

Res. NPDES

Los Alamos NATIONAL LABORATORY

Permit

Glenn

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

Date: September 28, 1995
In Reply Refer To: ESH-18/WQ&H:95-436
Mail Stop: K497
Telephone: (505) 665-1859

RECEIVED

OCT 2 1995

SURFACE WATER
QUALITY BUREAU

Ms. Diana Gamble
U.S. Environmental Protection Agency
Compliance Assurance and Enforcement Division
Water Enforcement Branch (6EN-W)
1445 Ross Avenue
Dallas, Texas 75202-2733

**SUBJECT: DISCHARGE MONITORING REPORTS (DMRs) FOR AUGUST, 1995
NPDES PERMIT NO. NM0028355**

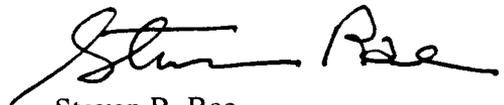
Dear Ms. Gamble:

Enclosed are Los Alamos National Laboratory's DMRs (EPA Form 3320-1) for August, 1995, as required under the above referenced NPDES Permit. There were two effluent limitations exceeded for industrial outfalls with a monthly reporting requirement. The two industrial exceedances occurred from a sample taken from Outfall 051 where Radium 226 + 228 average and maximum limits were exceeded. The Laboratory is investigating possible Sr-90 interference during analytical testing which may have caused inaccurate results and exceedances. There were no effluent limitations exceeded for the analyses performed for sanitary Outfall 13S.

The Laboratory's new NPDES Permit became effective on August 1, 1994, and new effluent limitations are now in effect. The Laboratory is in receipt of the pre-printed DMR forms enclosed with a letter from Ms. Sonia Cantu of EPA dated October 13, 1994. Discrepancies in the forms were addressed at a meeting with EPA Region 6 representatives on February 6, 1995. Please note, beginning with the May 1995 submission, the Laboratory has revised the format of the DMR forms based on discussions at this meeting and on the revised DMR forms enclosed with your letter of April 27, 1995. Other changes in reporting procedures requested by EPA at the February 6, 1995, meeting have also been implemented. Per your request of July 25, 1995, the Laboratory will submit an original and one copy of the DMR addressed directly to you.

Please contact Brenda Edeskuty at (505) 665-0789 or Mike Saladen at (505) 665-6085 if you desire any additional information concerning these DMRs.

Sincerely,



Steven R. Rae
Group Leader
Water Quality & Hydrology Group

Cecilia Korrnadle
Water Enforcement NM Coordinator
6EN-WT

15441

INDUSTRIAL WASTE DEVIATIONS

August 1995

<u>TECH AREA LOCATION</u>	<u>DATE</u>	<u>PARAMETER</u>	<u>RESULTS/LIMIT</u>	<u>UNITS</u>
TA-50-1	08/01/95	Ra 226+228	33.0/30.0 Max. and Avg.	pCi/L

University of California
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

**SUBJECT: NONCOMPLIANCE WITH EFFLUENT
LIMITATION IN NPDES PERMIT NM0028355**

1. Location of noncompliant discharge

Serial 051 TA-50, Building 1

2. Description of noncompliant discharge

A radium 226+228 result of 33.0 pCi/L exceeds the daily average and daily maximum permit limit of 30.0 pCi/L.

3. Impact upon the receiving waters

Effluent discharges to Mortandad Canyon. No adverse impacts were observed.

4. Cause of noncompliance

Unknown. Under investigation. It is believed there was a unknown source of radium contributing higher than normal amounts of radium to the outfall. The Laboratory is also investigating possible interferents which may be resulting in a positive bias in sample analysis.

5. Anticipated time of condition if applicable

Condition was discovered during routine NPDES monitoring of outfall 051 on 8/1/95.

6. Duration of condition if uncorrected

Discharge of 80742 liters lasted approximately 29 minutes.

7. Steps taken to reduce and eliminate condition

None. Analytical results indicating radium concentrations in the effluent were not received until after the discharge had ceased. This occurrence is still under investigation. Appropriate actions will be taken based on the findings.

8. Steps taken to prevent a recurrence of the condition

Corrective actions are being addressed by the RAD and Industrial Waste Water Science Group (CST-13). CST-13 is attempting to determine source of radium based on Waste Stream Characterization surveys and Waste Acceptance Criteria. In addition, signs listing radium limits are being posted on drains connected to the RAD Liquid Treatment Facility. Notices concerning radium limits will also be published in Laboratory-wide bulletins and newsletters.

The Laboratory will increase frequency of effluent sampling at TA-50 to once per week to determine if condition is persistent. Samples will also be split to check accuracy of contract laboratory and methodologies employed to determine Radium₂₂₈ concentrations. CST-13 will also develop action plan for source identification. Written notice has been provided to the State of New Mexico.

9. Steps taken to minimize any adverse impact to navigable water

No adverse impact to navigable waters is anticipated as the discharge from this outfall did not cross the Laboratory boundary or reach the Rio Grande.

Los Alamos

NATIONAL LABORATORY

*Los Alamos National Laboratory
Los Alamos, New Mexico 87545*

Date: July 28, 1995

In Reply Refer To: ESH-18/WQ&H:95-0334

Mail Stop: K497

Telephone: (505) 665-1859

Ms. Diana Gamble
U.S. Environmental Protection Agency, Region 6
Water Management Division
Enforcement Branch (6EN-W)
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

**SUBJECT: DISCHARGE MONITORING REPORTS (DMRs) FOR JUNE, 1995
NPDES PERMIT NO. NM0028355**

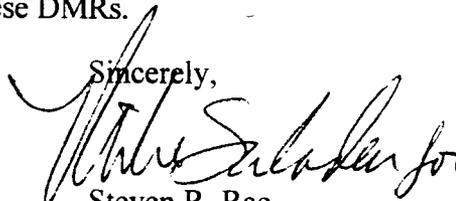
Dear Ms. Gamble:

Enclosed are Los Alamos National Laboratory's DMRs (EPA Form 3320-1) for June, 1995, as required under the above referenced NPDES Permit. There were three effluent limitations exceeded for industrial outfalls with a monthly reporting requirement. There were no effluent limitations exceeded for the analyses performed for sanitary outfall 13S.

The Laboratory's new NPDES Permit became effective on August 1, 1994, and new effluent limitations are now in effect. The Laboratory is in receipt of the pre-printed DMR forms enclosed with a letter from Ms. Sonia Cantu of EPA dated October 13, 1994. Discrepancies in the forms were addressed at a meeting with EPA Region 6 representatives on February 6, 1995. Please note, beginning with the May 1995 submission, the Laboratory has revised the format of the DMR forms based on discussions at this meeting and on the revised DMR forms enclosed with your letter of April 27, 1995. Other changes in reporting procedures requested by EPA at the February 6, 1995, meeting have also been implemented. Per your request of July 25, 1995, the Laboratory will submit an original and one copy of the DMR addressed directly to you.

Please contact Brenda Edeskuty at (505) 665-0789 or Mike Saladen at (505) 665-6085 if you desire any additional information concerning these DMRs.

Sincerely,



Steven R. Rae
Group Leader
Water Quality & Hydrology Group



University of California
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

**SUBJECT: NONCOMPLIANCE WITH EFFLUENT
LIMITATION IN NPDES PERMIT NM0028355**

1. Location of noncompliant discharge

Serial 001 TA-3, Building 22

2. Description of noncompliant discharge

A Cl_2 measurement of 0.58 mg/l exceeded the daily max effluent limit of 0.5 mg/l.

3. Impact upon the receiving waters

This outfall discharges to Sandia Canyon wetland. No adverse impacts were observed.

4. Cause of noncompliance

The cooling tower was undergoing maintenance and potable water from the community water supply system was being used for equipment cooling. The community water supply can have Cl_2 concentrations in excess of 0.5 mg/l.

5. Anticipated time of condition if applicable

Condition was discovered during routine NPDES monitoring of Outfall 001 on 6/9/95 at 9:55 am.

6. Duration of condition if uncorrected

Unknown. Use of potable water for equipment cooling began April 21, 1995.

7. Steps taken to reduce and eliminate condition

The outfall discharge was rerouted to a storage basin for de-chlorination.

8. Steps taken to prevent a recurrence of the condition

All water discharged to the outfall will be de-chlorinated regardless of source. Additionally, operational samples will be collected once per shift prior to discharge. HACH kit used by operating personnel to monitor Cl_2 at Outfall 001 will be calibrated or replaced if necessary. HACH kit readings will be used to alert personnel of non-compliant conditions in the future.

University of California
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

**SUBJECT: NONCOMPLIANCE WITH EFFLUENT
LIMITATION IN NPDES PERMIT NM0028355**

1. Location of noncompliant discharge

Serial 051 TA-50, Building 1

2. Description of noncompliant discharge

A radium 226+228 result of 48.4 pCi/L exceeds the daily average and daily maximum permit limit of 30.0 pCi/L.

3. Impact upon the receiving waters

Effluent discharges to Mortandad Canyon. No adverse impacts were observed.

4. Cause of noncompliance

Unknown. Under investigation. It is believed there was a unknown source of radium contributing higher than normal amounts of radium to the outfall.

5. Anticipated time of condition if applicable

Condition was discovered during routine NPDES monitoring of Outfall 051 on 6/6/95.

6. Duration of condition if uncorrected

Discharge of 80742 liters lasted approximately 29 minutes.

7. Steps taken to reduce and eliminate condition

None. Analytical results indicating radium concentrations in the effluent were not received until after the discharge had ceased. This occurrence is still under investigation. Appropriate actions will be taken based on the findings.

8. Steps taken to prevent a recurrence of the condition

Corrective actions are being addressed by the RAD and Industrial Waste Water Science Group (CST-13). CST-13 is attempting to determine source of radium based on Waste Stream Characterization surveys and Waste Acceptance Criteria. In addition, signs listing radium limits are being posted on drains connected to the RAD Liquid Treatment Facility. Notices concerning radium limits will also be published in Laboratory-wide bulletins and newsletters.

9. Steps taken to minimize any adverse impact to navigable water

No adverse impact to navigable waters is anticipated as the discharge from this outfall did not cross the Laboratory boundary or reach the Rio Grande.

INDUSTRIAL WASTE DEVIATIONS

June 1995

<u>EPA ID</u>	<u>TECH AREA LOCATION</u>	<u>DATE</u>	<u>PARAMETER</u>	<u>RESULTS/LIMIT</u>	<u>UNITS</u>
001	TA-3-22	06/09/95	Cl ₂	0.58/0.5 Daily Max.	mg/l
051	TA-50-1	06/06/95	Ra 226+228	48.4/30.0 Daily Max.	pCi/L
051	TA-50-1	06/06/95	Ra 226+228	48.4/30.0 Daily Ave.	pCi/L

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LANL DMR Review
TASO.

Ra 226-228

Date	Ave	Max	Date	Ave	Max
7/95	8.9	8.9	8/95	33.0	33.0
6/95	48.4	48.4			
5/95	7.7	7.7			
4/95	9.96	9.96			
3/95	2.63	2.63			
2/95	2.91	2.91			
1/95	0.30	0.30			
12/94	2.59	2.59			
11/94	10.38	10.38			
10/94	1.30	1.30			
9/94	0.37	0.37	228 - Ra	3 day	in barrel
8/94	0.80	0.80	- 30 emits		
7/94			gas properties		

Permit
Limits

30.0 30.0

226 - less likely
6-8 day in barrel 1-14
CO₂ or other gas
1/2 life conversion
Actual 228 divider