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NATIONAL LABORATORY

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

Date: July 25, 2001
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Ms. Phyllis Bustamante
Ground Water Quality Bureau
New Mexico Environment Department
P.O. Box 26110
Santa Fe, New Mexico 87502

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"TA-50"
"NPPES"
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SUBJECT: GROUND WATER DISCHARGE PLAN (DP-1132), QUARTERLY REPORT, SECOND QUARTER, 2001

Dear Ms. Bustamante:

This letter and the enclosed attachments are intended to serve as Los Alamos National Laboratory's quarterly Ground Water Discharge Plan (DP-1132) report for the Radioactive Liquid Waste Treatment Facility (RLWTF) at TA-50 for the period from April 1 through June 30, 2001. Since the first quarter of 1999, Los Alamos National Laboratory has provided your agency with voluntary quarterly reports containing analytical results from effluent and ground water monitoring and a status report on RLWTF operations.

Attachment 1.0, Table 1.0, presents the analytical results from sampling conducted at the Laboratory's Mortandad Canyon alluvial monitoring wells on May 24, 2001. All of the analytical results from MCO-3, MCO-6, MCO-4B, and MCO-7 were below New Mexico Water Quality Control Commission (NM WQCC) Regulation 3103 standards for nitrate (NO₃-N), fluoride (F), and total dissolved solids (TDS) with the exception of a fluoride result at MCO-7 of 1.74 mg/L (NM WQCC Regulation 3103 standard for fluoride is 1.6 mg/L).

Attachment 2.0, Table 2.0, presents the analytical results from weekly monitoring of the RLWTF's effluent holding tank. The weekly samples are flow-proportioned composite samples prepared from each batch of effluent generated by the RLWTF during a 7-day period. All sample results shown for the second quarter 2001 were below NM WQCC Regulation 3103 standards for nitrate (NO₃-N), fluoride (F), and total dissolved solids (TDS). The quarterly average for nitrates in the RLWTF's effluent was 4.56 mg/L.

In addition to weekly composite sampling, the RLWTF also conducts operational screening (using a HACH Kit) for nitrates (NO₃-N) in each batch of effluent. Operational screening of effluent samples collected during the second quarter 2001 produced the following maximum, minimum, and average results for nitrate (NO₃-N), respectively: 8.5 mg/L, 1.8 mg/L, and 5.09 mg/L.



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July 25, 2001

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During your June 11, 2001, tour of the RLWTF, you learned that the Nitric Acid Recycling System (NARS) at TA-55 was recently placed into service. However, I did not provide you with the actual start-up date. Please be informed that NARS became fully operational on March 1, 2001.

Please contact me at 667-7969 if you would like additional information regarding this quarterly report.

Sincerely,



Bob Beers
Water Quality and Hydrology Group

BB/tml

Attachments: a/s

Cy: S. Wilson, USEPA, Region 6, Dallas, Texas, w/att.
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T. Gunderson, DLDOPS, w/att., MS A100
D. Erickson, ESH-DO, w/att., MS K491
L. McAtee, ESH-DO, w/att., MS K491
S. Rae, ESH-18, w/att., MS K497
D. Rogers, ESH-18, w/att., MS K497
M. Saladen, ESH-18, w/att., MS K497
T. Stanford, FWO-DO, w/att., MS K492
B. Ramsey, FWO-DO, w/att., MS K492
D. Mclain, FWO-WFM, w/att., MS J593
R. Alexander, FWO-WFM, w/att., MS E518
D. Moss, FWO-WFM, w/att., MS E518
P. Worland, FWO-WFM, w/att., MS E518
D. Woitte, LC/GL, w/att., MS A187
S. Schreiber, NMT-2, w/att., MS E511
WQ&H File, w/att., MS K497
IM-5, w/att., MS A150

Radioactive Liquid Waste Treatment Facility
 Ground Water Discharge Plan (DP-1132)
 Quarterly Report
 2nd Quarter, 2001

Table 1.0. Analytical Results, Mortandad Canyon Alluvial Monitoring Wells, 2nd Quarter, 2001.

Sampling Location	Sample Date: May 24, 2001				
	NO3-N (mg/L)	TKN (mg/L)	NH3 (mg/L)	TDS (mg/L)	F (mg/L)
MCO-3	2.72	1.05	<0.05	350	0.71
MCO-4B	4.22	0.51	<0.05	312	1.07
MCO-6	4.64	0.48	<0.05	313	1.44
MCO-6 duplicate	4.46	0.47	<0.05	314	1.51
MCO-7	6.88	0.43	<0.05	326	1.74
<i>NM WQCC Ground Water Standards</i>	<i>10</i>			<i>1000</i>	<i>1.6</i>

Table 2.0. RLWTF Weekly Effluent Monitoring Analytical Results, 2nd Quarter, 2001.

Monitoring Period	RLWTF Weekly Effluent Monitoring Analytical Results		
	NO ₃ -N (mg/L)	F (mg/L)	TDS (mg/L)
APRIL	4.8	0.81	476
	4.8	0.64	452
	2.3	0.49	254
	3.6	0.73	454
	3.3	0.38	256
MAY	4.26	0.57	314
	5.61	0.99	418
	4.34	1.19	390
	2.69	0.74	374
JUNE	3.96	0.86	492
	7.53	0.26	426
	7.47	0.76	468
	5.60	1.12	526
2nd Quarter 2001 Averages (mg/L)	4.56	0.73	408
<i>NM WQCC 3103 Ground Water Standards (mg/L)</i>	<i>10</i>	<i>1.6</i>	<i>1000</i>