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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: October 8, 2021
Refer To: N3B-2021-0325

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 CDB-SMA-1 and CHQ-SMA-0.5 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 (DOE), 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.1(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) CDB-SMA-1 and CHQ-SMA-0.5 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 be accessed at the following website:
<https://ext.em-la.doe.gov/ips>.

Table 1
Confirmation Samples Collected at CDB-SMA-1 and CHQ-SMA-0.5 from the
First Measurable Storm Event after Certification of Enhanced Controls

Watershed	Priority	Site Number	SMA Number	Permitted Feature	Sample Collection Date	Data Receipt Date
Mortandad	Moderate	46-003(c)	CDB-SMA-1	C004	8/3/2021	9/8/2021
Mortandad	Moderate	46-004(d2)	CDB-SMA-1	C004	8/3/2021	9/8/2021
Mortandad	Moderate	46-004(f)	CDB-SMA-1	C004	8/3/2021	9/8/2021
Mortandad	Moderate	46-004(t)	CDB-SMA-1	C004	8/3/2021	9/8/2021
Mortandad	Moderate	46-004(w)	CDB-SMA-1	C004	8/3/2021	9/8/2021
Mortandad	Moderate	46-008(g)	CDB-SMA-1	C004	8/3/2021	9/8/2021
Mortandad	Moderate	46-009(a)	CDB-SMA-1	C004	8/3/2021	9/8/2021
Mortandad	Moderate	C-46-001	CDB-SMA-1	C004	8/3/2021	9/8/2021
Chaquehui	Moderate	33-004(g)	CHQ-SMA-0.5	Q001	8/3/2021	9/8/2021
Chaquehui	Moderate	33-007(c)	CHQ-SMA-0.5	Q001	8/3/2021	9/8/2021
Chaquehui	Moderate	33-009	CHQ-SMA-0.5	Q001	8/3/2021	9/8/2021

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: 2021.10.04
12:14:07 -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 CDB-SMA-1 (EM2021-0611)
2. Analytical Results from the First Measurable Storm Event Following Certification of Enhanced Control Measures at CHQ-SMA-0.5 (EM2021-0612)

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
 William Alexander, N3B
 Sharon Brady, N3B
 Don Carlson, N3B
 Emily Day, N3B
 Thomas Harrison, N3B
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 Gerald O'Leary III, N3B
 Karly Rodriguez, N3B
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 Steve Veenis, N3B
 Tashia Vigil, N3B
 Amanda White, N3B
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 PRS website

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PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

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**Analytical Results from the First Measurable
Storm Event Following Certification
of Enhanced Control Measures
at CDB-SMA-1**

October 8, 2021

NPDES PERMIT NO. NM0030759

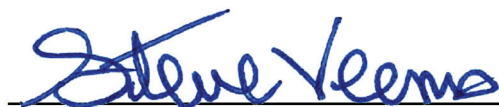
EM2021-0611

**NEWPORT NEWS NUCLEAR BWXT-LOS ALAMOS, LLC
CERTIFICATION OF ANALYTICAL RESULTS****PF: C004****CDB-SMA-1****Sites: 46-003(c)
46-004(d2)
46-004(f)
46-004(t)
46-004(w)
46-008(g)
46-009(a)
C-46-001**

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

9/29/2021
Date

M Lee Bishop

Digitally signed by M Lee Bishop
Date: 2021.10.04 12:14:22
-06'00'

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

Date

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

PF: C004

CDB-SMA-1

Sites: 46-003(c)
46-004(d2)
46-004(f)
46-004(t)
46-004(w)
46-008(g)
46-009(a)
C-46-001

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) CDB-SMA-1. Final analytical results were received on September 8, 2021. The descriptions and photographs of each enhanced control installed at CDB-SMA-1 were provided to the U.S. Environmental Protection Agency on September 10, 2015 (ADESH-15-132, LA-UR-15-25977). 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 August 3, 2021, Following Installation of Enhanced Controls at CDB-SMA-1**

Sample ID	Analyte	Field Preparation	Detect Status	Result (pCi/L)	TAL Exceedance Ratio	Minimum Detectable Activity (pCi/L)	Uncertainty (pCi/L)	Qualifier*	Data Receipt Date
WT_IPC-21-221102	Gross alpha	Unfiltered	Detect	151	10.1	15.2	10.4	J	9/8/2021

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

*Qualifier: J = result is estimated.

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

PF: C004

CDB-SMA-1

Sites: 46-003(c)
46-004(d2)
46-004(f)
46-004(t)
46-004(w)
46-008(g)
46-009(a)
C-46-001

Table 2

**Metals and Organic Analytical Results from the First Measurable Storm Event
Collected on August 3, 2021, Following Installation of Enhanced Controls at CDB-SMA-1**

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-21-221103	Aluminum	Filtered	Detect	1010	1.35	19.3	50	NQ	9/8/2021
WT_IPC-21-221103	Copper	Filtered	Detect	11.4	2.65	0.3	2	NQ	9/8/2021
WT_IPC-21-221102	Total PCB ^b	Unfiltered	Detect	0.00327	5.11	n/a ^c	0.00012	J	9/21/2021

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

^b PCB = Polychlorinated biphenyl.

^c n/a = Value is not applicable.

**Table 3
Applicable TALs**

Analyte	Units	CAS No.	MQL	ATAL	MTAL
Gross alpha	pCi/L	n/a	n/a ^a	15	n/a
Aluminum	µg/L	7429-90-5	2.5	n/a	750
Copper	µg/L	7440-50-8	0.5	n/a	4.3
Total PCB ^b	µg/L	1336-36-3	n/a	0.00064	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 PCB = Polychlorinated biphenyl.

**Analytical Results from the First Measurable
Storm Event Following Certification
of Enhanced Control Measures
at CHQ-SMA-0.5**

October 8, 2021

NPDES PERMIT NO. NM0030759

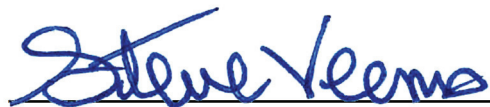
EM2021-0612

**NEWPORT NEWS NUCLEAR BWXT-LOS ALAMOS, LLC
CERTIFICATION OF ANALYTICAL RESULTS****PF: Q001****CHQ-SMA-0.5****Sites: 33-004(g)
33-007(c)
33-009**

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

9/29/2021

Date

M Lee Bishop

Digitally signed by M Lee Bishop
Date: 2021.10.04 12:14:46 -06'00'

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

Date

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

PF: Q001

CHQ-SMA-0.5

Sites: 33-004(g)
33-007(c)
33-009

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) CHQ-SMA-0.5. Final analytical results were received on September 8, 2021. The descriptions and photographs of each enhanced control installed at CHQ-SMA-0.5 were provided to the U.S. Environmental Protection Agency on October 30, 2015 (ADESH-15-158, LA-UR-15-27510). 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 August 3, 2021, Following Installation of Enhanced Controls at CHQ-SMA-0.5**

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-21-221391	Radium-226 and Radium-228	Unfiltered	Detect	1.95	0.065	n/a ^b	0.332	NQ	9/8/2021
WT_IPC-21-221391	Gross alpha	Unfiltered	Detect	312	20.8	19.2	16	J	9/8/2021

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

^a Qualifier: NQ = result is not qualified; 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 August 3, Following Installation of Enhanced Controls at CHQ-SMA-0.5**

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-21-221393	Aluminum	Filtered	Detect	182	0.243	19.3	50	J+	9/8/2021
WT_IPC-21-221393	Antimony	Filtered	Nondetect	1	0.00156	1	3	U	9/8/2021
WT_IPC-21-221393	Arsenic	Filtered	Nondetect	2	0.222	2	5	U	9/8/2021
WT_IPC-21-221393	Boron	Filtered	Detect	27.2	0.00544	15	50	J	9/8/2021
WT_IPC-21-221393	Cadmium	Filtered	Nondetect	0.3	0.3	0.3	1	U	9/8/2021

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

PF: Q001

CHQ-SMA-0.5

Sites: 33-004(g)

33-007(c)

33-009

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-21-221393	Chromium	Filtered	Nondetect	3	0.0143	3	10	U	9/8/2021
WT_IPC-21-221393	Cobalt	Filtered	Detect	1.22	0.00122	1	5	J	9/8/2021
WT_IPC-21-221393	Copper	Filtered	Detect	3.29	0.765	0.3	2	NQ	9/8/2021
WT_IPC-21-221393	Lead	Filtered	Nondetect	0.5	0.0294	0.5	2	U	9/8/2021
WT_IPC-21-221391	Mercury	Unfiltered	Nondetect	0.067	0.087	0.067	0.2	U	9/8/2021
WT_IPC-21-221393	Nickel	Filtered	Detect	1.27	0.00747	0.6	2	J	9/8/2021
WT_IPC-21-221391	Selenium	Unfiltered	Nondetect	2	0.4	2	5	U	9/8/2021
WT_IPC-21-221393	Silver	Filtered	Nondetect	0.3	0.6	0.3	1	U	9/8/2021
WT_IPC-21-221393	Thallium	Filtered	Nondetect	0.6	0.0952	0.6	2	U	9/8/2021
WT_IPC-21-221393	Vanadium	Filtered	Detect	1.74	0.0174	1	5	J	9/8/2021
WT_IPC-21-221393	Zinc	Filtered	Nondetect	3.3	0.0786	3.3	20	U	9/8/2021
WT_IPC-21-221391	Cyanide, weak acid dissociable	Unfiltered	Nondetect	1.67	0.167	1.67	5	U	9/8/2021
WT_IPC-21-221391	Total PCB ^b	Unfiltered	Detect	0.00582	9.09	n/a ^c	0.000118	J	9/8/2021
WT_IPC-21-221391	RDX ^d	Unfiltered	Nondetect	0.0952	0.00048	0.0952	0.298	U	9/8/2021
WT_IPC-21-221391	Trinitrotoluene [2,4,6-]	Unfiltered	Nondetect	0.0952	0.00476	0.0952	0.298	U	9/8/2021

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: J+ = result is estimated with a potential positive bias; U = Result is not detected; J = result is estimated; NQ = result is not qualified.

^b PCB = Polychlorinated biphenyl.

^c n/a = Value is not applicable.

^d RDX = Royal Demolition Explosive.

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

PF: Q001

CHQ-SMA-0.5

Sites: 33-004(g)
33-007(c)
33-009

**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
Total PCB ^b	µg/L	1336-36-3	n/a	0.00064	n/a
RDX ^c	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 PCB = Polychlorinated biphenyl.

^c RDX = Royal Demolition Explosive.