

Permit

Los Alamos

NATIONAL LABORATORY

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

Date: March 28, 2000
In Reply Refer To: ESH-18/WQ&H:00-0119
Mail Stop: K497
Telephone: (505) 665-1859

COPY

Ms. Evelyn Rosborough
Customer Service Branch (6WQ-CA)
Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

**SUBJECT: ADDITIONAL COMMENTS ON DRAFT NPDES PERMIT NO. NM0028355
AND FACT SHEET**

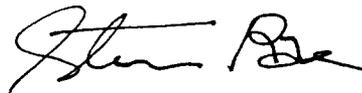
Dear Ms. Rosborough:

On February 28, 2000, Los Alamos National Laboratory provided comments on the draft National Pollutant Discharge Elimination System (NPDES) Permit No. NM0028355 and Fact Sheet, dated January 29, 2000. On February 29, 2000, the Laboratory requested a 30-day extension in order to make minor changes to the Laboratory's original comments, provide additional information, and to schedule a meeting with the New Mexico Environment Department to resolve outstanding issues regarding the draft NPDES Permit. EPA granted the request for extension on March 2, 2000 (See Enclosure 1). Provided as Enclosure 2 is additional comments from the University of California and the Department of Energy, Los Alamos Area Office. Please enter these additional comments, along with this letter, into the record of proceedings for NPDES Permit No. NM0028355.

The Laboratory respectfully requests that EPA considers these additional comments along with the original comments, and revise the indicated terms and conditions of the final permit. Please be assured that the Laboratory is fully committed to comply with all requirements set forth in the final NPDES Permit.

The Laboratory appreciates the opportunity to comment on the draft permit and fact sheet. Please contact Mike Saladen (505)665-6085 or Tina Marie Sandoval (505)665-2288 of the Laboratory's Water Quality and Hydrology Group (ESH-18) if you have questions concerning the enclosed comments or if additional information would be helpful.

Sincerely,



Steven Rae
Group Leader
Water Quality and Hydrology Group

SR:MS/tml



LANL/Non-HSWA Regulatory/NPDES

Ms. Evelyn Rosborough
ESH-18/WQ&H:00-0119

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March 28, 2000

Enclosures: a/s

Cy: Scott Wilson, EPA, Region 6, Dallas, Texas, w/enc.
Jack Ferguson, EPA, Region 6, Dallas Texas, w/o enc.
Everett Spencer, EPA, Region 6, Dallas Texas, w/enc.
Jim Davis, Bureau Chief, NMED/SWQB, Santa Fe, New Mexico, w/enc.
Dennis Erickson, ESH-DO, LANL, w/o enc., MS K491
WQ&H File, LANL, w/enc., MS K497
CIC-10, LANL, w/enc., MS A150

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ENCLOSURE 1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

MAR 02 2000

Mr. Dennis J. Erickson, Director
Environment, Safety, and Health Division
P.O. Box 1663, Mail Stop: K491
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

Re: NPDES Permit No. NM0028355
Request for Public Comment Period Extension
via Letter Dated February 29, 2000

Dear Mr. Erickson:

The draft permit publicly noticed on January 29, 2000, provided a 30-day public comment period. As per your request, the public comment period is extended through March 29, 2000. Comments received by this date will be considered in making the final permit decision. If you have any questions, please feel free to contact Scott Wilson of my staff by TELEPHONE: 214-665-7511, FAX: 214-665-2191, or EMAIL: wilson.js@epa.gov.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Jane B. Watson".

Jane B. Watson, Ph.D.
Chief
Permits Section (6WQ-PP)

cc: New Mexico Environment Department

ENCLOSURE 2

LOS ALAMOS NATIONAL LABORATORY
DRAFT NPDES PERMIT NO. NM0028355
DATED JANUARY 29, 2000

ADDITIONAL COMMENTS/CORRECTIONS:

I. TA-16 HEWTF (Outfall 05A055):

TTO limit: The Laboratory requests that EPA incorporate the following new language on page 13 of Part I into the draft NPDES Permit:

*"*1 Total Toxic Organics as defined in 40 CFR §433.11(e). The limits and monitoring for Total Toxic Organics do not include 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD), Pesticides, or Polychlorinated biphenyls."*

II. TA-11 Drop Tower (Outfall 05A097):

TTO limit: The Laboratory requests that EPA incorporate the following new language on page 16 of Part I into the draft NPDES Permit:

*"*1 Total Toxic Organics as defined in 40 CFR §433.11(e). The limits and monitoring for Total Toxic Organics do not include 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD), Pesticides, or Polychlorinated biphenyls."*

III. TA-50 RLWTF (Outfall 051):

Accelerator-Produced Isotopes: The cover-letter from Mr. David Gurule, Department of Energy, to Ms. Evelyn Rosborough, EPA Region 6, dated February 28, 2000 and the Laboratory's original comments regarding "Major Issues" (Enclosure IV) were inconsistent regarding the percent of accelerator-produced isotopes discharged into the TA-50 RLWTF. Please note, it is estimated that less than one percent of the total influent Gross Alpha radioactivity is attributable to accelerator-produced isotopes.

Gross Alpha: The cover-letter from Mr. David Gurule, Department of Energy, to Ms. Evelyn Rosborough, EPA Region 6, dated February 28, 2000, should have read as follows:

"The Total Gross Alpha (including Radium-226, but excluding radon and uranium) numeric standard for Livestock Watering is 15 pCi/l. The effluent quality from the TA-50 RLWTF currently exceeds this standard but does not exceed the U.S. Department of Energy's Derived Concentration Guidelines (DCG) for gross alpha particle activity of 30 pCi/L. The major sources of radioactivity in the effluent are from Atomic Energy Act (AEA) reactor-produced radioactive isotopes. Under the Clean Water Act, EPA is authorized to regulate accelerator-produced isotopes. The Laboratory requests that EPA develop and specify a methodology based upon isotope sources for differentiating AEA reactor-produced isotopes and accelerator-produced isotopes for reporting

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purposes. It is estimated that less than one percent of the total influent Gross Alpha radioactivity is attributable to accelerator-produced isotopes. This methodology will allow for improved evaluation of operations at the TA-50 RLWTF, and for determining compliance with the established water quality standard for Total Gross Alpha at Outfall 051."

TA-50 RLWTF Operational Changes: There was a 27 percent increase in influent flows to the TA-50 RLWTF during February, 2000. A small portion of this increase is attributable to discharges from the boiler and cooling tower associated with the interim mechanical evaporator. The remaining increase has been attributed by the TA-50 RLWTF to an increase in research activity at the Laboratory.

Since the Reverse Osmosis (RO) treatment unit returned to service on December 10, 1999, the TA-50 RLWTF's effluent has met the U.S. Department of Energy's Derived Concentration Guidelines (DCG) for gross alpha particle activity of 30 pCi/L. During February 2000, the sum of the fractions for radionuclides in the TA-50 RLWTF's effluent was less than the DCG value of 1.

TA-50 RLWTF Upgrades: On January 31, 2000, the interim mechanical evaporator was placed into service at the TA-50 RLWTF to treat the Electrodialysis Reversal (EDR) unit reject (concentrate) water (Note: the EDR treats the RO reject water resulting in a volume reduction of 6:1). The interim evaporator treats the EDR reject water by reducing the volume 4:1 (e.g., 80,000 gallons of EDR concentrate is reduced 20,000 gallons of evaporator bottoms). The distillate from the evaporator is being stored in two 20,000 gallon temporary storage tanks recently installed at the TA-50 RLWTF. During February 2000, one distillate tank was discharged through NPDES Outfall 051 meeting all NPDES, NMED Ground Water Discharge Plan, and Department of Energy DCG limits.

TTO limit: The Laboratory requests that EPA incorporate the following new language on page 10 of Part I into the draft NPDES Permit:

*"*2 Total Toxic Organics (TTOs) as defined in 40 CFR §433.11(e). The limits and monitoring for Total Toxic Organics do not include 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD), Pesticides, or Polychlorinated biphenyls."*

IV. TA-46 SWS Facility (Outfall 13S):

Increased Flow: The Laboratory's Outfall Specific Comments (February 28, 2000) documented that the Laboratory may connect additional discharges to the TA-46 Sanitary Wastewater System (SWS) Facility. The following are potential additions with amended flows: (1) wastewater discharge from a Los Alamos County sub-division to help plant efficiency during Laboratory off-peak working hours (approximately 200,000 gallons per day); and (2) wastewater from the new Research Park offices (5,000-20,000 gallons per day). The quality of effluent discharged at Outfalls 13S and 001 should not significantly change. The Laboratory will notify EPA as required under Section III.D.1.a of the NPDES Permit No. NM0028355, as more information becomes available.

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Loading Limits: In calculating production or flow-based limits, EPA can base limits only on design flow if the facility is a Publicly Owned Treatment Works (POTW) (40 CFR §122.45(b)). Since the Laboratory's sanitary wastewater treatment plant is not a POTW, EPA must base effluent limits on the "reasonable measure of actual production of the facility" (40 CFR §122.45(b)(2)(i)). However, under this section EPA does have the ability to establish alternate permit limits for increases in capacity (40 CFR §122.45(b)(2)(ii)(A)(1)). This can be accomplished with a tiered permit limit. The tiered permit limit can be included in a NPDES permit if the flow rates are expected to change significantly within the life of the permit (*NPDES Permit Writers' Manual*, EPA 1996, pages 65-66). The EPA Manual discusses this tiered permit approach. Based on the information provided above, the Laboratory requests that EPA base the effluent loading limits on the design flow or establish a tiered permit loading limit in the permit to address future increased flows at the Laboratory.

- V. **NPDES Outfall 03A021:** The TA-3, Building 29 cooling tower (NPDES Outfall 03A021) has the following Latitude/Longitude coordinates: Latitude 35 52' 14.8"N, Longitude 106 19'09"W.
- VI. **New Water Quality Standards:** The new *State of New Mexico Standards for Interstate and Intrastate Surface Waters* were filed with the State Records Center on January 24, 2000. The new water quality standards became effective on February 23, 2000. The Laboratory requests that these newly adopted water quality standards be incorporated into the development of the Laboratory's NPDES effluent limits (See 40 CFR 131(c); 48 FR 51400 (November 8, 1983)).
- VII. **Biological Assessment:** On March 21, 2000, EPA requested that the Laboratory conduct a Biological Assessment for impacts of NPDES outfall discharges on Threatened and Endangered (T&E) Species at the Laboratory. This information is a follow-up to previous information provided to EPA regarding T&E species at the Laboratory (February 28, 2000). The Laboratory's Ecology Group (ESH-20) is preparing a scope of work, cost estimate and schedule for completing the Biological Assessment. ESH-20 has estimated that it will take 6 weeks to complete the field assessment, documentation and report. A more definitive schedule will be provided by ESH-18 to EPA once it is received from ESH-20.