



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

EMLA-2022-BF112-02-001

June 24, 2022

Mr. Mitchell Schatz  
Permitting and Corrective Action Program  
Hazardous Waste Bureau  
New Mexico Environment Department  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, NM 87505-6313



**Subject:** Response to New Mexico Environment Department Request for Additional Information Concerning the 2020 Biennial Inspection and Maintenance Report on Erosion Controls Associated with Solid Waste Management Unit 16-003(o) within Fishladder Canyon

Dear Mr. Schatz:

Thank you for your review of the 2020 Biennial Inspection and Maintenance Report on Erosion Controls Associated with Solid Waste Management Unit (SWMU) 16-003(o) within Fishladder Canyon. In the December 10, 2020, submittal, the U.S. Department of Energy (DOE) Environmental Management Los Alamos Field Office (EM-LA) and Newport News Nuclear BWXT-Los Alamos, LLC (N3B) provided reasons for recommending discontinuation of monitoring of controls at SWMU 16-003(o); however, EM-LA and N3B did not reference Compliance Order on Consent (Consent Order) Section VII, "Relationship to Permits," Subsection (H)(1), specific to storm water discharges from sites permitted under DOE's National Pollutant Discharge Elimination System Individual Permit (IP). This section states the following: "This Consent Order shall establish no requirements for releases of Contaminants from SWMUs or AOCs to storm water runoff that: 1) Are permitted under DOE's National Pollutant Discharge Elimination System (NPDES) Individual Permit for storm water discharges from SWMUs and AOCs (Individual Permit) (NM0030759 or as reissued)." SWMU 16-003(o) is permitted under the IP and therefore should no longer be monitored under the Consent Order. Please see below for EM-LA's and N3B's responses to your information request.

In an email dated April 5, 2022, the New Mexico Environment Department's (NMED's) Hazardous Waste Bureau requested additional information as follows:

In order for NMED to consider the discontinuation of the monitoring of controls at 16-003(o), NMED would like DOE to provide us with the following information:

- The sample results from location CDV-SMA-2.3 after a significant rain event of 0.25 in. or greater, and
- More than one data point (2015) for location CDV-SMA-2.3 sampled over the last 11+ years.

In regard to the first bullet, EM-LA and N3B, the current IP permittees, would like to clarify that per the requirements of the IP, the controls are inspected after a storm event intensity of 0.25 in. in 30 min or greater to identify any damage or repairs needed because of the rainfall. A storm event that exceeds the 0.25-in. in 30-min intensity threshold does not equate to storm water sample collection. Pursuant to the

IP, monitoring at CDV-SMA-2.3 currently entails at least one annual inspection of controls and inspection of controls after significant storm events (classified as greater than 0.25 in. in 30 min). Inspection findings for this monitoring are summarized in Table 1. That information is also available in the Annual Site Discharge Pollution Prevention Plan available on the IP public website (<https://ext.em-la.doe.gov/IPS>).

**Table 1**  
**Monitoring and Inspection of Controls Associated**  
**with SWMU 16-003(o) after Significant Storm Events**

<b>Monitoring Year</b>	<b>Number of Storm Events Greater Than 0.25 in. in 30 min</b>	<b>Storm Event 30 min Intensity Range (in.)</b>	<b>Number of Inspections</b>	<b>Inspection Notes</b>
2011	4	0.28 to 1.55	4	The September 2, 2011, inspection resulted in a recommendation to replace Rock Check Dam V0070601005 and noted that gabion basket was filling with debris but operational. A replacement rock check dam was installed at a subsequent inspection.
2012	3	0.28 to 0.45	2	—
2013	8	0.25 to 1.33	5	The September 2013 inspections noted flow due to flooding conditions. The sampler at CDV-SMA-2.3 washed away in the 1000-yr September 2013 flood event.
2014	6	0.25 to 0.98	4	The June 3, 2014, inspection recommended replacement of Rock Check Dam V00706010016 and gabion basket. Straw wattles were installed as temporary backup controls for Rock Check Dam -0016 at inspection, and two rock check dams were installed to replace it on June 25, 2014. A follow-up inspection conducted on June 4, 2014, determined that the gabion basket needed no maintenance.
2015	9	0.25 to 1.2	4	The July 27, 2015, inspection recommended replacement of Straw Wattle V00703060026 and removal of leaf debris from Rock Check Dam V00706010025. On August 30, 2015, Straw Wattle V00703060030 was installed as a replacement for Straw Wattle -0026 and leaf debris was removed from Rock Check Dam -0025.
2016	7	0.25 to 0.44	6	No maintenance needed.
2017	7	0.31 to 2.83	5	No maintenance needed.
2018	2	0.43 to 0.45	2	No maintenance needed.
2019	6	0.26 to 0.40	6	No maintenance needed.
2020	4	0.26 to 0.35	2	No maintenance needed.
2021	8	0.27 to 0.74	6	No maintenance needed.

In regard to the second bullet, on July 20, 2015, an extended baseline sample was collected at CDV-SMA-2.3. Gross alpha was the sole analyte to exceed the target action limit (TAL) of 15 pCi/L, with a result of 54.4 pCi/L. The analytical data for this sample are enclosed in Enclosure 1 (on CD). The sample result initiated corrective action under the IP and prompted the permittees (EM-LA and Los Alamos National Security, LLC, in 2015) to submit an alternative compliance request to the U.S. Environmental Protection Agency (EPA), which was submitted on February 26, 2016 (ADESH 16-022). Once the alternative compliance request was submitted to EPA, there was no longer a permit requirement to monitor for storm water; thus, the sample from 2015 is the only storm water sample collected under the IP at CDV-SMA-2.3.

EM-LA and N3B would like to reiterate that SWMU 16-003(o) is regulated under the IP and per Section VII (H)(1) of the Consent Order, the annual inspection and biennial reporting of erosion controls associated with SWMU 16-003(o) within Fishladder Canyon should be discontinued and removed as a requirement from NMED's approval with modifications for the "Phase II Investigation Report for the Technical Area 16-340 Complex, Revision 1," dated February 9, 2009.

If you have any questions please contact Joseph Sena at (505) 551-2964 (joseph.sena@em-la.doe.gov) or Cheryl Rodriguez at (505) 414-0450 (cheryl.rodriguez@em.doe.gov).

Sincerely,

**M Lee**

**Bishop for**

Arturo Q. Duran

Compliance and Permitting Manager  
U.S. Department of Energy  
Environmental Management  
Los Alamos Field Office

Digitally signed by  
M Lee Bishop for  
Date: 2022.06.24  
10:54:00 -06'00'

Enclosure(s):

1. Analytical Data for Baseline Sample from CDV-SMA-2.3 (on CD included with this document)

cc (letter with CD/DVD enclosure[s]):

Laurie King, EPA Region 6, Dallas, TX

Raymond Martinez, San Ildefonso Pueblo, NM

Dino Chavarria, Santa Clara Pueblo, NM

Richard Carpenter, City of Santa Fe, NM

Steven Lynne, Los Alamos County, Los Alamos, NM (2 copies)

Aaron Rand, City of Santa Fe, NM

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PRS website

cc (letter and enclosure[s] emailed):

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Rick Shean, NMED-HWB  
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Jennifer von Rohr, N3B  
Amanda White, N3B  
M. Lee Bishop, EM-LA  
Michael Mikolanis, EM-LA  
David Nickless, EM-LA  
Hai Shen, EM-LA

## **Enclosure 1**

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*Analytical Data for Baseline Sample from CDV-SMA-2.3  
(on CD included with this document)*

Sampling Plan	Field Sample ID	Location ID	Sample Date	Parameter Name	Field Preparation Code	Report Result	Report Units	Lab Qualifier	Detecte d	Sampl e Matrix	Sample Purpose	Sample Type	Sample Time	Latitude (Decimal)	Longitude (Decimal)	Filtered	Field Sample Comments	Lab Matrix	COC #	Lab Method	Report Detection Limit	Report Method Detection Limit	Validated Date	Validation Qualifier	Validation Reason Codes	Analytical Group Name	Location Common Name	Sampling Event
2015 Individual Permit	WT_IPC-15-102065	SS080404	07/20/2015	Alkalinity-CO3	UF	0.725	mg/L	U	N	W	REG	WT	19:07	35.8460993	-106.3330722	N		W	2015-1873	EPA:310.1	1.00	0.725	08/25/2015 08:27:13	U	U_LAB	SW-ALK+pH		MEx
2015 Individual Permit	WT_IPC-15-102065	SS080404	07/20/2015	Alkalinity-CO3+HCO3	UF	9.46	mg/L		Y	W	REG	WT	19:07	35.8460993	-106.3330722	N		W	2015-1873	EPA:310.1	1.00	0.725	08/25/2015 08:27:13	NQ	NQ	SW-ALK+pH		MEx
2015 Individual Permit	WT_IPC-15-102065	SS080404	07/20/2015	Alkalinity-HCO3	UF	9.46	mg/L		Y	W	REG	WT	19:07	35.8460993	-106.3330722	N		W	2015-1873	EPA:310.1	1.00	0.725	08/25/2015 08:27:13	NQ	NQ	SW-ALK+pH		MEx
2015 Individual Permit	WT_IPC-15-102065	SS080404	07/20/2015	Chloride	UF	1.35	mg/L		Y	W	REG	WT	19:07	35.8460993	-106.3330722	N		W	2015-1873	EPA:300.0	0.200	0.067	08/25/2015 08:27:13	NQ	NQ	SW-SO4+Cl		MEx
2015 Individual Permit	WT_IPC-15-102065	SS080404	07/20/2015	Cyanide, weak acid dissociable	UF	0.00214	mg/L	U	N	W	REG	WT	19:07	35.8460993	-106.3330722	N		W	2015-1873	ASTM:D2036	0.005	0.00214	08/25/2015 08:27:13	U	U_LAB	SW-IP-Cyanide		MEx
2015 Individual Permit	WT_IPC-15-102065	SS080404	07/20/2015	Gross alpha	UF	54.4	pCi/L		Y	W	REG	WT	19:07	35.8460993	-106.3330722	N		W	2015-1873	EPA:900			08/25/2015 08:27:13	NQ	NQ	SW-IP-Gross Alpha		MEx
2015 Individual Permit	WT_IPC-15-102065	SS080404	07/20/2015	Mercury	UF	0.067	µg/L	U	N	W	REG	WT	19:07	35.8460993	-106.3330722	N		W	2015-1873	EPA:245.2	0.200	0.067	08/25/2015 08:27:13	U	U_LAB	SW-IP-Hg+Se+U		MEx
2015 Individual Permit	WT_IPC-15-102065	SS080404	07/20/2015	Acidity or Alkalinity of a solution	UF	6.93	SU	H	Y	W	REG	WT	19:07	35.8460993	-106.3330722	N		W	2015-1873	EPA:150.1	0.100	0.010	08/25/2015 08:27:13	NQ	NQ	SW-ALK+pH		MEx
2015 Individual Permit	WT_IPC-15-102065	SS080404	07/20/2015	Radium-226	UF	1.76	pCi/L		Y	W	REG	WT	19:07	35.8460993	-106.3330722	N		W	2015-1873	EPA:903.1			08/25/2015 08:27:13	NQ	NQ,R33	SW-Ra226/Ra228		MEx
2015 Individual Permit	WT_IPC-15-102065	SS080404	07/20/2015	Radium-226 and Radium-228	UF	5.04	pCi/L		Y	W	REG	WT	19:07	35.8460993	-106.3330722	N		W	2015-1873	Generic:Radium by Calculation			08/25/2015 08:27:13	NQ	NQ	SW-Ra226/Ra228		MEx
2015 Individual Permit	WT_IPC-15-102065	SS080404	07/20/2015	Radium-228	UF	3.29	pCi/L		Y	W	REG	WT	19:07	35.8460993	-106.3330722	N		W	2015-1873	EPA:904			08/25/2015 08:27:13	NQ	NQ,R33	SW-Ra226/Ra228		MEx
2015 Individual Permit	WT_IPC-15-102065	SS080404	07/20/2015	Selenium	UF	2.74	µg/L	J	Y	W	REG	WT	19:07	35.8460993	-106.3330722	N		W	2015-1873	EPA:200.8	5.00	1.50	08/25/2015 08:27:13	J	J_LAB	SW-IP-Hg+Se+U		MEx
2015 Individual Permit	WT_IPC-15-102065	SS080404	07/20/2015	Sulfate	UF	2.98	mg/L		Y	W	REG	WT	19:07	35.8460993	-106.3330722	N		W	2015-1873	EPA:300.0	0.400	0.133	08/25/2015 08:27:13	NQ	NQ	SW-SO4+Cl		MEx
2015 Individual Permit	WT_IPC-15-102065	SS080404	07/20/2015	Suspended Sediment Concentration	UF	2500	mg/L		Y	W	REG	WT	19:07	35.8460993	-106.3330722	N		W	2015-1883	ASTM:D3977-97	100		10/27/2015 08:21:41	NQ	NQ	SW-SSC		MEx
2015 Individual Permit	WT_IPC-15-102065	SS080404	07/20/2015	Uranium	UF	6.15	µg/L		Y	W	REG	WT	19:07	35.8460993	-106.3330722	N		W	2015-1873	EPA:200.8	0.200	0.067	08/25/2015 08:27:13	NQ	NQ	SW-IP-Hg+Se+U		MEx
2015 Individual Permit	WT_IPC-15-102104	SS080404	07/20/2015	Silver	F	0.200	µg/L	U	N	W	REG	WT	19:07	35.8460993	-106.3330722	Y		W	2015-1873	EPA:200.8	1.00	0.200	08/25/2015 08:27:13	U	U_LAB	SW-Metals-Dissolved		MEx
2015 Individual Permit	WT_IPC-15-102104	SS080404	07/20/2015	Aluminum	F	129	µg/L		Y	W	REG	WT	19:07	35.8460993	-106.3330722	Y		W	2015-1873	EPA:200.8	50.0	15.0	08/25/2015 08:27:13	NQ	NQ	SW-Metals-Dissolved		MEx
2015 Individual Permit	WT_IPC-15-102104	SS080404	07/20/2015	Arsenic	F	1.70	µg/L	U	N	W	REG	WT	19:07	35.8460993	-106.3330722	Y		W	2015-1873	EPA:200.8	5.00	1.70	08/25/2015 08:27:13	U	U_LAB	SW-Metals-Dissolved		MEx
2015 Individual Permit	WT_IPC-15-102104	SS080404	07/20/2015	Boron	F	16.8	µg/L	J	Y	W	REG	WT	19:07	35.8460993	-106.3330722	Y		W	2015-1873	EPA:200.7	50.0	15.0	08/25/2015 08:27:13	J	J_LAB	SW-Metals-Dissolved		MEx
2015 Individual Permit	WT_IPC-15-102104	SS080404	07/20/2015	Calcium	F	2.98	mg/L		Y	W	REG	WT	19:07	35.8460993	-106.3330722	Y		W	2015-1873	EPA:200.7	0.2	0.05	08/25/2015 08:27:13	NQ	NQ	SW-Metals-Dissolved		MEx
2015 Individual Permit	WT_IPC-15-102104	SS080404	07/20/2015	Cadmium	F	0.110	µg/L	U	N	W	REG	WT	19:07	35.8460993	-106.3330722	Y		W	2015-1873	EPA:200.8	1.00	0.110	08/25/2015 08:27:13	U	U_LAB	SW-Metals-Dissolved		MEx
2015 Individual Permit	WT_IPC-15-102104	SS080404	07/20/2015	Cobalt	F	1.00	µg/L	U	N	W	REG	WT	19:07	35.8460993	-106.3330722	Y		W	2015-1873	EPA:200.7	5.00	1.00	08/25/2015 08:27:13	U	U_LAB	SW-Metals-Dissolved		MEx
2015 Individual Permit	WT_IPC-15-102104	SS080404	07/20/2015	Chromium	F	2.00	µg/L	U	N	W	REG	WT	19:07	35.8460993	-106.3330722	Y		W	2015-1873	EPA:200.8	10.0	2.00	08/25/2015 08:27:13	U	U_LAB	SW-Metals-Dissolved		MEx
2015 Individual Permit	WT_IPC-15-102104	SS080404	07/20/2015	Copper	F	4.13	µg/L		Y	W	REG	WT	19:07	35.8460993	-106.3330722	Y		W	2015-1873	EPA:200.8	1.00	0.350	08/25/2015 08:27:13	NQ	NQ	SW-Metals-Dissolved		MEx
2015 Individual Permit	WT_IPC-15-102104	SS080404	07/20/2015	Dissolved Organic Carbon	F	11.4	mg/L		Y	W	REG	WT	19:07	35.8460993	-106.3330722	Y		W	2015-1873	SW-846-9060	1.00	0.330	08/25/2015 08:27:13	J-	I9	SW-DOC		MEx
2015 Individual Permit	WT_IPC-15-102104	SS080404	07/20/2015	Hardness	F	10.3	mg/L		Y	W	REG	WT	19:07	35.8460993	-106.3330722	Y		W	2015-1873	SM:A2340B	1.24	0.453	08/25/2015 08:27:13	NQ	NQ	SW-Metals-Dissolved		MEx
2015 Individual Permit	WT_IPC-15-102104	SS080404	07/20/2015	Potassium	F	2.44	mg/L		Y	W	REG	WT	19:07	35.8460993	-106.3330722	Y		W	2015-1873	EPA:200.7	0.15	0.05	08/25/2015 08:27:13	NQ	NQ	SW-Metals-Dissolved		MEx
2015 Individual Permit	WT_IPC-15-102104	SS080404	07/20/2015	Magnesium	F	0.697	mg/L		Y	W	REG	WT	19:07	35.8460993	-106.3330722	Y		W	2015-1873	EPA:200.7	0.3	0.11	08/25/2015 08:27:13	NQ	NQ	SW-Metals-Dissolved		MEx
2015 Individual Permit	WT_IPC-15-102104	SS080404	07/20/2015	Sodium	F	2.58	mg/L		Y	W	REG	WT	19:07	35.8460993	-106.3330722	Y		W	2015-1873	EPA:200.7	0.3	0.1	08/25/2015 08:27:13	NQ	NQ	SW-Metals-Dissolved		MEx
2015 Individual Permit	WT_IPC-15-102104	SS080404	07/20/2015	Nickel	F	0.698	µg/L	J	Y	W	REG	WT	19:07	35.8460993	-106.3330722	Y		W	2015-1873	EPA:200.8	2.00	0.500	08/25/2015 08:27:13	J	J_LAB	SW-Metals-Dissolved		MEx
2015 Individual Permit	WT_IPC-15-102104	SS080404	07/20/2015	Lead	F	0.500	µg/L	U	N	W	REG	WT	19:07	35.8460993	-106.3330722	Y		W	2015-1873	EPA:200.8	2.00	0.500	08/25/2015 08:27:13	U	U_LAB	SW-Metals-Dissolved		MEx
2015 Individual Permit	WT_IPC-15-102104	SS080404	07/20/2015	Antimony	F	1.00	µg/L	U	N	W	REG	WT	19:07	35.8460993	-106.3330722	Y		W	2015-1873	EPA:200.8	3.00	1.00	08/25/2015 08:27:13	U	U_LAB	SW-Metals-Dissolved		MEx
2015 Individual Permit	WT_IPC-15-102104	SS080404	07/20/2015	Thallium	F	0.450	µg/L	U	N	W	REG	WT	19:07	35.8460993	-106.3330722	Y		W	2015-1873	EPA:200.8	2.00	0.450	08/25/2015 08:27:13	U	U_LAB	SW-Metals-Dissolved		MEx
2015 Individual Permit	WT_IPC-15-102104	SS080404	07/20/2015	Vanadium	F	5.03	µg/L		Y	W	REG	WT	19:07	35.8460993	-106.3330722	Y		W	2015-1873	EPA:200.7	5.00	1.00	08/25/2015 08:27:13	NQ	NQ	SW-Metals-Dissolved		MEx
2015 Individual Permit	WT_IPC-15-102104	SS080404	07/20/2015	Zinc	F	4.06	µg/L	J	Y	W	REG	WT	19:07	35.8460993	-106.3330722	Y		W	2015-1873	EPA:200.7	10.0	3.30	08/25/2015 08:27:13	J	J_LAB	SW-Metals-Dissolved		MEx