EMID-700156

DEPARTMENT OF ENERGY
Environmental Management Los Alamos Field Office (EM-LA)
Los Alamos, New Mexico 87544

DEC 17 2018

Mr. John E. Kieling
Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Dear Mr. Kieling:

Subject: Request for Certificates of Completion for Two Areas of Concern in the Technical Area 57 Aggregate Area (Fenton Hill)

In accordance with Section XXI of the Compliance Order on Consent (Consent Order), the U.S. Department of Energy (DOE) is requesting certificates of completion without controls for the following two areas of concern (AOCs) within the Technical Area 57 Aggregate Area (Fenton Hill):

- AOC 57-006, Former Waste Storage Drum
- AOC 57-007, Leach Field

AOCs 57-006 and 57-007 were recommended for corrective action complete without controls in the "Investigation Report for Technical Area 57 Aggregate Area (Fenton Hill), Revision 1" (hereafter the IR) (Los Alamos National Laboratory [LANL] document LA-UR-15-29322). The IR confirms the nature and extent of contamination are defined or no further sampling is warranted at AOCs 57-006 and 57-007. In addition, the IR demonstrates that AOCs 57-006 and 57-007 pose no potential unacceptable risks or doses to human health under the industrial and residential scenarios and pose no potential unacceptable risk to ecological receptors.

The IR, including the recommendations for corrective action complete without controls for AOCs 57-006 and 57-007, was approved in the New Mexico Environment Department's (NMED's) "Approval Investigation Report for Technical Area 57 Aggregate Area (Fenton Hill)" letter dated August 29, 2016 (HWB-LANL-15-007).

Because soil screening levels for some chemicals of potential concern (COPCs) are lower for the construction worker scenario than for the residential scenario, the residential scenario may not demonstrate protectiveness for construction workers in all cases. Therefore, NMED has requested that potential risk to construction workers be evaluated in order to recommend sites for corrective action complete without controls. Enclosure 1 presents the results of human health screening evaluations for the construction worker scenario for AOCs 57-006 and 57-007. Because the residential and construction worker scenarios both consider exposure in the depth interval 0 ft to 10 ft below ground surface, the exposure point concentrations presented in the IR for the residential scenario were used for the construction worker scenario.

Enclosure 1 shows that the total excess cancer risk for the construction worker scenario is 1×10^{-6} for AOC 57-006 and 6×10^{-7} for AOC 57-007, which are less than the NMED target of 1×10^{-5}. Enclosure 1 also shows that the hazard index for the construction worker scenario is 0.5 for AOC 57-006 and 0.4 for AOC 57-007, which are less than the NMED target of 1. No radionuclide COPCs were identified at AOC 57-006 or AOC 57-007, so dose was not evaluated for the construction worker scenario.

Based on the conclusions of the IR and the evaluation of construction worker risk in Enclosure 1, neither site controls nor additional future actions under the Consent Order are necessary at these two sites.

If you have any questions, please contact Kent Rich at (505) 551-2962 (kent.rich@em-la.doe.gov) or Cheryl Rodriguez at (505) 665-5330 (cheryl.rodriguez@em.doe.gov).

Sincerely,

Arturo Q. Duran
Designated Agency Manager
Environmental Management
Los Alamos Field Office

Enclosures:
1. Construction Worker Risk Evaluation Results for Areas of Concern 57-006 and 57-007 (EM2018-0133)

cc (letter with electronic enclosure[s]):
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emla.docs@em.doe.gov
N3B Records
Public Reading Room (EPRR)
PRS Website

EM-LA-40AD-00369

ENCLOSURE 1
Construction Worker Risk Evaluation Results for Areas of Concern 57-006 and 57-007

Table 1
Construction Worker Carcinogenic Screening Evaluation for Area of Concern 57-006

Chemical	Exposure Point Concentration (mg/kg)	Construction Worker Soil Screening Level (mg/kg)*	Excess Cancer Risk
Chromium	58.6	468	1.25E-06
Bis(2-ethylhexyl)phthalate	0.269	13,400	2.01E-10
Methylene Chloride	0.0028	89,300	3.14E-13
Trichloroethene	0.000726	5370	1.35E-12
		Total Excess Cancer Risk	**1E-06**

* Soil screening levels from New Mexico Environment Department Risk Assessment Guidance for Site Investigations and Remediation (March 2017).

Table 2
Construction Worker Noncarcinogenic Screening Evaluation for Area of Concern 57-006

Chemical	Exposure Point Concentration (mg/kg)	Construction Worker Soil Screening Level (mg/kg)*	Hazard Quotient
Antimony	1.12	142	7.89E-03
Barium	99.9	4390	2.28E-02
Chromium	58.6	134	4.37E-01
Copper	13.5	14,200	9.51E-04
Selenium	0.358	1750	2.05E-04
Zinc	64	106,000	6.04E-04
Bis(2-ethylhexyl)phthalate	0.269	5380	5.00E-05
Methylene Chloride	0.0028	1200	2.33E-06
Trichloroethene	0.000726	6.84	1.06E-04
		Hazard Index	**0.5**

* Soil screening levels from New Mexico Environment Department Risk Assessment Guidance for Site Investigations and Remediation (March 2017).

Table 3
Construction Worker Carcinogenic Screening Evaluation for Area of Concern 57-007

Chemical	Exposure Point Concentration (mg/kg)	Construction Worker Soil Screening Level (mg/kg)[a]	Excess Cancer Risk
Arsenic	1.95	216	9.03E-08
Chromium	25.4	468	5.43E-07
Bis(2-ethylhexyl)phthalate	0.13	13,400	9.70E-11
Butylbenzylphthalate	0.339	5380[b]	6.30E-10
Dichlorobenzene[1,4-]	0.00043	45,900	9.37E-14
Methylene Chloride	0.00299	89,300	3.35E-13
Trichloroethene	0.00294	5370	5.47E-12
		Total Excess Cancer Risk	**6E-07**

[a] Soil screening levels from New Mexico Environment Department Risk Assessment Guidance for Site Investigations and Remediation (March 2017) unless otherwise noted.

[b] Soil screening level calculated using toxicity value from Environmental Protection Agency regional screening tables (https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables) and equation and parameters from New Mexico Environment Department Risk Assessment Guidance for Site Investigations and Remediation (March 2017).

Table 4
Construction Worker Noncarcinogenic Screening Evaluation for Area of Concern 57-007

Chemical	Exposure Point Concentration (mg/kg)	Construction Worker Soil Screening Level (mg/kg)[a]	Hazard Quotient
Antimony	0.474	142	3.34E-03
Arsenic	1.95	41.2	4.73E-02
Barium	102	4390	2.32E-02
Chromium	25.4	134	1.90E-01
Copper	14.2	14,200	1.00E-03
Cyanide (Total)	0.73	12	6.08E-02
Lead	13.5	800	1.69E-02
Mercury	3.56	77.1	4.62E-02
Perchlorate	0.00112	248	4.52E-06
Selenium	1.11	1750	6.34E-04
Silver	1.62	1770	9.15E-04
Zinc	58.6	106,000	5.53E-04
Benzoic Acid	2.83	1,080,000[b]	2.62E-06
Bis(2-ethylhexyl)phthalate	0.13	5380	2.42E-05
Dichlorobenzene[1,4-]	0.00043	24,800	1.73E-08
Fluoranthene	0.0145	10,000	1.45E-06
Methylene Chloride	0.00299	1200	2.49E-06
Phenanthrene	0.0134	7530	1.78E-06
Trichloroethene	0.00294	6.84	4.30E-04
		Hazard Index	**0.4**

[a] Soil screening levels from New Mexico Environment Department Risk Assessment Guidance for Site Investigations and Remediation (March 2017) unless otherwise noted.

[b] Soil screening level calculated using toxicity value from Environmental Protection Agency regional screening tables (https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables) and equation and parameters from New Mexico Environment Department Risk Assessment Guidance for Site Investigations and Remediation (March 2017).