Los Alamos National Laboratory
2005 Semi-Annual Emissions Report
(January through June)

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 P100. The emissions included in this report were calculated using operating data recorded during the first six months of 2005.

Facility Emissions

The following table displays the actual facility-wide emissions compared with the Facility Wide Emission Limits specified in permit condition 2.11 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. Also, due to the method used for calculating Hazardous Air Pollutant (HAP) and Volitile Organic Compound (VOC) emissions from chemical use, fugitive emissions are included (see permit condition 4.1).

Pollutant	January - June Emissions (tons)	July - December Emissions (tons)	2005 Annual Emissions (tons)
Nitrogen Oxides (NOx)	27.8		
Carbon Monoxide (CO)	19.6		
Volatile Organic Compounds (VOCs)	8.0		
Sulfur Dioxide (SO_2)	0.9		
Particulate Matter (PM)	2.8		
Hazardous Air Pollutants (HAPs)	4.3		
Jan-June Highest Individual HAP (Hydrochloric Acid)	0.7		

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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 located at TA-60

Pollutant	Jan-June Emissions (tons)	July-Dec Emissions (tons)	Annual Emissions (tons)	[redacted]
NOx	0.0			
SO_2	0.0			
PM	0.0			
CO	0.0			
VOC	0.0			
HAPs	0.0			

Note: The Asphalt Plant did not operate during the first 6 months of 2005.

* The Asphal Plant does not have a tons per year limit for PM. The lb/hr emissions will be demonstrated during the initial source compliance test.

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2.2 Beryllium Activities

Source	Pollutant	Jan-June Emissions (grams)	July-Dec Emissions (grams)	Annual Emissions (grams)
Beryllium Test Facility TA-3-141	Beryllium	3.30E-03		
Target Fabrication Facility TA-35-213	Beryllium	9.44E-03		
Plutonium Facility TA-55-PF4				
Machining Operation	Beryllium	1.495		
	Aluminum	1.495		
Foundry Operation	Beryllium	0		
	Aluminum	0		
Jan-June Beryllium Total (tons) =		**1.66E-06**	**Jan-June Aluminum Total (tons**	

Note: Emission values shown for the Beryllium Test Facility are from actual stack emission measurements. Emiss are from initial compliance testing of that source and based on 8 hour work days. Emissions for the Plutonium Fac permitted limits. The Plutonium Facility foundry operations did not operate during the first six months of 2005. Ott 2.2 of the permit do not require reporting in the Semi-Annual Emissions Report.

2.3 Boilers and Heaters

Pollutant	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)
NOx	15.9		
SO_2	0.1		
PM	1.3		
PM-10	1.3		
CO	12.8		
VOC	0.9		
HAPs	0.30		

Note: The emissions shown in this table include significant and insignificant sources. This section does include the TA-3-22 Power Plant boilers. These can be found under 2.9. The TA-21 steam plant boilers included in this table.

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2.4 Carpenter Shops

Shop	Pollutant	January - June Emissions (tons)	July - December Emission (tons)	Annual Emissions (tons)
TA-3-38	PM_{10}	0.027		
TA-15-563	PM_{10}	0.009		

2.5 Chemical Usage

Pollutant	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)
VOCs	6.1		
HAPs	3.7		
Highest Individual HAP (Hydrochloric Acid)	0.7		

2.6 Degreasers

Degreaser TA-55-DG-1	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)
VOCs	0.006		
HAPs	0.006		

Note: Degreasers TA-55-DG-2 and TA-55-DG-3 were not used in the first six months of 2005. These degreasers are not expected to be used in the near future and are in storage.

2.7 Internal Combustion Sources

Generator TA-33-G-1	Jan-June Emissions (tons)	July-Dec Emissions (tons)	Annual (tons)
TSP	0.0		
PM_{10}	0.0		
NOx	0.0		
CO	0.0		
VOC	0.0		
SO_X	0.0		
HAPs	0.0		

Note: The TA-33-G-1 generator did not operate during the first six months of 2005.

Standby Generators	Jan-June Emissions (tons)	July-Dec Emissions (tons)	Annual (tons)
TSP	0.1		
PM_{10}	0.1		
NOx	3.1		
CO	0.7		
VOC	0.2		
SOx	0.7		
HAPs	1.2E-03		

Note: Standby Generators are insignificant sources.

2.8 Paper Shredder

Emission Unit TA-52-11	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)
TSP	0.0		

Note: The paper shredder was shutdown in July 2004 and was replaced with a new data disintegrator (see data disintegrator - section 2.8.b).

2.8.b Data Disintegrator (Unit replaced paper shredder)

Emission Unit TA-52-11	January - June Emissions	July - December Emissions	Annual Emissions (ton)
TSP	0.20		
PM10	0.18		

Note: The data disintegrator was started on August 18, 2004, and replaced the existing paper shredder. This unit and its allowable emissions were included in LANL's Title V operating permit application modification submitted to NMED on July 29, 2005. The data disintegrator was installed under Air Quality Permit No. 2195-H. The emissions from this unit are included in the facility wide total.

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

Pollutant	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)
NOx	8.8		
SO_2	0.1		
TSP	1.2		
PM_{10}	1.2		
CO	6.1		
VOC	0.8		
HAPs	0.3		

Note: On July 29, 2005, LANL submitted a Title V modification application and requested that the power plant boilers emission limits be lowered to be consistant with Construction Permit 2195B-M1 (issued July 30, 2004). The revised Title V permit has not been issued and therefore, the limits shown here reflect the permit limits in the original Title V permit. However, all emissions from the power plant boilers are in compliance with the emission limits in Permit 2195B-M1.

2.10 Rock Crusher

The Rock Crusher was not used during this 6 month reporting period. The source was retired on June 10, 2004.