

Los Alamos

NATIONAL LABORATORY

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

Permit 2001

Date: May 23, 2001

In Reply Refer To: ~~ESH-18/WQ&H:01-166~~

Mail Stop: K497

Telephone: (505) 665-1859

Mr. David Gurule
Area Manager
U.S. Department of Energy
Los Alamos Area Office
Los Alamos, New Mexico 87544

Mr. Joseph Vozella
Assistant Area Manager
Office of Environment
U.S. Department of Energy
Los Alamos Area Office
Los Alamos, New Mexico 87544

**SUBJECT: RADIOACTIVE EFFLUENT QUALITY AT NPDES OUTFALL 051, TA-50,
MARCH 2001**

Dear Messrs. Gurule and Vozella:

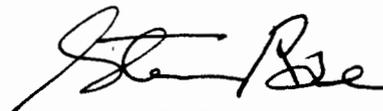
Enclosed is the monthly monitoring report for NPDES Outfall 051 for radioactive effluent quality data. This report includes the monthly value (monthly average) compared with the DOE Derived Concentration Guideline (DCG) value for each parameter analyzed. The monthly values are equal composites of all discharges that occurred during the month. Please note, this report also includes radioactive influent data for the TA-50 Treatment Facility and percent removal.

There were a total of 17 releases (1,272,300 Liters) to Mortandad Canyon during the monitoring period from the TA-50 Treatment Facility. The monthly composite results were 7.3 pCi/l for Strontium 90 (Sr-90) and 2,600 pCi/l for Tritium. There were no exceedances of DCGs for individual radionuclides during the monitoring period. Additionally, the sum of the fractions for the radionuclides did not exceed the DCG value of 1.

Per your request, we have included the monthly composite results for perchlorate and nitrate with this DCG Report. The monthly composite result for nitrate was 2.1 mg/l. The NM WQCC Regulation 3103 ground water standard for nitrate is 10 mg/l. The monthly composite for perchlorate was 257 ug/l. New Mexico currently does not have a ground water or surface water standard for perchlorate. However, California's drinking water action level for perchlorate is 18 ug/l. Please note, that nitrate and perchlorate results are not radioactive constituents and are being reported separately from the DCG Report.

Please contact me at 665-1859 or Mike Saladen at 665-6085 if additional information would be helpful.

Sincerely,



Steven R. Rae
Group Leader
Water Quality and Hydrology Group



15931

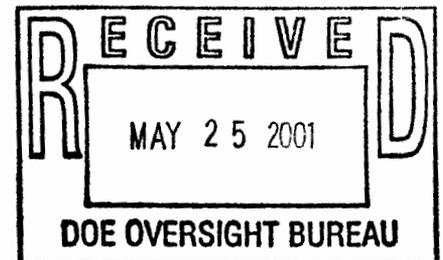
Mr. David Gurule & Mr. Joseph Vozella - 2 -
ESH-18/WQ&H:01-166

May 23, 2001

SR:MS/tml

Enclosures: a/s

Cy: J. Parker, NMED/DOE OB, Santa Fe, New Mexico, w/enc.
J. Davis, NMED/SWQB, Santa Fe, New Mexico, w/enc.
M. Johansen, DOE/LAAO, w/enc., MS A316
B. Enz, DOE/LAAO, w/enc., MS A316
T. Gunderson, DIR, w/enc., MS A100
A. Stanford, FWO-DO/DD, w/enc., MS K492
B. Ramsey, FWO-DO, w/enc., MS K492
D. McLain, FWO-RLW, w/enc., MS J595
D. Moss, FWO-RLW, w/enc., MS E518
D. Hall, FWO-RLW, w/enc., MS E518
D. Erickson, ESH-DO, w/enc., MS K491
L. McAtee, ESH-DO, w/enc., MS K491
M. Saladen, ESH-18, w/enc., MS K497
WQ&H File, w/enc., MS K497
IM-5, w/enc., MS A150



TA50 -1 EFFLUENT DISCHARGE & REMOVAL for MARCH, 2001

Issued 3 May 2001 3:15:28 p.m..

Species	Guideline as (uCi/ml)	Guideline as (Ci/L)	Effluent (Ci/L)	Eff/Guide Ratio	Exceeded	Influent (Ci/L)	% Removal
Am-241	3.0e-8	30.0e-12	2.1e-12	0.07		1.1e-9	99.809
Cs-137	3.0e-6	3.0e-9	1.7e-10	0.057		7.0e-10	75.714
Mn-54	5.0e-5	50.0e-9	130.0e-12	0.003			
Pu-238	4.0e-8	40.0e-12	8.1e-12	0.202		8.3e-9	99.902
Pu-239	3.0e-8	30.0e-12	1.9e-12	0.063		1.9e-9	99.9
Sr-89	2.0e-5	20.0e-9	8.6e-12	4.3e-4		12.0e-12	28.333
Sr-90	1.0e-6	1.0e-9	7.3e-12	0.007		24.0e-12	69.583
TRITIUM	0.002	2.0e-6	2.6e-9	0.001			
U-234	5.0e-7	500.0e-12	7.5e-12	0.015		1.5e-10	95.0
U-235	6.0e-7	600.0e-12	0.12e-12	2.0e-4		8.9e-11	99.865
U-238	6.0e-7	600.0e-12	4.8e-12	0.008		8.8e-11	94.545

Sum of Ratios = 0.427

17 discharges in MARCH, 2001

1,272,300 liters (volume) discharged

NITRATE-N: Influent = 2.72 Mg/L, Effluent = 2.1 Mg/L.

**TA 50-1 Radioactive Liquid Wastewater Treatment Facility
Effluent Quality for March 2001**

Parameter	Sample Type	Effluent Quality	California Action Level
Perchlorate	Monthly Composite	257 ug/l	18 ug/l

Parameter	Sample Type	Effluent Quality	NM WQCC Standard
Nitrate	Monthly Composite	2.1 mg/l	10 mg/l