

Permit

Los Alamos

NATIONAL LABORATORY

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

Date: June 16, 1999
In Reply Refer To: ESH-18/WQ&H:99-0231
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Mr. Everett H. Spencer
Environmental Specialist
Water Enforcement Branch (6EN-WT)
U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

Mr. Scott J. Wilson
Environmental Specialist
Permits Branch (6WQ-PP)
U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

**SUBJECT: MINUTES FROM MAY 5, 1999, MEETING WITH EPA
REGARDING NPDES PERMIT COMPLIANCE AND RE-
APPLICATION AT LOS ALAMOS NATIONAL LABORATORY**

Dear Messrs. Spencer and Wilson:

The Laboratory's Water Quality and Hydrology Group (ESH-18) would like to thank you for meeting with Tina Marie Sandoval, Deborah Woitte, Karen Agogino, and me on May 5, 1999, to discuss compliance and re-permitting issues under the Laboratory's National Pollutant Discharge Elimination System (NPDES) Permit No. NM0028355. Enclosed please find a copy of the meeting minutes pertaining to our meeting on May 5, 1999. Also enclosed with the minutes are various documents requested or written responses to follow-up action items.

Please contact Tina Marie Sandoval at (505) 665-2288 or me at (505) 665-6085, if you have any questions or need additional information regarding the Laboratory's NPDES Permit Program.

Sincerely,



Mike Saladen
NPDES Team Leader
Water Quality and Hydrology Group



June 17, 1999

TMS:MS/mm

Cy: J. Ferguson, U.S. EPA, Dallas, Texas, w/enc.
D. McDonald, U.S. EPA, Dallas, Texas, w/enc.
C. Ritchey, U.S. EPA, Dallas, Texas, w/enc.
B. Hoditschek, NMED-SWQB, Santa Fe, New Mexico, w/enc.
K. Agogino, DOE-AL, Albuquerque, New Mexico, w/enc.
J. Vozella, DOE/LAAO, w/enc., MS A316
B. Enz, DOE/LAAO, w/enc., MS A316
J. Frybarger, CIC-18, w/enc., MS B252
M. Williams, CIC-18, w/enc., MS B252
D. Hefele, F-6-FC/CIC-FM, w/enc., MS B252
T. Gunderson, DLD-OPS, w/enc., MS A100
S. Hanson, EM-RLW, w/enc., MS E518
B. Grace, ESA-FM, w/enc., MS C924
A. Sherrard, ESA-FM/ESH, w/enc., MS C924
D. Erickson, ESH-DO, w/enc., MS K491
S. Rae, ESH-18, w/enc., MS K497
T. Sandoval, ESH-18, w/enc., MS K497
D. Padilla, FE-8, w/enc., MS K718
E. Hoth, FE-8, w/enc, MS K718
C. Barnett, JCNNM-UWGW, w/enc., MS A199
J. Fraser, LANSCE-FM, w/enc., MS H814
R. Cyr, LANSC-FM, w/enc., MS H814
D. Woitte, LC-GL, w/enc., MS A187
L. Woodrow, MST-FM, w/enc., MS G752
WQ&H File, w/enc., MS K497
CIC-10, w/enc., MS A150

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QUALITY BUREAU

LOS ALAMOS NATIONAL LABORATORY
NPDES PERMIT NO. NM0028355
EPA/NMED/LANL MEETING ON DECEMBER 2, 1999
SUMMARY OF ISSUES

LANL'S MAJOR ISSUES:

- meet* ✓

Mercury and Selenium Limits: The draft permit contains mercury and selenium limits, which are based on existing state water quality standards; however, ~~these limits cannot be achieved through existing treatment technologies.~~ On December 7 and 8, 1999, the New Mexico Water Quality Control Commission (NMWQCC) approved new water quality standards for Wildlife Habitat. The new water quality standard for mercury is ~~0.77 ug/l~~ and 5 ug/l for selenium. The NMWQCC is expected to incorporate these new standards into the "State of New Mexico Standards for Interstate and Intrastate Streams" document by ~~January 11, 2000~~. The Laboratory will provide EPA with a copy of the revised standards upon receipt. The Laboratory requests that EPA incorporate the new Wildlife Habitat standards for mercury and selenium into the new NPDES Permit.
- to EPA* ✓

Minimum Quantification Level (MQL): The MQL is the detection limit requirement in EPA analytical methods that must be achieved during analysis for each permitted chemical constituent. The existing NPDES Permit allows the permittee to report the result as zero if the analytical result is below the MQL. ~~The draft permit contains effluent limits for mercury and selenium that are below detection limits for EPA approved methods.~~ NMED-SWQB requests that the Laboratory be required to report actual results, even if the result is below the MQL. The Laboratory recommends that EPA not include additional reporting requirements for mercury or selenium in the new NPDES Permit.
- to EPA* ✓

TA-50 RLWTF Flow Rate and Loading Limits: The draft NPDES permit has an 88 gallon per minute (gpm) flow rate limit at NPDES Outfall 051. The Laboratory's legal counsel is currently reviewing the NPDES regulations regarding requirements for establishing a flow rate effluent limit. The Laboratory is unaware of an EPA established flow rate requirement in any other NPDES Permit in New Mexico. The Laboratory has voluntarily committed to decrease the flow rate at NPDES Outfall 051 to Mortandad Canyon based on a discharge from one effluent pump (≤ 500 gpm). The Laboratory will also evaluate the need for erosion control measures in Mortandad Canyon below NPDES Outfall 051. Best Management Practices (BMPs) will be installed, as needed, under the Laboratory's Storm Water Management Program. The Laboratory requests that the flow rate requirement be deleted from the draft NPDES Permit.

The TA-50 RLWTF currently discharges approximately two tanks (25K gallons each) of treated effluent per day into Mortandad Canyon under normal operating conditions. The draft NPDES Permit has a daily maximum loading permit limit based on the

discharge of approximately one tank per day. This could significantly impact the Laboratory's mission and R&D activities. The Laboratory is anticipating a significant increase in influent to the TA-50 RLWTF from duct washing activities at the TA-3 CMR Building, Environmental Restoration activities, and ~~TA-55 pit production~~ activities. Enclosed is information regarding the TA-50 RLWTF's flow rates using one pump versus two pumps, Laboratory activities which are projected to increase influent to TA-50 RLWTF, and photos of NPDES Outfall 051 and its receiving stream.

~~The Laboratory requests that the proposed maximum loading limit be based on a minimum of 50K gallons per day, or based on a per tank discharge.~~

LANL RESPONSE TO NMED'S CONCERNS:

NPDES Outfall 001:

- **Internal Outfall:** NMED-SWQB requested that EPA require the cooling tower, sanitary wastewater and environmental tank discharges at Outfall 001 be monitored as separate (internal) outfalls. NMED-SWQB is concerned that the sanitary waste stream is diluting the other waste streams and that sampling requirements will not adequately monitor the effluent quality at this outfall.

Comment: The existing effluent limits for NPDES Outfall 001 were developed by EPA using the chemical effluent limitation guidelines for the Steam Electric Power Industry which reflect Best Available Technology (BAT), and Best Professional Judgement (BPJ). These guidelines are based on existing sources (i.e. cooling towers and environmental tank discharges), New Source Performance Standards and Pretreatment Standards. Additionally, the ~~sanitary waste stream is monitored separately at NPDES Outfall 13S, prior to being pumped from the TA-46 SWS Facility to the TA-3 Power Plant.~~ It is the Laboratory's opinion that the discharge from Outfall 001 is adequately monitored.

NPDES Outfall 13S:

- **PCB Monitoring:** NMED-SWQB requested that EPA include PCB monitoring requirements for the effluent from the TA-3 Power Plant (NPDES Outfall 001) and the TA-46 SWS Facility (NPDES Outfall 13S).

Comment: Currently, there is no numeric water quality standard for PCBs. However, NMED has proposed a numeric limit for PCBs for Wildlife Habitat during the 1998 Triennial Review. The New Mexico Water Quality Control Commission (WQCC) approved the proposed standard for PCBs during the WQCC meeting on December 7-8, 1999 meeting. The NMWQCC is expected to incorporate this new standard into the "State of New Mexico Standards for Interstate and Intrastate Streams" document by January 14, 2000.

? agree or disagree

EPA needs to eval. all new stds. before putting into permit

- **Septic Tank Pumping:** NMED-SWQB are concerned about potential contaminants in the Laboratory's septic tanks and holding tanks which are discharged into the TA-46 SWS Facility. Additionally, NMED-SWQB is concerned that the Septic Tank/Holding Tank List which was included as Appendix ② in the Laboratory's NPDES Re-Application (May 4, 1999) is not accurate and requires updating.

Comment: The Laboratory has a Waste Acceptance Criteria (WAC) for discharges into the TA-46 SWS Facility. Operating Groups/Septic and Holding Tank Owners are required to characterize their waste streams and certify that it will meet the WAC prior to discharge into the sanitary system. The sanitary WAC applies to all discharges to septic tanks and holding tanks. The Laboratory recommends that EPA not include additional sampling requirements at NPDES Outfall 13S in the new permit. An updated copy of the Laboratory's Septic Tank/Holding Tank List is enclosed. The standard operating procedure (SOP) for the 13S(b) effluent sump maintenance, Laboratory notification procedure for discharge from NPDES Outfall 13S into Canada del Buey, and photos from the NMED-SWQB follow-up visit to the TA-46 SWS Facility on December 9, 1999, will be submitted under separate cover.

inspect random spot ch of database per shipment spot ch's ensure that parameters are performing compliance of RC return notification annual record.

no list got

- **Discharge into Canada del Buey:** NMED-SWQB is concerned that NPDES Outfall 13S is not properly monitored because it can discharge to Canada del Buey. Additionally, NMED-SWQB recommends that the Laboratory not discharge into Canada del Buey because of downstream contamination in the canyon and potential contaminate movement off-site.

Comment: NPDES Outfall 13S^(b) is properly permitted and monitored at the parshall flume after the chlorine contact chamber, as required by the existing NPDES Permit No. NM0028355. The Laboratory has not discharged into Canada del Buey since the start-up of the new TA-46 SWS Facility (1992). The Laboratory currently reuses the treated effluent in the cooling tower at the TA-3 Power Plant. The Laboratory is working on utilizing the treated wastewater in other cooling towers around the Laboratory. The Laboratory does not anticipate discharging into Canada del Buey, however, it has developed an Effluent Management Plan to keep the treated effluent on-site, if such a discharge becomes necessary. The Laboratory has agreed to notify NMED of any discharges from NPDES Outfall 13S into Canada del Buey.

see got

- **Biomonitoring:** NMED-SWQB requested that EPA require biomonitoring at Outfall 001 and Outfall 13S to protect aquatic organisms in Sandia Canyon.

Comment: EPA's Implementation Guidance for State of New Mexico Standards for Interstate and Intrastate Streams (May 5, 1995) does not require biomonitoring for dischargers to waterbodies designated only for livestock watering and wildlife habitat. The Laboratory recommends that EPA not include biomonitoring requirements in the new permit.

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- **No Radioactive Waste into the TA-46 SWS Facility:** NMED-SWQB requested that EPA incorporate language into the NPDES Permit that does not allow radioactive waste into the TA-46 SWS Facility.

Comment: The Laboratory's TA-46 SWS Facility's ~~WAC specifies~~ that the disposal of radioactive waste above background levels is not allowed into the sanitary system.

NPDES Outfall 051:

- NMED-SWQB is concerned about effluent quality at the TA-50 RL WTF. NMED-SWQB requested that EPA require ~~additional monitoring and reporting requirements in the new NPDES Permit until the TA-50 upgrades are completed for the mechanical evaporator.~~ NMED-SWQB indicated they believed this would give the public and regulators assurance that the TA-50 RL WTF is being properly operated and in compliance with the Clean Water Act.

Comment: The Laboratory ~~has agreed to submit the following information to NMED-SWQB:~~ (1) Monthly Derived Concentration Guideline (DCG) Report; (2) Monthly Status Report on the TA-50 Upgrades, and (3) RL WTF Annual Report for 1998 (copy enclosed). Additionally, the Laboratory will continue to provide the following reports regarding the TA-50 RL WTF: (1) Monthly Discharge Monitoring Reports; (2) Notices of Changed Conditions; and (3) Quarterly Ground Water Discharge Monitoring Report. ~~The Laboratory recommends that EPA not require these reports as a condition of the NPDES Permit.~~

Outfalls 05A055 and 05A097:

- **RDX Monitoring:** NMED-SWQB requested that EPA require RDX monitoring in the permit since the Laboratory uses RDX in its research and development activities. EPA indicated that it would develop an RDX limit and requested the Laboratory provide RDX analytical data from the high explosives wastewater discharges.

Comment: RDX data was provided to EPA and NMED during the December 2, 1999 meeting. Currently, New Mexico does not have a stream standard for RDX. If EPA requires an RDX effluent limit, the Laboratory recommends an daily average of 0.2 mg/l, and a "Report" requirement for daily max based on the effluent limits established in the Department of Energy's Pantex Plant (NPDES Permit No. TX0107107). The Laboratory has revised the RDX data into two tables (Copy enclosed) which represent Phase I and Phase II of the Laboratory's TA-16 HEWTF Treatment Efficiency Study.

? also for perchlorate
 .2 ok
 see process for
 finding criteria
 help by EPA
 whose data is used
 based on criteria
 this is saturated

- **Chromium Monitoring:** NMED-SWQB requests that EPA incorporate chromium-6 (Cr+6) monitoring in the permit for cooling towers.

Comment: Total Chromium is already monitored at all cooling tower outfalls in the Laboratory's existing permit. EPA's working draft permit contains the same

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monitoring requirements. The Laboratory will collect a representative sample of cooling tower solids and analyze it for Cr+6. The analytical information will be provided to EPA and NMED. The Laboratory requests that EPA not require Cr+6 monitoring in the new NPDES permit.

- **MQL Reporting:** NMED-SWQB requests that EPA consider a requirement that the Laboratory report the actual value for mercury on the monthly Discharge Monitoring Reports (DMRs), even if it is below the MQL.

Comment: The Laboratory's existing NPDES permit contains language that states in part: "If any individual analytical test result is less than the MQL, a value of zero (0) may be reported for that individual result for the Discharge Monitoring Report (DMR) calculations and reporting requirements." The Laboratory recommends that EPA keep the existing language as documented in the draft NPDES Permit dated October 18, 1999.

GENERAL COMMENTS:

- **NMED State Certification:** After reviewing the NMED-SWQB's concerns, the Laboratory recommends that NMED-SWQB's issues be addressed through the NMED's certification of the Laboratory's NPDES Permit, and through the WQCC review process.
- **Use Study:** Pursuant to the 1994 NMED/DOE/LANL Settlement Agreement, a Use Study was conducted by the U. S. Fish & Wildlife Service (USF&WS) at the Laboratory to investigate potential existing and attainable uses in canyons at the Laboratory. To-date, the USF&W's Use Study Report has not been released. NMED-SWQB expressed their disappointment that the Use Study was not completed in time for the NMED's Triennial Review.
- **Derived Concentration Guidelines (DCGs):** Enclosed is a copy of the U. S. Department of Energy's Derived Concentration Guidelines (DCGs), per your request.

— flow: 750; BMP
: MOA