



Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

NPDES Permit No. **NM0028355**

**AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Clean Water Act, as amended,
(33 U.S.C. 1251 et. seq; the "Act"),

Los Alamos National Security, LLC
Management Contractor for Operations
Los Alamos, New Mexico 87544

and

U.S. Department of Energy
Los Alamos Area Office
Los Alamos, New Mexico 87544

are authorized to discharge from a facility located at Los Alamos,

to receiving waters named: Perennial portion of Sandia Canyon in Waterbody Segment No. 20.6.4.126, and Mortandad Canyon, Canada del Buey, Los Alamos Canyon, ephemeral portion of Sandia Canyon, Ten Site Canyon, and Canon de Valle, in Waterbody Segment No. 20.6.4.128 of the Rio Grande Basin,

in accordance with this cover page and the effluent limitations, monitoring requirements, and other conditions set forth in Parts I [Requirements for NPDES Permits], II [Other Conditions], III [Standard Conditions for NPDES Permits], and IV [Sewage Sludge Requirements] hereof.

This permit supersedes and replaces NPDES Permit No. NM0028355 issued on June 8, 2007.

This permit shall become effective on **October 1, 2014**

This permit and the authorization to discharge shall expire at midnight, **September 30, 2019**

Issued on **August 12, 2014**

Prepared by

William K. Honker, P.E.
Director
Water Quality Protection Division (6WQ)

Isaac Chen
Environmental Engineer
NPDES Permits Branch (6WQ-P)

OUTFALL 051 - Radioactive Liquid Waste Treatment Facility

Discharge Type: Intermittent
 Latitude 35°51'54"N, Longitude 106°17'52"W (TA-50-1)

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge treated radioactive liquid waste to Mortandad Canyon in segment number 20.6.4.128 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>				<u>MONITORING REQUIREMENTS</u>	
	<u>CONCENTRATION</u>		<u>LOADING</u>		<u>FREQUENCY</u>	<u>SAMPLE TYPE</u>
	(mg/L, unless stated)		(Lbs/day, unless stated)			
	<u>MONTHLY AVERAGE</u>	<u>DAILY MAXIMUM</u>	<u>MONTHLY AVERAGE</u>	<u>DAILY MAXIMUM</u>		
Flow (MGD)	***	***	Report	Report	1/Day	Estimate (*5)
COD	125	125	***	***	1/Month	Grab
TSS	30	45	73	109	1/Month	Grab
Total Toxic Organics (*1)	1.0	1.0	***	***	1/Month	Grab
Ra 226+228 (pCi/l)	30	30	***	***	1/Week	Grab
Total Chromium	1.34	2.68	***	***	1/Week	Grab
Total Lead	0.076	0.115	***	***	1/Week	Grab
Total Copper	0.014	0.014	***	***	3/Week	Grab
Total Zinc	0.191	0.191	***	***	3/Week	Grab
Total Hardness	Greater than or equal to 50 mg/l				3/Week	Grab
Total Residual Chlorine	***	0.011 (*2)	***	***	1/Week	Grab
Total Cadmium	Report	Report	***	***	2/Term (*3)	Grab
Total Mercury	Report	Report	***	***	2/Term (*3)	Grab
Total Nickel	Report	Report	***	***	2/Term (*3)	Grab
Total Selenium	Report	Report	***	***	2/Term (*3)	Grab

Perchlorate	Report	Report	***	***	1/Week	Grab
Total PCB ($\mu\text{g/l}$)	Report	Report	***	***	2/Term (*3)	Grab
Total Recoverable Aluminum	Report	Report	***	***	1/Term	Grab
Adjusted Gross Alpha	Report	Report	***	***	1/Term	Grab
Chromium III	Report	Report	***	***	1/Term	Grab
Chromium VI	Report	Report	***	***	1/Term	Grab
pH (Standard Unit)	Range from 6.0 to 9.0		***	***	1/Week	Grab

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING		MONITORING REQUIREMENTS	
	MONTHLY AVG MINIMUM	7-DAY MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Whole Effluent Lethality (PCS 22414) (48-Hr NOEC) (*4)	100%	100%	1/3 Months	3-Hr Composite

FOOTNOTES

- *1 The limits and monitoring for Total Toxic Organics do not include 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD), Pesticides, or Polychlorinated biphenyls.
- *2 The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.
- *3 At least two samples from different discharge events shall be taken during the term of the permit if discharges occur. EPA published congener Method 1668 Revision and detection limits shall be used for reporting purposes. The permittee is allowed to develop an effluent specific MDL in accordance with Appendix B of 40 CFR Part 136 (instructions in Part II.A of this permit).
- *4 Monitoring and reporting requirements begin on the effective date of this permit. 100% limitation becomes effective on March 1, 2016. Critical dilution 100%, and the dilution series are 32%, 42%, 56%, 75%, 100%. Also see Part II, Section I. Whole Effluent Toxicity (48-Hour Acute Limits).
- *5 "Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): following the final treatment and prior to or at the point of discharge from TA-50-1 treatment plant.

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box in the Discharge Monitoring Report.

FLOATING SOLIDS, OIL AND GREASE

There shall be no discharge of oils, scum, grease and other floating materials that would cause the formation of a visible sheen or visible deposits on the bottom or shoreline, or would damage or impair the normal growth, function or reproduction of human, animal, plant or aquatic life.