State of New Mexico
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6313
Phone (505) 476-6000 Fax (505) 476-6030
www.env.nm.gov

SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

BUTCH TONGATE
Cabinet Secretary

J. C. BORREGO
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

September 4, 2018

Doug Hintze, Manager
Environmental Management
Los Alamos Field Office
P.O. Box 1663 MS-M984
Los Alamos, NM 87545

Nicholas Lombardo
Program Manager
Newport News Nuclear BWXT-LA
600 Sixth Street
Los Alamos, NM 87544

RE: REQUEST FOR CERTIFICATES OF COMPLETION FOR TWENTY-THREE SOLID WASTE MANAGEMENT UNITS AND FOUR AREAS OF CONCERN IN THE DELTA PRIME SITE AGGREGATE AREA
LOS ALAMOS NATIONAL LABORATORY
EPA ID#NM0890010515
HWB-LANL-18-006

Dear Messrs. Hintze and Lombardo:

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) *Request for Certificates of Completion for Twenty-Three Solid Waste Management Units and Four Areas of Concern in the Delta Prime Site Aggregate Area* (Request), dated February 2, 2018 and referenced by ADEM-18-0010. Subsequent to the submittal of the Request, DOE transferred this effort from LANS to DOE's contractor Newport News Nuclear BWXT-LA (N3B), which is also a permittee under EPA ID #NM0890010515. Hereafter, DOE and N3B are collectively referred to as the "Permittees."

Following submittal of the Request, the Permittees submitted *Clarification of Request for Certificates of Completion for Twenty-Two Solid Waste Management Units and Five Areas of Concern in the Delta Prime Site Aggregate Area* (Clarification), dated August 10, 2018 and referenced by N3B-18-0137. The Clarification provides additional information on the details of the anticipated land ownership transfer of the Technical Area-21 (TA-21) Delta Prime (DP) site. Specifically, the Permittees state that DOE anticipates that ownership of both the mesa top and

canyon slope portions of the sites will be transferred rather than the mesa tops only. The Permittees also state their intent to remediate lead contamination at SWMU 21-022(h) and have therefore withdrawn their request for Certificate of Completion for SWMU 21-022(h). The Permittees have requested that twelve SWMUs and one AOC be granted certificates of completion without controls and nine SWMUs and four AOCs be granted certificates of completion with controls.

Human health and ecological risk screening assessments were presented in the *Phase III Investigation Report for Delta Prime Site Aggregate Area at TA-21, Revision 1* for each consolidated unit (CU), individual SWMU, or individual AOC. Additional risk screening assessments were presented for the mesa-top portion only of CU 21-026(a)-99, SWMUs 21-022(h), 21-024(b), 21-027(a), and AOC C-21-027. The Permittees evaluated these five sites in this manner because the steep slope/cliff portions of the sites are inaccessible and therefore are not likely to result in exposure to human receptors. The bases for the no exposure condition are (1) the areas are on a steep slope/cliff, with 45- to 90-degree slopes; (2) the areas consist of unstable, highly weathered, fractured bedrock with approximately 15% to 30% soil filling fractures and voids between rocks; (3) the slope/cliff portions of the sites are inaccessible; (4) no trail or path is available for someone to traverse if he or she were to gain access to the slope/cliff; and (5) major safety concerns arise regarding any activity on the slope/cliff because of the steepness, the unstable bedrock, and the lack of any trail. The land use within and surrounding the Delta Prime Site Aggregate Area is currently industrial and is expected to remain industrial for the reasonably foreseeable future.

NMED hereby issues certificates of completion without controls for the following twelve SWMUs and one AOC pursuant to Section XXI of the 2016 Compliance Order on Consent (Consent Order).

SWMU 21-003 was consolidated with AOC 21-013(f) into CU 21-003-99. SWMU 21-003 was a polychlorinated biphenyl (PCB) container storage area. In 1988, an Environmental Restoration (ER) project was conducted to collect reconnaissance samples. In 1992-1993, surface and near-surface samples were collected as part of a TA-21 site-wide sampling program. In 1994, a Resource Conservation and Recovery Act (RCRA) facility investigation (RFI) was conducted to collect characterization samples. In 2006-2007, a Phase I investigation was conducted to collect additional characterization samples. In 2009, a Toxic Substance Control Act (TSCA) cleanup was performed to remove soil impacted by PCBs. A Phase II investigation was also conducted in 2009 to define the extent of contamination. The screening-assessment results for SWMU 21-003 presented in the Phase III IR indicate that no potential unacceptable risks from RCRA hazardous constituents exist for the residential, industrial, and construction worker land-use scenarios for the entire site. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 21-006(a) is one of four SWMUs that comprised CU 21-006(c)-99. SWMU 21-006(a) consists of an underground seepage pit. The seepage pit received various fluids including Hanford container wash water, bomb electrolytic decontamination solution (ethylene glycol, phosphoric acid, and plutonium), and chemical makeup room wastewater. Site investigations

conducted from 1991 to 2007 failed to definitively locate the seepage pit, but elevated concentrations of chemicals of potential concern (COPCs) from subsurface samples indicated contamination possibly related to a seepage pit. In 2009, a Phase II investigation was conducted to define the extent of contamination and determine whether the site posed potential unacceptable risk to human health or the environment. The screening-assessment results for SWMU 21-006(a) presented in the Phase III IR indicate that no potential unacceptable risks from RCRA hazardous constituents exist for the residential, industrial, and construction worker land-use scenarios for the entire site. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 21-006(b) is one of four SWMUs that comprised CU 21-006(c)-99. SWMU 21-006(b) consists of a brick manhole placed within a trench, a drain line, and an outfall. SWMU 21-006(b) received ether waste from the ethyl ether extraction process used as part of the TA-21 plutonium purification process. In 1992, a Phase I RFI was conducted to collect characterization samples. In 2004, a radiological and geophysical survey located the manhole and pipelines. In 2006-2007, a Phase I investigation was performed to collect characterization and confirmation samples and remove the seepage pit and pipelines. In 2009, a Phase II investigation was conducted to define the extent of contamination and determine whether the site posed potential unacceptable risk to human health or the environment. The screening-assessment results for SWMU 21-006(b) presented in the Phase III IR indicate that no potential unacceptable risks from RCRA hazardous constituents exist for the residential, industrial, and construction worker land-use scenarios for the entire site. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 21-006(c) is one of four SWMUs that comprised CU 21-006(c)-99. SWMU 21-006(c) consists of a seepage pit which received bomb electrolytic decontamination solution and chemical makeup room waste. Site investigations conducted from 1991 to 2007 failed to definitively locate the seepage pit, but elevated concentrations of COPCs from subsurface samples indicated contamination possibly related to a seepage pit. In 2009, a Phase II investigation was conducted to define the extent of contamination and determine whether the site posed potential unacceptable risk to human health or the environment. The screening-assessment results for SWMU 21-006(c) presented in the Phase III IR indicate that no potential unacceptable risks from RCRA hazardous constituents exist for the residential, industrial, and construction worker land-use scenarios for the entire site. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 21-006(d) is one of four SWMUs that comprised CU 21-006(c)-99. SWMU 21-006(d) consists of a seepage pit which received bomb electrolytic decontamination solution and chemical makeup room waste. Site investigations conducted from 1991 to 2007 failed to definitively locate the seepage pit, but elevated concentrations of COPCs from subsurface samples indicated contamination possibly related to a seepage pit. In 2009, a Phase II investigation was conducted to define the extent of contamination and determine whether the site posed potential unacceptable risk to human health or the environment. The screening-assessment results for SWMU 21-006(d) presented in the Phase III IR indicate that no potential unacceptable risks from RCRA hazardous constituents exist for the residential, industrial, and construction

worker land-use scenarios for the entire site. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 21-022(j) is one of three SWMUs that comprised CU 21-022(h)-99. SWMU 21-022(j) consists of a sump that received drainage from an equipment room. In 1995, the sump was removed and confirmation samples were collected during voluntary corrective action (VCA) activities. In 2006-2007, a Phase I investigation was conducted to collect characterization samples. In 2009, a Phase II investigation was conducted to define the extent of contamination and determine whether the site posed potential unacceptable risk to human health or the environment. The screening-assessment results for SWMU 21-022(j) presented in the Phase III IR indicate that no potential unacceptable risks from RCRA hazardous constituents exist for the residential, industrial, and construction worker land-use scenarios for the entire site. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 21-024(b) is a septic system consisting of a septic tank, pipelines, and an outfall. In 1992-1993, RFI activities collected characterization samples and performed a radiological survey. In 2004, a radiological and geophysical study identified the septic tank and pipelines. In 2006-2007, a Phase I investigation was conducted to collect characterization and confirmation samples and remove the septic tank and associated pipelines. In 2009, a Phase II investigation was conducted to define the extent of contamination. The screening-assessment results for SWMU 21-024(b) presented in the Phase III IR indicate that no potential unacceptable risks from RCRA hazardous constituents exist for the residential, industrial, and construction worker land-use scenarios for the entire site. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 21-024(c) is a septic system consisting of a reinforced concrete septic tank and pipelines. In 1988, an ER project was conducted to collect reconnaissance samples. In 1992-1993, an RFI was conducted to collect characterization samples. In 2006-2007, a Phase I investigation was conducted to collect characterization and confirmation samples and remove the septic tank and pipelines. In 2009, a TSCA cleanup was performed to remove soil impacted by PCBs. A Phase II investigation was also conducted in 2009 to define the extent of contamination. The screening-assessment results for SWMU 21-024(c) presented in the Phase III IR indicate that no potential unacceptable risks from RCRA hazardous constituents exist for the residential, industrial, and construction worker land-use scenarios for the entire site. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 21-024(d) is a septic system consisting of a septic tank, pipelines, and an outfall. In 1992-1993, a radiological survey was performed and characterization samples were collected. In 1995, VCA activities were conducted, which included characterization sampling, removal of tank contents, and a radiation survey. In 2004, radiological and geophysical surveys identified the septic tank, pipelines, and outfall. In 1992-1993, an RFI was conducted to collect characterization samples. In 2006-2007, a Phase I investigation was conducted to collect characterization and confirmation samples and remove the septic tank and pipelines. In 2009, a TSCA cleanup was performed to remove soil impacted by PCBs. A Phase II investigation was

also conducted in 2009 to define the extent of contamination. The screening-assessment results for SWMU 21-024(c) presented in the Phase III IR indicate that no potential unacceptable risks from RCRA hazardous constituents exist for the residential, industrial, and construction worker land-use scenarios for the entire site. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 21-024(g) is a septic system which routed sewage into two drainage ditches. In 1992-1993, an RFI was conducted, which included characterization sampling, a radiological survey, and a land survey. In 2004, a radiological and geophysical survey identified the septic tank. In 2006-2007, a Phase I investigation was conducted to collect characterization and confirmation samples and remove the septic tank and pipelines. In 2009, a Phase II investigation was performed to define the extent of contamination and determine whether the site posed potential unacceptable risk to human health or the environment. The screening-assessment results for SWMU 21-024(g) presented in the Phase III IR indicate that no potential unacceptable risks from RCRA hazardous constituents exist for the residential, industrial, and construction worker land-use scenarios for the entire site. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 21-024(k) is a septic system consisting of a septic tank, leach field, pipelines, and an outfall. In 1993, an RFI was performed to collect characterization samples. In 2004, a radiological and geophysical survey identified the septic tank, field, and pipelines. In 2006-2007, a Phase I investigation was conducted to collect characterization and confirmation samples and remove the septic tank, leach field, and pipelines. In 2009, a Phase II investigation was performed to define the extent of contamination. The screening-assessment results for SWMU 21-024(k) presented in the Phase III IR indicate that no potential unacceptable risks from RCRA hazardous constituents exist for the residential, industrial, and construction worker land-use scenarios for the entire site. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

SWMU 21-024(n) is a septic system consisting of metal pipelines and outfalls. In 1992, an RFI was performed, which included a radiological survey and characterization sampling. In 2004, radiological and geophysical surveys located several metal pipelines and a cast-iron drain. In 2006-2007, a Phase I investigation was conducted to collect characterization and confirmation samples and remove the pipelines and other structures associated with SWMU 21-024(n). In 2009, a Phase II investigation was performed to define the extent of contamination. The screening-assessment results for SWMU 21-024(n) presented in the Phase III IR indicate that no potential unacceptable risks from RCRA hazardous constituents exist for the residential, industrial, and construction worker land-use scenarios for the entire site. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site.

AOC 21-013(f) is consolidated with SWMU 21-003 into CU 21-003-99. AOC 21-013(f) possibly consisted of a surface disposal area within the boundaries of SWMU 21-003. In 1988, an ER project was conducted to collect reconnaissance samples. In 1992-1993, surface and near-surface samples were collected as part of a TA-21 site-wide sampling program. In 1994, an RFI was conducted to collect characterization samples. In 2006-2007, a Phase I investigation was

conducted to collect additional characterization samples. In 2009, a TSCA cleanup was performed to remove soil impacted by PCBs. A Phase II investigation was also conducted in 2009 to define the extent of contamination. The screening-assessment results for AOC 21-013(f) presented in the Phase III IR indicate that no potential unacceptable risks from RCRA hazardous constituents exist for the residential, industrial, and construction worker land-use scenarios for the entire site. 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 nine SWMUs and four AOCs pursuant to Section XXI of the 2016 Consent Order.

SWMU 21-013(a) is one of three SWMUs and two AOCs that comprised CU 21-026(a)-99. SWMU 21-013(a) consists of a surface disposal area that was part of a sewage treatment plant used to treat sanitary wastes and cooling water from TA-21 facilities. The disposal area was used from 1966-1992 for the periodic disposal of the top layers of sand removed from the filter beds at SWMU 21-026(b). In 1994, a radiological survey was conducted and samples were collected as part of initial RFI activities at TA-21. In 2006-2007, a Phase I investigation was conducted to collect additional characterization and confirmation samples, remove and inspect structures, and remove contaminated material. In 2009, a Phase II investigation was conducted to define the nature and extent of contamination and to determine whether the site posed potential unacceptable risk or dose to human health or the environment. The screening-assessment results for CU 21-026(a)-99 presented in the Phase III IR indicate that no potential unacceptable risks exist from RCRA hazardous constituents for the industrial, construction worker, and residential land-use scenarios on the mesa top. There are also no potential unacceptable risks or doses for the industrial and construction worker land-use scenarios for the entire site. There is a potential unacceptable carcinogenic risk for the residential land-use scenario for the entire site. However, the elevated level of contamination is located on the slope/cliff portion of the site where human exposure to the contamination is restricted. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site. Because CU 21-026(a)-99 poses a potential unacceptable risk under the residential scenario, site control is required for SWMU 21-013(a). 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 21-022(a) is one of two SWMUs and one AOC that comprised CU 21-024(l)-99. SWMU 21-022(a) consists of a brick sump and associated drain lines connected to building 21-021 which was used as a secure vault to store special fissile material including uranium and plutonium metal. In 2004, radiological and geophysical surveys were completed to locate the sump and drainlines. In 2006-2007, a Phase I investigation was conducted and soil and tuff samples were collected. In 2009 a Phase II investigation was conducted to define the nature and extent of contamination for COPCs. Remediation to remove elevated concentrations of benzo(a)pyrene was conducted as part of the 2011 Phase III investigation. The screening-assessment results for CU 21-024(l)-99 presented in the Phase III IR indicate that no potential unacceptable risks from RCRA hazardous constituents exist for the industrial and construction worker land-use scenarios for the entire site. There is a potential unacceptable carcinogenic risk for the residential land-use scenario for the entire site. The results of the ecological risk screening

assessment indicate no potential risk to ecological receptors at the site. Because CU 21-024(l)-99 poses a potential unacceptable risk under the residential land-use scenario, site control is required for SWMU 21-022(a). 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 21-023(a) is one of three SWMUs that comprised CU-21-023(a)-99. SWMU 21-023(a) consists of a steel-reinforced concrete septic tank, an inlet line and outlet lines that connected to existing waste lines to the north and a manhole to the south. In 1998-1999, a radiological survey was conducted and a geophysical survey confirmed that the tank and associated drainlines had been removed. In 2006-2007, a Phase I investigation was conducted and soil and tuff samples were collected. In 2009, a Phase II investigation was conducted to define the nature and extent of contamination for COPCs. The screening-assessment results for CU 21-023(a)-99 presented in the Phase III IR indicate that no potential unacceptable risks from RCRA hazardous constituents exist for the construction worker land-use scenario. The industrial land-use scenario was not evaluated for the mesa top because samples were not collected in the 0.0-1.0-ft depth interval on the mesa top. Samples were collected in the 0.0-1.0-ft depth interval on the slope/cliff portion of the site; consequently, the industrial scenario was evaluated for the entire site. There is a potential unacceptable carcinogenic risk for the residential land-use scenario for the entire site. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site. Because SWMU 21-023(a) poses a potential unacceptable risk under the residential land-use 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 21-023(b) is one of three SWMUs that comprised CU-21-023(a)-99. SWMU 21-023(b) consists of a steel-reinforced concrete septic tank, an inlet line and outlet lines that connected to existing waste lines to the north and a manhole to the south. In 1998-1999, a radiological survey was conducted and a geophysical survey confirmed that the tank and associated drainlines had been removed. In 2006-2007, a Phase I investigation was conducted and soil and tuff samples were collected. In 2009, a Phase II investigation was conducted to define the nature and extent of contamination for COPCs. The screening-assessment results for CU 21-023(a)-99 presented in the Phase III IR indicate that no potential unacceptable risks from RCRA hazardous constituents exist for the construction worker land-use scenario. The industrial land-use scenario was not evaluated because samples were not collected from the 0.0–1.0-ft depth interval. There is a potential unacceptable carcinogenic risk for the residential land-use scenario for the entire site. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site. Because SWMU 21-023(b) poses a potential unacceptable risk under the residential land-use 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 21-023(d) was one of three SWMUs that comprised CU 21-023(a)-99. SWMU 21-023(d) consists of a steel-reinforced concrete septic tank, an inlet line and outlet lines that connected to existing waste lines to the north, leading to waste treatment facilities. In 1998-1999 a radiological survey was conducted and a geophysical survey confirmed that the tank had been

removed but the associated drain lines were still in place. In 2006-2007, a Phase I investigation was conducted and soil and tuff samples were collected. In 2009, a Phase II investigation was conducted to define the nature and extent of contamination for COPCs. The screening-assessment results for CU 21-023(a)-99 presented in the Phase III IR indicate that no potential unacceptable risks from RCRA hazardous constituents exist for the construction worker land-use scenario. The industrial land-use scenario was not evaluated because samples were not collected from the 0.0–1.0-ft depth interval. There is a potential unacceptable carcinogenic risk for the residential land-use scenario for the entire site. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site. Because SWMU 21-023(d) poses a potential unacceptable risk under the residential land-use 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 21-024(l) is one of two SWMUs and one AOCs that comprised CU 21-024(l)-99. SWMU 21-024(l) consists of an outfall that received liquid waste from the machine room floor drain of a building used to store special fissile material including uranium and plutonium metal. In 2006-2007, a Phase I investigation was conducted and soil and tuff samples were collected. In 2009, a Phase II investigation was conducted to define the nature and extent of contamination for COPCs. Remediation to remove elevated concentrations of benzo(a)pyrene was conducted as part of the 2011 Phase III investigation. The screening-assessment results for CU 21-024(l)-99 presented in the Phase III IR indicate that no potential unacceptable risks from RCRA hazardous constituents exist for the industrial and construction worker land-use scenarios for the entire site. There is a potential unacceptable carcinogenic risk for the residential land-use scenario for the entire site. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site. Because CU 21-024(l)-99 poses a potential unacceptable risk under the residential land-use scenario, site control is required for SWMU 21-024(l). 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 21-026(a) is one of three SWMUs and two AOCs that comprised CU 21-026(a)-99. SWMU 21-026(a) consists of an extended aeration sanitary waste treatment plant with a grit chamber, comminuter, digester, aeration tank, and clarifier. The plant treated sanitary wastes and cooling water from TA-21 facilities and received water from decontamination activities, janitor's scrub water, and waste from other TA-21operations. In 1994 a radiological survey was conducted and samples were collected as part of initial RFI activities at TA-21. In 2006-2007, a Phase I investigation was conducted to collect additional characterization and confirmation samples, remove and inspect structures, and remove contaminated material. In 2009, a Phase II investigation was conducted to define the nature and extent of contamination and to determine whether the site posed potential unacceptable risk or dose to human health or the environment. The screening-assessment results for CU 21-026(a)-99 presented in the Phase III IR indicate that no potential unacceptable risks exist from RCRA hazardous constituents for the industrial, construction worker, and residential land-use scenarios on the mesa top. There are also no potential unacceptable risks or doses for the industrial and construction worker land-use scenarios for the entire site. There is a potential unacceptable carcinogenic risk for the residential land-use scenario for the entire site. However, the elevated level of contamination is located on

the slope/cliff portion of the site where human exposure to the contamination is restricted. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site. Because CU 21-026(a)-99 poses a potential unacceptable risk under the residential land-use scenario, site control is required for SWMU 21-026(a). 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 21-026(b) is one of three SWMUs and two AOCs that comprised CU 21-026(a)-99. SWMU 21-026(b) consists of four sludge drying/sand filter beds with concrete walls. In 1994, a radiological survey was conducted and samples were collected as part of initial RFI activities at TA-21. In 2006-2007, a Phase I investigation was conducted to collect additional characterization and confirmation samples, remove and inspect structures, and remove contaminated material. In 2009, a Phase II investigation was conducted to define the nature and extent of contamination and to determine whether the site posed potential unacceptable risk or dose to human health or the environment. The screening-assessment results for CU 21-026(a)-99 presented in the Phase III IR indicate that no potential unacceptable risks exist from RCRA hazardous constituents for the industrial, construction worker, and residential land-use scenarios on the mesa top. There are also no potential unacceptable risks or doses for the industrial and construction worker land-use scenarios for the entire site. There is a potential unacceptable carcinogenic risk for the residential land-use scenario for the entire site. However, the elevated level of contamination is located on the slope/cliff portion of the site where human exposure to the contamination is restricted. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site. Because CU 21-026(a)-99 poses a potential unacceptable risk under the residential land-use scenario, site control is required for SWMU 21-026(b). 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 21-027(a) consists of drain lines that received effluent from floor drains in former building 21-003, a surface drainage system, and an outfall that discharges to the mesa edge and into Los Alamos Canyon. In 1992, a radiological survey was conducted and surface samples were collected at 12 locations. In 1993, samples were collected from two 20-ft boreholes. In 2004, additional radiological and geophysical surveys were completed. In 2006-2007 a Phase I investigation was conducted and soil and tuff samples were collected. In 2009, a Phase II investigation was conducted to define the nature and extent of contamination for COPCs. As part of the 2011 Phase III investigation contaminated soil was removed from two locations on the mesa to remediate elevated detections of dioxins/furans and plutonium-239/240. Soil removal was also proposed for the outfall area but was not conducted due to safety concerns associated with working on the unstable cliffside on which the outfall is located. The screening-assessment results for SWMU 21-027(a) presented in the Phase III IR indicate that no potential unacceptable risks exist from RCRA hazardous constituents for the construction worker and residential land-use scenarios on the mesa top. The industrial land-use scenario was not evaluated on the mesa top because samples were not collected from the 0.0–1.0-ft depth interval. There are potential unacceptable risks for the industrial, construction worker, and residential land-use scenarios for the entire site. However, the elevated level of contamination is located on the slope/cliff portion of the site where human exposure to the contamination is restricted. The results of the ecological

risk screening assessment indicate no potential risk to ecological receptors at the site. Because SWMU 21-027(a) poses a potential unacceptable risk under the residential land-use 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 21-004(a) is one of two SWMUs and one AOCs that comprised CU 21-024(l)-99. AOC 21-004(a) consists of a 6000-gallon aboveground steel tank and a 6-inch cast-iron pipeline installed to receive liquid waste from a building used to store special fissile material including uranium and plutonium metal. In 1994, a radiological field survey was conducted and samples were collected from inside the tank. In 2006-2007, a Phase I investigation was conducted and soil and tuff samples were collected. In 2009, a Phase II investigation was conducted to define the nature and extent of contamination for COPCs. Remediation to remove elevated concentrations of benzo(a)pyrene was conducted as part of the 2011 Phase III investigation. The screening-assessment results for CU 21-024(l)-99 presented in the Phase III IR indicate that no potential unacceptable risks from RCRA hazardous constituents exist for the industrial and construction worker land-use scenarios for the entire site. There is a potential unacceptable carcinogenic risk for the residential land-use scenario for the entire site. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site. Because CU 21-024(l)-99 poses a potential unacceptable risk under the residential land-use scenario, site control is required for AOC 21-004(a). 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 21-026(c) is one of three SWMUs and two AOCs that comprised CU 21-026(a)-99. AOC 21-026(c) consists of a concrete dosing siphon chamber tank. The dosing siphon chamber received effluent until the chamber was full at which point the effluent was pumped to the sludge drying/sand filter beds at SWMU 21-026(b). In 1994, a radiological survey was conducted and samples were collected as part of initial RFI activities at TA-21. In 2006-2007, a Phase I investigation was conducted to collect additional characterization and confirmation samples, remove and inspect structures, and remove contaminated material. In 2009, a Phase II investigation was conducted to define the nature and extent of contamination and to determine whether the site posed potential unacceptable risk or dose to human health or the environment. The screening-assessment results for CU 21-026(a)-99 presented in the Phase III IR indicate that no potential unacceptable risks exist from RCRA hazardous constituents for the industrial, construction worker, and residential land-use scenarios on the mesa top. There are also no potential unacceptable risks or doses for the industrial and construction worker land-use scenarios for the entire site. There is a potential unacceptable carcinogenic risk for the residential land-use scenario for the entire site. However, the elevated level of contamination is located on the slope/cliff portion of the site where human exposure to the contamination is restricted. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site. Because CU 21-026(a)-99 poses a potential unacceptable risk under the residential land-use scenario, site control is required for AOC 21-026(c). 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 21-026(d) was one of three SWMUs and two AOCs that comprised CU 21-026(a)-99. AOC 21-026(d) consists of an outfall located on the edge of DP Canyon that received discharge from the sewage treatment plant at SWMU 21-026(a). 1992 RFI activities at AOC 21-026(d) included a radiological survey and the collection of samples in the outfall area. In 2006-2007, a Phase I investigation was conducted to collect additional characterization and confirmation samples, remove and inspect structures, and remove contaminated material. In 2009, a Phase II investigation was conducted to define the nature and extent of contamination and to determine whether the site posed potential unacceptable risk to human health or the environment. The screening-assessment results for CU 21-026(a)-99 presented in the Phase III IR indicate that no potential unacceptable risks exist from RCRA hazardous constituents for the industrial, construction worker, and residential land-use scenarios on the mesa top. There are also no potential unacceptable risks for the industrial and construction worker land-use scenarios for the entire site. There is a potential unacceptable carcinogenic risk for the residential land-use scenario for the entire site. However, the elevated level of contamination is located on the slope/cliff portion of the site where human exposure to the contamination is restricted. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site. Because CU 21-026(a)-99 poses a potential unacceptable risk under the residential land-use scenario, site control is required for AOC 21-026(d). 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 C-21-027 consists of a former cooling tower. The cooling tower was connected to an acid tank and also had a drain that discharged into Los Alamos Canyon. The cooling tower surface and subsurface structures were removed in 1994-1995. AOC C-21-027 was investigated as part of the 2009 a Phase II investigation to define the nature and extent of contamination. The screening-assessment results presented in the Phase III IR indicate that no potential unacceptable risks from RCRA hazardous constituents exist for the industrial, construction worker, and residential land-use scenarios on the mesa top. There are potential unacceptable carcinogenic risks for the industrial and residential land-use scenarios for the entire site. However, the elevated dioxin and furan concentrations are on the slope/cliff portion of the site where human exposure to the contamination is restricted. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site. Because AOC C-21-027 poses a potential unacceptable risk under the industrial and residential land-use scenarios, 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 should you have any questions or comments regarding this letter.

Sincerely,

John E. Kieling
Chief
Hazardous Waste Bureau

cc: N. Dhawan, NMED HWB
R. Murphy, NMED HWB
S. Yanicak, NMED DOE OB, MS M894
L. King, EPA Region 6, Dallas, TX
A. Duran, DOE-EM-LA, MS A316
C. Rodriguez, DOE-EM-LA, MS A216
J. Legare, N3B
E. Evered, N3B
K. Ellers, N3B
locatesteam@lanl.gov
emla.docs@em.doe.gov

File: Reading and LANL 2018, DP Aggregate Area TA-21 Certificates of Completion