

# LA-UR-11-11444

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Title: Los Alamos National Laboratory, NPDES Permit no. NM0028355, Deletion of Four Outfalls

Author(s): Saladen, Michael T

Intended for: EPA Letter  
US EPA  
Environmental monitoring and surveillance  
Reading Room  
NPDES



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*Title:* LOS ALAMOS NATIONAL LABORATORY, NPDES PERMIT  
NO. NM0028355, DELETION OF FOUR OUTFALLS

*Author(s):* Michael T. Saladen, Water Quality & RCRA Group  
(ENV-RCRA)

*Intended for:* U. S. Environmental Protection Agency  
1445 Ross Avenue, Suite 1200  
Dallas, TX 75202-2733



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*Environmental Protection Division  
Water Quality & RCRA (ENV-RCRA)*

P.O. Box 1663, Mail Stop M704  
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(505) 667-0666/FAX: (505) 667-5224

Date: September 8, 2011  
Refer To: ENV-RCRA-11-0185  
LAUR: 11-11444

Ms. Evelyn Rosborough  
USEPA Region 6  
1445 Ross Avenue, Suite 1200  
Mail Code: 6WQ  
Dallas, TX 75202-2733

**SUBJECT: LOS ALAMOS NATIONAL LABORATORY, NPDES PERMIT NO. NM0028355,  
DELETION OF FOUR OUTFALLS**

Dear Ms. Rosborough:

Please delete the following four (4) outfalls from the Los Alamos National Laboratory's NPDES Permit No. NM0028355, effective on August 1, 2007. Personnel from the New Mexico Environment Department (NMED), DOE Oversight Bureau have reviewed and verified that these outfalls are no longer in use (See Enclosure 1).

<u>NPDES Outfall</u>	<u>Industrial Facility</u>	<u>Waste Stream</u>
02A129	TA-21-357	Boiler Blow-down
03A021	TA-3-29	Treated Cooling Water
03A130	TA-11-30	Treated Cooling Water
03A185	TA-15-185	Treated Cooling Water

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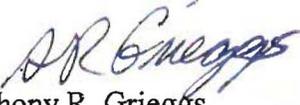
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TA-11 Cooling Tower, Outfall 03A130: Industrial discharges to NPDES Outfall 03A130 were eliminated on April 30, 2010. Piping modifications were made to divert cooling tower blow-down to a 1000 gallon capture tank, and the existing NPDES outfall discharge pipe was plugged.

TA-15 Dual-Axis Radiographic Hydrodynamic Test (DARHT) Cooling Tower, Outfall 03A185: Industrial discharges to NPDES Outfall 03A185 were eliminated. The DARHT cooling tower and facility septic system were connected to the TA-46 SWWS collection system on July 30, 2010.

Please contact Mike Saladen (505) 665-6085 or Marc Bailey at (505) 665-8135 of the Laboratory's Water Quality and RCRA Group (ENV-RCRA) if additional information would be helpful.

Sincerely,

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

ARG:MS/lm

Cy: Hannah Branning, USEPA/Region 6, Dallas, TX, w/enc.  
Isaac Chen, USEPA/Region 6, Dallas, TX, w/enc.  
James Bearzi, NMED/SWQB, Santa Fe, NM, w/enc.  
Gene Turner, LASO-EO, w/enc., A316  
Carl A. Beard, PADOPS, w/o enc., A102  
J. Chris Cantwell, ADESH&Q, w/o enc., K491  
Andrew Erickson, UI-DO, w/o enc., K760  
Steven Henry, TA-21 DO, w/o enc., C348  
Paul Sasa, CMR-DO, w/o enc., G746  
Raeanna Sharp-Geiger, WFO-DO, w/o enc., C925  
Dennis Hjereson, ENV-DO, w/o enc., K404, (E-File)  
Mike Saladen, ENV-RCRA, w/enc., K490, (E-File)  
Marc Bailey, ENV-RCRA, w/enc., K490, (E-File)  
Stephen Cossey, ENV-ES, w/o enc., G749  
John Hartin, W-13, w/o enc., A142  
John Tymkowych, ENV-ES, w/o enc., C925  
Cindy Blackwell, LC-LESH, w/enc., A187  
ENV-RCRA File, w/enc., M704  
IRM-RMMSO, w/enc., A150

**ENCLOSURE 1**

**ENV-RCRA-11-0185**

**LAUR-11-11444**



**SUSANA MARTINEZ**  
GOVERNOR

**JOHN A. SANCHEZ**  
LIEUTENANT GOVERNOR

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**DAVID MARTIN**  
SECRETARY

**RAJ SOLOMON, P.E.**  
DEPUTY SECRETARY

June 2, 2011

Jeffrey M. Casalina  
Environmental Projects Office (EPO)  
U.S Department of Energy  
National Nuclear Security Administration Los Alamos Site Office  
3747 West Jemez Road, MS A316  
Los Alamos, NM 87544

**SUBJECT: DOE Oversight Bureau (DOE OB) Inspection Observations and Suggestions for Deletion National Pollution Discharge Elimination System (NPDES) Outfall(s) from LANLs Current NPDES Permit Number NM0028355 issued by Region 6**

Dear Mr. Casalina:

Previous to completion of these suggestions for outfall deletion from the current Environmental Protection Agency (EPA) NPDES permit, DOE Oversight Bureau staff and Marc Bailey from LANL/LANS Water Quality/RCRA staff visited NPDES discharge locations listed below in order to provide for the verification and suggestion for deletion of these outfalls(s) from the current NPDES permit under LANL's Reduction of Outfall Program.

- On November 17, 2010, TA-3, Building 357 (CMR Air Washers), Outfall 03A021
- On April 7, 2011, TA-15, Building 312 (DARHT Cooling Tower), Outfall 03A185
- On April 7, 2011, TA-21, Steam Plant Boiler Blowdown, Outfall 02A129, and
- On April 4, 2011, TA-11 (Cooling Tower), Outfall 03A130

All sites mentioned above were visited and verified for suggestion of closure.

**Observations:**

**Outfall 03A021, TA-3, Building 357, Chemistry, and Metallurgy Building (CMR):**

The air washers for this system have not supplied water to this outfall since 2007. In the spring of 2008 (air washers are used seasonally), the CMR Operations Group began operating the air washers in a "no



Mr. Jeff Casalina  
June 2, 2011  
Page 2 of 3

blowdown" configuration. In addition, discharges from the CMR cooling system were re-routed from Outfall 03A021 to the TA-46 Sanitary Wastewater System (SWWS) plant for emergency use only and/or are operating in a "closed-loop" system with final re-plumbing of the system completed on May 10, 2010.

**Outfall 03A185, TA-15, Building 312 (Dual Axis Radiographic Hydrodynamic Test facility [DARHT] Cooling Tower):**

The blowdown and overflow on this system was reconfigured to send all discharges from the cooling towers to the sanitary collection system at TA-46 Sanitary Wastewater System (SWWS) plant in July of 2010. In the reconfiguration, the overflow pipe (PVC) was re-routed to the uphill end of the corrugated metal pipe (CMP) on the north side of the building. Before this reconfiguration was completed, this discharge line went through the CMP where it day-lighted at the downhill end as Outfall 03A185.

During construction, the PVC line was cut at the uphill end of the CMP and the resulting isolated PVC was pulled several feet at the downhill end of the CMP, in order to allow capping of the blowdown pipe and allowing it to be abandoned in place. In addition, the overflow line was exposed and tied into the new line to the recently constructed nearby lift station. In the post-construction configuration, the blowdown exits the DARHT building on the north side as before, but then flows through the old overflow line and back to the south and to the new lift station. The overflow line now flows directly into the new lift station line and then to the line that is tied into the TA-46 SWWS plant.

**Outfall 02A129, TA-21, Steam Plant Boiler Blowdown:**

Decommissioning and demolition of the TA-21 Steam Plant began on August 24, 2007. The final discharge from the holding tank occurred on September 20, 2007. All piping leading into and out of this outfall has been either been cut or disconnected, followed by capping.

**Outfall 03A130, TA-11, Building 30 (Cooling Tower):**

During this inspection DOE Oversight Bureau staff was informed that several funding requests are in process to replace the old water-cooled equipment at TA-11, Building 30, with new equipment and closed loop chiller system, eliminating the need for the present cooling tower. Personnel from ENV-Water Quality-Risk Reduction Office walked down the facility in 2009, considered the proposed upgrades and annual discharge volumes, and recommended an interim, short-term solution to bring the outfall into compliance until upgrades are installed. The recommendation was to capture the blowdown and to either evaporate it or send it to an onsite facility (SWSS or High Explosive Wastewater Treatment Facility [HEWTF]) for treatment. The annual discharge volume for this outfall is around 2000 gallons, and the largest blowdown volume recorded from previous discharges was about 750 gallons. From this walk down, minor piping modifications were initiated to divert the cooling tower blowdown to a capture tank, install electrical modifications for tank heaters and high-level interlocks, and to plug the existing NPDES Outfall discharge pipe. In addition to the 1000-gallon capture tank, a 300-gallon "tote" tank has been put into place to completely capture this discharge before it enters Outfall 03A130 until final

Mr. Jeff Casalina  
June 2, 2011  
Page 3 of 3

modifications are finished. Materials were ordered in February 2010 and received in March for the upgrade and modifications to this system. Both of the mechanical and electrical modifications to the system were begun during the week of April 12<sup>th</sup> and were completed by April 27<sup>th</sup>, 2010.

The connection between the cooling tower blowdown piping and the PVC outfall pipe has been cut and capped and there are no intentions to ever discharge from this outfall again due to possible copper contamination exceedences and NPDES non-compliance.

**Recommendations:**

DOE Oversight staff recommends that all four outfalls be deleted from all current and future NPDES permit # NM0028355 as of the date of this letter.

If you have any questions regarding these recommendations, please contact Erik Galloway of our Santa Fe office at (505) 476-6024.

Sincerely,



Stephen Yanicak, Staff Manager/POC

SY:eg

xc: Gene Turner, DOE, NNSA, LASO MS A316  
Anthony Grieggs, LANS, ENV-RCRA/WQ, MS K490  
Mike Saladen, LANS, ENV-RCRA/WQ, MS K490  
Erik Galloway, NMED, DOE OB MS M894  
Courtney Perkins, NMED, DOE OB MS M894  
Steve Yanicak, NMED, DOE OB MS M894  
Glenn Saums, NMED, SWQB  
Richard Powell, NMED, SWQB  
LANL NPDES File 2011



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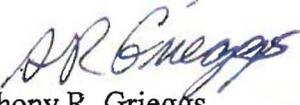
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**ENV-RCRA-11-0185**

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*State of New Mexico*  
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Stephen Yanicak, Staff Manager/POC

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