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

January 19, 2016

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

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

U1600578

RE: CERTIFICATES OF COMPLETION
TWO AREAS OF CONCERN AND TWELVE SOLID WASTE MANAGEMENT UNITS IN THE DELTA PRIME SITE AGGREGATE AREA
EPA ID #NM0890010515
HWB-LANL-15-032

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 Two Areas of Concern and Twelve Solid Waste Management Units in the Delta Prime Site Aggregate Area* (Request), dated June 18, 2015 and referenced by ADESH-15-085/LAUR 15-23983.

These twelve solid waste management units (SWMUs) and two areas of concern (AOC) were recommended for corrective action complete in the *Phase II Investigation Report for Delta Prime Site Aggregate Area, Revision 1* (Report), dated October 2010 (LA-UR-10-6478/EP2010-0325). A Notice of Disapproval (NOD) was issued for the Report on June 24, 2010. NMED issued a Direction to Modify (DTM) for the Report on October 19, 2010.

NMED hereby issues certificates of completion for the following twelve sites pursuant to Section VII.E.6.b of the Consent Order. The nature and extent is not defined at two sites that require either additional information or additional investigations.

AOC 21-002(b) is a former drum storage structure that consisted of three tin-sided walls, a roof and a concrete floor was built in 1945. Fifty-five gallon drums with unknown contents were stored at the site. The site underwent decontamination and decommissioning (D&D) in 1966. The investigations conducted at the site indicate that the site does not pose unacceptable risk under residential, construction, and industrial land use scenarios. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site.

AOC 21-009 is a former waste treatment laboratory that was constructed in 1948. The site underwent D&D in 1965. The investigations conducted at the site indicate that the site does not pose unacceptable risk under residential, construction, and industrial land use scenarios. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site.

SWMU 21-012(b) consists of two concrete steam blowdown pits, a separate drainline that drained each pit towards the southern edge of the DP Mesa, a seepage pit filled with river stones, a drywell, an outfall pipe associated with floor drains, and piping conveying effluent between structures. It was built in 1945 to serve as a steam plant. The building was removed in 1985 and replaced with a new steam plant. The area was regraded. The investigations conducted at the site indicate that the site does not pose unacceptable risk under residential, construction, and industrial land use scenarios. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site.

SWMU 21-013(c) is a former surface disposal area located at the eastern end of DP Mesa. The site consisted of mounds of earth, an excavated trench, and an earthen berm that contained scattered concrete, asphalt, and metal debris. Other surface debris included glass, scrap metal, wood, cans, paper, and plastic. The dates of operation are not known. The investigations conducted at the site indicate that the site does not pose unacceptable risk under residential, construction, and industrial land use scenarios. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site.

SWMU 21-022(f) is an inactive sump and a pipeline. The sump received industrial waste from laboratory sinks in a research building and a mechanical equipment building. The building was built in 1945 and the sump was built to convey laboratory liquid effluent to material disposal area U. The depth of the sump is a minimum of 6-10 inches below ground surface. The sump was connected to a manhole in 1965 which connects to the Waste Disposal Plant. The investigations conducted at the site indicate that the site does not pose unacceptable risk under residential and industrial land use scenario. However, the site poses an unacceptable risk under the construction worker scenarios. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site.

SWMU 21-024(a) is an inactive septic system that previously routed sewage from the old steam plant through a septic tank to the surface on the south rim of DP Mesa. The septic system was constructed in 1945. The septic system was not used after 1966 and was left in place. The associated building was removed in 1985, but there is no available documentation indicating if

the piping or tank was removed. The investigations conducted at the site indicate that the site does not pose unacceptable risk under residential, construction, and industrial land use scenarios. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site.

SWMU 21-024(e) is an inactive septic system that routed sewage from the former TA-21 laundry and a former diesel plant and shop through a septic tank to the surface on the south rim of DP Mesa. The septic system was constructed in 1945. The laundry went through D&D in 1965 and the diesel power plant underwent D&D in 2006. In 1996, the septic was emptied and filled with pea gravel, inlet and outlet lines were grouted with cement and the surrounding area was restored and reseeded. The investigations conducted at the site indicate that the site does not pose unacceptable risk under residential, construction, and industrial land use scenarios. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site.

SWMU 21-024(h) is a septic tank, pipelines, and associated outfall that originally received sewage from an administrative building, shop and a polonium-processing laboratory. The septic system was constructed in 1945. The septic system use was discontinued in 1966 and was left in place. The investigations conducted at the site indicate that the site does not pose unacceptable risk under residential, construction, and industrial land use scenarios. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site.

SWMU 21-024(i) is an inactive septic tank, pipelines, and associated outfall. The only portion of the septic system remaining at the site is the inlet line from a chemistry building to the fence line that is overlain currently by a building. The portion of the inlet line from the fence to the septic tank, the septic tank, the outlet line, and the outfall were removed in 2001. The septic system was constructed in 1945 to serve a laboratory. The septic system was not used after 1965 but was left in place. The investigations conducted at the site indicate that the site does not pose unacceptable risk to human health under residential, construction, and industrial land use scenarios. However, the total dose from radionuclide contamination for a residential land use scenario is approximately 26 mrem/yr which is higher than the DOE target dose of 15 mrem/yr. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site.

SWMU 21-024(j) is an inactive septic tank, pipelines, and associated outfall that received sewage from a warehouse and a laboratory. The septic system was constructed in 1961 to serve the warehouse/laboratory. The septic was not used after 1966 and was left in place. The investigations conducted at the site indicate that the site does not pose unacceptable risk under residential, construction, and industrial land use scenarios. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site.

SWMU 21-024(o) is thought to have been a 4 inch vitrified clay pipe drainline that served the old diesel power plant and an associated outfall. The diesel power plant was built in 1947-1948. The pipe discharged south into Los Alamos canyon. The building was removed in 2006 and the

foundation was left in place. The investigations conducted at the site indicate that the site does not pose unacceptable risk under residential, construction, and industrial land use scenarios. The results of the ecological risk-screening assessment indicate no potential unacceptable risk to ecological receptors at the site.

SWMU 21-029, DP Tank Farm was located on the western edge of TA-21 and was the primary fueling station supporting Laboratory operations from January 1946 until February 1985. Structures included fuel tanks, fill ports, valve boxes, and the East and West Fill Stations. Investigations were conducted in 2001 and an RFI was approved in 2002. In 2003, NMED did not approve the site for No Further Action because potential offsite contaminant migration to the canyon had not been addressed. The Permittees have completed investigation of the canyon reaches upstream and downstream of SWMU 21-029 and the results were documented in the Los Alamos and Pueblo Canyons Investigation Report (2004) which was approved by NMED on May 11, 2005. The Report indicated that the constituents in sediment downstream of SWMU 21-029 did not pose an unacceptable risk to human health and the environment.

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.

The Permittees must provide additional information for the following two sites before a corrective action complete determination can be made.

SWMU 21-027(c) is a 4 inch vitrified clay pipe that exited a former machine shop and cafeteria and discharged south on DP Mesa. The building was removed in 1966 and the pipe was left in place. The Request incorrectly states that the Direction to Modify (DTM) letter did not identify any deficiencies at SWMU 21-027(c), please refer to 'Comment 15 Response' on page 3 of the DTM (October 19, 2010). The NOD (i.e., Comment #15) stated that NMED did not consider that the extent of lead contamination was defined at the site. In responding to the NOD comment, the Permittees utilized data from down-canyon reach LA-2W of the Los Alamos Canyon to define the lateral extent of lead. NMED stated in the DTM that "[R]each LA-2W does not provide data acceptable for use in determining the extent of lead contamination specifically related to SWMU 21-027(c)." The Request does not provide any information on whether the Permittees were subsequently able to demonstrate that the extent of lead contamination is defined at this site. NMED cannot evaluate the site for corrective action complete until the nature and extent of contamination is defined for the site and it is demonstrated that the site does not pose an unacceptable risk to human health and the environment.

SWMU 21-027(d) is an outfall from the storage tank secondary containment system located on the slope below material disposal area B. A voluntary corrective measure (VCM) was conducted at consolidated unit (CU) 21-027(d)-99 (consisting of SWMU 21-027(d) and AOC C-21-028) in 1999 to remediate petroleum contamination at the location of former storage tank, AOC C-21-

028. The VCM report was approved by NMED (September 10, 2002) and the approval stated that the nature and extent was not adequately defined for this site. Because the areas of investigations for SWMU 21-027(d) and MDA V overlap, the Permittees were directed to combine further characterization of this site with future investigations at MDA V. The Permittees did not address SWMU 21-027 in the MDA V investigation report; however, the data relevant to 21-027(d) from MDA V investigations is provided in Attachment A of the Request. Review of the information provided in Attachment A (Figure B-1.1-2) indicates that no samples were collected from the upper approximately 60 feet of the drainage. It is not clear if data from this area of the drainage is available from previous investigations. The Permittees must demonstrate that the nature and extent of contamination is defined for all of SWMU 21-027(d) and the site does not pose an unacceptable threat to human health and the environment before the site can be evaluated for a certificate of completion.

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
J. Buckely, ADESH-ENV-CP, MS K490

File: 2016 LANL, Certificates of Completion for SWMUs in TA-21, DP Canyon
LANL 15-032