

Permit

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Los Alamos

NATIONAL LABORATORY

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

Date: August 20, 1996
In Reply Refer To: ESH-18/WQ&H:96-0398
Mail Stop: K497
Telephone: (505) 665-1859

Res. NPDES

R E C E I V E D

AUG 26 1996

DOE OVERSIGHT 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: REVISED DISCHARGE MONITORING REPORT (DMR) FOR ARSENIC AT OUTFALL 03A027, NPDES PERMIT NO. NM0028355

Dear Ms. Gamble:

Enclosed is Los Alamos National Laboratory's revised DMR for Outfall 03A027 for the period November 1, 1995, to January 31, 1996, per your request. This report is being submitted to include the Arsenic results from Annual Water Quality Testing in the quarterly DMR. These results were previously submitted to the EPA by the Laboratory in tabular format (Letter dated August 6, 1996).

Per the April 12, 1996, agreement between Laboratory representatives and representatives from the EPA Region 6 Office, a revised DMR is to be submitted in instances where inclusion of the Annual Water Quality Testing results changed the non-compliance status. A revised Non-Compliance Report has also been included. Please note the original average and maximum results reported for Arsenic in the quarterly DMRs were in excess of permit limits with two excursions. The revised quarterly DMRs which include the Water Quality Testing results are also in excess of permit limits with three excursions. The reported and revised values for Arsenic are listed below.

DMR Quarterly Monitoring Period: 11-1-95 to 1-31-96

	<u>Arsenic</u> <u>(Avg. in mg/l)</u>	<u>Arsenic</u> <u>(Max. in mg/l)</u>	<u>Number</u> <u>Excursions</u>
Original DMR	0.11	0.21	2
Revised DMR	0.13	0.22	3

15514

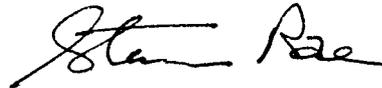
Ms. Diana Gamble
ESH-18/WQ&H-96-0398

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August 20, 1996

Please contact Brenda Edeskuty at (505) 665-0789 if you have any questions or need additional information. Thank you for your assistance in this matter.

Sincerely,



Steven R. Rae
Group Leader, ESH-18
Water Quality and Hydrology Group

SR:BE/vc

Enclosure: a/s

Cy: J. Piatt, NMED, Santa Fe, New Mexico, w/enc.
N. Weber, NMED/AIP, Santa Fe, New Mexico, w/enc.
J. Vozella, DOE/LAAO, w/enc., MS A316
C. Soden, DOE/AL, Albuquerque, New Mexico, w/enc.
D. Erickson, ESH-DO, w/enc., MS K491
T. Trezona, CIC-18, w/enc., MS B252
WQ&H File, w/enc., MS K497
CRM-4, w/enc., MS A150

(Revised: Aug. 12, 1996)

INDUSTRIAL WASTE DEVIATIONS

JANUARY 1996

<u>EPA ID</u>	<u>TECH AREA LOCATION</u>	<u>DATE</u>	<u>PARAMETER</u>	<u>RESULTS/LIMIT</u>	<u>UNITS</u>
03A024	3-187	11/02/95	As	0.055/0.04 max.	mg/l
03A024	3-187	11/06/95	As	0.063/0.04 max.	mg/l
03A024	3-187	11/02/95 11/06/95	As	0.059/0.04 avg.	mg/l
03A027	3-285	11/14/95	pH	9.3/9.0 max.	s.u.
03A027	3-285	11/14/95	As	0.211/0.04 max.	mg/l
03A027	3-285	11/14/95*	As	0.215/0.04 max.	mg/l
03A027	3-285	12/15/95	As	0.069/0.04 max.	mg/l
03A027	3-285	11/14/95 (2) 12/15/95 12/18/95	As	0.132/0.04 avg.	mg/l
05A056	16-260	01/16/96	Oil and Grease	36.0/15 max.	mg/l
05A056	16-260	01/04/96 01/16/96	Oil and Grease	24.3/15 avg.	mg/l

*Sample collected for Annual Water Quality Testing.

Sample collected same day as quarterly sample, one minute apart.

**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 027 TA-03-285

2. Description of noncompliant discharge

On 11/14/95 a pH value of 9.3 s.u. exceeded the maximum permit limit of 9.0 s.u. Total Arsenic concentrations of 0.215 mg/l, 0.211 mg/l and 0.069 mg/l exceeded the daily maximum permit limit of 0.04 mg/l. The average Arsenic concentration of 0.132 mg/l exceeded the daily average permit limit of 0.04 mg/l.

3. Impact upon the receiving waters

Outfall discharges to Sandia Canyon wetland. No adverse impacts were observed.

4. Cause of noncompliance

Under investigation. Concentrations of Arsenic in excess of permit limits may be due to elevated levels of Arsenic present in the basin sludge. Results of investigation indicate that the Arsenic excursions may have been due to replacement of cooling tower slats with Chromate Copper Arsenate (CCA) treated lumber.

5. Anticipated time of condition if applicable

Condition was discovered during routine and repeat monitoring of Outfall 027 on 11/14/95 and 12/15/95.

6. Duration of condition if uncorrected

The duration of the noncompliant condition is not known. At the time samples were collected on 11/14/95 and 12/15/95, flow was estimated to be 0.10 gpm for both discharges. It is believed flow originated from an intermittent leak in the basin drain valve.

7. Steps taken to reduce and eliminate condition

See item 8.

8. Steps taken to prevent a recurrence of the condition

Corrective actions for remediation of this noncompliance are being addressed by the Laboratory's 03A Task Force. The Task Force is continuing to investigate the correlation between CCA-treated wood and elevated Arsenic concentrations including sampling of cooling towers and time-phased leachability studies. On August 26, 1996, the Task Force is also releasing a Laboratory-wide Environment, Safety and Health Notice indicating that wood treated with CCA may be the primary cause of elevated Arsenic concentrations at cooling towers, and recommends the discontinuation of using CCA treated wood in cooling towers. Appropriate corrective actions will be taken upon completion of the investigation.

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.

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)

NAME UNIVERSITY OF CALIFORNIA
 ADDRESS LOS ALAMOS NATIONAL LABORATORY
 PO BOX 1662; MAIL STOP K490
 LOS ALAMOS, NM 87545
 FACILITY
 LOCATION Outfall Owner: William Radzinski

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)
 (2-16) (17-19)

NM0028355
 PERMIT NUMBER

03A 027
 DISCHARGE NUMBER

MAJOR F - FINAL
 Form Approved OMB No. 2040-0004
 Approval expires 10-31-94

Revised DMR
 Aug. 12, 1996

MONITORING PERIOD							
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	95	11	01		96	01	31
	(20-21)		(22-23)	(24-25)	(26-27)		(28-29) (30-31)

COOLING TOWER BLOWDOWN

*** NO DISCHARGE ***
 NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (38-45)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)	
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS				
PH	*****	*****	*****	*****	8.8	*****	9.3	SU	1	2/3MO	GRAB	
00400 1 0 0	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	*****	*****	*****	1/3MO	GRAB	
TOTAL SUSP. SOLIDS	*****	*****	*****	*****	*****	7	7	MG/L	0	1/3MO	GRAB	
00530 1 0 0	PERMIT REQUIREMENT	*****	*****	*****	*****	20	100	DAILY AND DAILY MAX	*****	1/3MO	GRAB	
TOTAL PHOSPHORUS	*****	*****	*****	*****	*****	1	1	MG/L	0	1/3MO	GRAB	
00665 1 0 0	PERMIT REQUIREMENT	*****	*****	*****	*****	20	40	DAILY AND DAILY MAX	*****	1/3MO	GRAB	
TOTAL ARSENIC	*****	*****	*****	*****	*****	0.11	0.21	MG/L	2	3/3MO	GRAB	
01002 1 0 0	PERMIT REQUIREMENT	*****	*****	*****	*****	0.04	0.04	DAILY AND DAILY MAX	3	4	1/3MO	GRAB
FLOW	*****	0.0050	0.0216	MGD	*****	*****	*****	*****	*****	4/3MO	EST	
50050 1 0 0	PERMIT REQUIREMENT	0.0045	*****	*****	*****	*****	*****	*****	*****	5	1/3MO	EST
FREE AVAIL. CHLORINE	*****	*****	*****	*****	*****	0.0	0.0	MG/L	0	1/3MO	GRAB	
50064 1 0 0	PERMIT REQUIREMENT	*****	*****	*****	*****	0.2	0.5	DAILY AND DAILY MAX	*****	1/3MO	GRAB	
	SAMPLE MEASUREMENT											
	PERMIT REQUIREMENT											

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
 STEVEN R. RAE
 ESH-18 GROUP LEADER
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319. Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 3 years.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
Steven R. Rae

TELEPHONE 505 665-0453
 DATE 86 2 28
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
 Max. concentration exceeded for pH. Avg. and Max. concentrations exceeded for Arsenic.
 Please see attached non-compliance report. *SR* Revised: 96-8-12
 Steven R. Rae