report and concurred with the conclusion that there is no need to conduct further ordnance surveys at these two sites (December 28, 2011). The Permittees have satisfied

U1201076

the requirements of the March 1, 2005 Consent Order for completion of corrective action at these sites.

Based on the results of investigations, the following sites within the Guaje/Barrancas/Rendija canyons Aggregate Area qualify for Corrective Action Complete Without Controls status.

**SWMU 00-011(c)** is a suspected mortar impact area located on U. S. Forest Service land in a tributary of Rendija canyon north of the Sportman's club small-arms firing range. The area is approximately 10 acres and may have been used as a mortar impact area in the 1940s. A RCRA facility investigation (RFI) conducted in 1993 included an ordnance survey that did not find any munitions debris (MD) at the site and the Permittees concluded that the site was never used as an ordnance impact area. In October 2006, another munitions debris survey was conducted at the site and no MD or munitions of explosive concern (MEC) were found at SWMU 00-011(c). At NMED's direction, additional ordnance surveys were conducted in 2009 and 2011 and no MD or MEC was found at the site during either survey. The Permittees have demonstrated that the SWMU 00-011(c) is eligible for corrective action complete without controls.

**AOC C-00-020** is a 30-acre suspected mortar impact area located along the north valley wall of Rendija Canyon on U. S. Forest Service land. The site was thought to be a former impact area because of the presence of "U.S. Property-No trespassing" signs posted along the southern edge of the area. In 1991, an ordnance team inspected the site and concluded that the site was not a former impact area. A RFI was conducted in 1993 that included an ordnance survey. No MD or MEC was observed at the site. In October 2006, another munitions debris survey was conducted at the site and no MD or MEC were found at AOC C-00-020. At NMED's direction, additional ordnance surveys were conducted in 2009 and 2011 and no MD or MEC was found during the surveys. The Permittees have demonstrated that the AOC C-00-020 is eligible for corrective action complete without controls.

If new information becomes available that indicates that any of these sites may pose a risk to human health or the environment, NMED may require the Permittees to conduct additional investigation or remediation. NMED hereby issues this Certificate of Completion for 2 sites discussed above pursuant to section VII.E.6.b of the Consent Order.

U1201076

Messrs. Maggiore and Graham  
May 16, 2012  
Page 3

Please contact Neelam Dhawan at (505) 476-6042, if you have any questions.

Sincerely,



John E. Kieling  
Chief  
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB  
N. Dhawan, NMED HWB  
S. Yanicak, NMED DOE OB, MS J993  
T. Skibitski, NMED DOE OB  
L. King, EPA 6PD-N  
C. Rodriguez, DOE LASO, MS A316  
T. Haagenstad, EP-CAP, MS M992

File: 2012 LANL, Certificates of Completion for Guaje/barrancas/Rendija Canyons AA Sites  
(LANL 12-008)

U1201076



**Completion of Corrective Action  
at Site 03-056(c)  
in S-SMA-2**

**November 29, 2012**

**NPDES PERMIT NO. NM0030759**

**LA-UR-12-26395**





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NPDES PERMIT NO. NM0030759

LA-UR-12-26395

**LOS ALAMOS NATIONAL LABORATORY  
CERTIFICATION OF COMPLETION OF CORRECTIVE ACTION**

PF: S003

S-SMA-2

Site: 03-056(c)


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.

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**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."



---

Environmental Programs  
Corrective Actions Program  
Los Alamos National Laboratory

8/16/2013  
Date



---

Los Alamos Site Office  
National Nuclear Security Administration

8-20-2013  
Date



This certification indicates completion of corrective action for Site 03-056(c) pursuant to Part 1, E.2(d), of the Individual Permit NM0030759. This certification that corrective action is complete was prepared in accordance with 40 Code of Federal Regulations 122.22(b).

Table 1 presents the Site achieving Resource Conservation and Recovery Act Corrective Action Complete with Controls status under the Compliance Order on Consent (the Consent Order). Analytical results obtained from baseline confirmation monitoring at S-SMA-2 exceeded target action levels for copper, total polychlorinated biphenyls, and zinc, causing the Permittees to initiate corrective action. The Permittees are certifying completion of correction action at Site 03-056(c) through a demonstration that the Site has achieved a certificate of completion under the Consent Order. Attachment 1 contains a copy of the certificate of completion from the New Mexico Environment Department for Site 03-056(c), which is designated as Solid Waste Management Unit 03-056(c) for purposes of the Consent Order.

**Table 1**  
**Site(s) Demonstrating Completion of Corrective Action**

<b>Site Number</b>	<b>Associated Site Monitoring Area Number</b>	<b>Watershed</b>	<b>Site Priority</b>
03-056(c)	S-SMA-2	Sandia	High



# **Attachment 1**

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*Certificate of Completion for Site 03-056(c)*





SUSANA MARTINEZ  
Governor

JOHN A. SANCHEZ  
Lieutenant Governor

**NEW MEXICO  
ENVIRONMENT DEPARTMENT**

***Hazardous Waste Bureau***

**2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
Phone (505) 476-6000 Fax (505) 476-6030  
[www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)**



DAVE MARTIN  
Cabinet Secretary

RAJ SOLOMON, P.E.  
Deputy Secretary

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

February 18, 2011

George J. Rael, Assistant Manager  
Environmental Projects Office  
Department of Energy/National  
Nuclear Security Administration  
Los Alamos Site Office  
3747 West Jemez Road, MS A316  
Los Alamos, NM 87544

Michael J. Graham, Associate Director  
Environmental Programs  
Los Alamos National Security, LLC  
P.O. Box 1663, MS M991  
Los Alamos, NM 87545

**RE: CERTIFICATES OF COMPLETION  
UPPER SANDIA CANYON AGGREGATE AREA  
LOS ALAMOS NATIONAL LABORATORY  
EPA ID #NM0890010515  
HWB-LANL-10-099**

Dear Messrs. Rael and Graham:

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 Eight Solid Waste Management Units and Sixteen Areas of Concern in the Upper Sandia Canyon Aggregate Area* (Request), dated December 6, 2010 and referenced by EP2010-0540. Results of the site investigations were presented in the *Investigation Report for the Upper Sandia Canyon Aggregate Area, Revision 1*, dated October 2010.

The Permittees have satisfied the requirements of the March 1, 2005 Consent Order for corrective action at the following Solid Waste Management Units/Areas of Concern (SWMUs/AOCs).

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1. **SWMU 03-003(c)** is the location of a former temporary equipment storage area for used dielectric fluids and capacitors adjacent to the former building 03-287 at TA-3. Building 03-287 was constructed between 1966 and 1968 and used for experiments until the mid-1980s. The sealed capacitors containing non-polychlorinated biphenyl (PCB) dielectric oil were temporarily stored in this area. Before the remodeling of building 03-287 in late 1992 and early 1993, a single surface sample was collected and analyzed for PCBs; no PCBs were detected. Samples of asphalt and fill collected in 2001 indicated the presence of PCBs. In 2003 and 2004, building 03-287 underwent decommissioning that included removal of the building and all of the asphalt paving and fill directly beneath the asphalt including location of SWMU 03-003(c). The entire area was graded and leveled, and approximately 10 ft of clean fill was placed over the entire site to accommodate construction of a new facility. Evaluation of human health and ecological risks indicates that there is no potential unacceptable risk posed by SWMU 03-003(c). NMED hereby issues this Certificate of Completion for SWMU 03-003(c) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
2. **AOC 03-003(n)** is the location of a one-time PCBs spill in the salvage yard at Technical Area (TA)-3. With the exception of two small areas, most of the area is asphalt-paved. The salvage yard was used to store transformers, electrical equipment, batteries, and scrap metal. In 1977, a transformer ruptured and spilled approximately 10 gallons of PCB-contaminated oil into the soil. The salvage operation and material were moved to a building in 1993. Investigations conducted in 1994 and 2009 defined the nature and extent of contamination. Evaluation of human health and ecological risks indicates that there is no potential unacceptable risk posed by AOC 03-003(n). NMED hereby issues this Certificate of Completion for AOC 03-003(n) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
3. **AOC 03-003(o)** is the location of a former capacitor bank that was used for experiments in former building 03-287 at TA-3. The sealed capacitors contained non-PCB dielectric fluid oil; each of the associated spark gap switches at the building 03-287 required approximately two quarts of non-PCB mineral oil for electrical insulation. The experiment was decommissioned in mid-1980s and all of the capacitors were removed from the building. Oil samples from spark gap switches and swipe samples from the surfaces within the building were collected and analyzed for PCBs. PCBs were detected at concentrations of less than two parts per million. In 2003 and 2004, building 03-287 underwent decommissioning that included removal of the building all the asphalt paving and fill directly beneath the asphalt including location of SWMU 03-003(c). The entire area was graded and leveled, and approximately 10 feet of clean fill was placed over the entire site to accommodate construction of a new facility. Evaluation of human health and ecological risks indicates that there is no potential unacceptable risk posed by AOC 03-003(o). NMED hereby issues this Certificate of Completion for AOC 03-003(o).



pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

4. **SWMU 03-014(q)** is the treated effluent storage tank located at the TA-3 power plant. Between 1951 and 1985, the tank received and stored effluent from the former wastewater treatment plant, for use as cooling water for the power plant cooling towers. The effluent was pumped to the holding tank and treated with chromate to hinder bacterial growth. The tank currently receives treated effluent from the TA-46 Sanitary Wastewater Systems Consolidation Plant to use at the power plant. The effluent is treated in a wastewater neutralization tank to adjust pH before use and subsequent discharge to an outfall. Investigations were conducted in 2009 indicating that there is no potential unacceptable risk posed by SWMU 03-014(q) to human health or ecological receptors. NMED hereby issues this Certificate of Completion for SWMU 03-014(q) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
5. **AOC 03-014(v)** is the location of a former floor drain within building 03-36, that was installed in 1953 and connected to the sanitary sewer line tied to the former waste water treatment plant at TA-3. Building 03-36 and the soil beneath its footprint were removed in 1999. The area was further excavated to a depth of approximately 15 ft below grade to accommodate the foundation of new building. The depth of the excavation was approximately 8 ft deeper than the two confirmation samples collected in 1999. Evaluation of human health and ecological risks indicates that there is no potential unacceptable risk posed by AOC 03-014(v). NMED hereby issues this Certificate of Completion for AOC 03-014(v) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
6. **AOC 03-027** is comprised of two former concrete-block lined lift wells located beneath the hydraulic lifts at a former garage (building 03-36) at TA-3. The lift wells collected floor wash water that contained residual oil and rinse water containing nitric acid. The garage was removed in 1999 for the construction of a new building. Building 03-36 and the soil beneath its footprint were removed in 1999. After demolition of the building in 1999, nine fill and tuff samples were collected from six locations within the footprint of the former lift wells. The area was further excavated to a depth of approximately 15 ft below grade to accommodate the foundation of new building. Evaluation of human health and ecological risks indicates that there is no potential unacceptable risk posed by AOC 03-027. NMED hereby issues this Certificate of Completion for AOC 03-027 pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
7. **SWMU 03-028** is a former 12 ft x 15 ft x 6 ft deep concrete holding pond that was located at the northeast corner of the former asphalt batch plant. The site was used as a settling pond for mineral dust and particulates from gravel captured by scrubber water from the asphalt batch plant. Sediment from the bottom of the holding pond was

periodically removed and disposed of in a former landfill located southeast of the plant. Water from the pond was recycled to the scrubber system and replenished with potable water. During decommissioning of the asphalt batch plant in 2003, the pond sediment and water was removed from the pond, the pond filled with clean soil and gravel, and the surface of the site paved with asphalt for use as a parking lot. Results of an investigation conducted in 2003 indicate that there is no potential unacceptable risk posed by the site to human health or ecological receptors. NMED hereby issues this Certificate of Completion for SWMU 03-028 pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

8. **SWMU 03-036(a)** is the location of two former asphalt emulsion product tanks at the former TA-3 asphalt batch plant. The tanks were 25 to 30 ft in diameter and 8 to 12 ft high. The tanks were located within a soil-bermed secondary containment area. Spills that occurred from plant operations were contained within the bermed area. Both tanks were removed and disposed of at the Los Alamos County Landfill in 1988 or 1989, as was soil around and beneath the tanks. The surface of the site was paved with asphalt for use as a parking lot in 2003. Results of investigations conducted in 2003 indicate that there is no potential unacceptable risk posed by the site to human health or ecological receptors. NMED hereby issues this Certificate of Completion for SWMU 03-036(a) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
9. **AOC 03-036(b)** is a former location of two 25- to 50-gallon aboveground storage tanks located at the former asphalt batch plant at TA-3. The tanks were surrounded by 3-ft soil berm and stored kerosene and No. 2 diesel fuel. The use of the tanks started in 1960. In 2002, the tanks, the soil berm, and stained soils were removed during decommissioning of the asphalt batch plant. Results of the investigation conducted in 2003 and 2009 indicate that there is no potential unacceptable risk posed by the site to human health or ecological receptors. NMED hereby issues this Certificate of Completion for AOC 03-036(b) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
10. **SWMU 03-036(c)** is the location of two former asphalt emulsion storage tanks at the former TA-3 asphalt batch plant. The tanks were removed and disposed of at the Los Alamos County Landfill. The inspection of tanks indicated that the tanks had not leaked. The asphalt batch plant was decommissioned in 2002. In 2003, the site was paved with asphalt for use as a parking lot. Results of an investigation conducted in 2003 indicate that there is no potential unacceptable risk posed by the site to human health or ecological receptors. NMED hereby issues this Certificate of Completion for SWMU 03-036(c) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
11. **SWMU 03-036(d)** is the location of two former asphalt emulsion storage tanks (former structures 03-75 and 03-76) at the former TA-3 asphalt batch plant. The tanks were

removed and disposed of at the Los Alamos County landfill. The inspection of tanks indicated that the tanks had not leaked. The asphalt batch plant was decommissioned in 2002. In 2003, the site was paved with asphalt for use as a parking lot. Results of an investigation conducted in 2003 indicate that there is no potential unacceptable risk posed by the site to human health or ecological receptors. NMED hereby issues this Certificate of Completion for SWMU 03-036(d) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

12. **AOC 03-038(c)** is a 2-in cast-iron drainline that formerly carried rinse solution from a copper electroplating bath to an industrial waste line. Plating and acid solutions were washed of the circuit boards and down the drain. The electroplating bath initially operated in the 1960s and ceased operations in the early 1970s. The drainpipe was cut and capped inside the wall to make it inaccessible. Results of an investigation conducted in 2009 indicate that there is no potential unacceptable risk posed by the site to human health or ecological receptors. NMED hereby issues this Certificate of Completion for AOC 03-038(c) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
13. **AOC 03-043(a)** is a former 20,000-gal aboveground storage tank, installed in 1948 at the former asphalt batch station at TA-3. The tank was removed in 1963 and disposed of at the Los Alamos County Landfill, and replaced by another storage tank (AOC 03-043(f)). In 2003, the surface was paved with asphalt for use as a parking lot. Results of an investigation conducted in 2003 indicate that there is no potential unacceptable risk posed by the site to human health or ecological receptors. NMED hereby issues this Certificate of Completion for AOC 03-043(a) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
14. **AOC 03-043(b)** is the location of a former 10,000-gallon aboveground asphalt emulsion storage tank, installed in 1948 at the former TA-3 asphalt batch plant. In 1980, the tank was removed and disposed of at the Los Alamos County Landfill, as was stained soil observed beneath and around the tank. The asphalt batch plant was decommissioned in 2002. In 2003, the surface of the site was paved with asphalt for use as a parking lot. Results of an investigation conducted in 2003 indicate that there is no potential unacceptable risk posed by the site to human health or ecological receptors. NMED hereby issues this Certificate of Completion for AOC 03-043(b) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
15. **AOC 03-043(d)** is the former aboveground asphalt storage tank (former structure 03-76) at the former asphalt batch plant at TA-3. The tank was removed and disposed of at the Los Alamos County Landfill in 1988 or 1989. The surface of the site was paved with asphalt for use as a parking lot in 2003. Results of an investigation conducted in 2003 indicate that there is no potential unacceptable risk posed by the site to human health or ecological receptors. NMED hereby issues this Certificate of Completion for AOC 03-

043(d) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

16. **AOC 03-043(f)** is the location of a former aboveground storage tank (former structure number 03-178) at the former asphalt batch station at TA-3. The tank was removed, disassembled, disposed of at Los Alamos County Landfill. In 2003, the surface was paved with asphalt for use as a parking lot. The potential soil contamination associated with the former tank was included in the investigations conducted at SWMUs 03-036(c) and 03-036(d). Results of the investigation conducted in 2003 indicate that there is no potential unacceptable risk posed by the site to human health or ecological receptors. NMED hereby issues this Certificate of Completion for AOC 03-043(f) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
17. **AOC 03-043(g)** is the location of a former aboveground asphalt storage tank (former structure number 03-335) at the former asphalt batch station at TA-3. The tank was removed and disposed of at the Los Alamos County Landfill. In 2003, the surface was paved with asphalt for use as a parking lot. Results of an investigation conducted in 2003 indicate that there is no potential unacceptable risk posed by the site to human health or ecological receptors. NMED hereby issues this Certificate of Completion for AOC 03-043(g) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
18. **AOC 03-043(h)** is the former aboveground asphalt storage tank (former structure 03-75) at the former asphalt batch plant at TA-3. The tank was removed and disposed of at the Los Alamos County Landfill in 1988-1989. The surface of the site was paved with asphalt for use as a parking lot in 2003. Results of an investigation conducted in 2003 indicate that there is no potential unacceptable risk posed by the site to human health or ecological receptors. NMED hereby issues this Certificate of Completion for AOC 03-043(h) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
19. **AOC 03-047(d)** is the location of a former container storage area at TA-3. The storage area consisted of an asphalt pad where drums of new motor oil, used oil, and Stoddard solvent were stored from 1954-1989. The asphalt pad was removed when the area was decommissioned in 1989. Investigations conducted in 1995 indicated that the residual contamination posed no unacceptable risk to human health and ecological receptors. In 2002, before the installation of a concrete pad, soil was excavated within the boundary of AOC 03-047(d). Two days later, a waterline ruptured at the TA-3 power plant and eroded all remaining soil/fill, including the 1995 sampling locations. The location of the AOC 03-047(d) was backfilled with more than five ft of clean fill to bring the site back up to grade. Evaluation of human health and ecological risks indicates that there is no potential unacceptable risk posed by the site. NMED hereby issues this Certificate of

Completion for AOC 03-047(d) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

20. **SWMU 03-056(l)** is the location of a former outdoor storage area at TA-3. Containers of disposable clothing contaminated with beryllium powder and carboys used to store beryllium powder in water were reportedly staged at this location before disposal. There are no documented releases from the drums or carboys to the environment. Results of the investigations conducted in 2003 and 2009 indicate that there is no potential unacceptable risk posed by the site to human health or ecological receptors. NMED hereby issues this Certificate of Completion for SWMU 03-056(l) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
21. **AOC C-03-016** is a former oil cleanout bin that was located north of the former asphalt batch plant at TA-3. The bin was approximately 4 ft x 16 ft x 3 ft deep, had a hinged lid, and was buried with the top flush to the ground surface. The bin was installed in the mid-1970s and contained used asphalt emulsion oil. In the late 1980s, the stained area surrounding the bin was removed. Clean sand and gravel was placed around the bin. The bin and stained soils around the bin were removed in the late 1990s. In 2003, the surface of the site was paved with asphalt for use as a parking lot. Results of investigations conducted in 2003 and 2009 indicate that there is no potential unacceptable risk posed by the site to human health or ecological receptors. NMED hereby issues this Certificate of Completion for AOC C-03-016 pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
22. **AOC 60-004(b)** is a former storage area at TA-60 for 12 containers of diesel sludge removed from underground tanks at the TA-3 power plant. The containers were staged at this area in 1988. Results of investigations conducted in 1994 and 2009 indicate that there is no potential unacceptable risk posed by the site to human health or ecological receptors. NMED hereby issues this Certificate of Completion for AOC 60-004(b) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.
23. **AOC 60-004(d)** is the location of a former storage area at TA-60. The containers were staged at this area in 1988. The area was formerly used to temporarily stage drums containing fluids removed from underground storage tanks. Decommissioned underground storage tanks were also dismantled at this location. The storage area was first used in 1979. Results of investigations conducted in 1994 and 2009 indicate that there is no potential unacceptable risk posed by the site to human health or ecological receptors. NMED hereby issues this Certificate of Completion for AOC 60-004(d) pursuant to Section VII.E.6.b of the Consent Order. Based on the information provided, no controls are necessary for this site.

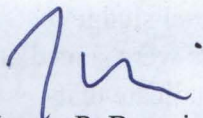
The following site is eligible for Corrective Action Complete with Controls.

24. **SWMU 03-056(c)** is an inactive outdoor transformer storage area located at TA-3. The area was used to store electrical equipment, capacitors, and transformers with PCB-containing dielectric oils. Waste solvents used to clean electric equipment were also stored at this location. Investigations and remedial actions were conducted at the site in 1994, 1995, 2000, and 2001. The nature and extent of contamination was defined and confirmatory sample results indicated that the site met the Environmental Protection Agency's PCB cleanup criterion of less than 1 part per million. Evaluation of human health and ecological risks indicates that there is no potential unacceptable risk posed at the site. However, storm water discharge may mobilize residual contamination from the site. The Permittees must institute and maintain a control on the site by monitoring storm water discharge for potential off-site transport of residual contamination. This is currently being accomplished under the National Pollutant Discharge Elimination System (NPDES) "Stormwater" Permit. NMED hereby issues this Certificate of Completion for Corrective Action Complete with Controls for SWMU 03-056(c) pursuant to Section VII.E.6.b of the Consent Order, subject to the aforementioned control.

If new information becomes available that indicates that these sites may pose a risk to human health or the environment, NMED may require the Permittees to conduct additional corrective action at these sites.

Please contact Neelam Dhawan at (505) 476-6042, if you have any questions.

Sincerely,



James P. Bearzi  
Chief  
Hazardous Waste Bureau

cc: J. Kieling, NMED HWB  
D. Cobrain, NMED HWB  
N. Dhawan, NMED HWB  
S. Yanicak, NMED DOE OB, MS J993  
T. Skibitski, NMED DOE OB  
L. King, EPA 6PD-N  
C. Rodriguez, DOE LASO, MS A316  
K. Rich, LANS, EP-CAP, MS M992

File: 2011 LANL, Certificates of Completion, Upper Sandia Canyon Aggregate Area  
SWMUs/AOCs

**Completion of Corrective Action  
at Sites 45-001, 45-002, and 45-004  
in ACID-SMA-2**

**March 7, 2013**

**NPDES PERMIT NO. NM0030759**

**LA-UR-13-21502**





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NPDES PERMIT NO. NM0030759

LA-UR-13-21502

**LOS ALAMOS NATIONAL LABORATORY  
CERTIFICATION OF COMPLETION OF CORRECTIVE ACTION**

PF: P002

ACID-SMA-2

Sites: 45-001

45-002

45-004

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.

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**CERTIFICATION STATEMENT OF AUTHORIZATION**

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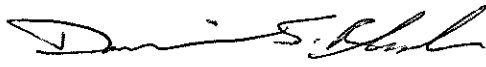
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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."



Environmental Programs  
Corrective Actions Program  
Los Alamos National Laboratory

8/16/2013

Date



Los Alamos Field Office  
National Nuclear Security Administration

8-20-2013

Date



This certificate indicates completion of corrective action for Sites 45-001, 45-002, and 45-004 pursuant to Part 1, E.2(d), of Individual Permit NM0030759. This certification that corrective action is complete was prepared in accordance with 40 Code of Federal Regulations 122.22(b).

Table 1 presents the Sites achieving Resource Conservation and Recovery Act Corrective Action Complete without Controls status under the Compliance Order on Consent (the Consent Order). Analytical results obtained from baseline confirmation monitoring at ACID-SMA-2 exceeded target action levels for total polychlorinated biphenyls and gross-alpha activity, causing the Permittees to initiate corrective action. The Permittees are certifying completion of correction action at Sites 45-001, 45-002, and 45-004 through a demonstration that the Sites have achieved a certificate of completion under the Consent Order, Section VII.E.6.b. Attachment 1 contains a copy of the certificate of completion from the New Mexico Environment Department for Sites 45-001, 45-002, and 45-004, which are designated as Solid Waste Management Units 45-001, 45-002, and 45-004 for purposes of the Consent Order.

**Table 1**  
**Site(s) Demonstrating Completion of Corrective Action**

Site Number	Associated SMA Number	Watershed	Site Priority
45-001	ACID-SMA-2	Los Alamos/Pueblo	Moderate
45-002			
45-004			



# **Attachment 1**

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*Certificate of Completion for Sites 45-001, 45-002, and 45-004*





SUSANA MARTINEZ  
Governor

JOHN A. SANCHEZ  
Lieutenant Governor

NEW MEXICO  
ENVIRONMENT DEPARTMENT

*Hazardous Waste Bureau*

2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
Phone (505) 476-6000 Fax (505) 476-6030  
[www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)



DAVE MARTIN  
Secretary

BUTCH TONGATE  
Deputy Secretary

THOMAS SKIBITSKI  
Acting Director  
Resource Protection Division

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

February 22, 2013

Pete Maggiore  
Assistant Manager  
Environmental Projects Office  
National Nuclear Security Administration  
Los Alamos Site Office  
3747 West Jemez Road, MS A316  
Los Alamos, NM 87544

Jeffrey D. Mousseau  
Associate Director  
Environmental Programs  
Los Alamos National Security, L.L.C.  
P.O. Box 1663, MS M991  
Los Alamos, NM 87545

**RE: CERTIFICATES OF COMPLETION  
FOUR SOLID WASTE MANAGEMENT UNIT AND ONE AREA OF CONCERN  
IN THE PUEBLO CANYON AGGREGATE AREA  
EPA ID #NM0890010515  
HWB-LANL-12-063**

Dear Messrs. Maggiore and Mousseau:

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 Four Solid Waste Management Units and One Area of Concern in the Pueblo Canyon Aggregate Area*, dated September 13, 2012 and referenced by EP2012-0202.

1. Solid Waste Management Unit (SWMU) 45-001 was a former radioactive liquid waste (RLW) treatment plant and associated outfalls. The treatment plant began operating in 1951 and operated until 1964. The plant initially received RLW only from Technical Area (TA) 1. As laboratory operations expanded, RLW from TA-3, TA-43, and TA-48 was also sent to SWMU 45-001. Decontamination and decommissioning (D&D) of

SWMU 45-001 included the demolition and removal of treatment plant equipment, structures, and waste lines and the excavation of contaminated soil. Portions of the cliff walls of Acid Canyon below the outfalls were also decontaminated.

2. SWMU 45-002 consisted of a former vehicle decontamination facility (former building 45-1) that was used to decontaminate vehicles and large equipment, including filters from the Sigma Building, trash dumpsters, and wing tanks from airplanes. SWMU 45-002 was located approximately 40 feet south of the TA-45 RLW treatment plant (SWMU 45-001). The decontamination facility began operation in 1952. Vehicles and other equipment were decontaminated by steam-cleaning. This facility operated infrequently, approximately once per month. SWMU 45-002 was decommissioned in 1966, along with the other facilities that comprised former TA-45.
3. SWMU 45-003 consisted of the former buried industrial waste line and associated manhole (structure 45-8) located within the boundaries of TA-45. This waste line was used to convey RLW to the TA-45 treatment plant, SWMU 45-001.
4. SWMU 45-004 consisted of a sanitary sewer outfall that was associated with the sanitary sewer system constructed in 1947 to serve the Los Alamos town site. This sewer system included a sanitary sewer lift station (structure 45-3) and sanitary sewer manholes (structures 45-5 and 45-6).
5. Area of Concern (AOC) C-45-001 was the site of an accidental release of plutonium-contaminated sludge that occurred in the parking lot south of building 45-2 (SWMU 45-001) in January 1957. The parking lot was removed as part of the TA-45 D&D activities.

These five sites are components of Consolidated Unit 45-001-00. The July 2008 Investigation Report for Pueblo Canyon Aggregate Area, Revision 1 (IR) presented the results of characterization and remediation activities conducted in 2006 and 2007. The vertical extent of mercury and silver were not fully determined at one sample location within SWMU 45-004. The vertical extent of metals was determined by the Permittees between February and June 2010 and the results were presented in the September 2010 Phase II IR.

Because the footprints of the five sites overlap, the Phase II IR evaluated the risk for all five sites combined. The Phase II IR demonstrated that SWMUs 45-001, 45-002, 45-003, 45-004 and AOC C-45-001 pose no potential unacceptable risks to human health under the residential land use scenario and pose no potential risk to ecological receptors. Accordingly, the sites were recommended for corrective action complete without controls in the Phase II IR. A subsequent September 2012 evaluation of potential vapor intrusion for a residential scenario concluded that vapor intrusion by contaminants did not appreciably alter the risks at any of the five sites.

NMED hereby issues Certificates of Completion without controls for SWMUs 45-001, 45-002, 45-003, 45-004 and AOC C-45-001 pursuant to section VII.E.6.b of the Consent Order.

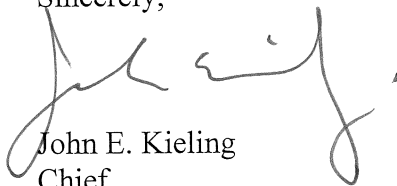


Messrs. Maggiore and Mousseau  
February 22, 2013  
Page 3

If, in the future, any additional information becomes available that indicates the sites may pose a risk to human health or the environment, NMED may require the Permittees to conduct additional corrective action at the sites.

Please contact Daniel Comeau at (505) 476-6043, if you have any questions.

Sincerely,



John E. Kieling  
Chief  
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB  
N. Dhawan, NMED HWB  
S. Yanicak, NMED DOE OB, MS J993  
T. Skibitski, NMED DOE OB  
L. King, EPA 6PD-N  
C. Rodriguez, DOE LASO, MS A316  
T. Haagenstad, EP-CAP, MS M992

File: 2012 LANL, Certificates of Completion for SWMU 45-001, SWMU 45-002, SWMU 45-003, SWMU 45-004 and AOC C-45-001 (HWB-LANL 08-036 and HWB-LANL-12-063)



**Completion of Corrective Action  
at Site 32-004  
in LA-SMA-5.33**

**March 7, 2013**

**NPDES PERMIT NO. NM0030759**

**LA-UR-13-21522**



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NPDES PERMIT NO. NM0030759

LA-UR-13-21522

**LOS ALAMOS NATIONAL LABORATORY  
CERTIFICATION OF COMPLETION OF CORRECTIVE ACTION**

PF: L016

LA-SMA-5.33

Site: 32-004

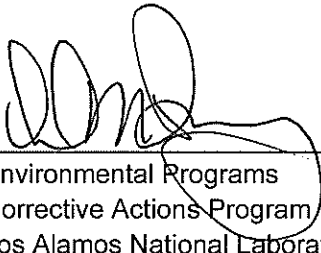
The following certification was performed in accordance with NPDES Permit No. NM0030759, Part I.E.2, which requires the Permittees (i.e., DOE and LANS) to certify the completion of corrective action.

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**CERTIFICATION STATEMENT OF AUTHORIZATION**

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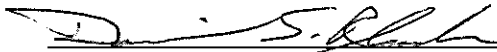
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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."



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Environmental Programs  
Corrective Actions Program  
Los Alamos National Laboratory

8/13/2013  
Date



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Los Alamos Field Office  
National Nuclear Security Administration

8-20-2013  
Date



This certificate indicates completion of corrective action for Site 32-004 pursuant to Part 1, E.2(d), of the Individual Permit NM0030759. This certification that corrective action is complete was prepared in accordance with 40 Code of Federal Regulations 122.22(b).

Table 1 presents the Sites achieving Resource Conservation and Recovery Act Corrective Action Complete with Controls status under the Compliance Order on Consent (the Consent Order). Analytical results obtained from baseline confirmation monitoring at LA-SMA-5.33 exceeded target action levels for gross alpha causing the Permittees to initiate corrective action. The Permittees are certifying completion of correction action at Site 32-004 through a demonstration that the Site has achieved a certificate of completion under the Consent Order, Section VII.E.6.b. Attachment 1 contains a copy of the certificate of completion from the New Mexico Environment Department for Site 32-004, which is designated as Area of Concern 32-004 for purposes of the Consent Order.

**Table 1**  
**Site(s) Demonstrating Completion of Corrective Action**

<b>Site Number</b>	<b>Associated SMA Number</b>	<b>Watershed</b>	<b>Site Priority</b>
32-004	LA-SMA-5.33	Los Alamos/Pueblo	Moderate





# **Attachment 1**

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*Certificate of Completion for Site 32-004*





SUSANA MARTINEZ  
Governor

JOHN A. SANCHEZ  
Lieutenant Governor

NEW MEXICO  
ENVIRONMENT DEPARTMENT

*Hazardous Waste Bureau*

2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
Phone (505) 476-6000 Fax (505) 476-6030  
[www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)



DAVE MARTIN  
Secretary

BUTCH TONGATE  
Deputy Secretary

JAMES H. DAVIS, Ph.D.  
Director  
Resource Protection Division

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

December 28, 2012

Pete Maggiore  
Assistant Manager  
Environmental Projects Office  
National Nuclear Security Administration  
Los Alamos Site Office  
3747 West Jemez Road, MS A316  
Los Alamos, NM 87544

Jeffrey D. Mousseau  
Associate Director  
Environmental Programs  
Los Alamos National Security, L.L.C.  
P.O. Box 1663, MS M991  
Los Alamos, NM 87545

**RE: CERTIFICATES OF COMPLETION  
TWO SOLID WASTE MANAGEMENT UNITS AND ONE AREA OF CONCERN  
IN THE UPPER LOS ALAMOS CANYON AGGREGATE AREA  
EPA ID #NM0890010515  
HWB-LANL-12-072**

Dear Messrs. Maggiore and Mousseau:

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 Two Solid Waste Management Units and One Area of Concern in the Upper Los Alamos Canyon Aggregate Area*, dated December 20, 2012 and referenced by EP2012-0304.

1. **Solid waste management unit (SWMU) 32-002(b1)** is a part of a former septic system that served former buildings 32-01 and 32-02 at former technical area (TA) 32. Former TA-32 was decommissioned in 1954. SWMU 32-002(b1) is the portion of the former septic system (32-002(b)) that is located on property currently owned by Los Alamos County (LAC). The remainder of the septic system is located on the property owned by

DOE and is designated as 32-002(b2). SWMU 32-002(b) was split into two separate SWMU in December 2012 through a permit modification to facilitate commercial development of the property owned by LAC. The outfall for SWMU 32-002(b) is located at the edge of Los Alamos Canyon, which is now part of SWMU 32-002(b2). The septic tank was removed in 1998, and the influent drainline was removed in 1996. Research activities mainly involved radionuclides, but other inorganic and organic chemicals were likely also used at the laboratory. Investigations were conducted at the site in 1996, 2008, and 2010.

The results of the investigations are reported in the *Remedy Completion Report for Upper Los Alamos Canyon Aggregate Area, Former Technical Area 32, Revision 1* (dated February 2011 and referenced by LA-UR-11-1177/EP2011-0064) and *Supplemental Remedy Completion Report for Upper Los Alamos Canyon Aggregate Area, Former Technical Area 32* (dated December 2012 and referenced by LA-UR-12-27053/EP2012-0306). Based on the results of the risk screening assessments, no potential unacceptable risk from residual contamination exists for the recreational, industrial, and construction worker scenario. However, the site does pose potential unacceptable risk under a residential exposure scenario. The site does not pose potential risk to ecological receptors under the proposed land use scenario. SWMU 32-002(b1) qualifies for corrective action complete with controls status. The control for the site is that the land use must be maintained as industrial.

2. **Area of Concern (AOC) 32-004** consists of a former drainline and outfall that served building 32-03 and discharged to Los Alamos Canyon. Building 32-03 was an office building and contained a vault room where a radioactive source was stored. The drainline at AOC 32-004 led directly to an outfall at the edge of the mesa without passing through a septic tank. Building 32-03 was removed when TA-32 was decommissioned in 1954. A section of the drainline located on LAC property was removed in 1996. Investigations were conducted at the site in 1993, 1996, 2008, and 2010.

The results of the investigations were reported in the *Remedy Completion Report for Upper Los Alamos Canyon Aggregate Area, Former Technical Area 32, Revision 1* (dated February 2011 and referenced by LA-UR-11-1177/EP2011-0064). Based on the results of the risk screening conducted at the site, AOC 32-004 does not pose a potential unacceptable risk for the industrial, recreational, and construction worker land use scenarios. No potential unacceptable risks to ecological receptors are present at the site under the proposed industrial/commercial land use scenario. However, potential unacceptable risk exists under a residential land use scenario. AOC 32-004 qualifies for corrective action complete with controls status. The control is to maintain the land use as industrial.

3. **SWMU 32-002(a)** is a former septic system that was installed in 1944 and served former building 32-01. The outlet drainline discharged to the edge of Los Alamos Canyon.

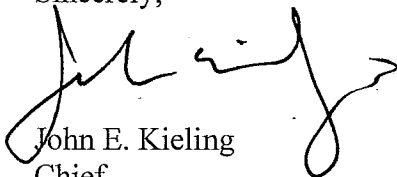
Former building 32-01 operated as a research laboratory from 1944-1954. Research activities mainly involved radionuclides, but inorganic and organic chemicals were likely also used at the laboratory. Former TA 32 was decommissioned in 1954. The septic tank was removed prior to 1996, but historical records of the removal activities are not available. The drainlines were removed in 1996. Investigations were conducted in 1996, 2008, 2010, and 2011.

The results of the investigations were reported in the *Remedy Completion Report for Upper Los Alamos Canyon Aggregate Area, Former Technical Area 32, Revision 1* (dated February 2011 and referenced by LA-UR-11-1177/EP2011-0064) and *Supplemental Remedy Completion Report for Upper Los Alamos Canyon Aggregate Area, Former Technical Area 32* (dated December 2012 and referenced by LA-UR-12-27053/EP2012-0306). Results of the investigations were used to evaluate the risk posed by the site. The site does not pose any unacceptable risk under an industrial land use scenario. However, the construction worker scenario was not evaluated. The Permittees must evaluate the risk posed to a construction worker by residual contamination at the site. The ecological risk evaluation indicated that the site does not pose unacceptable risk to the ecological receptors under the proposed land use scenario. NMED will make the corrective action completion determination after reviewing the results of evaluation of potential risk posed to a construction worker to be submitted by the Permittees.

NMED hereby issues a Certificate of Completion with Controls for SWMU 32-002(b1) and AOC 32-004. If new information becomes available that indicates that any of these sites may pose a risk to human health or the environment, NMED may require the Permittees to conduct additional corrective action.

Please contact Neelam Dhawan at (505) 476-6042, if you have any questions.

Sincerely,



John E. Kieling  
Chief  
Hazardous Waste Bureau

cc:

J. Davis, NMED HWB  
D. Cobrain, NMED HWB  
N. Dhawan, NMED HWB  
S. Yanicak, NMED DOE OB, MS J993  
T. Skibitski, NMED DOE OB  
L. King, EPA 6PD-N

Messrs. Maggiore and Mousseau  
December 28, 2012  
Page 4

E. Worth, DOE LASO, MS A316  
T. Haagenstad, EP-CAP, MS M992

File: 2012 LANL, Certificates of Completion for TA-32, Upper Los Alamos Canyon AA Sites  
(LANL 12-072)