

Permit

Los Alamos

NATIONAL LABORATORY

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

Date: January 30, 1998
In Reply Refer To: ESH-DO-98-003
Mail Stop: K497
Telephone: (505) 665-1859

Mr. Samuel Coleman, P.E., Director
Compliance Assurance and Enforcement Division (6EN)
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

**SUBJECT: ADMINISTRATIVE ORDER DOCKET NO. VI-96-1236
FINAL QUARTERLY REPORT
NPDES PERMIT NO. NM0028355**

Dear Mr. Coleman:

Administrative Order (AO) Docket No. VI-96-1236 dated September 16, 1996, requires the University of California, as Co-Permittee under the Laboratory's NPDES Permit, to submit quarterly progress reports concerning corrective activities which are underway to comply with NPDES Permit requirements. Enclosed is a copy of the quarterly report required under the Laboratory's AO for the period from October 1, 1997, to December 31, 1997.

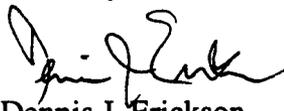
The U.S. Department of Energy (DOE) delegated responsibility to the Laboratory for submitting quarterly reports for the DOE's Federal Facilities Compliance Agreement (FFCA) in their letter to you of March 10, 1994. Please note that all work was completed under the DOE's past FFCA (Docket No. VI-91-1328). A new FFCA (Docket No. VI-96-1237) was signed by the EPA on December 12, 1996, which corresponds to the Laboratory's AO Docket No. VI-96-1236. The enclosed quarterly report covers both the Laboratory's AO and DOE's FFCA reporting requirements.

Please note that process and removal efficiency testing is being conducted at the Laboratory's new High Explosives Wastewater Treatment Facility (HEWTF). New Waste Acceptance Criteria (WAC) have been developed for the new HEWTF based upon RCRA Universal Treatment Standards (UTS) and NPDES Permit requirements. The existing HEWTF will remain on-line and serve as a back-up treatment facility until process and removal efficiency testing is completed. Both the new and the back-up HEWTF are currently meeting NPDES Permit limitations. It is anticipated that the back-up HEWTF will be taken off line by March 31, 1998. Please see the attached letter to the EPA dated November 3, 1997, for additional information.

!! note for HE however

In view of the completion of the Waste Stream Characterization Project and the HEWTF Project, we are requesting EPA to complete a final review and close-out of the Laboratory's AO and FFCA. Please call Steven Rae of the Laboratory's Water Quality and Hydrology Group at (505) 665-1859 if you need additional information concerning these corrective activities in order to close-out the Laboratory's AO and FFCA.

Sincerely,



Dennis J. Erickson
Director
Environment, Safety, and Health Division

15678

Mr. Samuel Coleman
ESH-DO:98-003

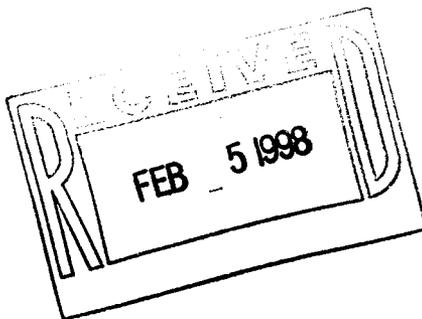
- 2 -

January 30, 1998

DJE:SR/rj

Enclosures: a/s

Cy: Diana Gamble, USEPA, (6EN-WC), w/enc., Dallas, Texas
Everett Spencer, USEPA, (6EN-WT), w/enc., Dallas, Texas
Gladys-Gooden Jackson, USEPA, (6EN-WT), w/enc., Dallas, Texas
Glenn Saums, NMED, SWQB, w/enc., Santa Fe, New Mexico
Joe Vozella, DOE/LAAO, w/enc., MS A316
Steven Rae (ESH-18/WQ&H-98-0003), LANL, ESH-18, w/enc., MS K497
Mike Saladen, LANL, ESH-18, w/enc., MS K497
Tina Sandoval, LANL, ESH-18, w/enc., MS K497
Paula Diepolder, FSS-6, w/enc., MS M984
Phil Sena, FSS-6, w/enc., MS M984
Ed Hyde, ESA-WMM, w/enc., MS C930
Ann Sherrard, ESA-FM, w/enc., MS C928
Deborah Woitte, LC-Gen, w/enc., MS A187
DD-ESH File, w/enc., MS K491
WQ&H File, w/enc., MS K497
CIC-10, w/enc., MS A150



Quarterly Report for October 1, 1997, thru December 31, 1997

**Los Alamos National Laboratory
Administrative Order Docket No. VI-96-1236
FFCA Docket No. VI-96-1237
NPDES Permit No. NM0028355**

Schedule for HE Wastewater Treatment Project

<u>Outfall 05A (HE Wastewater Treatment)</u>	<u>Required By</u>	<u>Completed</u>
Award of Construction Contract	Oct. 1996	Comp. (08-06-96)
Completion of Construction	Sept. 1997	Comp. (09-26-97)
Achieve Compliance with Final Permit Limitations	Oct. 1997	Comp. (10-31-97)*

*Compliance with final permit limitations being met by new HEWTF and back-up HEWTF

The new High Explosives Wastewater Treatment Facility (HEWTF) includes a new centralized treatment facility which will eliminate most of the existing HE effluent outfalls. The current working estimate cost of this project is \$5.8 million. The project was approved by DOE for Line Item funding in Fiscal Year 1994 and Title I Design was completed in July, 1994. The DOE authorized early procurement of waste minimization equipment and accelerated approximately \$800K to ensure project milestones are met. All waste minimization equipment has been purchased and installed. Title II Design Work and Advertisement for Bids were completed in May, 1996. A contract for construction of the project was awarded on August 6, 1996. Construction has been completed and start-up of the new treatment facility was initiated on September 26, 1997.

Please note that process and removal efficiency testing is being conducted at the Laboratory's new HEWTF. New Waste Acceptance Criteria (WAC) have been developed for the new HEWTF based upon RCRA Universal Treatment Standards (UTS) and NPDES Permit requirements. The existing HEWTF will remain on-line and serve as a back-up treatment facility until process and removal efficiency testing is completed. Both the new and back-up HEWTF are currently meeting NPDES Permit limitations. It is anticipated that the back-up HEWTF will be taken off line by March 31, 1998.

Installation of waste minimization and water reuse equipment was also an important part of this project. The total HE wastewater flow from all HE outfalls prior to the project was 13.0 MGY. This flow was reduced to 0.12 MGY. The total number of HE outfalls was also reduced from 21 to 4. Please see the attached letter to the EPA dated November 3, 1997, for additional information.

Schedule for Waste Stream Characterization Project

<u>Description of Work</u>	<u>Required by</u>	<u>Completed</u>
Completion 100% Corrective Actions	March 31, 1997	Comp. (03-31-97)
Achieve Compliance with Permit Limitations	May 30, 1997	Comp. (05-30-97)

Eighty-three Waste Stream Characterization Final Reports were completed by March 31, 1994, as scheduled. Projects to correct deficiencies identified in the Waste Stream Characterization Final Reports have been underway. These 7,602 deficiencies include both elimination of non-complying waste streams and potential unpermitted outfalls, and implementation of best management practices as identified in the Waste Stream Characterization Final Reports. Elimination of 74 unpermitted outfalls was completed in January, 1995.

The Waste Stream Corrections Project (WSC) was completed on March 31, 1997. Each of the 7,602 deficiencies identified in the Waste Stream Characterization Final Reports were addressed by construction of physical improvements, by implementation of administrative controls, or by three modified permit applications submitted to the EPA on March 13, 1997.

These three permit applications covered the TA-2-1 Omega West Reactor basement sump discharge, the TA-21-209 Tritium Facility cooling water discharge (Outfall 03A158), and the TA-3-66 Sigma Building cooling water discharge (Outfall 03A022).

The Laboratory submitted the original NPDES Permit Application Form 2D on July 27, 1993, for the discharge of groundwater at TA-2, Building 1. Additional waste stream sources from the equipment room in TA-2, Building 1, were identified under the Laboratory's Waste Stream Characterization Program. A revised Application Form 2D was submitted to EPA to document these discharges. Please note that this facility is no longer in operation and is scheduled for decommissioning and demolition.

Revised NPDES Permit Application Form 2C for the TA-21-209 Tritium Facility and the TA-3-66 Sigma Building outfalls were submitted to EPA as an interim corrective action under the Laboratory's WSC Project. The original applications submitted to EPA in September, 1990, did not include equipment room water and storm water discharges. The WSC Project recommended these effluent waste streams be separated to bring the facility into full compliance with Laboratory's NPDES Permit. Initial engineering designs to separate equipment room water and storm water from the outfalls were inadequate to address all safety and operations concerns at these sites.

The Laboratory had originally planned to revise the initial engineering designs for the TA-2 Omega West Reactor basement sump discharge, the TA-21-209 Tritium Facility cooling water discharge (Outfall 03A158), and the TA-3-66 Sigma Building cooling tower discharge (Outfall 03A022) in order to separate equipment room and storm water discharges from these outfalls. However, all safety and operations concerns at these sites could not be satisfied with new designs and the revised NPDES Permit Application Forms submitted for these three outfalls on March 13, 1997, should be considered as final corrective actions under the WSC Project. The information contained in these three NPDES Permit Application Forms will be re-submitted with the Laboratory's 1998 NPDES Permit Re-Application.

During the WSC Project, operational safety reviews of completed construction were conducted by the Laboratory's Industrial Hygiene and Safety Group. As a result of these reviews, approximately 50 drains that were previously plugged to prevent non-complying discharges from entering the environment were identified as potential safety hazards. These potential safety hazards have been addressed through alternative methods such as internal control of discharges and, opening and re-routing of drains in order to mitigate potential operational hazards.

The WSC Project has been completed and the Laboratory is in substantial compliance with permit limitations related to the 7,602 corrected deficiencies. The Laboratory is completing further verification of outfall discharges in order to eliminate approximately 50 outfalls from its NPDES Permit. A number of outfalls to be eliminated have had extraneous discharges and the Laboratory is continuing to identify and remove these discharges so these outfalls can be eliminated from the permit.

Los Alamos

NATIONAL LABORATORY

Environment, Safety and Health Division
Los Alamos, New Mexico 87545
FAX (505) 665-3811

Date: November 3, 1997
In Reply Refer To: ESH-DO:97-319
Mail Stop: K491
Telephone: (505) 667-4218

Mr. Samuel Coleman, P. E., Director
Compliance Assurance and Enforcement Division (6EN)
U. S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

**SUBJECT: ADMINISTRATIVE ORDER DOCKET NO. VI-96-1236, NPDES PERMIT
NO. NM0028355, STATUS REPORT**

Dear Mr. Coleman:

The Los Alamos National Laboratory (Laboratory) is providing a status report for corrective activities which are underway to comply with Administrative Order (AO) Docket No. VI-96-1236 and Federal Facilities Compliance Agreement (FFCA) Docket No. VI-96-1237. On September 26, 1997, the Laboratory initiated the start up of the new High Explosives Wastewater Treatment Facility (HEWTF). The new HEWTF is a centralized treatment plant which will replace the existing HEWTF and eliminate most of the Laboratory's existing HE effluent outfalls (NPDES Outfall Category 05A). Part of the project included reduction of potential flows to the HEWTF from 12.0 million gallons per year to 130,000 gallons per year.

The Laboratory is currently eliminating effluent discharges from HE outfalls by plugging and alarming the HE sumps. The HE wastewater will be pumped out of these sumps and trucked to the new HEWTF for further treatment and discharge through NPDES Outfall 05A055. The Laboratory will request deletion of the plugged 05A outfalls from the NPDES Permit, upon verification of no discharge status by Laboratory and NMED representatives. Listed below is the status of each HE outfall listed in the Laboratory's NPDES Permit.

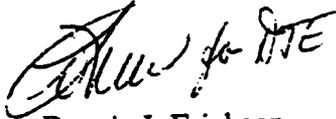
<u>NPDES Outfall</u>	<u>Industrial Facility</u>	<u>Waste Stream</u>	<u>Status</u>
05A053	TA-16, Building 410	HE Wastewater	Plugged
05A054	TA-16, Building 430	HE Wastewater	Plugged
05A055	TA-16, Building 401, 406	HE Wastewater	Remain in Permit
05A056	TA-16, Building 260	HE Wastewater	Plugged
05A066	TA-9-A, Buildings 21-40	HE Wastewater	Plugged
05A067	TA-9-B, Buildings 41-46	HE Wastewater	Plugged
05A068	TA-9, Building 48	HE Wastewater	Plugged
05A069*	TA-11, Structure 50	HE Wastewater	Open
05A071	TA-16, Building 430	HE Wastewater	Plugged
05A096*	TA-11, Structure 51	HE Wastewater	Open
05A097*	TA-11, Structure 52	HE Wastewater	Remain in Permit

*Note: An engineering design is underway to combine Outfall 05A096 with Outfall 05A097 allowing for elimination of 05A096. Corrective activities are underway to permanently plug NPDES Outfall 05A069.

The Laboratory's existing HEWTF will remain on-line and serve as a "back-up treatment facility" during the initial testing and start-up phase of the new HEWTF. The back-up HEWTF will provide assurance that the new HEWTF is operating properly before the back-up is taken off-line.

Please call Steven Rae of the Laboratory's Water Quality and Hydrology Group at (505) 665-1859 if you need additional information concerning the status of corrective activities under the Laboratory's AO and FFCA.

Sincerely,



Dennis J. Erickson
Division Director
Environment, Safety, and Health Division

SR:DJE:MS/em

Cy: : Dianna Gamble, USEPA, (6EN-WC), Dallas, Texas
Everett Spencer, USEPA, (6EN-WT), Dallas, Texas
Steven Rae (ESH-18/WQ&H:97-0383), ESH-18, MS K497
Mike Saladen, ESH-18, MS K497
Brenda Edeskuty, ESH-18, MS K497
Tina Sandoval, ESH-18, MS K497
Robert Burick, ESA-DO/DD, MS P945
Dennis Carathers, ESA-FM, MS C928
Robert Day, DX-DO/DD, MS P915
Thomas Alexander, DX-FM, MS P915
Deborah Woitte, LC-GEN, MS A187
Joe Vozella, DOE/LAAO, MS A316
Jody Plum, DOE/LAAO, MS A316
Glenn Saums, NMED-SWQB, Santa Fe, New Mexico
Barbara Hodischek, NMED-SWQB, Santa Fe, New Mexico
Phyllis Bustamonte, NMED-GWB, Santa Fe, New Mexico
Kim Hill, NMED-HRMB, Santa Fe, New Mexico
ESH-DO File, MS K491
WQ&H File, MS K497
CIC-10, MS A150

Enclosure 1

**Summary of Information Collected
in Response to Order Information.**