N3B-Los Alamos
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Environmental Management
Los Alamos Field Office
1200 Trinity Drive, Suite 400
Los Alamos, New Mexico 87544
(505) 257-7950/FAX (505) 606-2132

Date: September 29, 2021
Refer To: N3B-2021-0313

Carol Johnson
Enforcement and Compliance Assurance Division
U.S. Environmental Protection Agency, Region 6
1201 Elm Street, Suite 500 (6 ECD-WR)
Dallas, Texas 75270-2102

Subject: NPDES Permit No. NM0030759 – Analytical Results for Site Monitoring Areas PJ-SMA-9 and STRM-SMA-4.2 from the First Measurable Storm Event Following Certification of Enhanced Control Measures

Dear Ms. Johnson:

This letter and enclosures are being submitted in accordance with the requirements of the U.S. Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Permit No. NM0030759, for discharges of storm water at Los Alamos National Laboratory. The permit was issued to Los Alamos National Security, LLC (LANS) and the U.S. Department of Energy, effective November 1, 2010, and on April 30, 2018, responsibilities, coverage, and liability transferred from LANS to Newport News Nuclear BWXT-Los Alamos, LLC (N3B). As specified in Part I, Section E.l (c),

> Permittees shall certify completion of installation of control measures under this subsection to EPA within 30 days of completion of all such measures at the Site and, where applicable shall provide sampling results within 30 days of receipt of analytical results from the first measurable storm event after completion of such measures.

Accordingly, the analytical results from samples collected during the first measurable storm event received at Site Monitoring Areas (SMAs) PJ-SMA-9 and STRM-SMA-4.2 in the last 30 days are enclosed. The reports provide references to the certificate of completion of the installation of the control measures. Table 1 includes information about the confirmation sample collected at the SMAs. The enclosed certified documents can also be accessed at the following website: https://ext.em-la.doe.gov/ips.

Table 1
Confirmation Sample Collected at PJ-SMA-9 and STRM-SMA-4.2 from the First Measurable Storm Event after Certification of Installation of Enhanced Controls

Watershed	Priority	Site Number	SMA Number	Permitted Feature	Sample Collection Date	Data Receipt Date
Pajarito	Moderate	40-009	PJ-SMA-9	J010	7/27/2021	8/31/2021
Pajarito	Moderate	09-008(b)	STRM-SMA-4.2	J030	7/27/2021	8/31/2021

If you have any questions, please contact Emily Day at (505) 695-4243 (emily.day@em-la.doe.gov) or M. Lee Bishop at (505) 257-7902 (lee.bishop@em.doe.gov).

Sincerely,

Troy Thomson
Acting Program Manager
Environmental Remediation
N3B-Los Alamos

Sincerely,

M Lee Bishop Digitally signed by M Lee Bishop Date: 2021.09.23 11:49:34 -06'00'

M. Lee Bishop, Director
Office of Quality and Regulatory Compliance
U.S. Department of Energy
Environmental Management
Los Alamos Field Office

Enclosure(s): One hard copy with electronic files –
1. Analytical Results from the First Measurable Storm Event Following Certification of Enhanced Control Measures at PJ-SMA-9 (EM2021-0574)
2. Analytical Results from the First Measurable Storm Event Following Certification of Enhanced Control Measures at STRM-SMA-4.2 (EM2021-0575)

cc (letter with hard-copy enclosure[s]):
Susan Lucas-Kamat, NMED-SWQB

cc (letter and enclosure[s] emailed):
Esteban Herrera, EPA Region 6, Dallas, TX
Curry Jones, EPA Region 6, Dallas, TX
Laurie King, EPA Region 6, Dallas, TX
Brent Larsen, EPA Region 6, Dallas, TX
Chris Catechis, NMED-DOE-OB/-RPD
Steve Yanicak, NMED-DOE-OB
Peter Maggiore, NA-LA
M. Lee Bishop, EM-LA
Arturo Duran, EM-LA
John Evans, EM-LA

Stephen Hoffman, EM-LA
Michael Mikolanis, EM-LA
David Nickless, EM-LA
Cheryl Rodriguez, EM-LA
Jennifer Payne, LANL
Felicia Aguilar, N3B
William Alexander, N3B
Sharon Brady, N3B
Don Carlson, N3B
Emily Day, N3B
Thomas Harrison, N3B
Debby Holgerson, N3B
Jeff Holland, N3B
Audrey Krehlik, N3B
Kim Lebak, N3B
Joseph Legare, N3B
Dana Lindsay, N3B
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Jason Moore, N3B
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Joseph Noll, N3B
Gerald O'Leary III, N3B
Karly Rodriguez, N3B
Troy Thomson, N3B
Steve Veenis, N3B
Tashia Vigil, N3B
Amanda White, N3B
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n3brecords@em-la.doe.gov
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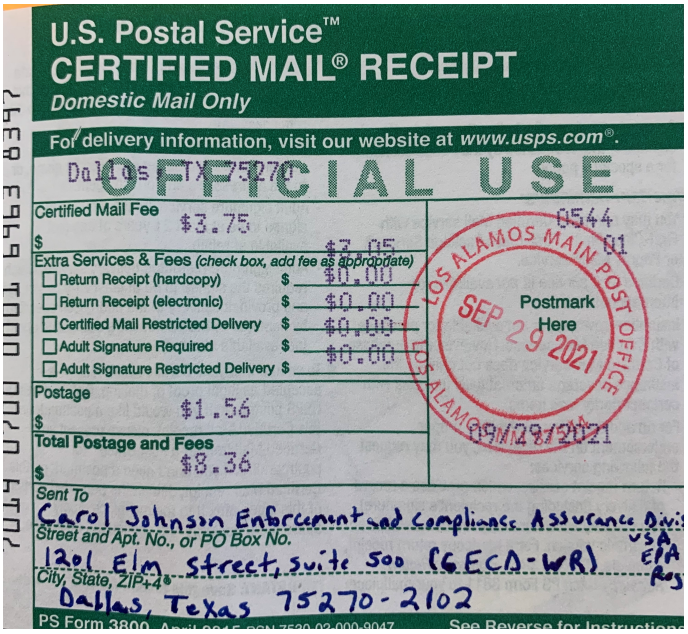
PRS website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PS Form 3800
See Reverse for Instructions

Analytical Results from the First Measurable Storm Event Following Certification of Enhanced Control Measures at PJ-SMA-9

September 29, 2021

NPDES PERMIT NO. NM0030759

EM2021-0574

NPDES PERMIT NO. NM0030759 **EM2021-0574**

NEWPORT NEWS NUCLEAR BWXT-LOS ALAMOS, LLC
CERTIFICATION OF ANALYTICAL RESULTS

PF: J010 **PJ-SMA-9** **Site: 40-009**

The following certification of analytical results received from the confirmation monitoring sample collected after the completion of the installation of enhanced controls was performed in accordance with NPDES Permit No. NM0030759, Part I.E.1.

CERTIFICATION STATEMENT OF AUTHORIZATION

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

Steve Veenis, Water Program Director
Environmental Remediation
Newport News Nuclear BWXT-Los Alamos, LLC

9/20/21
Date

M Lee Bishop for

Digitally signed by M Lee Bishop for
Date: 2021.09.28 11:59:20 -06'00'

M. Lee Bishop, Director
Office of Quality and Regulatory Compliance
U.S. Department of Energy
Environmental Management
Los Alamos Field Office

Date

NPDES PERMIT NO. NM0030759 **EM2021-0574**

NEWPORT NEWS NUCLEAR BWXT-LOS ALAMOS, LLC
CERTIFICATION OF ANALYTICAL RESULTS

PF: J010 **PJ-SMA-9** **Site: 40-009**

Tables 1 and 2 present the analytical results received from the confirmation monitoring sample collected from the first measurable storm event following the installation and subsequent certification of enhanced controls at Site Monitoring Area (SMA) PJ-SMA-9. Final analytical results were received on August 31, 2021. The descriptions and photographs of each enhanced control installed at PJ-SMA-9 were provided to the U.S. Environmental Protection Agency on October 30, 2015 (ADESH-15-158, LA-UR-15-27399). Table 3 presents each applicable target action level (TAL) for the analytes monitored.

Table 1
Radiochemical Analytical Results from the First Measurable Storm Event
Collected on July 27, 2021, Following Installation of Enhanced Controls at PJ-SMA-9

Sample ID	Analyte	Field Preparation	Detect Status	Result (pCi/L)	TAL Exceedance Ratio	Minimum Detectable Activity (pCi/L)	Uncertainty (pCi/L)	Qualifier[a]	Data Receipt Date
WT_IPC-21-230497	Radium-226 and Radium-228	Unfiltered	Nondetect	0.168	0.0056	n/a[b]	0.202	U	8/31/2021
WT_IPC-21-230497	Gross alpha	Unfiltered	Detect	13.1	0.873	2.97	2.19	J	8/31/2021

Note: TAL exceedance ratio is the analytical result divided by the applicable average TAL (ATAL).

[a] Qualifier: U = Result is not detected; J = result is estimated.

[b] n/a = Value is not applicable.

Table 2
Metals and Organic Analytical Results from the First Measurable Storm Event
Collected on July 27, 2021, Following Installation of Enhanced Controls at PJ-SMA-9

Sample ID	Analyte	Field Prep	Detect Status	Result (µg/L)	TAL Exceedance Ratio	Method Detection Limit	Quantitation Limit	Qualifier[a]	Data Receipt Date
WT_IPC-21-230498	Aluminum	Filtered	Detect	154	0.205	19.3	50	NQ	8/31/2021
WT_IPC-21-230498	Antimony	Filtered	Nondetect	1	0.00156	1	3	U	8/31/2021
WT_IPC-21-230498	Arsenic	Filtered	Nondetect	2	0.222	2	5	U	8/31/2021
WT_IPC-21-230498	Boron	Filtered	Nondetect	15	0.003	15	50	U	8/31/2021
WT_IPC-21-230498	Cadmium	Filtered	Nondetect	0.3	0.3	0.3	1	U	8/31/2021
WT_IPC-21-230498	Chromium	Filtered	Nondetect	3	0.0143	3	10	U	8/31/2021
WT_IPC-21-230498	Cobalt	Filtered	Nondetect	1	0.001	1	5	U	8/31/2021

NEWPORT NEWS NUCLEAR BWXT-LOS ALAMOS, LLC
CERTIFICATION OF ANALYTICAL RESULTS

PF: J010 **PJ-SMA-9** **Site: 40-009**

Table 2 (continued)

Sample ID	Analyte	Field Prep	Detect Status	Result (µg/L)	TAL Exceedance Ratio	Method Detection Limit	Quantitation Limit	Qualifier[a]	Data Receipt Date
WT_IPC-21-230498	Copper	Filtered	Detect	8.52	1.98	0.3	2	NQ	8/31/2021
WT_IPC-21-230498	Lead	Filtered	Nondetect	0.5	0.0294	0.5	2	U	8/31/2021
WT_IPC-21-230497	Mercury	Unfiltered	Nondetect	0.067	0.087	0.067	0.2	U	8/31/2021
WT_IPC-21-230498	Nickel	Filtered	Nondetect	0.6	0.00353	0.6	2	U	8/31/2021
WT_IPC-21-230497	Selenium	Unfiltered	Nondetect	2	0.4	2	5	U	8/31/2021
WT_IPC-21-230498	Silver	Filtered	Nondetect	0.3	0.6	0.3	1	U	8/31/2021
WT_IPC-21-230498	Thallium	Filtered	Nondetect	0.6	0.0952	0.6	2	U	8/31/2021
WT_IPC-21-230498	Vanadium	Filtered	Nondetect	1	0.01	1	5	U	8/31/2021
WT_IPC-21-230498	Zinc	Filtered	Detect	11.2	0.267	3.3	20	J	8/31/2021
WT_IPC-21-230497	Cyanide, weak acid dissociable	Unfiltered	Nondetect	1.67	0.167	1.67	5	U	8/31/2021
WT_IPC-21-230497	Pentachlorophenol	Unfiltered	Nondetect	3	0.158	3	10	U	8/31/2021
WT_IPC-21-230497	Benzo(a)pyrene	Unfiltered	Nondetect	0.03	0.006	0.03	0.1	U	8/31/2021
WT_IPC-21-230497	Hexachlorobenzene	Unfiltered	Nondetect	0.0071	0.00142	0.0071	0.0227	U	8/31/2021
WT_IPC-21-230497	RDX[b]	Unfiltered	Nondetect	0.101	0.000505	0.101	0.316	U	8/31/2021
WT_IPC-21-230497	Trinitrotoluene[2,4,6-]	Unfiltered	Nondetect	0.101	0.00505	0.101	0.316	U	8/31/2021

Notes: TAL exceedance ratio is the result divided by the smallest applicable TAL. Applicable TALs are the larger of the maximum TAL and minimum quantification level (MQL) or the larger of the average TAL or MQL.

[a] Qualifier: U = Result is not detected; NQ = result is not qualified; J = result is estimated.

[b] RDX = Royal Demolition Explosive.

NEWPORT NEWS NUCLEAR BWXT-LOS ALAMOS, LLC
CERTIFICATION OF ANALYTICAL RESULTS

PF: J010 **PJ-SMA-9** **Site: 40-009**

Table 3
Applicable TALs

Analyte	Units	CAS No.	MQL	ATAL	MTAL
Radium-226 and Radium-228	pCi/L	n/a[a]	n/a	30	n/a
Gross alpha	pCi/L	n/a	n/a	15	n/a
Aluminum	µg/L	7429-90-5	2.5	n/a	750
Antimony	µg/L	7440-36-0	60	640	n/a
Arsenic	µg/L	7440-38-2	0.5	9	340
Boron	µg/L	7440-42-8	100	5000	n/a
Cadmium	µg/L	7440-43-9	1	n/a	0.6
Chromium	µg/L	7440-47-3	10	n/a	210
Cobalt	µg/L	7440-48-4	50	1000	n/a
Copper	µg/L	7440-50-8	0.5	n/a	4.3
Lead	µg/L	7439-92-1	0.5	n/a	17
Mercury	µg/L	7439-97-6	0.005	0.77	1.4
Nickel	µg/L	7440-02-0	0.5	n/a	170
Selenium	µg/L	7782-49-2	5	5	20
Silver	µg/L	7440-22-4	0.5	n/a	0.4
Thallium	µg/L	7440-28-0	0.5	6.3	n/a
Vanadium	µg/L	7440-62-2	50	100	n/a
Zinc	µg/L	7440-66-6	20	n/a	42
Cyanide, weak acid dissociable	µg/L	57-12-5	10	5.2	22
Pentachlorophenol	µg/L	87-86-5	5	n/a	19
Benzo(a)pyrene	µg/L	50-32-8	5	0.18	n/a
Hexachlorobenzene	µg/L	118-74-1	5	0.0029	n/a
RDX[b]	µg/L	121-82-4	n/a	200	n/a
Trinitrotoluene[2,4,6-]	µg/L	118-96-7	n/a	20	n/a

Notes: CAS = Chemical Abstracts Service; MQL = minimum quantification level; ATAL = average TAL; MTAL = maximum TAL. As allowed by Part I.D. of the Individual Permit, analytical results are compared with either the corresponding MTAL/ATAL (as applicable) or the MQL, whichever value is greater, for the purpose of determining the effectiveness of storm water control measures.

[a] n/a = Value is not applicable.

[b] RDX = Royal Demolition Explosive.

Analytical Results from the First Measurable Storm Event Following Certification of Enhanced Control Measures at STRM-SMA-4.2

September 29, 2021

NPDES PERMIT NO. NM0030759

EM2021-0575

NPDES PERMIT NO. NM0030759 **EM2021-0575**

NEWPORT NEWS NUCLEAR BWXT-LOS ALAMOS, LLC
CERTIFICATION OF ANALYTICAL RESULTS

PF: J030 **STRM-SMA-4.2** **Site: 09-008(b)**

The following certification of analytical results received from the confirmation monitoring sample collected after the completion of the installation of enhanced controls was performed in accordance with NPDES Permit No. NM0030759, Part I.E.1.

CERTIFICATION STATEMENT OF AUTHORIZATION

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

Steve Veenis

9/20/21

Steve Veenis, Water Program Director
Environmental Remediation
Newport News Nuclear BWXT-Los Alamos, LLC

Date

M Lee Bishop Digitally signed by M Lee Bishop
Date: 2021.09.29 08:10:32 -06'00'

M. Lee Bishop, Director
Office of Quality and Regulatory Compliance
U.S. Department of Energy
Environmental Management
Los Alamos Field Office

Date

NPDES PERMIT NO. NM0030759 **EM2021-0575**

NEWPORT NEWS NUCLEAR BWXT-LOS ALAMOS, LLC
CERTIFICATION OF ANALYTICAL RESULTS

PF: J030 **STRM-SMA-4.2** **Site: 09-008(b)**

Tables 1 presents the analytical results received from the confirmation monitoring sample collected from the first measurable storm event following the installation and subsequent certification of enhanced controls at Site Monitoring Area (SMA) STRM-SMA-4.2. Final analytical results were received on August 31, 2021. The descriptions and photographs of each enhanced control installed at STRM-SMA-4.2 were provided to the U.S. Environmental Protection Agency on January 14, 2020 (N3B-20-0001, EM2019-0462). Table 2 presents each applicable target action level (TAL) for the analytes monitored.

Table 1
Metals Analytical Results from the First Measurable Storm Event
Collected on July 27, 2021, Following Installation of Enhanced Controls at STRM-SMA-4.2

Sample ID	Analyte	Field Prep	Detect Status	Result (µg/L)	TAL Exceedance Ratio	Method Detection Limit	Quantitation Limit	Qualifier*	Data Receipt Date
WT_IPC-21-221107	Aluminum	Filtered	Detect	569	0.759	19.3	50	NQ	8/31/2021
WT_IPC-21-221107	Copper	Filtered	Detect	4.57	1.06	0.3	2	NQ	8/31/2021
WT_IPC-21-221107	Silver	Filtered	Detect	0.568	1.14	0.3	1	J	8/31/2021

Notes: TAL exceedance ratio is the result divided by the smallest applicable TAL. Applicable TALs are the larger of the maximum TAL and minimum quantification level (MQL) or the larger of the average TAL or MQL.

* Qualifier: NQ = result is not qualified; J = result is estimated.

Table 2
Applicable TALs

Analyte	Units	CAS No.	MQL	ATAL	MTAL
Aluminum	µg/L	7429-90-5	2.5	n/a*	750
Copper	µg/L	7440-50-8	0.5	n/a	4.3
Silver	µg/L	7440-22-4	0.5	n/a	0.4

Notes: CAS = Chemical Abstracts Service; MQL = minimum quantification level; ATAL = average TAL; MTAL = maximum TAL. As allowed by Part I.D. of the Individual Permit, analytical results are compared with either the corresponding MTAL/ATAL (as applicable) or the MQL, whichever value is greater, for the purpose of determining the effectiveness of storm water control measures.

* n/a = Value is not applicable.