NEW MEXICO
ENVIRONMENT DEPARTMENT

2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Phone (505) 476-6000 Fax (505) 476-6030
www.env.nm.gov

SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
Lieutenant Governor

RYAN FLYNN
Cabinet Secretary
BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

September 16, 2015

Christine Gelles, Acting Manager
U.S. Department of Energy
Los Alamos Field Office, DOE
3747 West Jemez Rd, MS A316
Los Alamos, NM 87544

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

RE: CERTIFICATES OF COMPLETION
SIX SOLID WASTE MANAGEMENT UNITS AND ONE AREA OF CONCERN
AT TECHNICAL AREA 5
MIDDLE MORTANDAD/TEN SITE AGGREGATE AREA
EPA ID #NM0890010515
HWB-LANL-11-068

Dear Ms. Gelles and Mr. Brandt:

The New Mexico Environment Department (NMED) has received the United States Department of Energy (DOE) and the Los Alamos National Security L.L.C.'s (LANS) (collectively, the Permittees) *Request for Certificates of Completion for Twenty-Seven Solid Waste Management Units and Ten Areas of Concern in the Middle Mortandad/Ten Site Aggregate Area*, dated August 31, 2011 and referenced by EP2011-0297.

Several solid waste management units (SWMUs) and areas of concern (AOC) were recommended for corrective action complete in the *Investigation Report for the Middle Mortandad/Ten Site Aggregate Area, Revision 2* (Report), dated February 2008 (LA-UR-08-0336/EP2008-0035). NMED issued an Approval with Direction (AWD) for the Report on April 1, 2008.

NMED hereby issues certificates of completion without controls for the following sites pursuant to Section VII.E.6.b of the Consent Order.

SWMU 05-001(a) is steel barricaded firing pit #1 (structure TA-05-07), used for implosion tests from 1944-1947. The firing pit structure (8 feet(ft) x 5.5 ft x 3 ft) contained an intra-structure made from plate steel and concrete. Experimental shots, using high explosives (HE) as the energy source, were set up at the site and fired on open ground. The debris from the shots was bulldozed to the edge of Mortandad Canyon. In 1959, the pit was abandoned in place. Decommissioning and decontamination (D&D) activities were conducted in 1985. No contamination was detected on the surface of the structures or in soils located directly beneath the firing pit. The site was included in the investigation of CU 05-001(a)-99. Potential contaminants of concern at the site include HE, natural and depleted uranium, and metals. Investigations conducted during 1995 and 2004 indicated that there are no potential unacceptable risks or doses from the residual contamination for the industrial or residential land use scenarios. The results of the ecological risk-screening assessment indicated no potential unacceptable risk to ecological receptors at the site.

SWMU 05-001(b) is steel barricaded firing pit # 2 (structure TA-05-15), used from 1945 until the late 1940s. The firing pit structure (8 ft x 5.5 ft x 3 ft) contained an intra-structure made from plate steel and concrete and was located 200 ft from SWMU 05-001(a). Experimental shots, using HE as the energy source, were set up at the site and fired on open ground. The debris from the shots was bulldozed to the edge of Mortandad Canyon. In 1959, the pit was abandoned in place. D&D activities were conducted in 1985. Structure TA-05-15 contained uranium, and when the metal structure was removed from the ground, contamination was found. The contamination was traced vertically to a depth of about 15 ft. When the area was decontaminated, the pit was backfilled with clean soil. The site was included in the investigation of CU 05-001(a)-99. Potential contaminants of concern at the site include HE, natural and depleted uranium, and metals. Investigations conducted during 1995 and 2004 indicated that there are no potential unacceptable risks or doses from the residual contamination for the industrial or residential land use scenarios. The results of the ecological risk-screening assessment indicated no potential unacceptable risk to ecological receptors at the site.

AOC 05-001(c) is an inactive firing site located at the end of a spur road south of Puye Road approximately 20 to 30 ft below the eastern edge of the mesa. Gravel and metal shrapnel was found off the edge of the mesa in a small erosion gully just east of the end of the spur road. Between 1944 and 1945, two to three tests were conducted at the site, each involving approximately 2500 lbs of HE. The site was closed in the spring of 1945. Potential contaminants of concern at the site include HE, natural and depleted uranium, and metals. Investigations conducted during 1995 and 2004 indicated that there are no potential unacceptable risks or doses from the residual contamination for the industrial or residential land use scenarios. The results of the ecological risk-screening assessment indicated no potential unacceptable risk to ecological receptors at the site.

SWMU 05-002 is a canyon-side disposal site that was created by bulldozing shot debris from firing pits [SWMUs 05-001(a) and 05-001(b)] over the north facing slope of Mortandad Canyon. The debris zone extended to the canyon bottom. In 1985, shot debris that was visible on the surface was removed, but the side of the canyon was not monitored for radioactivity or decontaminated. Waste materials potentially disposed of at the site include shot debris, cables,

wire, trace amounts of uranium, lead, beryllium, cadmium, and uranium-contaminated aluminum or steel. The site was included in the investigation of CU 05-001(a)-99. Investigations conducted during 1995 and 2004 indicated that there are no potential unacceptable risks or doses from the residual contamination for the industrial or residential land use scenarios scenario. The results of the ecological risk-screening assessment indicated no potential unacceptable risk to ecological receptors at the site.

SWMU 05-005(a) is a former French drain from control building TA-05-04, was constructed in 1945 and abandoned, along with the control building, in 1959. It was used to discharge waste from the control building; the types of waste discharged into the French drain are unknown. The control building was removed in 1960. The French drain and affected soil was removed in 1985 during the D&D operations. The site was included in the investigation of CU 05-005(a)-00. Investigations conducted during 1995 and 2004 indicate that there are no potential unacceptable risks or doses from the residual contamination for the industrial or residential land use scenarios. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site.

SWMU 05-006(b) is potentially contaminated soil at the location of former structure TA-05-04. During 1985 D&D activities, uranium-contaminated soil was found at the former site of TA-05-04. Contamination in the area of the control building was believed to have entered the environment through the French drain. A radiation survey conducted in 1988 depicted radiation levels above background. The site was included in the investigation of CU 05-005(a)-00. Investigations conducted during 1995 and 2004 indicated that there are no potential unacceptable risks or doses from the residual contamination for the industrial or residential land use scenarios. The results of the ecological risk-screening assessment indicated no potential unacceptable risk to ecological receptors at the site.

SWMU 05-006(e) is potentially contaminated soil associated with a former platform (TA-05-19) that was adjacent to Building 05-04. The platform was 6 ft x 6 ft wooden structure mounted 26 ft above the ground on two wooden poles. It was built around 1953 and abandoned in place in 1959. The entire area was demolished when Building 05-04 was removed in 1985. The site was included in the investigation of CU 05-005(a)-00. Investigations conducted during 1995 and 2004 indicated that there are no potential unacceptable risks or doses from the residual contamination for the industrial or residential land use scenarios. The results of the ecological risk-screening assessment indicated no potential unacceptable risk to ecological receptors at the site.

NMED has determined that SWMUs 05-001(a), 05-001(b), 05-002, 05-005(a), 05-006(b), 05-006(e), and AOC 05-001(c) qualify for certificates of completion indicating that additional corrective action under the Consent Order is not required. Although corrective action is complete under the Consent Order, the Permittees must continue to comply with all applicable state and federal regulations. If new information becomes available that indicates that these sites may pose a risk to human health or the environment, NMED may require additional investigations and corrective action at these sites.

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

Sincerely,

John E. Kieling
Chief
Hazardous Waste Bureau

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

File: 2015 LANL, Certificates of Completion for SWMUs in TA-5, MMTS
LANL 11-068