



BRUCE KING
GOVERNOR

Permit

State of New Mexico

ENVIRONMENT DEPARTMENT

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SECRETARY

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Certified Mail

September 11, 1992

Myron O. Knudson, P.E.
Director, Water Management Division (6W)
U.S. Environmental Protection Agency
1445 Ross Ave.
Dallas, Texas 75202-2733

Re: NPDES Permit NM0023855 - DOE/UC Los Alamos National Laboratory

Dear Mr. Knudson:

We would again like to thank you for the opportunity to meet with you and your staff in Dallas on August 13, 1992, to discuss the referenced NPDES permit. In your August 24, 1992 letter you indicated the Environmental Protection Agency had reopened the certification period to allow the State to reconsider the Table of WQS in the July 16, 1992 CONDITIONS OF STATE CERTIFICATION.

In the State's July 16, 1992 letter to you we expressed our concern over the probability of debate over correct listing of designated uses of the receiving streams. For this reason, and the fact that a two year permit was being proposed, it was determined that the best course of action to allow prompt issuance of the two year permit was to rely solely on the general standards of *Water Quality Standards for Interstate and Intrastate Streams in New Mexico* (WQS) since they are universally applicable. In our letter the State indicated that it did not dismiss its previous position regarding the need to protect for all designated uses for the stream segments (i.e., one designated use could not be protected and others ignored). EPA had taken the position in the proposed permit package that the discharge from this facility was to segments 2-111 and 2-118 specified in the WQS as it has done historically (see attachments showing historical EPA determinations), but proposed to only protect the livestock and wildlife watering use.

At your request we have reviewed the Table of WQS in the July 16, 1992 certification and have determined that the table should be



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based upon the water quality standards adopted for all designated uses as specified in Sections 2-11 and 2-118 of the WQS. A copy of the revised tables are included in this letter and are to be considered our revised conditions of state certification and are presented for the following reasons:

The NPDES permit application indicates that priority or toxic pollutants and radiological substances exist in discharges from numerous outfalls in concentrations which may be detrimental to the ecological conditions of the receiving waters. In keeping with EPA's "Third Round permitting policy" and Clean Water Act §101.(a)(3) as well as the State's implementation of water quality standards, the State has evaluated the permit for limiting these pollutants to acceptable levels. Based upon this review a condition for appropriate permit limits is made through application of §§1-102. A-L, 2-111, 2-118, and 3-101 of *Water Quality Standards for Interstate and Intrastate Streams in New Mexico* as amended October 8, 1991, and effective November 12, 1991. These water quality standards have been adopted by the State of New Mexico as required by §303 of the federal Clean Water Act and in accordance with the New Mexico Water Quality Act (NMSA 1978). This condition is necessary to protect the State's water quality standards.

Any outfall, described in the application, or any outfall for which EPA has other reason to believe, discharges effluent with concentrations of a pollutant listed in the following table at or above the concentration listed shall be limited through a daily maximum effluent limit based upon the numeric water quality standard specified in the table below. Effluent limitations based upon the standards provided must be calculated in accordance with EPA practice and the New Mexico Interim Guidance for Implementation of Water Quality Standards through National Pollutant Discharge Elimination System Permits provided to EPA by NMED letter to Mr. Jack Ferguson June 25, 1991. In cases of non-perennial streams, the water quality standard will effectively be the effluent limit as the critical low flow (4Q3) will be zero (see also WQS §1-105.B). If the pollutant concentration reported in the permit application or other documentation is greater than the numeric WQS in the table or is reported as "less than" a detection limit which is greater than the "minimum quantifiable level" (MQL) established by EPA Region VI, then an effluent limit must be included in the permit. If a reported concentration is both less than the established WQS and EPA MQL, no limit will be

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required as a condition to this certification. If the calculated effluent limitation is less than the MQL set by EPA, the ED agrees to allow limits which reflect the MQL. However, if these MQLs change during the term of the proposed permit, the permit limits must change accordingly. Please use the same language which has been developed by NMED and EPA for chlorine limitations in municipal NPDES permits where this problem arises.

The following is the revised Table of WQS. All values are total. Where partition coefficients are available for conversion of dissolved numeric water quality standards to total values, they have been employed in conformance with the June 25, 1991, "New Mexico Interim Guidance for Implementation of Water Quality Standards through NPDES permits." The hardness and TSS values utilized to "adjust" the standards are based upon samples collected by NMED and LANL May 5-7, 1992. Samples collected at Los Alamos Reservoir represent background for segment 2-118. The average of samples collected by both agencies at Water Canyon above St. Rd. 4, Pajarito Canyon at St. Rd. 4, and Valle Canyon above St. Rd. 4 represent background for segment 2-111.

The tritium value is based upon *EPA Water Quality Criteria 1972* (a.k.a.: the "Bluebook") recommendation to apply human drinking water standards. The State has codified these requirements at § 207 *NM Environmental Improvement Board Water Supply Regulations*.

Please note that because these effluent limits are based on new water quality standards section 1-106.D. of the WQS is applicable and compliance schedules may be developed "for the purpose of providing a permittee with adequate time to make treatment facility modifications necessary to implement new or revised water quality standards."

A table is also provided to detail which outfall are to be categorized into each stream segment.

Parameter	Segment 2-111 ¹	Segment 2-118 ²
Aluminum	87.0 µg/l	87.0 µg/l
Arsenic	0.04 mg/l	0.04 mg/l
Barium	n/a	1.0 mg/l
Beryllium	5.3 µg/l	5.3 µg/l
Boron	0.75 mg/l	0.75 mg/l
Cadmium	2.2 µg/l	1.4 µg/l
Chlordane	0.0043 µg/l	0.0043 µg/l
Chlorine	0.004 mg/l	0.002 mg/l ³
Chromium	0.51 mg/l	0.253 mg/l
Cobalt	0.05 mg/l	0.05 mg/l
Copper	17.8 µg/l	10.8 µg/l
Cyanide	5.2 µg/l	5.2 µg/l
Lead	4.1 µg/l	2.0 µg/l
Mercury	0.012 µg/l	0.012 µg/l
Nickel	198.3 µg/l	121.2 µg/l
NH3 as N	0.03 mg/l	0.02 mg/l
Nitrate as N	n/a	10.0 mg/l
Nitrogen (TIN)	n/a	1.0 mg/l
Phosphorus	n/a	0.10 mg/l
Radium 226 + 228	30.0 pCi/l	30.0 pCi/l
Selenium	5.0 µg/l	5.0 µg/l
Silver	0.12 µg/l	0.12 µg/l
Tritium ⁴	20,000 pCi/l	20,000 pCi/l
Tot. Organic Carbon	n/a	7.0 mg/l
Uranium	n/a	5.0 mg/l
Vanadium	0.10 mg/l	0.10 mg/l
Zinc	197.6 µg/l	120.7 µg/l

¹Standards adjusted as necessary to TSS=15.3 mg/l, hardness 47.7mg/l

²Standards adjusted as necessary to TSS=15 mg/l, hardness=24 mg/l

³Based upon more stringent number in WQS §2-118.B.

⁴Where it meets def. of pollutant @ 40 CFR 122.2

Handwritten notes:
 this is 47.7
 should be 42.7
 3/15/93

OUTFALL	DRAINAGE	SEGMENT
01A-001	SANDIA	2-111
02A-007	TRIB. TO VALLE	2-111
02A-129	LOS ALAMOS	2-118
03A-009	TWO MILE	2-111
03A-020	LOS ALAMOS	2-118
03A-021	MORTANDAD	2-111
03A-022	MORTANDAD	2-111
03A-023	TRIB. TO SANDIA	2-111
03A-024	TRIB. TO SANDIA	2-111
03A-025	TWO MILE	2-111
03A-027	TRIB. TO SANDIA	2-111
03A-028	TRIB. TO WATER	2-111
03A-031	TRIB. TO LOS ALAMOS	2-118
03A-032	LOS ALAMOS	2-118
03A-034	LOS ALAMOS	2-118
03A-035	LOS ALAMOS	2-118
03A-036	TRIB. TO LOS ALAMOS	2-118
03A-037	LOS ALAMOS	2-118
03A-038	TRIB. TO CHAQUEHUI	2-111
03A-040	LOS ALAMOS	2-118
03A-042	TRIB. TO CANADA	2-111
03A-043	TRIB. TO CANADA	2-111
03A-045	TRIB. TO MORTANDAD	2-111
03A-047	LOS ALAMOS	2-118
03A-048	LOS ALAMOS	2-118
03A-049	LOS ALAMOS	2-118
03A-060	TRIB. TO WATER	2-111
03A-092	UNKNOWN	?
03A-098	TWO MILE	2-111
03A-113	TRIB. TO SANDIA	2-111
03A-114	SANDIA	2-111

OUTFALL	DRAINAGE	SEGMENT
03A-124	TRIB. TO CANADA	2-111
03A-125	TRIB. TO SANDIA	2-111
03A-130	TRIB. TO WATER	2-111
03A-136	TRIB. TO CANADA	2-111
03A-145	TRIB. TO SANDIA	2-111
03A-146	SANDIA	2-111
03A-148	TRIB. TO SANDIA	2-111
03A-158	LOS ALAMOS	2-118
03A-160	TRIB. TO MORTANDAD	2-111
03A-181	MORTANDAD	2-111
04A-013	TRIB. TO CANADA	2-111
04A-014	TRIB. TO CANADA	2-111
04A-016	TRIB. TO MORTANDAD	2-111
04A-018	TRIB. TO CANADA	2-111
04A-070	VALLE	2-111
04A-083	TRIB. TO WATER	2-111
04A-091	TRIB. TO WATER	2-111
04A-092	WATER	2-111
04A-093	TRIB. TO VALLE	2-111
04A-094	TRIB. TO SANDIA	2-111
04A-101	PAJARITO	2-111
04A-109	SANDIA	2-111
04A-115	TRIB. TO PAJARITO	2-111
04A-117	TRIB. TO CANADA	2-111
04A-118	TRIB. TO CANADA	2-111
04A-126	TRIB. TO MORTANDAD	2-111
04A-127	TRIB. TO MORTANDAD	2-111
04A-131	TRIB. TO MORTANDAD	2-111
04A-133	SANDIA	2-111
04A-135	SANDIA	2-111
04A-137	TRIB. TO MORTANDAD	2-111

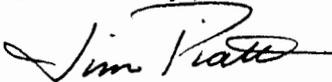
OUTFALL	DRAINAGE	SEGMENT
04A-139	TRIB. TO WATER	2-111
04A-141	TRIB. TO ANCHO	2-111
04A-142	LOS ALAMOS	2-118
04A-143	TRIB. TO 3 MILE CYN THENCE PAJARITO	2-111
04A-147	TRIB. TO CHAQUEHUI	2-111
04A-151	TRIB. TO SANDIA	2-111
04A-152	TRIB. TO MORTANDAD	2-111
04A-153	TRIB. TO MORTANDAD	2-111
04A-155	TRIB. TO PAJARITO	2-111
04A-156	TRIB. TO ANCHO	2-111
04A-157	TRIB. TO WATER	2-111
04A-161	PUEBLO	2-111
04A-163	SANDIA	2-111
04A-164	PAJARITO	2-111
04A-165	SANDIA	2-111
04A-166	CANADA	2-111
04A-168	LOS ALAMOS	2-118
04A-171	GUAJE	
04A-172	GUAJE	
04A-173	GUAJE	
04A-174	GUAJE	
04A-175	GUAJE	
04A-176	RENDIJA	
04A-177	GUAJA	
04A-178	LOS ALAMOS	2-118
04A-179	PAJARITO	2-111
04A-180	LOS ALAMOS	2-118
04A-182	LOS ALAMOS	2-118
05A-052	WATER	2-111
05A-053	TRIB. TO WATER	2-111
05A-054	TRIB. TO VALLE	2-111

OUTFALL	DRAINAGE	SEGMENT
05A-055	TRIB. TO VALLE	2-111
05A-056	VALLE	2-111
05A-057	VALLE	2-111
05A-058	TRIB. TO WATER	2-111
05A-061	TRIB. TO VALLE	2-111
05A-062	TRIB. TO VALLE	2-111
05A-063	VALLE	2-111
05A-066	TRIB. TO PAJARITO	2-111
05A-067	TRIB. TO PAJARITO	2-111
05A-068	TRIB. TO PAJARITO	2-111
05A-069	TRIB. TO WATER	2-111
05A-071	TRIB. TO WATER	2-111
05A-072	TRIB. TO WATER	2-111
05A-096	TRIB. TO WATER	2-111
05A-097	TRIB. TO WATER	2-111
05A-149	TRIB. TO VALLE	2-111
05A-154	TWO MILE	2-111
05A-159	TRIB. TO WATER	2-111
06A-073	VALLE	2-111
06A-074	TRIB. TO PAJARITO	2-111
06A-075	TRIB. TO PAJARITO	2-111
06A-078	TWO MILE	2-111
06A-079	UNKNOWN	?
06A-080	PAJARITO	2-111
06A-081	PAJARITO	2-111
06A-082	PAJARITO	2-111
06A-099	TRIB. TO TWO MILE THENCE PAJARITO	2-111
06A-100	PAJARITO	2-111
06A-106	TRIB. TO THREE MILE THENCE PAJARITO	2-111
06A-123	VALLE	2-111
06A-132	TRIB. TO MORTANDAD	2-111

OUTFALL	DRAINAGE	SEGMENT
051-051	TRIB. TO MORTANDAD	2-111
128-128	TWO MILE	2-111
01S	SANDIA	2-111
02S	SANDIA	2-111
03S	TRIB. TO WATER	2-111
04S	PAJARITO	2-111
05S	LOS ALAMOS	2-118
07S	TRIB. TO CANADA DEL BUEY	2-111
09S	TRIB. TO LOS ALAMOS	2-118
10S	TRIB. TO MORTANDAD	2-111
12S	TRIB. TO CANADA DEL BUEY	2-111
13S	TRIB. TO CANADA DEL BUEY	2-111

If you have any questions regarding this matter, please contact me at (505) 827-0187 or Glenn Saums of my staff at (505) 827-2827.

Sincerely,



Jim Piatt
Chief
Surface Water Quality Bureau

cc:

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