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Water Quality & RCRA Group (ENV-RCRA)
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Date: September 16, 2010
Refer To: ENV-RCRA-10-175
LAUR: 10-06070

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

Dear Ms. Hall:

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

The National Pollutant Discharge Elimination System (NPDES) Permit No. NM0028355 for the National Nuclear Security Administration (NNSA) and Los Alamos National Security, LLC (LANS) requires the permittee(s) 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 (see Part III.D.1.a. *Reporting Requirements*).

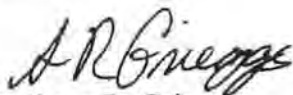
The Radioactive Liquid Waste Treatment Facility (RLWTF) has recently made a number of operational treatment changes to reduce concentrations of copper and zinc being discharged to Outfall 051 due to the new stringent effluent limits, effective August 1, 2010. The newly installed ion exchange media to remove copper and zinc to the new effluent limits appear to be effective. However, when the ion exchange media effluent waters are placed in the existing RLWTF effluent tanks (referred to as the N. and S. Frac tanks), the water is then found to be greater than the discharge limits. NNSA/LANS will install a new 1,000 gallon polymeric tank in Room 38 of the RLWTF to receive the ion exchange media effluent water. This new tank will be referred to as Tank 38. This new tank should eliminate any residual copper and zinc contamination that is suspected to be in the N. and S. Frac tanks. New hoses will be installed in Rooms 34B, 36 and 38 at the RLWTF to move water from the ion exchange vessels in Room 34B to Tank 38. New hoses, also, will be installed to transfer the Tank 38 water back to either Frac tank in Room 34B for reprocessing and for connecting Tank 38 to the line used to discharge effluent to Outfall 051. To determine if Tank 38 contents meet discharge requirements, a representative sample of the Tank 38 contents will be collected. The representative sample will be obtained from the re-circulation line after the 1,000 gallon contents of Tank 38 have

been re-circulated for 80 minutes at a rate of 50 gpm. If discharge to the outfall is from Tank 38, a new NPDES compliance sampling location is proposed. This location will be in Room 38, on the discharge side of the pump that will pump the Tank 38 contents to the outfall. Enclosure 1 shows an isometric drawing of Tank 38, associated piping, recirculation/discharge pump, proposed NPDES sampling location and flow paths during discharge to Outfall 051. If discharges to Outfall 051 are made from the Frac tanks, the presently approved NPDES compliance sampling location in Room 116 at the RLWTF will continue to be used.

Additionally, RLWTF effluent waters that are not within discharge limits to the outfall may need to be stored in the TA-50-250 Waste Management Risk Mitigation (WMRM) facility. New hoses will be installed to move water from the Frac tanks in Room 34B to tank #6 in the WMRM facility. A copy of the revised treatment schematic is enclosed (see Enclosure 2).

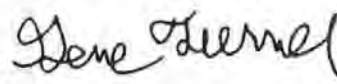
Please contact Marc Bailey at (505) 665-8135 or Mike Saladen at (505) 665-6085 of the Water Quality and RCRA Group (ENV-RCRA) if you have questions or need additional information.

Sincerely,



Anthony R. Grieggs
Group Leader
Water Quality & RCRA Group (ENV-RCRA)
Los Alamos National Security, LLC

Sincerely,



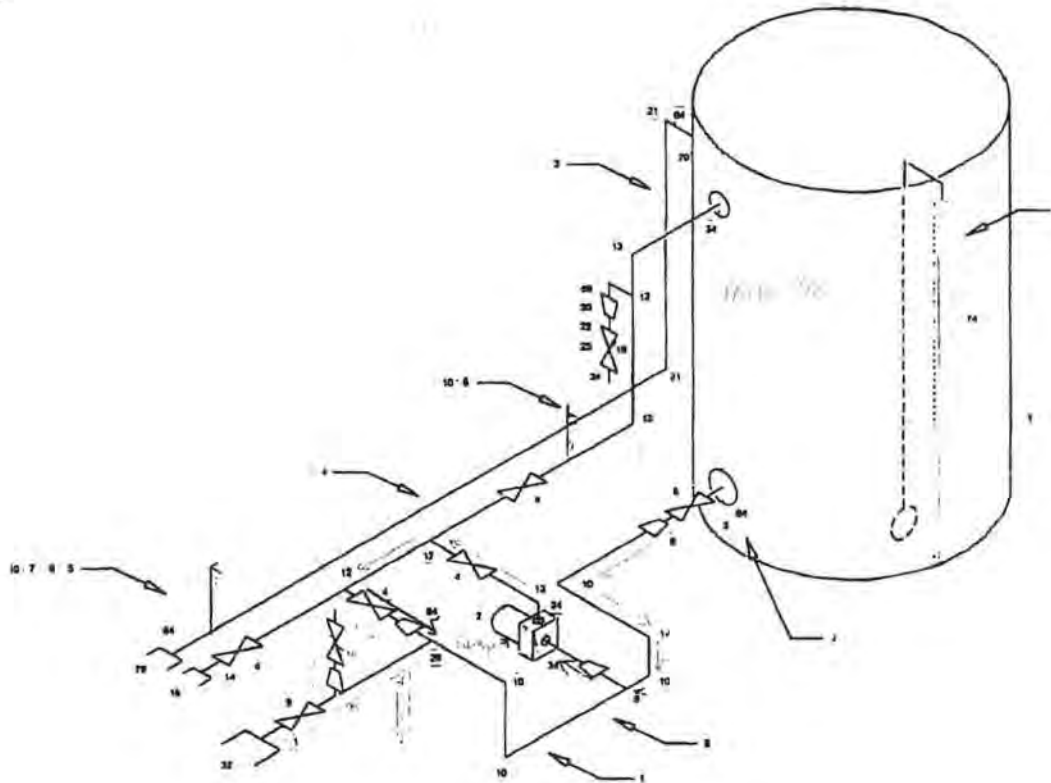
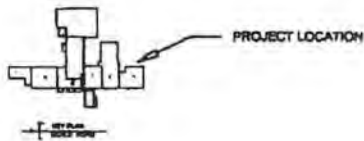
Gene Turner
Environmental Permitting Manager
Environmental Projects Office
Los Alamos Site Office
National Nuclear Security Administration

ARG:GT:MS/lm

Enclosures: a/s

Cy: Brent Larsen, USEPA/Region 6, Dallas, TX, w/enc.
Isaac Chen, USEPA/Region 6, Dallas, TX, w/enc.
Glenn Saums, NMED/SWQB, Santa Fe, NM, w/enc.
William Olson, NMED/GWQB, Santa Fe, NM, w/enc.
George Rael, LASO-EO, w/enc., A316
Steve Yanicak, LASO-GOV, w/enc., M894
Michael B. Mallory, PADOPS, w/o enc., AI02
Robert L. McQuinn, ADHHO, w/o enc., K778
Carl A. Beard, ADSMS, w/o enc., E585
J. Chris Cantwell, ADESHQ, w/o enc., K491
Dennis Hjeresen, ENV-DO, w/o enc., (E-File)
Robert Mason, TA55-DO, w/enc., E583
Hugh McGovern, TA-55-RLW, w/enc., E518
Pete Worland, TA-55-RLW, w/enc., E518

ENCLOSURE 1



1000 GAL. TANK PARTIAL PIPING - ISOMETRIC
SCALE NONE

GENERAL NOTES

1. SCALE - NONE.
2. "OR APPROVED EQUAL" IS ALWAYS IMPLIED AFTER A BRAND NAME, PATENTED PROCESS OR CATALOG NUMBER. THE CONTRACTOR MAY SUBSTITUTE ANY BRAND OR PROCESS APPROVED AN EQUAL BY SPECIFYING ARCHITECT/ENGINEER. THE ONLY EXCEPTION IS WHERE "NO SUBSTITUTION" IS SPECIFIED.
3. REFER TO BILL OF MATERIALS (BOM) IN REFERENCED DCF FOR MATERIAL CALLOUTS AND INSPECTION REQUIREMENTS.
4. ALL ITEMS ML-4.
5. ALL INSTALLATION SHALL CONFORM WITH TO LANG. STANDARDS.
6. FIELD ADJUST PIPE DIMENSIONS.

KEYED NOTES

1. DISCHARGE HOSE & ASSOCIATED PIPING - 4" MINIMUM
2. TANK CONNECTION - 2" NPTF (DISCHARGE)
3. TANK CONNECTION - 1-1/2" NPTF (INLET)
4. EXTEND 2" LINE TO PIPE SUPPORT AND CONNECT HOSE TO DRAIN IN ROOM 38 IF EXISTING DRAIN IN ROOM 38 IS PERMANENTLY BLOCKED. INSTALL THROUGHWALL FITTING AS HIGH AS POSSIBLE.
5. INSTALL PIPE SECTIONS AT LEAST 3" APART.
6. PIPING WEIGHTS LESS THAN 5 LB/FT. ANCHORING NON STRUCTURAL. NO BSI REQUIRED.
7. ATTEMPT TO EQUATE OUTLET LINE HEIGHT TO THE SAME HEIGHT AS THE TANK DISCHARGE (UNION STRUT FOOTING MIGHT NOT BE REQUIRED OR CONSIDER ADDING A PIECE OF UNSTRUT UNDERNEATH PIPE SUPPORT).
8. ANCHOR PUMP TO THE FLOOR OR CONSIDER USING UNSTRUT, 1/2" STEEL PLATE AND 1/2" HLT) ANCHORS IN ADDITION TO THE PUMP FOOT AND ANCHOR TO THE FLOOR.
9. INSTALL LEVEL FLOATS & SCALE PER MANUFACTURER INSTRUCTIONS.
10. BOM ITEMS 53 TO 58.

No.	Date	Drawn	ADC	Description	EFT	CRG	CPW	BUS	APP

ENGINEERING STANDARDS PROGRAM
Radioactive Liquid Waste Treatment Facility (RLWTF)

SYSTEMS DRAWING SUPPORTING DCF-95-TA88-001-002				REVISION	J.C. Pugh
TANK-8888 1000 GAL TANK BASEMENT, ROOM 38					J.C. Pugh
PARTIAL PIPING ISOMETRIC					C. Dillmore
BLDG-001	ROOM-38	TA-00		Date	
Los Alamos National Laboratory			F-9000		
Los Alamos, NM 87545			1 OF 3		
UNCLASSIFIED					
PROJECT NUMBER: N/A					

ENCLOSURE 2

**LANL Radioactive Liquid Waste Treatment Facility (TA-50)
Process Schematic (as of 09/13/2010)**

