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CERTIFIED MAIL – RETURN RECEIPT REQUESTED

August 1, 2016

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U1601698

RE: CERTIFICATES OF COMPLETION
NINETEEN SOLID WASTE MANAGEMENT UNITS AND TWO AREAS OF CONCERN IN THE CAÑON DE VALLE AGGREGATE AREA
EPA ID #NM0890010515
HWB-LANL-15-038

Dear Messrs. Hintze and Brandt:

The New Mexico Environment Department (NMED) has received the United States Department of Energy (DOE) and the Los Alamos National Security L.L.C.'s (LANS) (collectively, the Permittees) *Request for Certificates of Completion for Nineteen Solid Waste Management Units and Two Areas of Concern in the Cañon de Valle Aggregate Area* (Request), dated August 13, 2015 and referenced by ADESH-15-106.

These nineteen solid waste management units (SWMUs) and two areas of concern (AOCs) were previously investigated and the results were presented in the *Investigation Report for Consolidated Units 16-007(a)-99 and 16-008(a)-99 at Technical Area 16, Revision 1* (Report), dated January 18, 2008 (LA-UR-08-0256/EP2008-0018) and in the *Supplemental Investigation Report for Consolidated Units 16-007(a)-99 and 16-008(a)-99 at Technical Area 16* (SIR), dated January 7, 2010 (LA-UR-09-8193/EP2009-0643). NMED issued an *Approval with Direction* for the Report on February 11, 2008 and a *Notice of Approval* for the SIR on February 16, 2010. The Permittees have requested that fifteen of the SWMUs and one AOC be granted certificates of completion without controls and the remaining four SWMUs and one AOC be granted certificates of completion with controls.

NMED hereby issues certificates of completion without controls for the following fourteen SWMUs and one AOC pursuant to Section XXI of the 2016 Consent Order.

SWMU 16-017(a)-99 consists of soil contamination from Former High Explosives (HE) Machining Building 16-92. Constructed in 1950, the building was initially used for machining of HE and later converted for cleaning and refurbishing HE-contaminated equipment. After 1970, building 16-92 was used for storage and was abandoned by 1991. Operational effluents include explosives, solvents, and other materials of concern. The building was removed during a 1996 Voluntary Corrective Action (VCA) conducted in coordination with demolition and decommissioning (D&D) activities. Sampling conducted in 2006-2007 indicates that the nature and extent of contamination is defined. The results of the Report and SIR indicate that SWMU 16-017(a)-99 does not pose an unacceptable risk to human health under the industrial, construction worker, and residential scenarios. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 16-017(b)-99 consists of soil contamination from Former HE Machining Building 16-93. Constructed in 1950, the building was equipped with two sumps that received effluent from drain troughs in the concrete slab floors. The building was initially used for machining of HE and later became an electroplating building. After 1970, building 16-93 was used for storage and was totally abandoned by 1991. The building was removed during a 1996 VCA conducted in coordination with D&D activities. Sampling conducted in 2006-2007 indicates that the nature and extent of contamination is defined. The results of the Report and SIR indicate that SWMU 16-017(b)-99 does not pose an unacceptable risk to human health under the industrial, construction worker, and residential scenarios. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 16-017(c)-99 consists of soil contamination from Former HE Machining Building 16-91. Constructed in 1950, the building was initially used for machining of HE and later converted for cleaning and refurbishing HE-contaminated equipment. The building was equipped with two sumps that received effluent from drain troughs in the concrete slab floors. After 1970, building 16-91 was used for storage and was totally abandoned by 1991. The building was removed during a 1996 VCA conducted in coordination with D&D activities. Sampling conducted in 2006-2007 indicates that the nature and extent of contamination is defined. The results of the Report and SIR indicate that SWMU 16-017(c)-99 does not pose an unacceptable risk to human health under the industrial, construction worker, and residential scenarios. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 16-017(d)-99 consists of soil contamination from Former HE Machining Building 16-90. The building was equipped with two sumps that received effluent from drain troughs in the concrete slab floors. The building was converted to a storage facility during the late 1950s or early 1960s and operated until 1980. By 1991 the building was abandoned. The building, sumps, and drainlines were removed during a 1996 VCA conducted in coordination with D&D activities. Sampling conducted in 2006-2007 indicates that the nature and extent of contamination is defined. The results of the Report and SIR indicate that SWMU 16-017(d)-99 does not pose an unacceptable risk to human health under the industrial, construction worker,

and residential scenarios. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 16-017(e)-99 consists of soil contamination from Former HE Machining Building 16-89. The building was equipped with two sumps that received effluent from drain troughs in the concrete slab floors. The building was converted to a storage facility during the late 1950s or early 1960s and operated 1980. By 1991 building 16-89 was abandoned. The building, sumps, and drainlines were removed during a 1996 VCA conducted in coordination with D&D activities. Sampling conducted in 2006-2007 indicates that the nature and extent of contamination is defined. The results of the Report and SIR indicate that SWMU 16-017(e)-99 does not pose an unacceptable risk to human health under the industrial, construction worker, and residential scenarios. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 16-026(m) consists of a drainline and outfall associated with former building 16-92. Operational effluents from building 16-92 included small or moderate amounts of explosives, solvents, or other materials of concern. The drainline was removed during a 1996 VCA conducted in coordination with D&D activities. Sampling conducted in 2006-2007 indicates that the nature and extent of contamination is defined. The results of the Report and SIR indicate that SWMU 16-026(m) does not pose an unacceptable risk to human health under the industrial, construction worker, and residential scenarios. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 16-026(n) consists of a drainline and outfall associated with former building 16-91. The drainline was removed during a 1996 VCA conducted in coordination with D&D activities. Sampling conducted in 2006-2007 indicates that the nature and extent of contamination is defined. The results of the Report and SIR SWMU 16-026(n) indicate that the site does not pose an unacceptable risk to human health under the industrial, construction worker, and residential scenarios. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 16-026(o) consists of a drainline and outfall associated with former building 16-90. The drainline was removed during a 1996 VCA conducted in coordination with D&D activities. Sampling conducted in 2006-2007 indicates that the nature and extent of contamination is defined. The results of the Report and indicate that SIR 16-026(o) does not pose an unacceptable risk to human health under the industrial, construction worker, and residential scenarios. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 16-026(p) consists of a drainline and outfall associated with former building 16-89. The drainline was removed during a 1996 VCA conducted in coordination with D&D activities. Sampling conducted in 2006-2007 indicates that the nature and extent of contamination is defined.. The results of the Report and SIR indicate that SWMU 16-026(p) does not pose an unacceptable risk to human health under the industrial, construction worker, and residential scenarios. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 16-029(k) consists of two sumps associated with former building 16-93. The sumps were removed during a 1996 VCA conducted in coordination with D&D activities. Sampling conducted in 2006-2007 indicates that the nature and extent of contamination is defined. The results of the Report and SIR indicate that SWMU 16-029(k) does not pose an unacceptable risk to human health under the industrial, construction worker, and residential scenarios. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 16-029(l) consists of two sumps associated with former building 16-92. The sumps were removed during a 1996 VCA conducted in coordination with D&D activities. Sampling conducted in 2006-2007 indicates that the nature and extent of contamination is defined. The results of the Report and SIR indicate that SWMU 16-029(l) does not pose an unacceptable risk to human health under the industrial, construction worker, and residential scenarios. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 16-029(s) consists of two sumps associated with former building 16-91. The sumps were removed during a 1996 VCA conducted in coordination with D&D activities. Sampling conducted in 2006-2007 indicates that the nature and extent of contamination is defined. The results of the Report and SIR indicate that SWMU 16-029(s) does not pose an unacceptable risk to human health under the industrial, construction worker, and residential scenarios. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 16-029(t) consists of two sumps associated with former building 16-90. The sumps were removed during a 1996 VCA conducted in coordination with D&D activities. Sampling conducted in 2006-2007 indicates that the nature and extent of contamination is defined. The results of the Report and SIR indicate that SWMU 16-029(t) does not pose an unacceptable risk under the industrial, construction worker, and residential scenarios. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 16-029(u) consists of two sumps associated with former building 16-89. The sumps were removed during a 1996 VCA conducted in coordination with D&D activities. Sampling conducted in 2006-2007 indicates that the nature and extent of contamination is defined. The results of the Report and SIR indicate that SWMU 16-029(u) does not pose an unacceptable risk to human health under the industrial, construction worker, and residential scenarios. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

AOC C-16-067 was a storage area that consisted of a drum platform (structure 16-187) constructed in 1950. Copper and chromium sulfates used in electroplating were stored on the platform in addition to oils, solvents, and possibly HE. The platform was decommissioned in 1970, and contaminated soil was removed during a 1996 VCA conducted in coordination with D&D activities. Sampling conducted in 2006-2007 indicates that the nature and extent of contamination is defined. The results of the Report and SIR indicate that AOC C-16-067 does not pose an unacceptable risk to human health under the industrial, construction worker, and

residential scenarios. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

NMED hereby issues certificates of completion with controls for the following five SWMUs and one AOC pursuant to Section XXI of the 2016 Consent Order.

SWMU 16-008(a) consists of a 200 ft-diameter, unlined settling pond that received liquid waste from the HE sumps at processing buildings 16-89, 16-90, and 16-91. The pond may have been 10- to 15-ft deep and was once a small-scale, HE-burning area. The pond received HE, barium, uranium, and organic chemicals. The inactive settling pond remains intact and seasonally collects and retains water. The site was initially investigated as part of the 1996 VCA. Soil, sediment, and surface water samples collected at the site indicated the presence of soil and groundwater contamination. The 2005 *Investigation Work Plan for Consolidated Solid Waste Management Units 16-007(a)-99 (30s Line) and 16-008(a)-99 (90s Line) at Technical Area 16* (IWP) proposed additional sampling to determine the nature and extent of contamination. The results of the Report indicated that SWMU 16-008(a) does not pose an unacceptable risk to human health under the industrial, construction worker, and residential scenarios. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site. However, NMED's February11, 2008 *Approval* directed the Permittees to install erosion controls in the drainages to the pond to prevent migration of residual contamination to the pond. As a result, the Permittees installed controls in the form of best management practices (BMPs) (check dams) in the drainages to the pond. The Permittees currently conduct annual inspections of the erosion controls and submit status reports to the NMED annually. The Permittees must maintain the current controls for SWMU 16-008(a) in the form of BMPs, continue to document the status of storm water management associated with the drainages entering the pond, and submit annual inspection and maintenance reports to NMED.

SWMU 16-007(a) consists of four settling ponds. Each pond was approximately 100 ft × 100 ft and flat-bottomed. They were aligned in a row from northwest to southeast, separated by berms, and located on a level mesa with an 8- to 10-foot-deep depression. The ponds are believed to have received HE-contaminated liquid containing barium and, possibly, organic chemicals. The ponds were excavated and filled as part of the S-Site demolition and restoration activities in 1967 and the area is now level with the mesa and covered with grasses. Resource Recovery and Conservation Act (RCRA) Facility Investigation (RFI) fieldwork was conducted in 2004 to identify contaminants and to determine if additional investigations were warranted. Sampling conducted in 2006-2007 indicates that the nature and extent of contamination is defined. The results of the Report and SIR indicate that SWMU 16-007(a) does not pose a potential unacceptable risk to human health under the construction and industrial land use scenarios. There is potential unacceptable risk to human health under the residential scenario. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. Because SWMU 16-007(a) poses a potential unacceptable risk under the residential scenario, site control is required. The current and reasonably foreseeable land use of the site is industrial and the Permittees must restrict the land use to industrial use only.

SWMU 16-024(e) consists of soil contamination associated with Former Magazine 16-33. Building 16-33 was originally a HE-machining building consisting of two 13-ft^2 chambers for

machining, an 8-ft^2 control room, and a trough for washing out HE which emptied into a sump. The sump emptied into the ponds associated with SWMU 16-007(a) through a buried drainline. In the 1950s, the building was listed as an additive storage building and in 1959 was listed as HE contaminated. Other suspected contaminants associated with the building include volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and inorganic chemicals. The building was decommissioned and burned in 1960. RFI fieldwork was conducted in 2004 to identify contaminants and to determine if additional investigations were warranted. Sampling conducted in 2006-2007 indicates that the nature and extent of contamination is defined. The results of the Report and SIR indicate that SWMU 16-007(a) does not pose a potential unacceptable risk to human health under the construction and industrial land use scenarios. There is potential unacceptable risk to human health under the residential scenario. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. Because SWMU 16-024(e) poses a potential unacceptable risk under the residential scenario, site control is required. The current and reasonably foreseeable land use of the site is industrial and the Permittees must restrict the land use to industrial use only.

SWMU 16-025(e) consists of soil contamination associated with Former HE Machining Building 16-31. Building 16-31 was originally a HE-machining building consisting of two 13-ft^2 chambers for machining, an 8-ft^2 control room, and a trough for washing out HE which emptied into a sump. The sump emptied into the ponds associated with SWMU 16-007(a) through a buried drainline. In the 1950s, the building was converted to purposes other than machining and listed as a hot-cold chamber. In 1959 building 16-31 was listed as HE contaminated. Other suspected contaminants associated with the building include VOCs, SVOCs, and inorganic chemicals. The building was decommissioned and burned in 1960. RFI fieldwork was conducted in 2004 to identify contaminants and to determine if additional investigations were warranted. Sampling conducted in 2006-2007 indicates that the nature and extent of contamination is defined. The results of the Report and SIR indicate that SWMU 16-025(e) does not pose a potential unacceptable risk to human health under the construction and industrial land use scenarios. There is potential unacceptable risk to human health under the residential scenario. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. Because SWMU 16-025(e) poses a potential unacceptable risk under the residential scenario, site control is required. The current and reasonably foreseeable land use of the site is industrial and the Permittees must restrict the land use to industrial use only.

SWMU 16-025(f) consists of soil contamination associated with Former HE Machining Building 16-32. Building 16-32 was originally a HE-machining building consisting of two 13-ft^2 chambers for machining, an 8-ft^2 control room, and a trough for washing out HE which emptied into a sump. The sump emptied into the ponds associated with SWMU 16-007(a) through a buried drainline. In the 1950s, the building was converted to purposes other than machining and listed as an x-ray building. In 1959 building 16-32 was listed as HE contaminated. Other suspected contaminants associated with the building include volatile organic compounds VOCs, SVOCs, and inorganic chemicals. The building was decommissioned and burned in 1960. RFI fieldwork was conducted in 2004 to identify contaminants and to determine if additional investigations were warranted. Sampling conducted in 2006-2007 indicates that the nature and

extent of contamination is defined. The results of the Report and SIR indicate that SWMU 16-025(f) does not pose a potential unacceptable risk to human health under the construction and industrial land use scenarios. There is potential unacceptable risk to human health under the residential scenario. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. Because SWMU 16-025(f) poses a potential unacceptable risk under the residential scenario, site control is required. The current and reasonably foreseeable land use of the site is industrial and the Permittees must restrict the land use to industrial use only.

AOC 16-024(d) consists of soil contamination from Former Magazine 16-34, located southwest of the 30s Line ponds. The magazine stored machined product for physical and x-ray examination. Former Magazine 16-34 collapsed and was demolished on an unknown date. RFI fieldwork was conducted in 2004 to identify contaminants and to determine if additional investigations were warranted. Sampling conducted in 2006-2007 indicates that nature and extent of contamination is defined. The results of the Report and SIR indicate that SWMU 16-007(a) does not pose a potential unacceptable risk to human health under construction and industrial land use scenarios. There is potential unacceptable risk to human health under the residential scenario. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site. Because AOC 16-024(d) poses a potential unacceptable risk under the residential scenario, site control is required. The current and reasonably foreseeable land use of the site is industrial and the Permittees must restrict the land use to industrial use only.

NMED has determined that the above mentioned sites qualify for certificates of completion. Although corrective action is complete under the Consent Order, the Permittees must continue to comply with all applicable state and federal regulations. If new information becomes available that indicates that these sites potentially pose a risk to human health or the environment, NMED may require additional corrective action at these sites.

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

Sincerely,

John E. Kieling
Chief
Hazardous Waste Bureau

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File: 2016 LANL, Certificates of Completion for SWMUs in TA-16, Cañon de Valle
LANL 15-038