LA-UR-08-05553

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Title:	Semi-Annual Emissions Report - Operating Permit Number P100M2 January - June 2008
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Intended for:	New Mexico Environmental Department

Los Alamos
NATIONAL LABORATORY
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Form 836 (7/06)

Enclosure - 1

Los Alamos National Laboratory's
Title V Operating Permit
Emissions Report for the period
January 1 – June 30, 2008

Title V Report Certification Form

I. Report Type

☐ **Annual Compliance Certification**

☐ **Semi-Annual Monitoring Report**

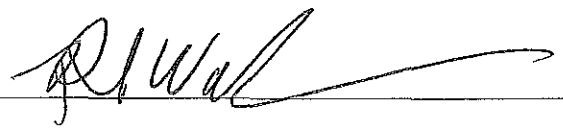
☒ **Other Specify: Title V Semi-Annual Emissions Report January-June 2008**

II. Identifying Information

Facility Name: Los Alamos National Laboratory		
Facility Address: P.O. Box 1663, MS J978, Los Alamos	State: NM	Zip: 87545
Responsible Official (RO): Richard S. Watkins	Phone: 505-667-4218	Fax: 505-665-3811
RO Title: Assoc. Director Environmental, Safety, Health, and Quality	RO e-mail: rswatkin@lanl.gov	
Permit No.: P100M2	Date Permit Issued: July 16, 2007	
Report Due Date (as required by the permit): 09/28/2008	Permit AI number: 856	
Time period covered by this Report: From: January 1, 2008	To: June 30, 2008	

III. Certification of Truth, Accuracy, and Completeness

I am the Responsible Official indicated above. I, (Richard S. Watkins) certify that I meet the requirements of 20.2.70.7.AD NMAC. I certify that, based on information and belief formed after reasonable inquiry, the statements and information contained in the attached Title V report are true, accurate, and complete.

Signature  Date: 9/12/08

Los Alamos National Laboratory
Semi-Annual Emissions Report
January 1, 2008 through June 30, 2008

This report is being provided to meet the requirement set forth in permit condition 4.1 of the Los Alamos National Laboratory (LANL) Operating Permit Number P100M2. The emissions were calculated using operating data recorded during the first six months of 2008.

Facility Emissions

The following table displays the actual facility-wide emissions compared with the Facility Wide Emission Limits specified in permit condition 2.10.1 of the Operating Permit. These emissions include insignificant sources, which are included to demonstrate that facility-wide emissions are below all PSD applicability threshold limits. Hazardous Air Pollutant (HAP) and Volatile Organic Compound (VOC) emissions from chemical use include point source and fugitive emissions (see permit condition 4.1).

Pollutant	January - June Emissions (tons)	July - December Emissions (tons)	2008 Annual Emissions (tons)	Facility Wide Emission Limits (Permit Condition 2.10.1) (tons per year)
Nitrogen Oxides (NOx)	25.4			245
Sulfur Dioxide (SO_2)	0.3			150
Particulate Matter (PM)	2.5			120
Carbon Monoxide (CO)	18.4			225
Volatile Organic Compounds (VOCs)	6.4			200
Hazardous Air Pollutants (HAPs)	3.2			24 combined
Jan-June Highest Individual HAP (Hydrochloric Acid)	0.5			8 individual

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Source Emissions

The following are the actual emissions from permitted sources listed in permit condition 2.0 of the operating permit for the six month reporting period. Included with these emissions are the source specific emission limits if applicable.

Permit Condition/Source

2.1 Asphalt Production

Asphalt Plant TA-60-BDM	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (Condition 2.1.2) (tons per year)
NOx	0.013			1.0
SO_2	0.002			1.0
PM	0.005			*35.4 lb/hr
CO	0.210			2.6
VOC	0.004			1.0
HAPs	0.004			No Source Permit Limit

Note: * The Asphalt Plant does not have an annual limit for PM. The hourly emissions were demonstrated during the initial source compliance test conducted on August 25th & 26th, 2005 and submitted to NMED.

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2.2 Beryllium Activities

Source	Pollutant	January - June Emissions	July - December Emissions	Annual Emissions	Permit Limits (Condition 2.2.2)
Beryllium Test Facility TA-3-141[(1)]	Beryllium (grams)	< 0.0033			3.5 gm/yr
Target Fabrication Facility TA-35-213[(2)]	Beryllium (grams)	< 0.00944			0.36 gm/yr
Plutonium Facility TA-55-PF4[(3)] Machining Operation	Beryllium (grams)	< 1.495			2.99 gm/yr
	Aluminum (grams)	< 1.495			2.99 gm/yr
Plutonium Facility TA-55-PF4 Foundry Operation[(4)]	Beryllium (grams)	0			8.73×10^{-4} gm/yr
	Aluminum (grams)	0			8.73×10^{-4} gm/yr
Beryllium Total[(5)] (tons) =		**< 1.66E-06**			
Aluminum Total (tons) =		**< 1.65E-06**			

Notes: [(1)] Emission values shown for the Beryllium Test Facility are from actual stack emission measurements which are submitted to NMED quarterly. [(2)] Emissions for the Target Fabrication Facility are from initial compliance testing of that source and calculated based on a conservative assumption of 8 hour work days. Log books were checked to verify that work days were much less than 8 hours.[(3)] Emissions for the Plutonium Facility are calculated based on permitted throughputs. Log books were checked to verify that throughputs were much less than permitted values. [(4)] The Plutonium Facility foundry operations did not operate during the first six months of 2008. [(5)] Other Beryllium activities listed in section 2.2 of the permit do not require reporting in the Semi-Annual Emissions Report.

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2.3 Boilers and Heaters

Boilers and Heaters	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (Condition 2.3.2) (tons per year)
NOx	14.60			80
SO_2	0.09			50
PM	1.16			50
PM-10	1.16			50
CO	11.83			80
VOCs	0.81			50
HAPs	0.28			No Source Limit

Note: The emissions shown in this table include significant and insignificant sources. This section does not include the TA-3-22 Power Plant boilers. These can be found under Section 2.9 of this report.

2.4 Carpenter Shops

Shop	Pollutant	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (Condition 2.4.2) (tons per year)
TA-3-38	**PM_{10}**	0.006			3.07
TA-15-563	**PM_{10}**	0.013			2.81

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2.5 Chemical Usage

Chemical Usage LANL-FW-CHEM	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (Condition 2.5.3.1)
VOCs	4.7			Source limits refer to facility-wide limits. (See Facility Emissions Table on Page 1)
HAPs	2.6			
Highest Individual HAP for the first six months (Hydrochloric Acid)	0.5			

2.6 Degreasers

Degreaser TA-55-DG-1	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (Condition 2.6.2.1) (tons per year)
VOCs	0.010			Source limits refer to facility-wide limits. (See Facility Emissions Table on Page 1)
HAPs	0.010			

Note: Degreasers TA-55-DG-2 and TA-55-DG-3 were not used from January 1 to June 30, 2008. The units have been removed from LANL and will not be used in the future. The Title V application submitted to NMED in April 2008 reflects this change.

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2.7 Internal Combustion Sources

Generator TA-33-G-1	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (Condition 2.7.2) (tons per year)
NOx	0.359			18.1
SO_X	0.053			2.5
TSP	0.012			0.6
PM_{10}	0.012			0.6
CO	0.292			15.2
VOC	0.007			0.3
HAPs	7.73E-05			No Source Limit

Generator TA-33-G-2	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (NSR Permit 2195-P Condition 2) (tons per year)
NOx	0.000			0.21
SO_X	0.000			Not Required
TSP	0.000			Not Required
PM_{10}	0.000			Not Required
CO	0.000			0.1
VOC	0.000			Not Required
HAPs	0.00E+00			No Source Limit

Note: This generator is not listed in the latest Title V permit, P100M2. However, it is listed in NSR Permit No. 2195-P which was issued on August 8, 2007 and has been included in the Title V application submitted to NMED in April 2008. This generator did not run during the first six months of 2008.

Generator TA-33-G-3	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (NSR Permit 2195-P Condition 2) (tons per year)
NOx	0.008			0.21
SO_X	0.001			Not Required
TSP	0.001			Not Required
PM_{10}	0.001			Not Required
CO	0.002			0.1
VOC	0.001			Not Required
HAPs	2.68E-06			No Source Limit

Note: This generator is not listed in the latest Title V permit, P100M2. However, it is listed in NSR Permit No. 2195-P which was issued on August 8, 2007 and has been included in the Title V application submitted to NMED in April 2008. The emissions from this unit are included in the facility wide total.

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Generator TA-33-G-4	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (NSR Permit 2195-P Condition 2) (tons per year)
NOx	0.000			2.33
SO_X	0.000			0.16
TSP	0.000			Not Required
PM_{10}	0.000			Not Required
CO	0.000			1.4
VOC	0.000			0.2
HAPs	0.00E+00			No Source Limit

Note: This generator is not listed in the latest Title V permit, P100M2. However, it is listed in NSR Permit No. 2195-P which was issued on August 8, 2007 and has been included in the Title V application submitted to NMED in April 2008. This generator did not run during the first six months of 2008.

Stationary Standby Generators	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits
NOx	2.46			No Source Specific Emission Limits for Standby Generators
SOx	0.08			
TSP	0.11			
PM_{10}	0.11			
CO	0.56			
VOC	0.11			
HAPs	0.001			

Note: Standby Generators are insignificant sources.

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2.8 Data Disintegrator

Data Disintegrator TA-52-11	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (Condition 2.8.2) (tons per year)
TSP	0.19			9.9
PM10	0.17			9.9

2.9 Power Plant at Technical Area 3 (TA-3-22)

Boilers TA_3-22-1, TA-3-22-2 TA-3-22-3	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limit (Condition 2.9.2) (tons per year)
NOx	8.0			60.2
SO_2	0.1			7.9
TSP	1.0			8.4
PM_{10}	1.0			8.2
CO	5.5			41.3
VOC	0.8			5.6
HAPs	0.3			No Source Limit

Combustion Turbine TA-3-22 CT-1	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limit (Condition 2.9.2) (tons per year)
NOx	0.014			33.2
SO_2	0.001			1.9
TSP	0.002			2.3
PM_{10}	0.002			2.3
CO	0.003			19.8
VOC	0.001			No TPY Limit
HAPs	3.90E-04			No Source Limit

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