

Los Alamos

NATIONAL LABORATORY

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

Date: February 19, 1998

In Reply Refer To: ESH-18/WQ&H:98-0070

Mail Stop: K497

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Mr. Thomas Todd
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U.S. Department of Energy
Los Alamos Area Office
Los Alamos, New Mexico 87544

Mr. Ken Zamora
Assistant Area Manager
Office of Facility Operations
U.S. Department of Energy
Los Alamos Area Office
Los Alamos, New Mexico 87544

**SUBJECT: RADIOACTIVE WASTEWATER QUALITY AT NPDES
OUTFALL 051, TA-50, BUILDING 1, DECEMBER 1997**

Dear Messrs. Todd and Zamora:

Enclosed is the monthly monitoring report pertaining to NPDES Outfall 051 for radioactive effluent quality data, as requested by DOE/LAAO. This report includes the monthly value (monthly average) compared with the DOE Derived Concentration Guidelines (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 18 releases (1,423,050 liters) to Mortandad Canyon during the monitoring period from the TA-50 Treatment Facility. The DCGs were exceeded for Plutonium 238 (Pu238), Plutonium 239 (Pu239), and Americium 241 (Am241) during the monitoring period.

Please contact me at 665-1859 or Mike Saladen at 665-6085 if you have any questions or need additional information.

Sincerely,



Steven R. Rae
Group Leader
Water Quality and Hydrology Group



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NR035

Thomas Todd/Ken Zamora
ESH-18/WQ&H:98-0070

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February 19, 1998

SR:MS/mv

Enclosures: a/s

Cy: D. Erickson, ESH-DO/DD, w/enc., MS K491
M. Saladen, ESH-18, w/enc., MS K497
S. Hanson, EM-RLW, w/enc., MS E518
D. Moss, EM-RLW, w/enc., MS E518
D. Hall, EM-RLW, w/enc., MS E518
J. Plum, DOE/LAAO, w/enc., MS A316
J. Parker, NMED/DOE OB, w/enc., Santa Fe, New Mexico
WQ&H File, w/enc., MS K497
CRM-4, w/enc., MS A150

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TA-50-1 EFFLUENT DISCHARGE and % REMOVAL DECEMBER, 1997

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	DATE	INFLUENT	EFFLUENT	%REMOVAL	EXCEEDED DCG
TRITIUM					
DOE Derived Concentration Guidelines 2.E-03 (uCi/ml) 2.0 E-6 (Ci/L)					
M	TRITIUM	31-DEC-97	2.700E-08		
Sr-89					
DOE Derived Concentration Guidelines 2.E-05 (uCi/ml) 20.0 E-9 (Ci/L)					
M	Sr-89	31-DEC-97	1.600E-11	3.800E-11	
Sr-90					
DOE Derived Concentration Guidelines 1.E-06 (uCi/ml) 1.0 E-9 (Ci/L)					
M	Sr-90	31-DEC-97	1.700E-11	4.700E-11	
Cs-137					
DOE Derived Concentration Guidelines 3.E-06 (uCi/ml) 3.0 E-9 (Ci/L)					
M	Cs-137	31-DEC-97	1.500E-10	2.000E-10	
U-235					
DOE Derived Concentration Guidelines 5.E-06 (uCi/ml) 5.0 E-9 (Ci/L)					
M	U-235	31-DEC-97	8.800E-12	9.400E-13	89.3 %
Pu-238					
DOE Derived Concentration Guidelines 4.E-08 (uCi/ml) 40.0 E-12 (Ci/L)					
M	Pu-238	31-DEC-97	4.500E-09	5.200E-11	98.8 % X
Pu-239					
DOE Derived Concentration Guidelines 3.E-08 (uCi/ml) 30.0 E-12 (Ci/L)					
M	Pu-239	31-DEC-97	7.700E-09	6.400E-11	99.2 % X
Am-241					
DOE Derived Concentration Guidelines 3.E-08 (uCi/ml) 30.0 E-12 (Ci/L)					
M	Am-241	31-DEC-97	2.300E-09	1.200E-10	94.8 % X

Effluent discharges DECEMBER, 1997 = 18
 Total liters discharged = 1423050