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RESPONSE TO COMMENTS
FINAL PERMIT DECISION

This is our response to comments received on the subject draft permit in accordance with regulations promulgated at 40 CFR Part 124.17.

Permit No. NM0028355

Applicant: Los Alamos National Laboratory
Los Alamos, New Mexico 87545

Issuing Office: U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

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Permit Action: Final permit decision and response to comments received on the draft reissued permit publicly noticed on May 16, 1992.

Date Prepared: September 16, 1992.

Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations, revised as of 7/1/92.

ISSUE NO. 1

As conditions of certification, NMED initially developed permit limits through application of Sections 1-102.F. and G. of Water Quality Standards (WQS) for Interstate and Intrastate Streams in New Mexico as amended October 8, 1991, and effective November 12, 1991. NMED specified that the daily maximum effluent limits be calculated based on the numeric water quality standards; and that these effluent limitations be calculated based on the general standards in accordance with the NMED interpretation of EPA practices and the New Mexico Interim Guidance for Implementation of Water Quality Standards through National Pollutant Discharge Elimination System Permits. NMED specified that in cases of non-perennial streams, the water quality standards effectively be the effluent limits, as the critical low flow will be zero. NMED agreed to allow limits which reflect the MQLs as established by EPA Region 6.

However, subsequently NMED modified this certification to address all designated uses as specified in Sections 2-111 and 2-118 of the WQS. The standards were adjusted by NMED as necessary for Segment 2-111 to TSS = 15.3 mg/l, and hardness = 47.7 mg/l; and for Segment 2-118 to TSS = 15 mg/l, and hardness = 24 mg/l.

RESPONSE NO. 1

A. WQS EFFLUENT LIMITS

The application of all uses to the receiving segments in question at 100% effluent may not be appropriate for attainable uses in all situations. However, since it is the State's basic responsibility to establish Water Quality Standards and designated uses, we defer to the New Mexico certification requirements of September 11, 1992, in this matter.

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Furthermore, the application of chronic criteria rather than acute criteria for the daily maximum limitations seems to be in contradiction to these WQS (see footnotes 3 & 4 under Section 3-101.J. of the WQS). However, in accordance with the NMED conditions of certification, WQS limits are revised beyond those numeric standards for wildlife watering uses only which were addressed in the draft permit which was public noticed on May 16, 1992. EPA has shown the Minimum Quantification Levels (MQLs) for comparison. The NMED requires as a condition of certification that "if these MQLs change during the term of the proposed permit, the permit limits must change accordingly." EPA believes that the probability of such changes is remote. However, the permitting authority has included in the permit the condition that "This permit may (emphasis added) be reopened if MQLs change during the term of the permit." Any decision to make any changes of this type must consider due process for the permittee.

NMED Certification of July 16, 1992

Parameter in mg/l

Total Aluminum	5.0
Ammonia (as N)	0.10
Total Arsenic	0.074 (0.01 MQL)
Total Boron	0.75
Total Cadmium	0.0005 (0.001 MQL)
Total Chromium	0.00023 (0.01 MQL)
Total Cobalt	0.05
Total Copper	0.0002 (0.01 MQL)
Total Lead	0.0045 (0.005 MQL)
Total Mercury	0.00003 (0.0002 MQL)
Total Selenium	0.0086 (0.005 MQL)
Total Vanadium	0.05
Total Zinc	0.0036 (0.02 MQL)
Total Beryllium	0.052
Total Cyanide	0.008 (0.01 MQL)
Total Nickel	0.013 (0.04 MQL)
Total Silver	0.0001 (0.002 MQL)
Radium-226 + radium-228	30.0 pCi/l
Tritium	20,000 pCi/l(*1)

(*1) When accelerator produced.

NMED Certification of September 11, 1992

<u>Parameter in mg/l</u>	<u>Seq. 2-111</u>	<u>Seq. 2-118</u>	<u>Combined Screen and Segments</u>
Total Aluminum	0.087	0.087	0.087
Total Arsenic	0.04	0.04	0.04(0.01 MQL)
Barium	N/A	1.0	1.0
Total Beryllium	0.0053	0.0053	0.0053
Total Boron	0.75	0.75	0.75
Total Cadmium	0.0022	0.0014	0.0014(0.001 MQL)
Chlordane	0.0000043	0.0000043	0.0000043(0.0002 MQL)
Total Residual Chlorine	0.004	0.002	0.002(0.011 MQL)
Total Chromium	0.51	0.253	0.253(0.01 MQL)
Total Cobalt	0.05	0.05	0.05
Total Copper	0.0178	0.0108	0.0108(0.01 MQL)
Total Cyanide	0.0052	0.0052	0.0052(0.01 MQL)
Total Lead	0.0041	0.002	0.002(0.005 MQL)
Total Mercury	0.000012	0.000012	0.000012(0.0002 MQL)
Total Nickel	0.1983	0.1212	0.1212(0.04 MQL)

NH3 (as N)	0.03	0.02	0.02
Nitrate (as N)	N/A	10.0	10.0
Nitrogen (TIN)	N/A	1.0	1.0
Total Phosphorus (as P)	N/A	0.10	0.10
Radium-226 + Radium-228	30.0 pCi/l	30.0 pCi/l	30.0 pCi/l
Total Selenium	0.005	0.005	0.005
Total Silver	0.00012	0.00012	0.00012(0.002 MQL)
Tritium	20,000 pCi/l	20,000 pCi/l	20,000 pCi/l(*1)
Total Organic Carbon	N/A	7.0	7.0
Total Uranium	N/A	5.0	5.0(*2)
Total Vanadium	0.10 mg/l	0.10 mg/l	0.10 mg/l
Total Zinc	0.1976	0.1207	0.1207(0.02 MQL)

(*1) When accelerator produced.

(*2) If naturally occurring.

B. APPLICATION DAILY MAXIMUM LEVELS REPORTED FOR WQ PARAMETERS

Total Aluminum

WQS level	0.087 mg/l
Outfall 001	0.3 mg/l(*1)
Category 02A	0.068 mg/l
Category 03A	0.06 mg/l
Category 04A	<0.36 mg/l(*1)
Category 05A	<0.04 mg/l
Category 06A	0.56 mg/l(*1)
Category 07A(109)	<0.36 mg/l(*1)
Outfall 051	0.07 mg/l
Outfall 128	<0.04 mg/l
Outfall 01S	0.73 mg/l(*1)
Outfall 02S	0.16 mg/l(*1)
Outfall 03S	0.04 mg/l
Outfall 04S	0.07 mg/l
Outfall 05S	<0.4 mg/l(*1)
Outfall 07S	0.04 mg/l
Outfall 09S	<0.04 mg/l
Outfall 10S	0.05 mg/l
Outfall 12S	N/A
Outfall 13S	0.73 mg/l(*1)

(*1) WQ requirements applicable

Total Arsenic

WQS level	0.04 mg/l
Outfall 001	<0.002 mg/l
Category 02A	0.0032 mg/l
Category 03A	0.04 mg/l(*1)
Category 04A	0.087 mg/l(*1)
Category 05A	<0.002 mg/l
Category 06A	<0.002 mg/l
Category 07A(109)	0.087 mg/l(*1)
Outfall 051	<0.002 mg/l
Outfall 128	<0.002 mg/l
Outfall 01S	0.0074 mg/l
Outfall 02S	0.0021 mg/l
Outfall 03S	<0.002 mg/l
Outfall 04S	<0.002 mg/l
Outfall 05S	0.014 mg/l
Outfall 07S	0.003 mg/l
Outfall 09S	0.0033 mg/l
Outfall 10S	<0.002 mg/l

Outfall 12S	N/A mg/l(*1)
Outfall 13S	0.0074 mg/l

(*1) WQ requirements applicable

Barium

WQS level	1.0 mg/l
Outfall 001	0.02 mg/l
Category 02A	0.016 mg/l
Category 03A	0.11 mg/l
Category 04A	0.03 mg/l
Category 05A	0.76 mg/l
Category 06A	0.03 mg/l
Category 07A(109)	0.03 mg/l
Outfall 051	0.092 mg/l
Outfall 128	0.03 mg/l
Outfall 01S	0.07 mg/l
Outfall 02S	0.07 mg/l
Outfall 03S	0.04 mg/l
Outfall 04S	0.08 mg/l
Outfall 05S	0.02 mg/l
Outfall 07S	0.15 mg/l
Outfall 09S	0.38 mg/l
Outfall 10S	0.03 mg/l
Outfall 12S	N/A (*1)
Outfall 13S	0.07 mg/l

(*1) WQ requirements applicable

Total Beryllium

WQS level	0.0053 mg/l
Outfall 001	<0.001 mg/l
Category 02A	<0.001 mg/l
Category 03A	<0.1 mg/l (*1)
Category 04A	<0.001 mg/l
Category 05A	<0.001 mg/l
Category 06A	<0.001 mg/l
Category 07A(109)	<0.001 mg/l
Outfall 051	0.001 mg/l
Outfall 128	<0.001 mg/l
Outfall 01S	<0.001 mg/l
Outfall 02S	<0.001 mg/l
Outfall 03S	<0.001 mg/l
Outfall 04S	<0.1 mg/l (*1)
Outfall 05S	0.001 mg/l
Outfall 07S	<0.1 mg/l (*1)
Outfall 09S	<0.001 mg/l
Outfall 10S	<0.001 mg/l
Outfall 12S	N/A (*1)
Outfall 13S	<0.001 mg/l

(*1) WQ requirements applicable

Total Boron

WQS level	0.75 mg/l
Outfall 001	0.06 mg/l
Category 02A	0.22 mg/l
Category 03A	0.40 mg/l

Category 04A	0.08 mg/l
Category 05A	0.03 mg/l
Category 06A	0.52 mg/l
Category 07A (109)	0.08 mg/l
Outfall 051	1.22 mg/l (*1)
Outfall 128	0.13 mg/l
Outfall 01S	0.17 mg/l
Outfall 02S	0.03 mg/l
Outfall 03S	0.02 mg/l
Outfall 04S	0.07 mg/l
Outfall 05S	0.15 mg/l
Outfall 07S	0.07 mg/l
Outfall 09S	0.35 mg/l
Outfall 10S	0.08 mg/l
Outfall 12S	N/A (*1)
Outfall 13S	0.06 mg/l

(*1) WQ requirements applicable

Total Cadmium

WQS level	0.0014 mg/l
Outfall 001	<0.01 mg/l (*1)
Category 02A	<0.01 mg/l (*1)
Category 03A	<0.01 mg/l (*1)
Category 04A	0.0095 mg/l (*1)
Category 05A	<0.01 mg/l (*1)
Category 06A	<0.01 mg/l (*1)
Category 07A	0.0095 mg/l (*1)
Outfall 051	0.01 mg/l (*1)
Outfall 128	<0.01 mg/l (*1)
Outfall 01S	<0.01 mg/l (*1)
Outfall 02S	<0.01 mg/l (*1)
Outfall 03S	<0.01 mg/l (*1)
Outfall 04S	<0.01 mg/l (*1)
Outfall 05S	<0.01 mg/l (*1)
Outfall 07S	<0.00075 mg/l
Outfall 09S	<0.01 mg/l (*1)
Outfall 10S	<0.01 mg/l (*1)
Outfall 12S	N/A (*1)
Outfall 13S	<0.01 mg/l (*1)

(*1) WQ requirements applicable

Chlordane

WQS level	0.0000043 mg/l
Outfall 001	<0.00025 mg/l (*1)
Category 02A	<0.00025 mg/l (*1)
Category 03A	<0.00025 mg/l (*1)
Category 04A	<0.00025 mg/l (*1)
Category 05A	<0.00025 mg/l (*1)
Category 06A	<0.00025 mg/l (*1)
Category 07A(109)	<0.00025 mg/l (*1)
Outfall 051	<0.00025 mg/l (*1)
Outfall 128	<0.00025 mg/l (*1)
Outfall 01S	<0.00025 mg/l (*1)
Outfall 02S	<0.00025 mg/l (*1)
Outfall 03S	<0.00025 mg/l (*1)
Outfall 04S	<0.00025 mg/l (*1)

Outfall 05S	<0.00025	mg/l (*1)
Outfall 07S	<0.00025	mg/l (*1)
Outfall 09S	<0.00025	mg/l (*1)
Outfall 10S	<0.00025	mg/l (*1)
Outfall 12S	N/A	(*1)
Outfall 13S	<0.00025	mg/l (*1)

(*1) WQ requirements applicable

Total Residual Chlorine

WQ level	0.002	mg/l
Outfall 001	0.10	mg/l (*1)
Outfall 02A	0.00	mg/l
Outfall 03A	0.00	mg/l
Outfall 04A	0.05	mg/l (*1)
Outfall 05A	0.2	mg/l (*1)
Outfall 06A	0.00	mg/l
Outfall 07A(109)	0.05	mg/l (*1)
Outfall 051	0.00	mg/l
Outfall 128	0.00	mg/l
Outfall 01S	0.0	mg/l
Outfall 02S	0.00	mg/l
Outfall 03S	0.0	mg/l
Outfall 04S	0.00	mg/l
Outfall 05S	0.0	mg/l
Outfall 07S	0.00	mg/l
Outfall 09S	0.00	mg/l
Outfall 10S	0.00	mg/l
Outfall 12S	N/A	(*1)
Outfall 13S	0.0	mg/l

(*1) WQ requirements applicable

Total Chromium

WQS level	0.253	mg/l
Outfall 001	0.035	mg/l
Category 02A	0.031	mg/l
Category 03A	0.260	mg/l
Category 04A	0.06	mg/l
Category 05A	<0.01	mg/l
Category 06A	0.087	mg/l
Category 07A	0.06	mg/l
Outfall 051	0.022	mg/l
Outfall 128	0.012	mg/l
Outfall 01S	0.51	mg/l (*1)
Outfall 02S	0.048	mg/l
Outfall 03S	0.28	mg/l
Outfall 04S	0.005	mg/l
Outfall 05S	0.041	mg/l
Outfall 07S (109)	0.180	mg/l
Outfall 09S	0.013	mg/l
Outfall 10S	0.011	mg/l
Outfall 12S	N/A	(*1)
Outfall 13S	0.51	(*1)

(*1) WQ requirements applicable

Total Cobalt

WQS level	0.05 mg/l
Outfall 001	0.1 mg/l (*1)
Category 02A	0.1 mg/l (*1)
Category 03A	0.1 mg/l (*1)
Category 04A	0.22 mg/l (*1)
Category 05A	<0.1 mg/l (*1)
Category 06A	<0.1 mg/l (*1)
Category 07A(109)	<0.01 mg/l
Outfall 051	<0.07 mg/l (*1)
Outfall 128	<0.1 mg/l (*1)
Outfall 01S	<0.1 mg/l (*1)
Outfall 02S	<0.1 mg/l (*1)
Outfall 03S	<0.1 mg/l (*1)
Outfall 04S	<0.1 mg/l (*1)
Outfall 05S	<0.1 mg/l (*1)
Outfall 07S	<0.07 mg/l (*1)
Outfall 09S	<0.1 mg/l (*1)
Outfall 10S	<0.1 mg/l (*1)
Outfall 12S	N/A (*1)
Outfall 13S	<0.1 mg/l (*1)

WQ requirements applicable

Total Copper

WQS level	0.0108 mg/l
Outfall 001	0.033 mg/l(*1)
Category 02A	0.16 mg/l(*1)
Category 03A	0.1 mg/l(*1)
Category 04A	0.82 mg/l(*1)
Category 05A	0.032 mg/l(*1)
Category 06A	0.052 mg/l(*1)
Category 07A(109)	0.82 mg/l(*1)
Outfall 051	0.15 mg/l(*1)
Outfall 128	0.18 mg/l(*1)
Outfall 01S	0.3 mg/l(*1)
Outfall 02S	0.022 mg/l(*1)
Outfall 03S	0.029 mg/l(*1)
Outfall 04S	0.083 mg/l(*1)
Outfall 05S	0.045 mg/l(*1)
Outfall 07S	0.069 mg/l(*1)
Outfall 09S	0.025 mg/l(*1)
Outfall 10S	0.027 mg/l(*1)
Outfall 12S	N/A (*1)
Outfall 13S	0.3 mg/l(*1)

(*1) WQ requirements applicable

Total Cyanide

WQS level	0.0052 mg/l
Outfall 001	0.01 mg/l (*1)
Category 02A	0.033 mg/l (*1)
Category 03A	0.013 mg/l (*1)
Category 04A	0.033 mg/l (*1)
Category 05A	0.12 mg/l (*1)
Category 06A	<0.01 mg/l
Category 07A(109)	0.033 mg/l (*1)
Outfall 051	0.22 mg/l (*1)
Outfall 128	<0.01 mg/l

Outfall 01S	0.3	mg/l	(*1)
Outfall 02S	0.01	mg/l	(*1)
Outfall 03S	<0.01	mg/l	
Outfall 04S	<0.03	mg/l	(*1)
Outfall 05S	0.06	mg/l	(*1)
Outfall 07S	0.064	mg/l	(*1)
Outfall 09S	0.01	mg/l	
Outfall 10S	<0.01	mg/l	
Outfall 12S	N/A		(*1)
Outfall 13S	0.3	mg/l	(*1)

(*1) WQ requirements apply

Total Lead

WQS level	0.002	mg/l	
Outfall 001	<0.050	mg/l	(*1)
Category 02A	<0.050	mg/l	(*1)
Category 03A	0.050	mg/l	(*1)
Category 04A	0.33	mg/l	(*1)
Category 05A	<0.050	mg/l	(*1)
Category 06A	<0.050	mg/l	(*1)
Category 07A(109)	0.33	mg/l	(*1)
Outfall 051	0.05	mg/l	(*1)
Outfall 128	0.070	mg/l	(*1)
Outfall 01S	<0.050	mg/l	(*1)
Outfall 02S	<0.050	mg/l	(*1)
Outfall 03S	0.050	mg/l	(*1)
Outfall 04S	<0.050	mg/l	(*1)
Outfall 05S	0.130	mg/l	(*1)
Outfall 07S	0.010	mg/l	(*1)
Outfall 09S	<0.050	mg/l	(*1)
Outfall 10S	0.060	mg/l	(*1)
Outfall 12S	N/A		(*1)
Outfall 13S	<0.050	mg/l	(*1)

(*1) WQ requirements applicable

Total Mercury

WQS level	0.000012	mg/l	
Outfall 001	<0.0002	mg/l	(*1)
Category 02A	<0.0002	mg/l	(*1)
Category 03A	<0.0002	mg/l	(*1)
Category 04A	<0.0002	mg/l	(*1)
Category 05A	<0.0002	mg/l	(*1)
Category 06A	<0.0002	mg/l	(*1)
Category 07A(109)	<0.0002	mg/l	(*1)
Outfall 051	0.00026	mg/l	(*1)
Outfall 128	<0.0002	mg/l	(*1)
Outfall 01S	0.0017	mg/l	(*1)
Outfall 02S	0.0002	mg/l	(*1)
Outfall 03S	0.00052	mg/l	(*1)
Outfall 04S	<0.010	mg/l	(*1)
Outfall 05S	<0.0002	mg/l	(*1)
Outfall 07S	<0.0002	mg/l	(*1)
Outfall 09S	<0.0002	mg/l	(*1)
Outfall 10S	0.00033	mg/l	(*1)
Outfall 12S	N/A		(*1)
Outfall 13S	0.0017	mg/l	(*1)

(*1) WQ requirements applicable

Total Nickel

WQS level	0.1212	mg/l
Outfall 001	0.07	mg/l
Category 02A	0.23	mg/l(*1)
Category 03A	0.28	mg/l(*1)
Category 04A	0.16	mg/l(*1)
Category 05A	0.11	mg/l
Category 06A	0.16	mg/l(*1)
Category 07A(109)	0.16	mg/l(*1)
Outfall 051	<0.03	mg/l
Outfall 128	0.06	mg/l
Outfall 01S	0.02	mg/l
Outfall 02S	0.09	mg/l
Outfall 03S	0.12	mg/l
Outfall 04S	<0.03	mg/l
Outfall 05S	0.09	mg/l
Outfall 07S	0.16	mg/l(*1)
Outfall 09S	0.02	mg/l
Outfall 10S	0.05	mg/l
Outfall 12S	N/A	(*1)
Outfall 13S	0.02	mg/l

(*1) WQ requirents applicable

Total Ammonia (as N)

WQ level(*2)	1.0	mg/l
Outfall 001	<0.1	mg/l
Outfall 02A	0.27	mg/l
Outfall 03A	<0.01	mg/l
Outfall 04A	<0.10	mg/l
Outfall 05A	0.43	mg/l
Outfall 06A	7.5	mg/l(*1)
Outfall 07A(109)	<0.10	mg/l
Outfall 051	13.6	mg/l(*1)
Outfall 128	<0.091	mg/l
Outfall 01S	11.9	mg/l(*1)
Outfall 02S	0.47	mg/l
Outfall 03S	<0.10	mg/l
Outfall 04S	3.3	mg/l(*1)
Outfall 05S	1.8	mg/l(*1)
Outfall 07S	1.4	mg/l(*1)
Outfall 09S	3.9	mg/l(*1)
Outfall 10S	15.4	mg/l(*1)
Outfall 12S	N/A	mg/l(*1)
Outfall 13S	11.9	mg/l(*1)

(*1) WQ requirements apply

(*2) Total Ammonia (as N) at pH = 7.5 s.u. and temperature of 30 deg. C.

Nitrate (as N)

WQ level	10.0	mg/l
Outfall 001	0.517	mg/l
Category 02A	2.99	mg/l
Category 03A	1.13	mg/l
Category 04A	0.304	mg/l
Category 05A	0.985	mg/l
Category 06A	0.357	mg/l
Category 07A(109)	0.304	mg/l

Outfall 051	13.6 mg/l(*1)
Outfall 128	<0.091 mg/l
Outfall 01S	28.2 mg/l(*1)
Outfall 02S	482 mg/l(*1)
Outfall 03S	4.26 mg/l
Outfall 04S	1.38 mg/l
Outfall 05S	20 mg/l(*1)
Outfall 07S	57.2 mg/l(*1)
Outfall 09S	1.15 mg/l
Outfall 10S	16.1 mg/l(*1)
Outfall 12S	N/A (*1)
Outfall 13S	28.2 mg/l(*1)
Outfall 07S	

(*1) WQ requirements apply

Nitrogen (TIN)

WQ level	1.0 mg/l
Outfall 001	<0.5 mg/l
Category 02A	2.0 mg/l(*1)
Category 03A	2.3 mg/l(*1)
Category 04A	<0.5 mg/l
Category 05A	27.4 mg/l(*1)
Category 06A	15.6 mg/l(*1)
Category 07A(109)	<0.5 mg/l
Outfall 051	14.3 mg/l(*1)
Outfall 128	<0.5 mg/l
Outfall 01S	13.1 mg/l(*1)
Outfall 02S	0.50 mg/l
Outfall 03S	<0.5 mg/l
Outfall 04S	19.6 mg/l(*1)
Outfall 05S	15.9 mg/l(*1)
Outfall 07S	6.1 mg/l(*1)
Outfall 09S	29.6 mg/l(*1)
Outfall 10S	9.9 mg/l(*1)
Outfall 12S	N/A (*1)
Outfall 13S	13.1 mg/l(*1)

(*1) WQ requirements apply

Total Phosphorus (as P)

WQ level	0.10 mg/l
Outfall 001	0.076 mg/l
Category 02A	9.3 mg/l(*1)
Category 03A	0.306 mg/l(*1)
Category 04A	0.05 mg/l
Category 05A	0.07 mg/l
Category 06A	0.156 mg/l(*1)
Category 07A(109)	0.05 mg/l
Outfall 051	0.17 mg/l(*1)
Outfall 128	0.02 mg/l
Outfall 01S	12 mg/l(*1)
Outfall 02S	0.95 mg/l(*1)
Outfall 03S	1.12 mg/l(*1)
Outfall 04S	3.9 mg/l(*1)
Outfall 05S	5.8 mg/l(*1)
Outfall 07S	3.89 mg/l(*1)
Outfall 09S	1.67 mg/l(*1)
Outfall 10S	1.99 mg/l(*1)
Outfall 12S	N/A (*1)

Outfall 13S 12 mg/l(*1)

(*1) WQ requirements apply

Radium-226 + Radium-228

WQS level	30 pCi/l
Outfall 001	0.05 pCi/l
Category 02A	0.12 pCi/l
Category 03A	0.07 pCi/l
Category 04A	0.06 pCi/l
Category 05A	0.04 pCi/l
Category 06A	0.05 pCi/l
Category 07A(109)	0.06 pCi/l
Outfall 051	0.33 pCi/l
Outfall 128	0.05 pCi/l
Outfall 01S	0.18 pCi/l
Outfall 02S	0.04 pCi/l
Outfall 03S	0.06 pCi/l
Outfall 04S	0.09 pCi/l
Outfall 05S	0.11 pCi/l
Outfall 07S	0.15 pCi/l
Outfall 09S	(*1)
Outfall 10S	0.05 pCi/l
Outfall 12S	N/A
Outfall 13S	0.18 pCi/l

(*1) Believed absent

Total Selenium

WQS level	0.005 mg/l
Outfall 001	<0.001 mg/l
Category 02A	0.0026 mg/l
Category 03A	<0.001 mg/l
Category 04A	<0.001 mg/l
Category 05A	<0.001 mg/l
Category 06A	0.001 mg/l
Category 07A(109)	<0.001 mg/l
Outfall 051	<0.001 mg/l
Outfall 128	<0.001 mg/l
Outfall 01S	0.0018 mg/l
Outfall 02S	0.001 mg/l
Outfall 03S	<0.001 mg/l
Outfall 04S	<0.001 mg/l
Outfall 05S	<0.001 mg/l
Outfall 07S	<0.001 mg/l
Outfall 09S	<0.001 mg/l
Outfall 10S	<0.001 mg/l
Outfall 12S	N/A (*1)
Outfall 13S	0.0018 mg/l

(*1) WQ requirements applicable

Total Silver

WQS level	0.00012 mg/l
Outfall 001	<0.01 mg/l (*1)
Category 02A	<0.01 mg/l (*1)

Category 03A	<0.01	mg/l	(*1)
Category 04A	0.045	mg/l	(*1)
Category 05A	<0.01	mg/l	(*1)
Category 06A	0.472	mg/l	(*1)
Category 07A(109)	0.045	mg/l	(*1)
Outfall 051	<0.01	mg/l	(*1)
Outfall 128	<0.01	mg/l	(*1)
Outfall 01S	0.250	mg/l	(*1)
Outfall 02S	<0.01	mg/l	(*1)
Outfall 03S	<0.01	mg/l	(*1)
Outfall 04S	<0.01	mg/l	(*1)
Outfall 05S	<0.01	mg/l	(*1)
Outfall 07S	<0.01	mg/l	(*1)
Outfall 09S	<0.01	mg/l	(*1)
Outfall 10S	<0.01	mg/l	(*1)
Outfall 12S	N/A		(*1)
Outfall 13S	0.250	mg/l	(*1)

(*1) WQ requires applicable

Tritium(*1)

WQS level	20,000	pCi/l
Outfall 001	(*2)	
Category 02A	(*2)	
Category 03A	(*2)	
Category 04A	(*2)	
Category 05A	(*2)	
Category 06A	(*2)	
Category 07A(109)	(*2)	
Outfall 051	590,000	pCi/l (*3)
Outfall 128	(*2)	
Outfall 01S	(*2)	
Outfall 02S	(*2)	
Outfall 03S	(*2)	
Outfall 04S	(*2)	
Outfall 05S	(*2)	
Outfall 07S	(*2)	
Outfall 09S	230,000	pCi/l (*4)(*5)
Outfall 10S	(*2)	
Outfall 12S	(*2)	
Outfall 13S	(*2)	

- (*1) When accelerator produced.
- (*2) Not reported in application.
- (*5) WQ requirements applicable.

- (*3) Reactor produced.
- (*4) Accelerator produced.

Total Organic Carbon

WQ level	7.0	mg/l
Outfall 001	2.2	mg/l
Category 02A	14.5	mg/l
Category 03A	7.4	mg/l (*1)
Category 04A	0.50	mg/l
Category 05A	8.8	mg/l (*1)
Category 06A	6.1	mg/l
Category 07A(109)	0.50	mg/l
Outfall 051	54.7	mg/l (*1)
Outfall 128	0.70	mg/l
Outfall 01S	21.3	mg/l (*1)
Outfall 02S	5.7	mg/l
Outfall 03S	4.3	mg/l

Outfall 04S	44.0 mg/l(*1)
Outfall 05S	10.3 mg/l(*1)
Outfall 07S	19.6 mg/l(*1)
Outfall 09S	98 mg/l(*1)
Outfall 10S	12.7 mg/l(*1)
Outfall 12S	N/A (*1)
Outfall 13S	21.3 mg/l(*1)

(*1) WQ requirements apply

Total Uranium (if naturally occurring)

WQ level	5.0 mg/l
Outfall 001	N/A (*1)
Category 02A	N/A (*1)
Category 03A	N/A (*1)
Category 04A	N/A (*1)
Category 05A	N/A (*1)
Category 06A	N/A (*1)
Category 07A(109)	N/A (*1)
Outfall 051	N/A (*1)
Outfall 128	N/A (*1)
Outfall 01S	N/A (*1)
Outfall 02S	N/A (*1)
Outfall 03S	N/A (*1)
Outfall 04S	N/A (*1)
Outfall 05S	N/A (*1)
Outfall 07S	N/A (*1)
Outfall 09S	N/A (*1)
Outfall 10S	N/A (*1)
Outfall 12S	N/A (*1)
Outfall 13S	N/A (*1)

(*1) WQ requirents apply if naturally occurring and a pollutant under 40 CFR 122.2.

Total Vanadium

WQS level	0.10 mg/l
Outfall 001	N/A (*1)
Category 02A	N/A (*1)
Category 03A	N/A (*1)
Category 04A	N/A (*1)
Category 05A	N/A (*1)
Category 06A	N/A (*1)
Category 07A(109)	N/A (*1)
Outfall 051	N/A (*1)
Outfall 128	N/A (*1)
Outfall 01S	N/A (*1)
Outfall 02S	N/A (*1)
Outfall 03S	N/A (*1)
Outfall 04S	N/A (*1)
Outfall 05S	N/A (*1)
Outfall 07S	N/A (*1)
Outfall 09S	N/A (*1)
Outfall 10S	N/A (*1)
Outfall 12S	N/A (*1)
Outfall 13S	N/A (*1)

(*1) WQ requirements applicable

Total Zinc

WQS level	0.1207 mg/l
Outfall 001	0.033 mg/l
Category 02A	0.097 mg/l
Category 03A	0.071 mg/l
Category 04A	1.4 mg/l (*1)
Category 05A	0.097 mg/l
Category 06A	<0.045 mg/l
Category 07A(109)	1.4 mg/l (*1)
Outfall 051	0.032 mg/l
Outfall 128	0.021 mg/l
Outfall 01S	0.28 mg/l (*1)
Outfall 02S	0.056 mg/l
Outfall 03S	0.041 mg/l
Outfall 04S	0.064 mg/l
Outfall 05S	0.21 mg/l (*1)
Outfall 07S	0.040 mg/l
Outfall 09S	0.19 mg/l (*1)
Outfall 10S	0.087 mg/l
Outfall 12S	N/A (*1)
Outfall 13S	0.28 mg/l (*1)

(*1) WQ requirements applicable

ISSUE NO. 2

As a condition of certification, NMED requires that fecal coliform effluent limitations must be included in the permit at all outfalls discharging sanitary wastewater.

RESPONSE NO. 2

EPA has included these requirements with a schedule of compliance in accordance with 40 CFR 122.47. The Federal Facilities Compliance Agreement (FFCA) is in a state of transition and may require modification to conform with this final permit.

ISSUE NO. 3

As a condition of certification, NMED requires that Chemical Oxygen Demand (COD) effluent limitations of 125 mg/l be included in the permit for those outfalls which exhibited COD values in excess of this value in samples taken either for the permit application or for past DMRs. These categories should include, but are not limited to 051, 045, 055, 094 and other categories which have a probability of exceeding this value.

RESPONSE NO. 3

EPA has included these requirements for appropriate outfalls and/or categories with a schedule of compliance in accordance with 40 CFR 122.47.

Chemical Oxygen Demand (COD) Limited Outfalls or Categories

NM regulation level	125 mg/l
Outfall 001	19 mg/l
Category 02A	47 mg/l
Category 03A	42 mg/l(*1)
Category 04A	380.5 mg/l(*1)
Category 05A	32.5 mg/l(*1)

Category 06A	35 mg/l
Category 07A(109)	380.5 mg/l(*1)
Outfall 051	192.5 mg/l(*1)
Outfall 128	<10 mg/l(*1)
Outfall 01S	2.11 mg/l
Outfall 02S	<10 mg/l
Outfall 03S	<10 mg/l
Outfall 04S	231 mg/l(*1)
Outfall 05S	357.5 mg/l(*1)
Outfall 07S	64 mg/l
Outfall 09S	460 mg/l(*1)
Outfall 10S	63.5 mg/l
Outfall 12S	N/A
Outfall 13S	2.11 mg/l

(*1) Effluent limited to 125 mg/l daily average and daily maximum.

ISSUE NO. 4

As a condition of certification, NMED requires that BOD5 and TSS effluent limits be included at Outfall 12S. NMED states that mass-based effluent limits are required for NPDES permits at 40 CFR 122.45; and mass-based limits should be calculated using "long term daily average" and "design maximum" flows at this facility.

RESPONSE NO. 4

EPA does not agree that 40 CFR 122.45 requires mass based effluent limits under all conditions. This is a zero discharge outfall under normal conditions. 40 CFR 122.45(f)(iii) provides for this exception. Furthermore, "long term daily average" and "design maximum" flows are not appropriate criteria for establishing mass limits at this facility. For sanitary waste outfalls at non-POTW facilities such as this, "daily average" flow (which is zero at most times for this source) is the appropriate production based criteria. Design flow is only appropriate for POTWs. However, EPA has incorporated provisions for limiting daily average mass limits at Outfall 12S as "Actual Daily Avg. MGD x 8.34 x daily average concentration limit."

ISSUE NO. 5

As a condition of certification, NMED requires that radium, tritium or other naturally occurring and accelerator produced radiological contaminants be included for appropriate outfalls. This includes tritium at 20,000 pCi/l for Outfall 09S and 051.

RESPONSE NO. 5

EPA has included these with other WQS at appropriate outfalls, and with a schedule of compliance in accordance with 40 CFR 122.47.

ISSUE NO. 6

As a comment, NMED recommends that effluent monitoring frequencies be increased for certain outfalls and has provided a copy of a monitoring plan which outlines what the State believes would be appropriate frequencies for each category.

RESPONSE NO. 6

EPA has reviewed the monitoring plan. We agree that this plan has merit and appreciate the recommendations. However, we do not wish to increase the complexity of the permit until the the waste stream categorization studies have been completed and have established the specific outfalls of concern.

ISSUE NO. 7

As a comment the NMED recommends that the permit should include specific language which requires all sampling to be representative of the nature and amount of "normal" discharges from all outfalls.

RESPONSE NO. 7

This is addressed in the standard language of Part III, under Section C.2.

ISSUE NO. 8

As a comment the NMED proposes that separate monitoring and reporting be required at Outfalls 050 and 051 for nitrate + nitrite (as N) and total nitrogen (as N) at 1/month.

RESPONSE NO. 8

The permittee has requested elimination of Outfall 050. The draft permit requires separate monitoring and reporting at 1/month for both nitrate + nitrite (as N) and total nitrogen (as N) for Outfall 051.

ISSUE NO. 9

As a comment the NMED states that the permit should require that radionuclides be monitored and reported for all outfalls which may discharge wastewater from activities involving radioactive materials which can be regulated under the definition of pollutant at 40 CFR 122.2.

RESPONSE NO. 9

This has been done where appropriate.

ISSUE No. 10

The NMED comments that the exact sampling locations specified for a number of outfalls is unclear and that the permit should, as a minimum clarify that sample collection sites must be located at the facility outfall prior to mixing with any additional waste stream.

RESPONSE No. 10

The permit specifies for each outfall that "Samples taken in compliance" be taken prior to discharge from that outfall. Part III.C.2. requires that "Samples and measurements taken for the purposes of monitoring shall be representative of the monitored activity."

ISSUE NO. 11

NMED believes that additional effluent limitations may be needed at Outfall 01S to address other types of sources (other than sanitary wastes) which may contribute to the final outfall.

RESPONSE NO. 11

EPA has evaluated each parameter which NMED has specified for each outfall or category and applied the appropriate limitations where application information indicates that these have probability to be exceeded. In effect, this matter has been addressed in the final permit.

ISSUE NO. 12

NMED recommends that LANL be given additional time to submit DMRs; and has suggested that this time be extended from "within 15 days of the end of the monthly reporting period" to "within 30 days of the end of the monthly reporting period."

RESPONSE NO. 12

The "28th day" is allowed based on the month of February.

ISSUE NO. 13

The LANL objects to effluent limits for Free Available Chlorine of 0.5 mg/l daily maximum and 0.2 mg/l daily average for Outfalls 001 and Category 03A.

RESPONSE NO. 13

These are technology limits which are contained in the present expired permit. These limits are retained.

ISSUE NO. 14

The LANL objects to the sludge requirements addressed in Paragraph K of Part III and believes that these requirements are not applicable to Laboratory discharges. LANL requests that these requirements be eliminated from sanitary outfalls 01S, 05S, and 13S. The LANL believes that these requirements do not apply because LANL is not classified as a municipal facility; and cites Page 333, 40 CFR 257.1(c)(6) which states "The criteria do not apply to industrial discharges which are point sources subject to permits under section 402 of the Clean Water Act as amended."

RESPONSE NO. 14

Outfalls 01S, 05S and 13S are not industrial discharges. These are domestic discharges associated with a non-municipal facility. It is the position of the EPA staff that 40 CFR 257 is applicable to the sludges that the LANL sanitary sources produce; and the final sludge regulations under 40 CFR 503 apply.

ISSUE NO. 15

LANL requests that the total phosphorus limit be removed from Category 03A because sanitary wastewater effluent which will be used for cooling tower makeup water contains phosphorus which is not limited under secondary treatment regulations.

RESPONSE NO. 15

At the request of LANL, total phosphorus limits of 5 mg/l daily average and daily maximum as contained in the present expired permit were increased to 20 mg/l daily average and 40 mg/l daily maximum to allow the use of sanitary wastewater effluent for cooling tower makeup. Total phosphorus limits have been applied for technology under best professional judgment. Furthermore, the reapplication shows that total phosphorus daily maximum concentration levels for the sanitary outfalls are far below the 40 mg/l level limited by the permit.

ISSUE NO. 16

LANL requests that fecal coliform monitoring and reporting for Outfalls 02S, 03S, 04S, 07S 09S 10S and 12S be removed since these outfalls are to be eliminated.

RESPONSE NO. 16

The NMED has specified as a condition of certification that these fecal coliform limitations be applied immediately to these outfalls, even though no chlorination provisions exist at those outfalls scheduled to be eliminated. However, EPA has incorporated a compliance schedule which requires that fecal coliform limits be incorporated by May 30, 1994, if these outfalls have not been eliminated. In the meantime, monitoring and reporting requirements are continued at these outfalls for fecal coliform.

ISSUE NO. 17

LANL requests the inclusion of the Fenton Hill outfall in this permit.

RESPONSE NO. 17

The Fenton Hill activity is a remote project and will be retained under a separate permit.

ISSUE NO. 18

LANL requests that the University of California (UC) be included as a party to the Federal Facility Compliance Agreement (FFCA).

RESPONSE NO. 18

This request has been referred to enforcement.

ISSUE NO. 19

LANL requests that de minimus quantities from permitted and unpermitted discharges be addressed as a category in the permit to prevent unwarranted enforcement action by EPA.

RESPONSE NO. 19

If de minimus quantities are associated with a permitted outfall these are included in the outfall limitations based on the application data provided by LANL. If these have not been addressed in the application, enforcement action may be appropriate.

ISSUE NO. 20

LANL believes that the Fact Sheet did not provide sufficient information relative to technology levels which have been continued in the permit.

RESPONSE NO. 20

These technology limits were developed in the previous three permit reissuance processes. LANL should refer back to the Fact Sheets which accompanied these reissuances. EPA does not normally redevelop or explain the basis for technology limits each time the permit is reissued.

ISSUE NO. 21

LANL requests that Outfall 050 be deleted from the permit.

RESPONSE NO. 21

EPA has deleted Outfall 050 from the permit.

ISSUE NO. 22

LANL requested that the permit expiration date be October 1, 1997.

RESPONSE NO. 22

The expiration date is revised to October 1, 1997.

ISSUE NO. 23

LANL requests continuation of the Additional or Deleted Outfalls provisions.

RESPONSE NO. 23

The NMED has continued to raise objections to the Additional Outfalls provisions and EPA has removed this from the permit. LANL is free to delete outfalls as appropriate

ISSUE NO. 24

LANL requests additional time for submission of DMRs until "no later than the 30th day of the month following the completed reporting period."

RESPONSE NO. 24

EPA agrees to the "28th day" since February is the limiting month.

ISSUE NO. 25

Various parties have requested a public hearing to discuss water "uses" applicable to the LANL facility. The Burnett Law Firm, on behalf of Concerned Citizens for Nuclear Safety (CCNS), expressed concern for the incorporation of wildlife watering criteria into the permit, "despite the State's failure to designate segments or uses for LANL's receiving waters." CCNS states: "According to state regulations, EPA must apply general standards to undesignated receiving waters. In the absence of a designated use for such receiving waters, the general standards require the EPA to apply the criteria for the highest possible existing or attainable use, in this case, the protection of aquatic life. Moreover, the EPA must apply a safety factor to the aquatic life criteria (e.g., 5% of the LC-50, unless the pollutant bioaccumulates, in which case, 1% of the LC-50), as well as take into account pollutant contributions from upstream discharges, in order to derive the appropriate effluent limits. CCNS questions whether the EPA is authorized to incorporate less stringent criteria into the permit in contravention of federally-approved state water quality standards crafted to protect the public health and environment."

However, the All Indian Pueblo Council (AIPC) requests a Public Meeting to resolve "designated uses of the streams into which the discharges will occur, and the quantitative descriptions of the proposed discharges." AIPC believes "that within the territorial jurisdiction of the Pueblos, the designated uses of the streams into which the discharges enter directly, or subsequently flow into, must be set by the Pueblos." The same position is presented by the Santa Clara and the San Ildefonso Indian Pueblos.

RESPONSE NO. 25

The CCNS is correct. There are no designated uses for the LANL receiving streams under the present NM WQS. However, the EPA incorporates whatever conditions the NMED certifies under WQS for these ephemeral streams. The NMED initially certified limitations under the general standards of the New Mexico WQS but has subsequently modified the initial certification. EPA has incorporated in this permit the limitations finally certified by the NMED at 100% effluent. No EPA approved WQS presently exist for the Pueblos. Therefore, this issue is moot relative to this permit.

ISSUE NO. 26

LANL questions the application of limiting and monitoring for outfalls under standard categories.

RESPONSE NO. 26

Each outfall under a standard category is to be individually limited and monitored. This clarification is now specified in the permit where applicable.

Issue No. 27

CCNS has requested a public hearing to consider storm water discharges at LANL.

Response No. 27

This matter is not relevant to this permit. Applications were not yet due for these storm water sources which will be the subject of another permit or a later revision to this permit. The storm water discharges will initially be covered under the general permit.