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Environmental Protection Division
Water Quality & RCRA (ENV-RCRA)
P.O. Box 1663, Mail Stop K490
Los Alamos, New Mexico 87545
(505) 667-0666/FAX: (505) 667-5224

Date: October 30, 2009
Refer To: ENV-RCRA: 09-197
LA-UR: 09-07052

Ms. Sonia Hall
U.S. Environmental Protection Agency, Region 6
Compliance and Assurance Division
Water Enforcement Branch (6EN-W)
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

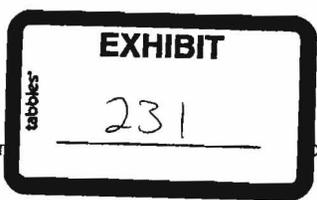
**SUBJECT: LOS ALAMOS NATIONAL LABORATORY, NPDES PERMIT NO. NM0028355,
NOTICE OF PLANNED CHANGE AT NPDES OUTFALL 051**

Dear Ms. Hall:

The National Pollutant Discharge Elimination System (NPDES) Permit No. NM0028355 for Los Alamos National Laboratory requires the permittee to notify the U. S. Environmental Protection Agency (EPA) regarding any physical alterations or additions to the permitted facility that could significantly change the nature or increase the quantity of pollutants discharged. In accordance with Part III.D.1.a. *Reporting Requirements* of the Laboratory's NPDES Permit, we are providing written notification regarding the transfer of approximately 200,000 gallons of treated wastewater from the TA-50 Radioactive Liquid Waste Treatment Facility (RLWTF) to the TA-53 Radioactive Liquid Wastewater (RLW) tanks for evaporation.

The treated effluent from RLWTF meets all NPDES effluent requirements but contains tritium at concentrations of 21,000 – 26,000 pCi/L. These levels of tritium are well below the Department of Energy's (DOE) Derived Concentration Guidelines (DCGs) but above New Mexico's water quality standard of 20,000 pCi/l. Please note, tritium is not a "pollutant" as defined under the Clean Water Act and consequently, monitoring requirements for tritium were removed from the Laboratory's NPDES permit, effective August 1, 2007. Even though there is no requirement in the NPDES permit, the RLWTF continues to monitor tritium in their effluent. Rather than discharge to Outfall 051, the Laboratory feels the best option is to evaporate the tritiated effluent at the TA-53 tanks.

On June 10, 2009, the Los Alamos National Security, LLC (LANS) and National Nuclear Security Administration (NNSA) requested EPA review and concurrence for the transfer of 20,000 gallons of treated effluent with 23,000 pCi/l tritium from the RLWTF to the tanks at TA-53 for evaporation (see Enclosure 1). EPA responded on June 11, 2009 stating, in part: "EPA has no objection to the no-discharge alternative" (see Enclosure 2). Although the RLWTF has been investigating the source of elevated tritium since May 2009, it has not yet been identified. Therefore, we are submitting this notice regarding the discharge of elevated tritium water to the tanks at TA-53 and request EPA's acknowledgement. LANS and NNSA will continue to investigate the source of elevated tritium water and evaluate short-term/long-term solutions to address this issue.



Ms. Sonia Hall
ENV-RCRA-09-0197

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October 30, 2009

Please contact Marc Bailey at (505) 665-8135 or Mike Saladen at (505) 665-6085 if you have questions regarding this notice.

Sincerely,


Anthony R. Grieggs
Group Leader
Water Quality & RCRA (ENV-RCRA) Group

Enclosures: a/s

Cy: Willie Lane, USEPA, Region VI, Dallas, TX, w/enc.
Isaac Chen, USEPA, Region VI, Dallas, TX, w/enc.
Glenn Saums, NMED/SWQB, Santa Fe, NM, w/enc.
John Volkerding, NMED/DOE/OB, Santa Fe, NM, w/enc.
Isaac Valdez, LASO/EO, w/enc., A316
Gene Turner, LASO/EO, w/enc., A316
Michael B. Mallory, PADOPS, w/o enc., A102
J. Chris Cantwell, ADESHQ, w/o enc., K491
Robert Masson, TA-55-DO, w/enc., E518
Pete Worland, PMT-2, w/enc., E518
Steve Hanson, PMT-2, w/enc., E518
Chris Del Signore, PMT-2, w/enc., E518
Tina Sandoval, ENV-RCRA, w/enc., K490
Mike Saladen, ENV-RCRA, w/o enc., K490
Marc Bailey, ENV-RCRA, w/enc., K490
ENV-RCRA, File, w/enc., K490
IRM-RMMSO, w/enc., A150

Schedule for
Corrective Action Plan
Discharge Waste Water Temperature Compliance

Environmental Approval	12/18/2009
Design Begun	1/4/2010
Design Complete	1/29/2010
Materials Bought (credit card)	2/26/2010
Materials Received	3/5/2010
Construction Started	3/15/2010
Construction Complete	5/19/2010
Startup Complete	6/4/2010



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Water Quality & RCRA Group (ENV-RCRA)*
P.O. Box 1663, K490
Los Alamos, New Mexico 87545
(505) 667-0666/FAX: (505) 667-5224

*National Nuclear Security Administration
Los Alamos Site Office, A316*
3747 West Jemez Road
Los Alamos, New Mexico 87545
(505) 667-7203/FAX (505) 667-5948

Date: June 10, 2009
Refer To: ENV-RCRA-09-103
LAUR: 09-03647

Ms. Sonia Hall
U.S. Environmental Protection Agency, Region 6
Compliance Assurance and Enforcement Division
Water Enforcement Branch (6EN-WC)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Dear Ms. Hall:

SUBJECT: LOS ALAMOS NATIONAL LABORATORY, NPDES PERMIT NO. NM0028355, NOTICE OF CHANGED CONDITION AT NPDES OUTFALL 051

The National Pollutant Discharge Elimination System (NPDES) Permit No. NM0028355 for Los Alamos National Laboratory requires the permittee to notify the U. S. Environmental Protection Agency (EPA) regarding any physical alterations or additions to the permitted facility that could significantly change the nature or increase the quantity of pollutants discharged. In accordance with Part III.D.1.a. *Reporting Requirements* of the Laboratory's NPDES Permit, we are providing written notification regarding the transfer of approximately 20,000 gallons of treated wastewater from the TA-50 Radioactive Liquid Waste Treatment Facility (RLWTF) to the TA-53 Radioactive Liquid Wastewater (RLW) basins for evaporation.

The treated effluent from RLWTF meets all NPDES effluent requirements but contains tritium at a concentration of 23,000 pCi/L. This level of tritium is well below the Department of Energy's (DOE) Derived Concentration Guidelines (DCGs) but above New Mexico's water quality standard of 20,000 pCi/l. Please note, tritium is not a "pollutant" as defined under the Clean Water Act and consequently, monitoring requirements for tritium were removed from the Laboratory's NPDES permit, effective August 1, 2007. Even though there is no requirement in the NPDES permit, the RLWTF continues to monitor tritium in their effluent. Rather than discharge to Outfall 051, the Laboratory feels the best option is to evaporate the tritiated effluent at the TA-53 basins. The source of high tritium is currently under investigation.

As documented in the 2004 NPDES Re-application, transferring treated effluent from the RLWTF to the basins at TA-53 for evaporation has occurred on two occasions and the Laboratory submitted a Notice of Changed Condition each time. The Los Alamos National Security, LLC (LANS) and National Nuclear Security Administration (NNSA) are asking for review and concurrence from EPA Region 6 that the configuration of trucking the treated effluent from RLWTF to the TA-53 RLW basin is compliant with the Clean Water Act and the LANS/NNSA NPDES permit. Enclosed for your review is the RLWTF treatment schematic (see Enclosure 1).

Ms. Sonia Hall
ENV-RCRA-09-103

-2-

June 10, 2009

Please contact Marc Bailey at (505) 665-8135 or Mike Saladen at (505) 665-6085 if you have questions regarding this notice.

Sincerely,



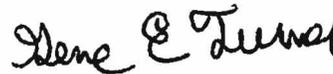
for Anthony R. Grieggs
Water Quality & RCRA Group
Los Alamos National Laboratory

ARG:GT:MB/lm

Enclosure: a/s

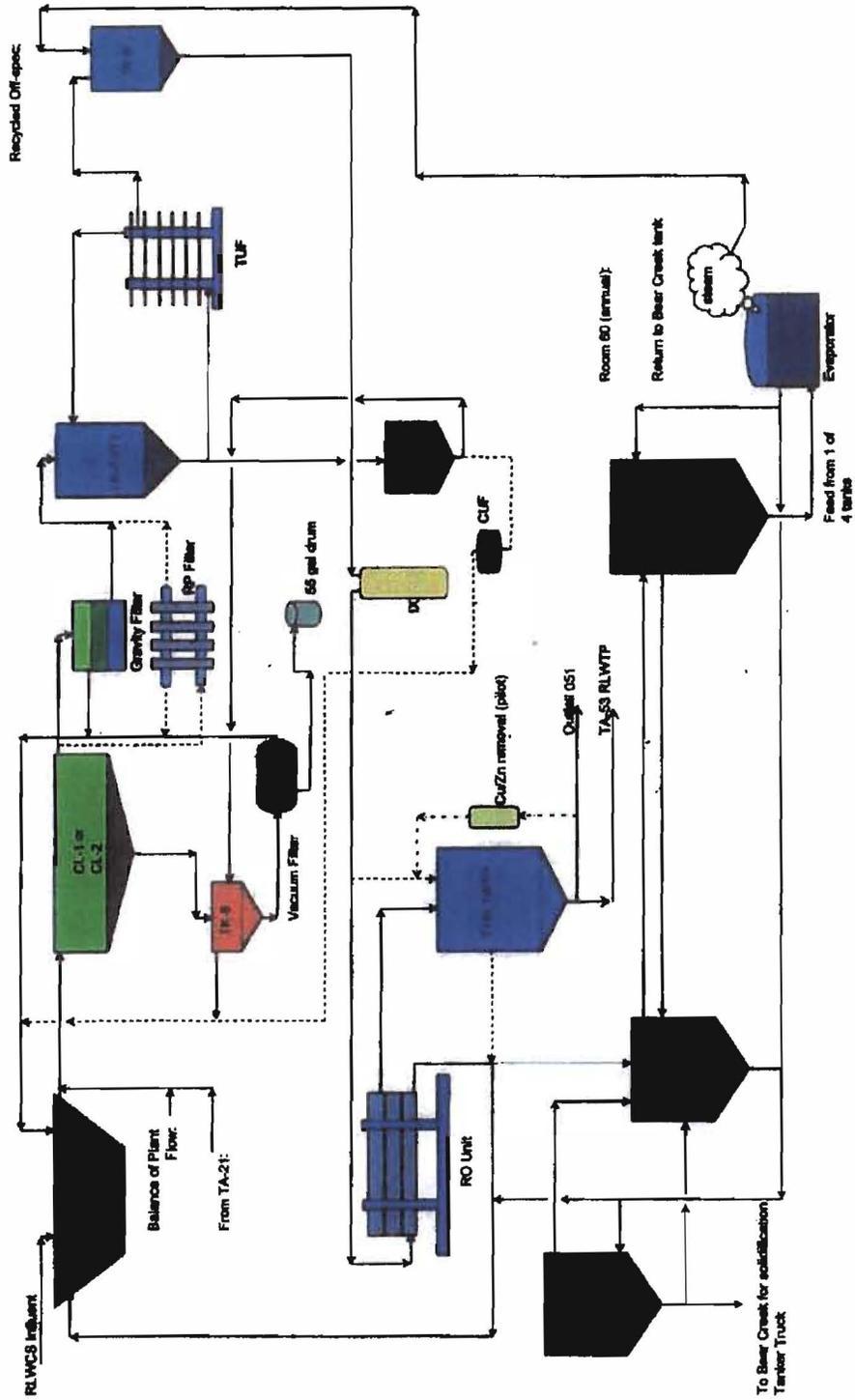
Cy: Isaac Chen, USEPA, Region VI, Dallas, TX, w/enc.
Glenn Saums, NMED/SWQB, Santa Fe, NM, w/enc.
John Volkerding, NMED/DOE/OB, Santa Fe, NM, w/enc.
Isaac Valdez, LASO-NSM, w/enc., A316
Michael B. Mallory, PADOPS, w/o enc., A102
Chris Cantwell, ADESHQ, w/o enc., K491
Robert Mason, TA55-DO, w/enc., E583
Craig Douglass, RLW, w/o enc., E518
Peter Rice, TA-55-RLW, w/o enc., E518
Pete Worland, PMT-2, w/enc., E518
ENV-DO, File, w/o enc., J978
ENV-RCRA, File, w/enc., K490
IRM-RMMSO, w/enc., A150

Sincerely,



Gene E. Turner
Environmental Permitting Manager
Los Alamos Site Office
National Nuclear Security Administration

RLW Plant Flow Schematic



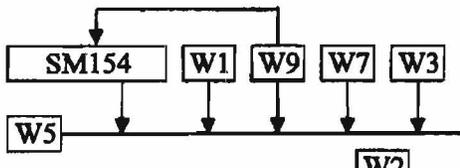
TA-3
South Mesa Site

TA-3

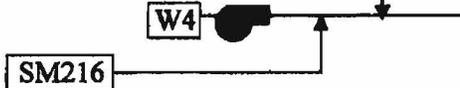
Lab shops



Chemistry Metallurgy Research (CMR) SM 29



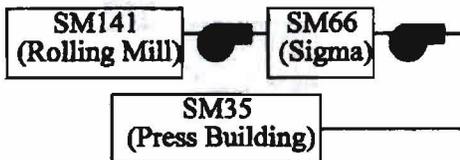
Weapons Test Support



Cryogenics



Materials Technology



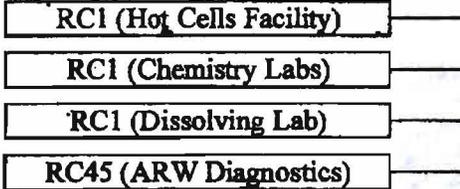
Material Science Lab



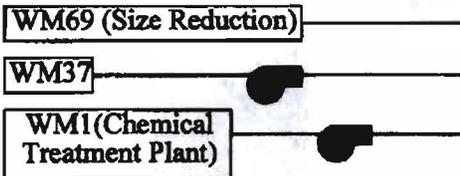
Unloading Station



TA-48
Radiochemistry



TA-50
Waste Management Site



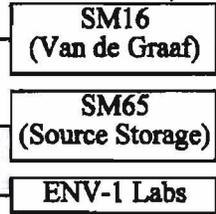
TA-16
S-Site



TA-35
Target Fab



No longer in use



OH-1 (Industrial Hygiene)

TA-59
Health, Safety, and Environment

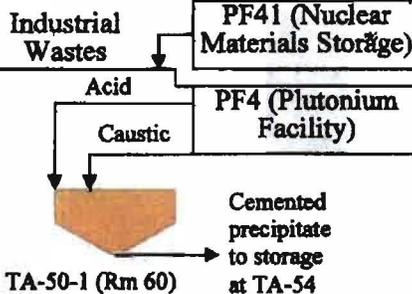


TA-21
DP Site

Burial at TA-54

TA-21-257

TA-55



Additional trucked liquid waste from Technical Areas 3, 15, 16, 21, 33, 35, 50, 54, and ER and D&D activities.

Treated waste to Mortandad Canyon, or TA-53 RLWTP

Dewatered, packaged precipitate to burial or storage at TA-54

TA-50-1 (Rms 16 & 116)

Pump

Truck Transport - - - - -

ENCLOSURE 2

To: Michael Saladen <saladen@lanl.gov>
Cc: grieggst@lanl.gov, "Turner ...snip... Lane.Willie@epamail.epa.gov
Subject: Re: Los Alamos National Laboratory, NPDES Permit No. NM0028355,
Notice Of
Changed Condition
From: Chen.Isaac@epamail.epa.gov

Michael,

According to our telephone conversations made on June 3rd and June 11th, 2009, respectively, LANL plans to dispose approximately 20,000 gallons of elevated tritium wastewater from TA-50 treatment facility at the TA-53 Radioactive Liquid Wastewater (RLW) basins for evaporation. During the normal operation, treated wastewater from TA-50 is discharged at Outfall 051. Due to high concentration of tritium, LANL requests for a one-time no-discharge alternative. There will be no discharge from TA-53 RLW basins. EPA has no objection to the no-discharge alternative.

**Los Alamos National Laboratory, NPDES Permit No. NM0028355, Notice Of
Changed Condition**

Michael Saladen

to: Willie Lane

06/10/2009 11:26 AM



Cc: grieggst, sandovait, tori George, Isaac Chen, Sonia Hall, "Turner, Gene E.", "Powell, Richard,
NMENV", hld

Willie,

Per our discussion, attached is the Notice of Changed Condition regarding the disposal of RLWTF wastewater with high tritium to the TA-53 basins. The effluent meets all NPDES permit requirements but has elevated tritium (22,000 pCi/l) over the water quality standard of 20,000 pCi/l. I have also discussed this matter with Rich Powell. We would appreciate your review and approval. Thanks for

your assistance!!!

Mike[attachment "TA-50 RLWTF Influent.pdf" deleted by Isaac
Chen/R6/USEPA/US] [attachment "Notice of Changed Condition TA-50
RLWTF.pdf" deleted by Isaac Chen/R6/USEPA/US]