

**Completion of Corrective Action  
at Sites 21-013(b), 21-013(g), and 21-018(a)  
in LA-SMA-5.92**

**November 22, 2013**

**NPDES PERMIT NO. NM0030759**

**LA-UR-13-28928**



NPDES PERMIT NO. NM0030759

LA-UR-13-28928

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

PF: L019A

LA-SMA-5.92

Site: 21-013(b)  
21-013(g)  
21-018(a)

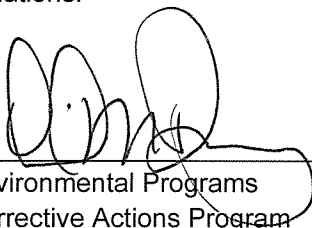
The following certification was performed in accordance with NPDES Permit No. NM0030759, Part I.E.2, which requires the Permittees (i.e., DOE and LANS) to certify the completion of corrective action.

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**CERTIFICATION STATEMENT OF AUTHORIZATION**

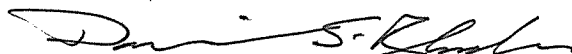
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"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based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

11/20/2013  
Date



Los Alamos Field Office  
National Nuclear Security Administration

11-22-2013  
Date



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

**PF: L019A**

**LA-SMA-5.92**

**Sites: 21-013(b)  
21-013(g)  
21-018(a)**

This certificate indicates completion of corrective action for Sites 21-013(b), 21-013(g), and 21-018(a) 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 without controls/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-5.92 exceeded target action levels for copper, gross alpha, and mercury, causing the Permittees to initiate corrective action. The Permittees are certifying completion of correction action at Sites 21-013(b), 21-013(g), and 21-018(a) through a demonstration that the Site has achieved a certificate of completion under the Section VII.E.6.b of the Consent Order. Table 2 presents other Site(s) associated with LA-SMA-5.92. Attachment 1 contains a copy of the certificate of completion from the New Mexico Environment Department for Sites 21-013(b), 21-013(g), and 21-018(a), which are designated as Solid Waste Management Unit (SWMU) 21-013(b), Area of Concern 21-013(g), and SWMU 21-018(a), respectively, for the purposes of the Consent Order.

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

Site Number	Associated SMA Number	Watershed	Site Priority
21-013(b) 21-013(g) 21-018(a)	LA-SMA-5.92	Los Alamos/Pueblo	Moderate

**Table 2  
Other Site Associated with LA-SMA-5.92**

Site Number	Associated SMA Number	Watershed	Site Priority
21-021	LA-SMA-5.92	Los Alamos/Pueblo	Moderate



# **Attachment 1**

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*Certificate of Completion for Sites 21-013(b), 21-013(g),  
and 21-018(a)*







SUSANA MARTINEZ  
Governor

JOHN A. SANCHEZ  
Lieutenant Governor

NEW MEXICO  
ENVIRONMENT DEPARTMENT

*Hazardous Waste Bureau*

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Santa Fe, New Mexico 87505-6303  
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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.

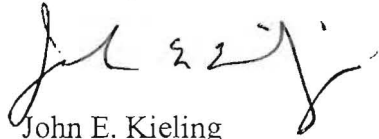
**AOC 21-013(g)** is located immediately south of MDA V on the south-facing slope leading into BV Canyon and has historically been described as a surface debris disposal site. It is not known how long the site received building debris; however, it did not receive waste after 1994. AOC 21-013(g) consisted 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,

A handwritten signature in black ink, appearing to read 'John E. Kieling', written in a cursive style.

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