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Status Report

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Emissions Inventory Report Summary
for Los Alamos National Laboratory for
Calendar Year 2007

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Issued: August 2008

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Ecology and Air Quality Group

CONTENTS

ABSTRACT	1
1.0 INTRODUCTION	1
1.1 REGULATORY BASIS.....	1
1.2 CONTENTS OF ANNUAL EMISSIONS INVENTORY SUBMITTAL	3
1.3 CONTENTS OF THE SEMIANNUAL TITLE V OPERATING PERMIT EMISSIONS REPORTS	3
2.0 REPORTED EMISSION SOURCES	4
2.1 STEAM PLANTS	4
2.2 SMALL BOILERS AND HEATERS	6
2.3 ASPHALT PLANT	7
2.4 DATA DISINTEGRATOR.....	7
2.5 DEGREASERS	7
2.6 CARPENTER SHOP.....	8
2.7 OIL STORAGE TANKS	8
2.8 PERMITTED BERYLLIUM-MACHINING OPERATIONS.....	9
2.9 GENERATORS	9
2.10 COMBUSTION TURBINE	9
2.11 EMISSIONS FROM CHEMICAL USE ACTIVITIES.....	9
2.11.1 VOC Emissions	10
2.11.2 HAP Emissions.....	11
2.12 EMISSIONS SUMMARY BY SOURCE.....	13
3.0 REPORTING EXEMPTIONS	14
3.1 BOILERS	15
3.2 GENERATORS	15
3.3 VOC EMISSIONS.....	16
3.4 HAP EMISSIONS	17
3.5 PAINTS	17
4.0 EMISSIONS SUMMARY	17
4.1 2007 EMISSIONS SUMMARY.....	17
4.2 EMISSION TRENDS AND TITLE V PERMIT LIMITS	19
REFERENCES	21
Attachment A Emission Calculation Worksheets for Individual Emission Units.....	A-1
Attachment B 2007 Annual Emissions Inventory Submittal to NMED.....	B-1
Attachment C 2007 Semiannual Emissions Reports Submitted Under Title V Operating Permit Requirements.....	C-1

Figures

Figure 2.1-1	Main steam plant at TA-3 at LANL.	6
Figure 2.11-1	Example of a laboratory fume hood at LANL.	10
Figure 4.1-1	Emissions of criteria pollutants by source in 2007.	19
Figure 4.1-2	Comparison of facility-wide annual reported emissions from 1999–2007.	20
Figure 4.1-3	VOC and HAP emissions from chemical use, 1999–2007.	20

Tables

Table 2.0-1	Sources Included in LANL’s 2007 Annual Emissions Inventory and Semiannual Emissions Reports.	4
Table 2.12-1	Summary of LANL 2007 Reported Emissions for Annual Emissions Inventory.	13
Table 2.12-2	Summary of LANL 2007 Semiannual Emissions as Reported Under Title V Operating Permit Requirements.	14
Table 3.3-1	Exemptions Applied for Chemical Use Activities.	16
Table 4.1-1	LANL Facility-Wide Criteria Pollutant Emissions for 2007.	18
Table 4.1-2	LANL HAP Emissions from Chemical Use for 2007.	18

Acronyms

AIRS	Aerometric Information Retrieval System
AQB	Air Quality Bureau
CAS	Chemical Abstracts Service
CO	carbon monoxide
EPA	U.S. Environmental Protection Agency
FGR	flue gas recirculation
HAP	hazardous air pollutant
HCl	hydrochloric acid
LANL	Los Alamos National Laboratory
MSDS	material safety data sheet
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NO _x	nitrogen oxides
PM	particulate matter
PM _{2.5}	particulate matter with diameter less than 2.5 micrometers
PM ₁₀	particulate matter with diameter less than 10 micrometers
PSD	Prevention of Significant Deterioration
R&D	research and development
SO _x	sulfur oxides
TA	Technical Area
VOC	volatile organic compound

EMISSIONS INVENTORY REPORT SUMMARY FOR LOS ALAMOS NATIONAL LABORATORY FOR CALENDAR YEAR 2007

by

ECOLOGY AND AIR QUALITY GROUP

ABSTRACT

Los Alamos National Laboratory (LANL) is subject to annual emissions reporting requirements for regulated air pollutants under Title 20 of the New Mexico Administrative Code, Chapter 2, Part 73 (20.2.73 NMAC), Notice of Intent and Emissions Inventory Requirements. The applicability of the requirements is based on the Laboratory's potential to emit 100 tons per year of suspended particulate matter, nitrogen oxides, carbon monoxide, sulfur oxides, or volatile organic compounds. Additionally, on April 30, 2004, LANL was issued a Title V Operating Permit from the New Mexico Environment Department, Air Quality Bureau, under 20.2.70 NMAC. This permit was modified and reissued on July 16, 2007. This Title V Operating Permit (Permit No. P-100M2) includes emission limits and operating limits for all regulated sources of air pollution at LANL. The Title V Operating Permit also requires semiannual emissions reporting for all sources included in the permit. This report summarizes both the annual emissions inventory reporting and the semiannual emissions reporting for LANL for calendar year 2007. LANL's 2007 emissions are well below the emission limits in the Title V Operating Permit.

1.0 INTRODUCTION

1.1 Regulatory Basis

Los Alamos National Laboratory (LANL or the Laboratory) has reported on air pollutants generated from its operations since the 1970s when Air Quality Control Regulation 703, Registration of Air Contaminant Sources, was promulgated. According to the regulation, the Laboratory was required to register air pollutant sources that emitted more than 2,000 lb per year of any air contaminant. This regulatory requirement later evolved into Title 20 of the New Mexico Administrative Code, Chapter 2, Part 73 (20.2.73 NMAC), Notice of Intent and Emissions Inventory Requirements. The objective of the reporting requirement is to provide emissions data to the New Mexico Environment Department (NMED)/Air Quality Bureau (AQB) so its staff can determine whether LANL meets state and federal air pollutant standards.

Annual emissions inventory reporting requirements under 20.2.73 NMAC apply to any stationary source which

- has been issued a construction permit under 20.2.72 NMAC;

- has been required to file a Notice of Intent under 20.2.73.200 NMAC; or
- emits in excess of
 - 1 ton per year of lead or
 - 10 tons per year of
 - total suspended particulates;
 - particulate matter (PM) with diameter less than 10 micrometers (PM₁₀);
 - PM with diameter less than 2.5 micrometers (PM_{2.5});
 - sulfur dioxide;
 - nitrogen oxides (NO_x);
 - carbon monoxide (CO); or
 - volatile organic compounds (VOCs).

The annual emissions inventory must be submitted to NMED/AQB by April 1 of each year. The NMED/AQB enters the data in the Aerometric Information Retrieval System (AIRS) (EPA 2008a). This nationwide system, administered by the U.S. Environmental Protection Agency (EPA), is used to help ensure ambient air quality standards are maintained and to track the state's air pollutant emissions. AIRS is a large air pollution database that contains information, requirements, and data on air pollution and air quality in the United States and various World Health Organization member countries. The program is operated by the EPA and state/local air pollution control agencies. The AIRS database tracks each state's progress towards achieving and maintaining National Ambient Air Quality Standards for criteria pollutants. The database is also used as a tool to help improve each state's air quality programs by enabling program members to access and compare past data and view data from other states. For 2007 emissions inventory reporting, NMED imported existing facility data from the AIRS database into spreadsheets and requested facilities to update the sheets with 2007 facility emissions information.

Additionally, on July 16, 2007, the Laboratory received their Title V Operating Permit (P-100M2) from the NMED/AQB (NMED 2007) as required under 20.2.70 NMAC. A condition of the Title V Operating Permit is that LANL must submit semiannual emissions reports to NMED documenting that emissions from all permitted sources are below permitted emission levels. Section 4.0 of the permit states:

Reports of actual emissions from permitted sources in Section 2.0 of the permit shall be submitted on a 6 month basis. The reports shall include a comparison of actual emissions that occurred during the reporting period with the facility-wide allowable emission limits specified in Section 2.11 of the permit. The reports shall be submitted within 90 days from the end of the reporting period. The reporting periods are January 1 through June 30, and July 1 through December 31. This condition is pursuant to 20.2.70.302.E.1 NMAC.

Therefore, in 2004 the Laboratory began submitting the semiannual emissions reports as well as the annual emissions inventory. There are a few differences in which sources are included in the two emissions reports. These differences are explained in the following sections.

1.2 Contents of Annual Emissions Inventory Submittal

NMED requested that LANL submit annual emissions inventory data for 2007 via electronic format for entry into AIRS. The information required for submittal includes the following:

- company name, address, and physical location for the facility;
- facility contact information;
- signed certification statement by a responsible facility official; and
- specific information for each emission unit such as stack and exhaust parameters, type and efficiency of control equipment, schedule of operation, annual process or fuel combustion rates, and estimated actual emissions for 2007.

This annual emissions inventory submittal includes air pollutant data for PM, PM₁₀, CO, NO_x, sulfur oxides (SO_x), VOCs, beryllium, hazardous air pollutants (HAPs), and aluminum. Additionally, at the request of NMED, the 2007 report provides data on emissions from PM_{2.5} and ammonia.

For 2007, LANL is required to report PM_{2.5} emissions. LANL previously reported PM_{2.5} emissions at the request of NMED for 2006. Further, ammonia is a precursor to PM_{2.5} formation. It contributes to the secondary aerosol formation of PM_{2.5} by combining with NO_x and SO_x to form ammonium nitrate and fine sulfate particles. LANL is also required to report emissions of ammonia for 2007.

In the 2007 annual emissions inventory submittal, LANL provided PM_{2.5} emissions data for all combustion sources and other emission sources where PM_{2.5} emission factors were readily available. In the absence of PM_{2.5} emission factors, PM or PM₁₀ emissions were assumed to be equivalent to PM_{2.5}. The Laboratory does not operate any emission units that are sources of ammonia emissions. Ammonia was included in the facility-wide emission estimates for chemical use.

1.3 Contents of the Semiannual Title V Operating Permit Emissions Reports

The semiannual Title V Operating Permit emissions reports include actual emissions for the reporting period for each emission source or source category included in the Title V Operating Permit. For each source category, the actual emissions are compared to emission limits listed in the permit. The emissions are calculated using operating data from logbooks and records maintained on-site. All emission calculations are consistent with calculation methods used for the annual emissions inventory.

The semiannual emissions reports include a few source categories not included in the annual emissions inventory. The Laboratory requested emission limits in their Title V Operating Permit for two source categories that are considered insignificant sources for the annual emissions inventory. These source categories are 1) small boilers and heaters and 2) stationary standby generators. LANL requested emission limits for these source categories to obtain federally enforceable limits that would keep the Laboratory under the major source threshold for Prevention of Significant Deterioration (PSD) applicability (20.2.74 NMAC). LANL's actual emissions from these insignificant sources have historically been very low; however, without federally enforceable limits on their operation, the potential to emit from these sources was quite high. To demonstrate that LANL is below the PSD applicability and is in compliance with the emission limits placed on these emission sources, LANL now must include these emissions in the semiannual Title V Operating Permit emissions reports.

2.0 REPORTED EMISSION SOURCES

Table 2.0-1 shows the emission sources included in the Laboratory's 2007 annual emissions inventory (LANL 2008a) and the 2007 semiannual emissions reports (LANL 2007 and 2008b). The source categories and the methodology used to calculate emissions are described in the following sections.

**Table 2.0-1
Sources Included in LANL's 2007 Annual Emissions
Inventory and Semiannual Emissions Reports**

Included in Annual Emissions Inventory	Included in Semiannual Emissions Reports	Comment
Steam Plants (TA-3* & TA-21)	Steam Plants (TA-3 & TA-21)	n/a**
Boilers greater than 5 MMBTU/hr (14 units)	All small and large boilers and heaters (approximately 175 units)	Small boilers less than 5 MMBTU/hr are exempt from annual emissions inventory requirements (see Section 3.1).
Asphalt Plant	Asphalt Plant	n/a
Degreasers	Degreasers	n/a
Air Curtain Destructors (shut down)	Not included	Air curtain destructors were shut down before issuance of the Title V Operating Permit.
Carpenter Shops	Carpenter Shops	n/a
Oil Storage Tanks	No tanks included	Applicability of the New Source Performance Standard for storage tanks changed in 2004 and the LANL oil storage tanks were not required to be included in the Title V Operating Permit.
Permitted Beryllium Sources	Permitted Beryllium Sources	n/a
Facility-wide Chemical Use	Facility-wide Chemical Use	n/a
Process Generators	Process Generators and Stationary Standby Generators (approximately 45 units)	Stationary standby generators are exempt from annual emissions inventory requirements (see Section 3.2).
TA-3 Turbine	TA-3 Turbine	n/a

*TA = Technical Area **n/a = Not Applicable

The following subsections describe emission sources included in the 2007 emissions inventory and semiannual emissions reports and emission calculation methodology for each source type. A summary table of actual reported emissions by source is included at the end of this section (Section 2.12). Attachment A includes worksheets showing detailed emission calculations for individual emissions sources. A copy of the 2007 emissions inventory as submitted to NMED is presented in Attachment B. The 2007 semiannual emissions reports are included as Attachment C.

2.1 Steam Plants

The Laboratory operates two steam plants, one located at TA-3 and the other at TA-21. The TA-3 steam plant produces steam for heating and electricity for much of the Laboratory when sufficient

power from outside sources is not available. The steam plant at TA-21 provides steam for heating of buildings at this technical area. The heat produced from both steam plants is used for comfort heat and hot water and to support facility processes. Each steam plant has three boilers that are fueled primarily with natural gas with No. 2 fuel oil as a backup.

For the 2007 emissions inventory, NMED requested that emissions from natural gas and No. 2 fuel oil be reported separately for the boilers located at each of the steam plants. The TA-3 steam plant was originally included in LANL's emissions inventory as a single unit. When a modification to the plant was made in 2001, the TA-3 steam plant was separated into three separate units for emissions reporting purposes. Because each of the three boilers has the capability of burning either natural gas or No. 2 fuel oil, the TA-3 steam plant is now reported as six units. The boilers at the TA-21 steam plant are included in the emissions inventory as two units, one for natural gas and one for No. 2 fuel oil.

The 2007 emissions inventory reporting year used the updated emission factors for fuel oil for PM, PM₁₀, and PM_{2.5} as described for the TA-3 power plant boilers. Gas use and fuel oil use for the TA-21 steam plant are provided on a monthly data deliverable by the site support contractor. As described above, emissions from natural gas and from No. 2 fuel oil have been reported separately for the boilers.

Actual emissions are calculated on the basis of metered fuel consumption and emission factors. The primary source of emission factors is AP-42, the EPA's Compilation of Air Pollutant Emission Factors (EPA 1998). However, emission factors from stack tests conducted at the TA-3 steam plant when burning natural gas were also used, as appropriate.

The TA-3 steam plant has historically been the largest source of NO_x emissions at the Laboratory. In 2002, a voluntary project to install pollution control equipment on the three boilers at the TA-3 steam plant was completed. The three boilers were fitted with flue gas recirculation (FGR) equipment to reduce NO_x emissions. Stack testing for NO_x and CO was conducted before FGR equipment was installed and again after it was operational. Based on these stack test results, FGR reduced NO_x emissions by approximately 64 percent. In 2007, the TA-3 steam plant underwent maintenance during all of June and July plus part of August. During this time, the FGR equipment was also not operational but the steam plant was not combusting any fuel. Figure 2.1-1 shows a picture of the TA-3 steam plant building and stacks.



Figure 2.1-1 Main steam plant at TA-3 at LANL.

2.2 Small Boilers and Heaters

The Laboratory operates approximately 200 small boilers and heaters, used primarily for seasonal comfort heat. Most of the boilers are exempt from permitting requirements because of their small size and use as comfort boilers and are not included in the annual emissions inventory. The exemption analysis applied to boilers is discussed in Section 3.1 of this report.

The nonexempt boilers reported in the 2007 annual emissions inventory include the following:

- two boilers at TA-16 (Eqpt 17);
- three boilers at TA-48 (Eqpt 8, 9, and 10);
- two boilers at TA-53 (Eqpt 11 and 12);
- two boilers at TA-59 (Eqpt 13 and 14);
- two boilers at TA-55 (Eqpt 29 and 30); and
- one process-related boiler at TA-50 (Eqpt 41).

All of the reported boilers burn natural gas. Operating logs of actual fuel used for the TA-55 and TA-50 boilers were used to quantify emissions from these units. Fuel use for all other boilers was estimated based on the total amount of natural gas used by the Laboratory minus the amount supplied to metered sources. The amount of natural gas left after subtracting out metered sources was apportioned to the various boilers based on their size. Since virtually all of the small boilers are seasonal boilers used for building heating, it was assumed they would all operate approximately the same amount of time over the course of the year. Some emission factors were available from stack tests (TA-55), some were provided by the boiler manufacturer (Sellers Engineering Company), and the rest were taken from AP-42 (EPA 1998). Copies of spreadsheets showing fuel use and emission factors for each boiler are included in Attachment A.

For the semiannual emissions reports, emissions from all small boilers and heaters are included as a source category. The Title V Operating Permit includes emissions limits for this group of emission sources. To estimate emissions, all un-metered fuel use was multiplied by AP-42 emission factors for small boilers burning natural gas (EPA 1998). Total emissions of each pollutant from all boilers and heaters in this source category were then summed and reported on the semiannual emissions reports.

2.3 Asphalt Plant

The TA-60 asphalt plant began operations in July 2005. This unit replaced the TA-3 asphalt plant which has not operated since June 2003. The TA-3 asphalt plant was dismantled and removed in September 2003. Information on the amount of asphalt produced and the amount of asphalt oil used at the TA-60 asphalt plant was provided as part of a monthly site support contractor data deliverable. The amount of oil is used in calculating releases for the Emergency Planning and Community Right-to-Know Act 313 report and not for the emission inventory report. The total asphalt produced in 2007 was 1,730 tons.

The emissions from the asphalt plant include criteria pollutants and HAPs. None of the emissions were significant in regard to the overall Laboratory emissions. The largest pollutant emitted from the asphalt plant was CO at 0.35 tons per year.

2.4 Data Disintegrator

The data disintegrator is included in the 2007 emissions inventory as Eqpt 89. Operation of this source started in August 2004. Emissions are calculated using the methodology described in the permit application dated June 23, 2003. Emissions of PM, PM₁₀, and PM_{2.5} are calculated based on the number of boxes shredded, the amount of dust estimated to enter the exhaust (provided by the manufacturer), and the control efficiency of the cyclone and baghouse (also provided by the manufacturer). The permit application did not include PM_{2.5} emission estimates. Therefore, an emission methodology had to be developed for the emission inventory reporting. No specific PM size distribution data were available. However, the manufacturer reported that dust into the exhaust would be in the size range of 5 to 20 µm. Based on visual observation and engineering judgment, a particle size distribution in the exhaust was estimated as follows:

- PM_{2.5} 15%
- PM₁₀ 90%
- Total Suspended Particulates 100%

The number of boxes of material shredded is provided on a monthly data deliverable from the site support contractor. The total number of boxes shredded at the data disintegrator in 2007 was 11,420.

2.5 Degreasers

The halogenated solvent cleaning machine at TA-55 has a capacity of 18 liters and is registered with NMED/AQB as required under the National Emissions Standards for Hazardous Air Pollutants, 40 CFR 63 Subpart T, Halogenated Solvent Cleaning. The solvent used in the machine, trichloroethylene (Chemical Abstracts Service [CAS] No. 79-01-6), is a VOC and a HAP. This

emission unit is included in the annual emissions inventory as Eqpt 21. LANL uses a mass balance approach to estimate emissions. Logbooks are kept on the amount of solvent added and removed from the machine. Additionally, solvent levels in the machine are logged monthly. LANL has two additional halogenated solvent cleaning machines registered with NMED (Eqpt 29 and 30). These units were not operational in 2007. The emissions from the TA-55 degreaser for this reporting period are 25 lbs or 0.013 tons per year. This source category is reported in both the annual emissions inventory and the semiannual emissions reports.

2.6 Carpenter Shop

LANL operates a carpenter shop at TA-3-38 which was operated intermittently through the year. This carpenter shop was built before 1960 and is not subject to 20.2.72 NMAC construction permitting. However, LANL included carpenter shops in the Title V Operating Permit. Therefore, this source category is included in the annual emissions inventory as Area 3 and is included on the semiannual emissions reports. Additionally, a carpenter shop located at TA-15 is included in the Operating Permit and began operations in June 2005.

Emissions from the carpenter shops were calculated based on the flow rate out of the cyclone, the estimated concentration of particulate in the exhaust, AP-42 emission factors, and the hours of operation of the cyclones.

In 2007, total operation of the TA-3 carpenter shop was 66 hours and the total operation of the TA-15 carpenter shop was 177 hours.

2.7 Oil Storage Tanks

Two large diesel storage tanks are located at the TA-3 steam plant for backup fuel to the boilers. These tanks are included in the annual emissions inventory as Eqpt 27 and 28. Emissions from these tanks are estimated using software developed by EPA for estimating emissions from storage tanks (EPA 2008b). The TANKS 4.0 software requires inputs for tank parameters, site-specific meteorological conditions, and actual fuel throughputs.

The Laboratory included 15 storage tanks in their recently updated Title V permit application because they were subject to NSPS 40 CFR 60, Subpart Kb, New Source Performance Standards. Fourteen of the 15 tanks store mineral oil, scintillation oil, or dielectric oil, which all have vapor pressures of <0.01 mm Hg. Applicability of Subpart Kb was modified by EPA in 2003 and these tanks are no longer subject to this regulation and were subsequently removed from the draft LANL Title V permit application.

Emissions from these smaller oil storage tanks were included for the first time in the 2002 annual emissions inventory. With agreement from NMED, emissions from the 14 tanks were summed and listed as one stack entry in the emissions inventory report due to the small quantity of emissions (email correspondence with Jim Shively, NMED/AQB, dated February 3, 2003). This "composite" mineral oil tank was assigned Eqpt 108. Because an equipment number is now assigned, emissions from these tanks will continue to be included in the annual emissions inventory submittal. However, these tanks are not included in the Title V Operating Permit semiannual emissions reports. Based on the most conservative tank parameters and actual throughput from chemical inventory records, a unit emission rate was calculated. The TANKS 4.0 software was used to estimate emissions for both vertical and fixed-roof tanks (EPA 2008b). Unit emission rates in lb/yr were multiplied by the

number of active horizontal and vertical tanks to provide an estimate of total annual emissions from all of the active tanks.

2.8 Permitted Beryllium-Machining Operations

The Laboratory operates four permitted beryllium-machining operations that are subject to 40 CFR 61, Subpart C, and National Emission Standards for Beryllium. Beryllium-machining operations are reported in the emissions inventory under Act 2, 3, and 6 and Eqpt 5. Emissions reported for the Beryllium Test Facility (Act 3) are from actual stack emissions measurements. Emissions for the Target Fabrication Facility (Act 2) are from initial compliance stack testing and are reported as permitted emission levels. In addition, emissions from the Plutonium Facility (Act 6 and Eqpt 5) are reported at permitted emission levels. Foundry operations within the Plutonium Facility did not occur during this reporting period. Total emissions from all permitted beryllium operations are included in the semiannual emissions reports.

2.9 Generators

LANL installed a process-related generator at TA-33 to support research activities. NMED issued a construction permit (Permit No. 2195-F) in October 2002 for installing the generator, and this unit is included in LANL's Title V Operating Permit. The unit first operated in May 2006. It did not operate during 2007. The TA-33 generator is included as Eqpt 56 in the 2007 emissions inventory report.

The Laboratory maintains approximately 45 stationary standby generators that are considered exempt sources under the Construction Permit regulations (20.2.72.202.b NMAC) and the annual emissions inventory requirements. However, these sources are included in LANL's Title V Operating Permit with operating limits and emission limits. Therefore, these sources must be included in the semiannual emissions reports. All stationary standby generators at LANL are exercised on a routine schedule to ensure they are operational and will function properly if needed. All units are equipped with hour meters to document how many hours they are used. The Laboratory maintains records on a semiannual basis to document hour meter readings. The number of hours each generator is used in a reporting period is multiplied by AP-42 emission factors for diesel-fired internal combustion engines or natural-gas-fired internal combustion engines (EPA 1996). Emissions are then summed for each pollutant and reported on the semiannual emissions reports for this source category.

2.10 Combustion Turbine

LANL has one combustion turbine located at the TA-3 Power Plant. A revised construction permit was issued by NMED July 2004 to add the TA-3 combustion turbine as a new permitted source. This unit started operations in September 2007. Emissions calculations are based on the initial stack compliance tests performed in 2007, AP-42, Tables 3.1-2a and 3.1-3, and information provided by the manufacturer. In 2007 this combustion turbine operated for 31 hours.

2.11 Emissions from Chemical Use Activities

The majority of the Laboratory's work is devoted to research and development (R&D) activities. Varying operating parameters, as well as amounts and types of chemicals, are used in these activities. R&D activities occur at virtually all technical areas within the Laboratory, typically in small

quantities in laboratory settings. Figure 2.11-1 shows a typical laboratory at LANL where chemicals are used.



Figure 2.11-1 Example of a laboratory fume hood at LANL.

For the purposes of annual emissions inventory reporting, one equipment number has been assigned for all R&D chemical use (Act 7). Facility-wide chemical use emissions are reported on both the annual emissions inventory and the semiannual emissions reports. The methods used to quantify emissions of VOC and HAPs from R&D activities are discussed below.

2.11.1 VOC Emissions

The Laboratory tracks chemical purchases through a facility-wide chemical tracking system called ChemLog. A download from the ChemLog inventory system was created that included all chemical containers added to LANL's inventory between January 1, 2007, and December 31, 2007. This dataset included 55,638 separate line items of chemicals purchased.

The dataset was reviewed electronically to identify all VOCs purchased and received at LANL in 2007. With the exception of specific listed chemicals, VOCs are any compounds of carbon that participate in atmospheric photochemical reactions. VOCs include commonly used chemicals such as

ethanol, methanol, trichloroethylene, and isopropanol. The general assumption used in estimating VOC emissions from chemical use is

$$\text{Purchasing} = \text{Use} = \text{Emissions}$$

From the dataset of chemicals purchased in 2007, certain categories of chemicals were separated and eliminated from the analysis. The classifications assigned and corresponding reasons (noted in parentheses) for exclusion of chemicals from inventory records are noted below.

- Solid materials (not a significant source of air emissions based on their low vapor pressure);
- Non-VOC materials as defined by 40 CFR 51.100 (specific chemicals in 40 CFR 51.100 are listed as having negligible photochemical reactivity and are exempt from the definition of VOC);
- Paints (paints were evaluated separately—see Section 3.5);
- Inorganic chemicals (inorganics are not compounds of carbon);
- Oils (not a significant source of air emissions based on low vapor pressure and primarily used for maintenance);
- Fuels used for combustion purposes (emissions from fuel combustion are reported for each combustion unit).

Furthermore, the following categories of chemicals were eliminated based on guidance from NMED (letter from Mary Uhl, NMED/AQB, dated January 30, 2001):

- Container sizes of 1 lb or less;
- Chemicals with vapor pressures less than 10 mmHg;
- Chemicals used to calibrate equipment;
- Maintenance chemicals;
- Use of office equipment and products;
- Chemicals used for boiler water treatment operations;
- Chemicals used for oxygen scavenging (deaeration) of water; and
- Chemicals used in bench-scale chemical analysis.*

After elimination of chemicals and categories of chemicals listed above, the remaining chemical inventory records were matched with a list of known VOCs by CAS number. For mixtures (chemicals without CAS numbers), material safety data sheets (MSDSs) were reviewed to determine if any VOCs were present and, if so, to determine the associated percent volatile. As a conservative estimate, VOCs identified in ChemLog records were assumed to be 100 percent emitted to air. Estimated emissions of VOCs from chemical use in 2007 totaled 12.2 tons.

2.11.2 HAP Emissions

Section 112(b) of the 1990 Clean Air Act Amendments listed 189 unique HAPs identified for potential regulation by EPA. In 1995, caprolactam was delisted as a HAP and methyl ethyl ketone

*This exemption was applied only to biological research solutions. Otherwise, this exemption was not applied (see Table 3.3-1).

was delisted in 2005. Of the remaining 187 listed HAPs, 17 are classes of compounds (e.g., nickel compounds). Use of the 187 listed chemicals in activities at the Laboratory was evaluated and quantified for the annual emissions inventory submittal to NMED.

The ChemLog inventory system 2007 dataset was analyzed to identify HAPs. The identification process was similar to that used for VOCs. Pure chemicals (i.e., chemicals with CAS numbers), classes of compounds, and mixtures were evaluated to determine if the chemicals themselves were HAPs or if they contained HAP constituents. For mixtures, MSDSs were reviewed to determine if any HAPs were present and, if so, to determine the associated HAP percentages. Listed below are certain chemical types or categories that were identified and removed from this analysis (refer to Section 2.11.1 and Table 3.3-1 for explanations on removal of these chemicals):

- Paints;
- Oils;
- Maintenance chemicals;
- Chemicals used to calibrate equipment;
- Container sizes of 1 lb or less;
- Chemicals used in bench-scale chemical analysis;
- Use of office equipment and products;
- Chemicals used for boiler water treatment operations; and
- Chemicals used for oxygen scavenging (deaeration) of water.

Total HAP emissions were estimated by summing 1) pure HAP chemicals, 2) classes of compounds that are HAPs, and 3) the HAP constituents from mixtures. The resulting total amount of HAPs from chemical use reported for 2007 was 5.8 tons.

The HAP emissions reported generally reflect quantities procured in the calendar year. In a few cases procurement values and operational processes were further evaluated so that actual air emissions could be reported instead of procurement quantities. Additional analyses for certain metals and acids were performed and are described below.

HAP Metals

Purchases of beryllium, chromium, lead, manganese, mercury, and nickel compounds were evaluated to determine usage and potential air emissions. Several of the purchases were identified as laboratory calibration standards containing only parts per million quantities of the metals. These were exempt from emissions inventory requirements because of their use as standards for calibrating laboratory equipment. Other purchasers of relatively large quantities of metal compounds that were contacted confirmed that the material was still in use or in storage and had not resulted in air emissions.

Hydrochloric Acid

In 2007, the largest purchases of hydrochloric acid (HCl) were made by a variety of operating groups within the Chemistry Division. The major users of HCl primarily purchased it in 2.5- or 4-liter

bottles of concentrated acid. This HCl was primarily used for cleaning labware and for certain analytical processes. The remaining procurements consisted of numerous small purchases from a variety of operating groups. Additional analysis of these numerous small purchases was not done. As a conservative assumption, all of this HCl was assumed to be emitted resulting in a reported total of 1.07 tons of HCl emissions.

2.12 Emissions Summary by Source

Table 2.12-1 provides a summary of LANL's 2007 actual emissions, as submitted for the annual emissions inventory. The table presents emissions by pollutant and by source, with a facility total at the bottom of the table. Attachment A provides detailed information on how emissions were calculated for each emission unit.

**Table 2.12-1
Summary of LANL 2007 Reported Emissions for Annual Emissions Inventory**

	NO _x (tons/yr)	SO _x (tons/yr)	PM ₁₀ (tons/yr)	PM _{2.5} (tons/yr)	CO (tons/yr)	VOC (tons/yr)	HAPs (tons/yr)
TA-3 Steam Plant Boilers	13.46	0.45	1.81	1.81	9.24	1.25	0.43
TA-21 Steam Plant Boilers	0.76	0.005	0.058	0.058	0.64	0.042	0.0144
Non-Exempt Boilers	5.2	0.033	0.48	0.48	3.61	0.3	0.1
Asphalt Plant	0.021	0.004	0.005	0.005	0.35	0.007	0.007
Data Disintegrator	n/a*	n/a	0.44	0.44	n/a	n/a	n/a
Degreaser	n/a	n/a	n/a	n/a	n/a	0.012	0.012
Carpenter Shops	n/a	n/a	0.066	0.066	n/a	n/a	n/a
Oil Storage Tanks	n/a	n/a	n/a	n/a	n/a	0.049	n/a
R&D Chemical Use	n/a	n/a	n/a	n/a	n/a	12.25	5.8
TA-33 Generator	0.0	0.0	0.0	n/a	0.0	0.0	0.0
TA-3 Turbine	0.159	0.011	0.021	0.021	0.033	0.007	0.0033
TOTAL	19.6	0.50	2.88	2.88	13.9	13.9	6.4

* n/a = Not Applicable.

Table 2.12-2 provides a summary of 2007 emissions as reported on the semiannual emissions reports required by the Title V Operating Permit. Attachment A provides detailed information on how emissions were calculated for each emission source category.

Table 2.12-2
Summary of LANL 2007 Semiannual Emissions as Reported Under
Title V Operating Permit Requirements

	NO_x (tons/yr)	SO_x (tons/yr)	PM₁₀ (tons/yr)	PM_{2.5} (tons/yr)	CO (tons/yr)	VOC (tons/yr)	HAPs (tons/yr)
TA-3 Steam Plant Boilers	13.46	0.45	1.81	1.81	9.24	1.25	0.43
<i>TA-21 Steam Plant Boilers</i>	<i>Emissions included in Small Boilers Source Category</i>						
All Small Boilers & Heaters	25.63	0.16	2.04	2.04	20.78	1.43	0.49
Asphalt Plant	0.021	0.004	0.005	0.005	0.346	0.007	0.007
Data Disintegrator	n/a ^a	n/a	0.44	0.44	n/a	n/a	n/a
Degreaser	n/a	n/a	n/a	n/a	n/a	0.012	0.012
Carpenter Shops	n/a	n/a	0.066	0.066	n/a	n/a	n/a
Oil Storage Tanks ^b	n/a	n/a	n/a	n/a	n/a	0.05	n/a
R&D Chemical Use	n/a	n/a	n/a	n/a	n/a	12.25	5.8
Stationary Standby Generators	12.75	.36	0.51	0.51	2.87	0.51	0.004
TA-33 Generator	0	0	0	n/a	0	0	0
TA-3 Turbine	0.159	0.011	0.021	0.021	0.033	0.007	1.07
TOTAL	52.0	0.97	4.85	4.8	33.36	15.6	6.7

^a n/a = Not Applicable.

^b Source category not included in Title V Operating Permit.

3.0 REPORTING EXEMPTIONS

Specific activities that are determined to be insignificant under NMED's Operating Permit program (20.2.70 NMAC) are exempt from reporting under the emissions inventory requirements (20.2.73.300 NMAC). NMED has designated exempt sources, activities, or thresholds in the following lists:

- List of Insignificant Activities, March 25, 2005 (NMED 2005) and
- List of Trivial Activities, January 10, 1996 (NMED 1996).

Laboratory sources and activities that qualify as insignificant or trivial as specified in these lists are not included in the annual emissions inventory. The following subsections of this report provide information and examples of the Laboratory's exempt activities as well as analyses performed to determine exempt status.

3.1 Boilers

The Laboratory's boiler inventory was evaluated against the List of Insignificant Activities. Specifically, boilers were exempted from emissions inventory reporting requirements if they met one of the following requirements:

- Fuel-burning equipment which uses gaseous fuel, has a design rate less than or equal to five million BTU per hour, and is used solely for heating buildings for personal comfort or for producing hot water for personal use, or
- Any emissions unit . . . that has the potential to emit no more than **one ton per year** of any regulated pollutant

Any boiler that was not used exclusively for comfort heating or hot water was evaluated for the one ton per year exemption. For purposes of determining exemptions, boiler design ratings were used to estimate potential to emit. Any boiler not qualifying for one of these two exemptions is included in the annual emissions inventory with its own unique equipment number.

For the semiannual emissions reports, emissions from all boilers and heaters were summed and reported for the entire source category.

3.2 Generators

The Laboratory maintains an inventory of approximately 125 portable generators. Portable generators are used at the Laboratory for temporary operations requiring remote power or to provide emergency backup power during power outages at various sites. The portable generators are fueled by gasoline and/or diesel fuel.

In addition to portable generators, the Laboratory maintains and operates approximately 45 stationary standby generators. Stationary generators are used on standby (emergency) status to provide power to critical systems at the Laboratory during power outages. The stationary generators are fueled by natural gas, gasoline, or diesel.

The insignificant activity exemptions applicable to the Laboratory's generators are the following:

- Portable engines and portable turbines that have a design capacity . . . less than or equal to
 - 200-horsepower engine if fueled by diesel or natural gas, and
 - 500-horsepower engine if fueled by gasoline.
- Emergency generators which on a temporary basis replace equipment used in normal operation, and which either have an allowable emission rate or potential to emit for each pollutant that is equal to or less than the equipment replaced, or which do not operate for a period exceeding 500 hours per calendar year.

On the basis of size, portable generators used for temporary power at remote locations are exempt from emissions inventory reporting requirements. Further, LANL's small portable generators are considered trivial activities and are not included in the Title V Operating Permit or semiannual emissions reports. All stationary generators are designated as standby equipment under the Operating Permit Program and are used solely to provide emergency backup power for less than 500 hours per

year. Therefore they are considered insignificant sources and are also exempt from annual emissions inventory reporting requirements. However, the stationary standby generators were voluntarily included as a source category in the Title V Operating Permit and are included in the semiannual emissions reports.

3.3 VOC Emissions

A number of insignificant and trivial activities were applicable for exempting materials from the VOC chemical use total in the emissions inventory. The basis of the exemptions and corresponding insignificant or trivial activities are explained in Table 3.3-1.

**Table 3.3-1
Exemptions Applied for Chemical Use Activities**

Basis of Exemption	Activity Type	Activity
Container sizes of 1 pound or less	Trivial	Paint or nonpaint materials dispensed from prepackaged aerosol cans of 16-oz. capacity or less.
Chemicals with vapor pressures less than 10 mmHg	Insignificant	Any emissions unit, operation, or activity that handles or stores a liquid with vapor pressure less than 10 mmHg or in quantities less than 500 gal.
Calibration chemicals	Trivial	Routine calibration and maintenance of laboratory equipment or other analytical instruments, including gases used as part of those processes.
Maintenance chemicals and oils	Trivial	Activities that occur strictly for maintenance of grounds or buildings, including lawn care; pest control; grinding; cutting; welding; painting; woodworking; sweeping; general repairs; janitorial activities; plumbing; re-tarring roofs; installing insulation; steam-cleaning and water-washing activities; and paving of roads, parking lots, and other areas. Activities for maintenance and repair of equipment, pollution-control equipment, or motor vehicles either inside or outside of a building.
Use of office equipment and products	Trivial	Use of office equipment and products, not including printers or businesses primarily involved in photographic reproduction.
Chemicals used for boiler water treatment	Trivial	Boiler water treatment operations, not including cooling towers.
Chemicals used for oxygen scavenging	Trivial	Oxygen scavenging (deaeration of water).
Chemicals used in bench-scale chemical analysis	Trivial	Bench-scale laboratory equipment used for physical or chemical analysis but not lab fume hoods or vents. <i>Note: This exemption was applied only to biological research solutions. Otherwise, this exemption was not applied.</i>

Fuels such as propane, kerosene, and acetylene were analyzed separately and are not listed in Table 3.3-1. When fuels are burned in an open flame, almost all of the fuels are consumed and emissions are minimal. Emissions from fuel combustion are accounted for using emission factors for each fuel-burning unit.

3.4 HAP Emissions

The HAP chemical use exemption analysis, similar to the VOC chemical use exemption analysis, resulted in application of several of the same exemptions from NMED/AQB List of Insignificant Activities (NMED 2005) and List of Trivial Activities (NMED 1996) (refer to Table 3.3-1).

3.5 Paints

An analysis of VOC and HAP emissions resulting from painting activities at the Laboratory was performed to determine if certain exemptions apply. Paint information for 2007 was gathered from the ChemLog chemical inventory system. These records were evaluated for applicability of exemptions for trivial and insignificant activities.

The following exemptions from NMED/AQB Operating Permit Program List of Trivial Activities (NMED 1996) were used in the paint analysis:

- Activities that occur strictly for maintenance of grounds or buildings, including the following: lawn care; pest control; grinding; cutting; welding; painting; woodworking; sweeping; general repairs; janitorial activities; plumbing; re-tarring roofs; installing insulation; steam-cleaning and water-washing activities; and paving of roads, parking lots, and other areas.
- Activities for maintenance and repair of equipment, pollution control equipment, or motor vehicles either inside or outside of a building.
- Paint or nonpaint materials dispensed from prepackaged aerosol cans of 16 oz. or less capacity.

The corresponding amounts of paint were totaled for painting activities that did not qualify for one of the trivial activity exemptions listed above. The paint total for 2007 was determined to be 3,427 pounds (1.71 tons), which further qualified for the following insignificant activity:

- Surface coating of equipment, including spray painting and roll coating, for sources with facility-wide total cleanup solvent and coating actual emissions of less than two tons per year.
- All emissions from paints and painting activities were exempt as insignificant or trivial activities and therefore were not included in the 2007 emissions inventory.

4.0 EMISSIONS SUMMARY

4.1 2007 Emissions Summary

Table 4.1-1 presents facility-wide actual emissions of criteria pollutants for 2007 as reported in the annual emissions inventory and the semiannual emissions reports. In addition, the Title V Operating Permit emissions limits are included. Table 4.1-2 presents actual emissions for HAPs from chemical use. Emission unit information and detailed emissions calculations are included in Attachment A. The 2007 emissions inventory report as submitted to NMED is presented in Attachment B. Attachment C includes semiannual emissions reports for 2007.

**Table 4.1-1
LANL Facility-Wide Criteria Pollutant Emissions for 2007**

Pollutant	Actual Emissions for Annual Emissions Reporting (tons/yr)	Actual Emissions for Semiannual Title V Operating Permit Reporting (tons/yr)	Title V Operating Permit Facility-Wide Emission Limits (tons/yr)
NO _x	19.6	52.1	245
SO _x	0.5	1.0	150
CO	13.9	33.2	225
PM	2.9	4.9	120
PM ₁₀	2.9	4.9	120
PM _{2.5}	2.9	4.9	—*
VOC	13.9	15.5	200

*No Title V Operating Permit facility-wide emission limits on PM_{2.5}.

**Table 4.1-2
LANL HAP Emissions from Chemical Use for 2007**

Pollutant	Chemical Use HAP Emissions* (tons/yr)
Top 5 HAPs	
Hydrochloric Acid	1.07
Methanol	0.67
Methylene Chloride	0.34
Nickel Compounds	0.34
Cyanide Compounds	0.27
Total HAPs	5.8

*HAP emissions from combustion sources are included in the emissions reports, however, they are negligible and do not contribute significantly to facility-wide HAP emissions.

HAP emissions from combustion sources are included in the emissions reports, however, they are negligible and do not contribute significantly to facility-wide HAP emissions.

Figure 4.1-1 shows criteria air pollutant emissions by source for 2007, excluding the very small emissions sources such as the paper shredder, degreasers, and carpenter shop. As the figure shows, the TA-3 steam plant and the sum of emissions from all small boilers and heaters were the largest sources of CO and NO_x emissions in 2007. R&D chemical use was the largest source of VOC emissions.

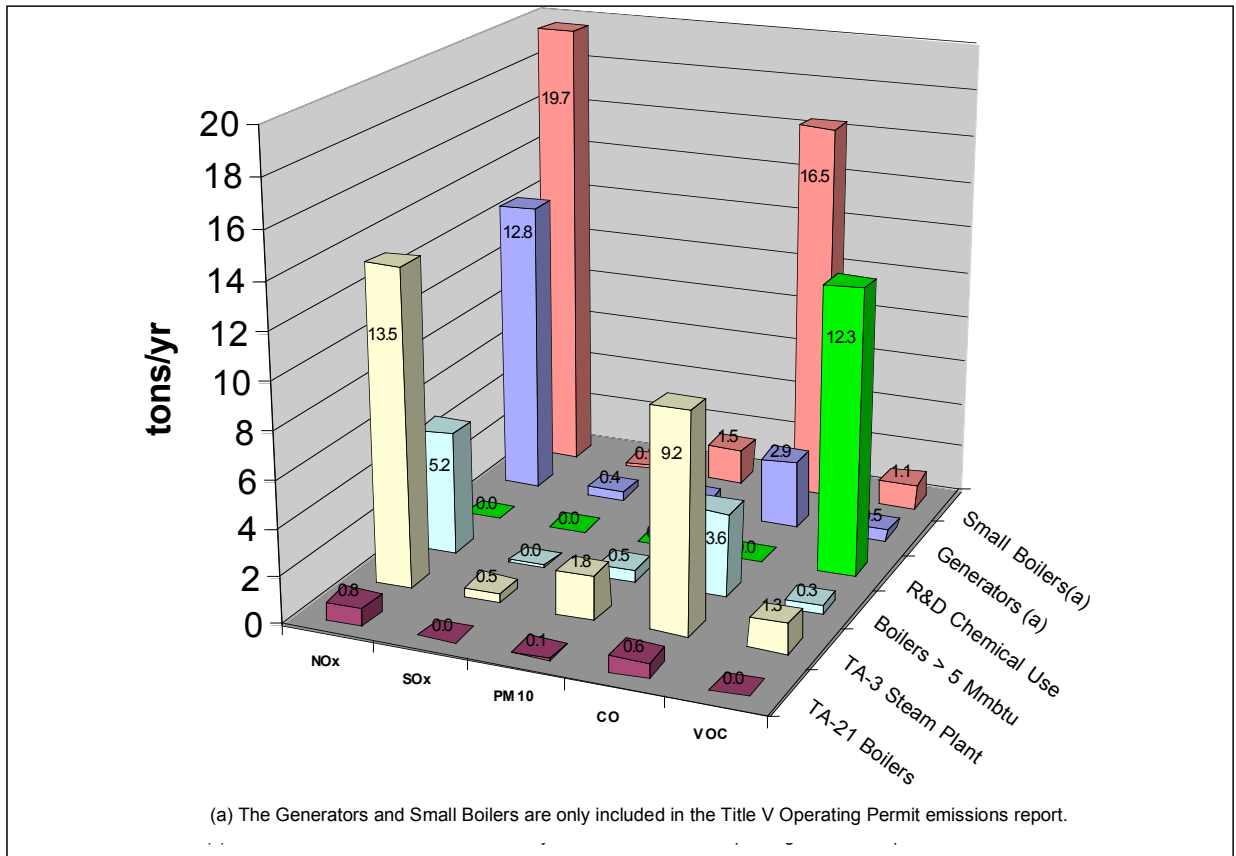


Figure 4.1-1 Emissions of criteria pollutants by source in 2007.

4.2 Emission Trends and Title V Permit Limits

A comparison of historical emissions to the facility-wide emission limits in the Title V Operating Permit is provided in the section below. It should be noted that the facility-wide emission limits in the Operating Permit include emissions from some sources that are not included in the annual emissions inventory, most notably small (insignificant) boilers and emergency standby generators. However, historical data are only available for emission sources that were included in the annual emissions inventory submittals.

Figure 4.1-2 provides a comparison of the past nine years' facility-wide emissions for criteria air pollutants as reported to NMED on the annual emissions inventory submittal. The facility-wide emission limits included in LANL's Title V Operating Permit are also shown on the graph.

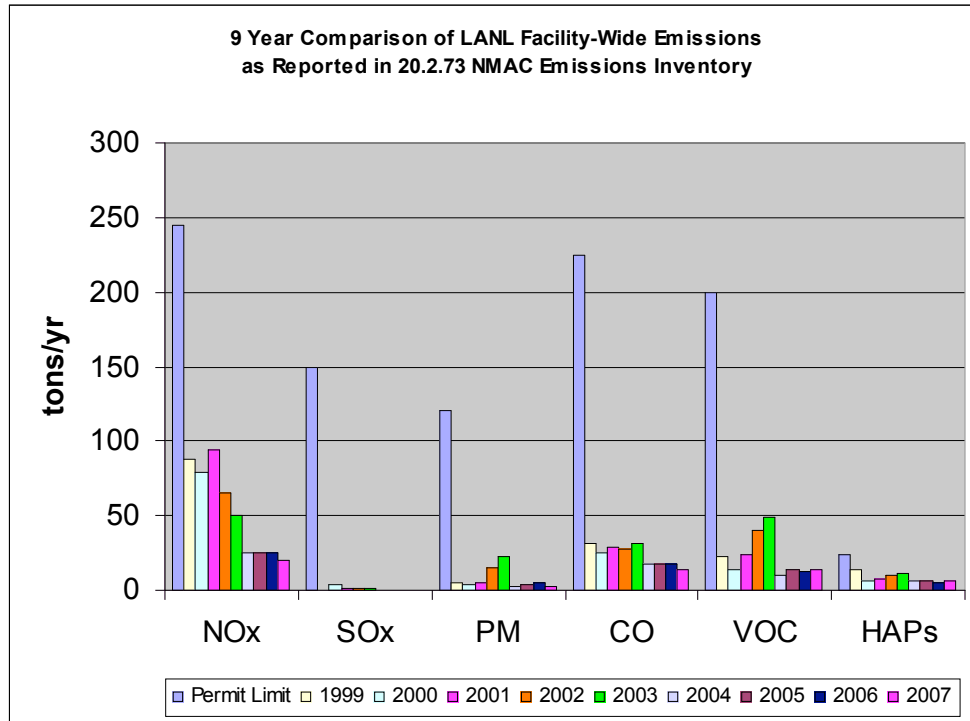


Figure 4.1-2 Comparison of facility-wide annual reported emissions from 1999–2007.

Figure 4.1-3 presents VOC and HAP emissions from chemical use activities for the last nine years. The continued fluctuation in both VOC and HAP emissions is due to both variations in actual chemical purchases and improvements the Laboratory has made to the chemical tracking system.

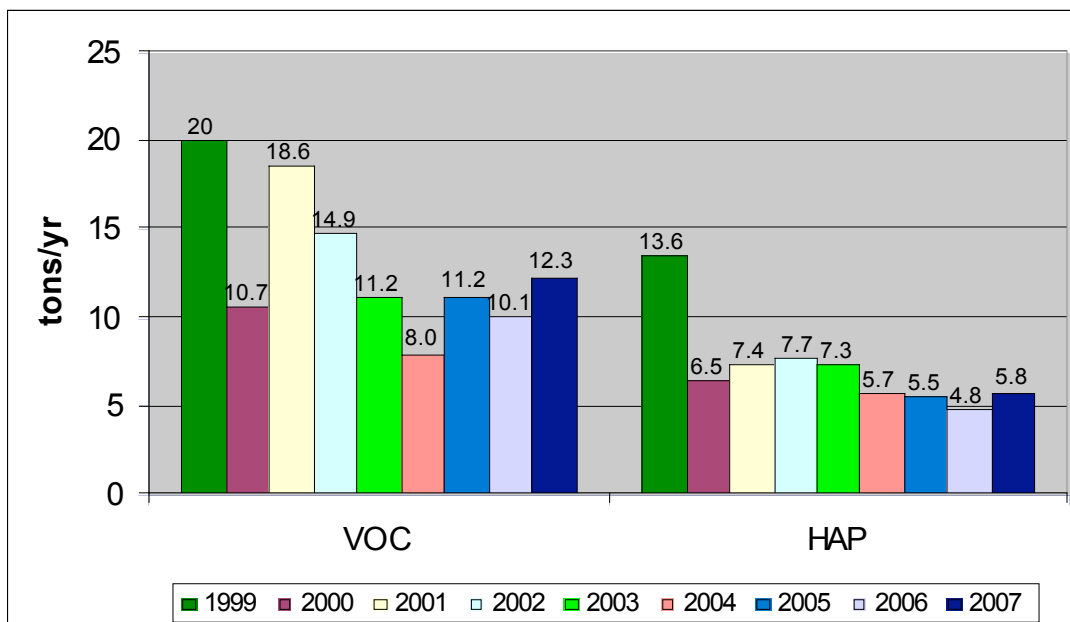


Figure 4.1-3 VOC and HAP emissions from chemical use, 1999–2007.

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Attachment A

Emission Calculation Worksheets for Individual Emission Units

2007 TA-60 BDM Asphalt Plant					
Month	Data Entry Asphalt Produced (Tons)	12-Month Rolling Total	Month	Data Entry Asphalt Produced (Tons)	12-Month Rolling Total
January	41	1912	July	52	1273
February	89	1674	August	75	1246
March	162	1698	September	514	1617
April	130	1685	October	278	1731
May	119	1593	November	85	1713
June	133	1459	December	52	1730
6 m.o. Total	674		6 m.o. Total:	1,056	
Tons/Asphalt Produced:		1,730	12-Month Rolling Permit Limit is 13,000 Tons		
Emission Calculations					
Pollutant	Emission Factor (lb/ton)	Annual Emissions (tons)	Emissions (tons) Jan-June	Emissions (tons) July-Dec	Reference
NOx	0.025	0.022	0.008	0.013	(a)
SOx	0.0046	0.004	0.002	0.002	(a)
PM	0.0096	0.008	0.003	0.005	(b)
PM-10	0.006	0.005	0.002	0.003	(c)
PM-2.5	0.006	0.005	0.002	0.003	(c)
CO	0.4	0.346	0.135	0.211	(a)
VOC	0.0082	0.007	0.003	0.004	(a)
HAPS					
Acetaldehyde	0.00032	0.000	0.000	0.000	(d)
Benzene	0.00028	0.000	0.000	0.000	(d)
Ethylbenzene	0.0022	0.002	0.001	0.001	(d)
Formaldehyde	0.00074	0.001	0.000	0.000	(d)
Naphthalene	0.000036	0.000	0.000	0.000	(d)
POM	0.00011	0.0001	0.000	0.000	(d)
Quinone	0.00027	0.000	0.000	0.000	(d)
Toluene	0.001	0.001	0.000	0.001	(d)
Xylene	0.0027	0.002	0.001	0.001	(d)
TOTAL HAPS		0.007	0.003	0.004	
EPCRA 313			lbs./year		
Lead	8.90E-07	7.70E-07	0.0015		(e)
Sulfuric Acid	0.0046	3.98E-03	7.96		(f)
Mercury	4.10E-07	3.55E-07	0.0007		(e)
PACs	2.70E-08	2.34E-08	4.67E-05		(d)
Benzo(g,h,i) perylene	5.00E-10	4.33E-10	8.65E-07		(g)

2007 TA-3 & TA-15 Carpenter Shops

TA-3		Data Entry
Month	Hours of Operation ¹	TA-3
	January	3.1
February	4.3	
March	25.6	
April	4.6	
May	3.4	
June	2.3	
6 mo. Total	43.3	

TA-15		Data Entry
Month	Hours of Operation ¹	TA-15
	January	9.4
February	17.4	
March	47.2	
April	13.6	
May	20.6	
June	8.9	
6 mo. Total	117.1	

TA-3		Data Entry
Month	Hours of Operation ¹	TA-3
	July	2.9
August	9.9	
September	2.3	
October	4.9	
November	1.5	
December	1.4	
6 mo. Total:	22.9	

TA-15		Data Entry
Month	Hours of Operation ¹	TA-15
	July	12.3
August	10.3	
September	8.8	
October	10.2	
November	13.0	
December	4.8	
6 mo. Total:	59.4	

Saws, drills, shaping and sanding equipment shall each not operate in excess of 4368 hours per year.

Reference
 1. Based on information provided monthly by the shop foreman from each shop.

Carpenter Shop Emissions Calculations for 2008

ANNUAL EMISSIONS

Operation Parameters		TSP Prior to Cyclone	TSP Post Cyclone	PM Post Cyclone Emissions (tons/year)
Exhaust Flow (ft ³ /min)	Hours of ⁽³⁾ Operation (hr/yr)	(tons/year)	tons/yr	(PM) (PM > 40 µm) (PM 5-20 µm) (PM <2.5 µm)
2706	7	0.007	0.002	0.000 0.001 0.001
2100	40	0.030	0.011	0.001 0.005 0.005
January through June Emissions				
Operation Parameters		TSP Prior to Cyclone	TSP Post Cyclone	PM Post Cyclone Emissions (tons)
Exhaust Flow (ft ³ /min)	Hours of ⁽³⁾ Operation (hr/period)	tons	tons	(PM) (PM > 40 µm) (PM 5-20 µm) (PM <2.5 µm)
2706	7	0.007	0.002	0.000 0.001 0.001
2100	40	0.030	0.011	0.001 0.005 0.005
July through December Emissions				
Operation Parameters		TSP Prior to Cyclone	TSP Post Cyclone	PM Post Cyclone Emissions (tons)
Exhaust ⁽¹⁾ Flow (ft ³ /min)	Hours of ⁽³⁾ Operation (hr/period)	tons	tons	(PM) (PM > 40 µm) (PM 5-20 µm) (PM <2.5 µm)
2706	0	0.000	0.000	0.000 0.000 0.000
2100	0	0.000	0.000	0.000 0.000 0.000
Conversions:				
lb/ton	min/hr	ton/lb		
2000	60	0.0005		
Assumptions:				
Cyclone ⁽⁴⁾ Efficiencies	% PM in Wood Dust Prior to Cyclone ⁽⁵⁾			
PM < 2.5	0.45	0.30		
PM 5-20 microns	0.65	0.50		
PM > 40 microns	0.95	0.50		
Post Cyclone Emission Factor:				
grain/ft ³ ⁽⁶⁾				
0.03				
Maximum permitted exhaust flow rate is:		Shop Location	Flow Rate	
		TA-3-38	5000 cfm	
		TA-15-563	5471 cfm	
Allowable Emission Limits are: 3.07 tpy of PM ₁₀ for the TA-3-38 shop 2.81 tpy of PM ₁₀ for the TA-15-563 shop				
References:				
1.) Exhaust Rate calculated by Victor Martinez.				
2.) Emission Factor obtained from AP-42, Section 10.4 Woodworking Waste Collection Operations, post cyclone emissions, Table 10.4.1, February 1980.				
3.) Based on information provided monthly by the shop foreman.				
4.) K. Wark & C.F. Warner, Air Pollution - Its Origin and Control, Table 5-9, pg 186 (1976).				
5.) Emissions Inventory Improvement Program (EIP) Uncontrolled Emission Factor Listing for Criteria Air Pollutants, Volume II: Chapter 14, July 2001 And AP-42 Appendix B, Section 10.5 Woodworking Waste Collection Operations: Belt Sander Hood Exhaust Cyc				

2007 TA-52 Data Disintegrator						
Month	Data Entry Boxes (c) Shredded	12-Month Rolling Total	Data Entry Boxes (c) Shredded			
January	484	9257	1188			
February	542	8759	634			
March	2206	10199	977			
April	799	10293	535			
May	1719	10889	751			
June	992	10602	593			
6 mo. Total	6,742		4,678			
Annual Boxes (2007):	11,420					
Emission Calculations						
	Emission (b) Factor	% in (e) Exhaust	Control (d) Efficiency (Baghouse)			
PM 2.5	15%	15%	95.0%			
PM 10	15%	90%	95.0%			
TSP	15%	100%	95.0%			
			Average Box Weight (e) 45 Pounds			
Amount Processed (pounds)	PM-2.5 Emissions (pounds)	PM-2.5 Emissions (tons)	PM-10 Emissions (pounds)	PM-10 Emissions (tons)	TSP Emissions (pounds)	TSP Emissions (tons)
Annual	513,900	578.1	0.29	867.2	0.43	963.6
January - June	303,390	341.3	0.17	512.0	0.26	568.9
July - December	210,510	236.8	0.12	355.2	0.18	394.7
Reference	(a). Estimated maximum box weight is 45 pounds. Information provided by shredding operations. Full box weight of tightly packed paper.					
	(b). Emission Factor (percentage of material shredded that will enter into the exhaust) obtained from the manufacturer of the air handling system, AGET Manufacturing Co. 15% is also listed in the construction permit application.					
	(c). Information provided by the shredding operations personnel.					
	(d). Information on control equipment efficiencies was provided by the manufacturer (SEM) of the Data Disintegrator. Those values not given were extrapolated using manufacturer data. Efficiencies of 75% for the Cyclone and 95% for the bag house are list					
	(e). Manufacturer provided info that the dust into the exhaust would be in the size range of 5-20 um. Conservative assumption that 15% is PM2.5, and 90% is PM10.					
Maximum Annual emission rate is 9.9 tpy or 2.3 lb/hr of Total Suspended Particulate (TSP) per year.						
9.9 tpy or 2.3 lb/hr of Particulate Matter <10um (PM-10) per year.						

2007 Small Boilers Data Entry / Gas Use																																																																																																		
Data Entry	Metered Boilers		Total Gas Use ^(a)		Non-Metered Gas Use (MMSCF)	12-Month Rolling Total for all Small Boilers (MMSCF) ^(e)																																																																																												
	TA-55 Boiler Gas Use (MSCF) ^(c)	TA-50-2 ^(d) (MSCF)	(MSCF)	(MMSCF)			(MMSCF)	(MMSCF)	(MMSCF)	(MMSCF)	(MMSCF)																																																																																							
Month	BHW-1B (B-602)	BHW-2B (B-603)	BS-1	(MSCF)	(MMSCF)																																																																																													
January	1	2657		81,782	81.78	79.12	502.42																																																																																											
February	676	1261		66,101	66.10	64.16	508.94																																																																																											
March	1609	1		54,352	54.35	52.74	505.10																																																																																											
April	1248	797		44,215	44.22	42.17	513.53																																																																																											
May	1379	1836		29,468	29.47	26.25	521.07																																																																																											
June	348	379	0.1	13,530	13.53	12.80	518.20																																																																																											
July	333	128		13,687	13.69	13.23	519.25																																																																																											
August	415	1287		8,794	8.79	7.08	514.87																																																																																											
September	345	1160		19,691	19.69	18.19	511.34																																																																																											
October	345	1537		36,509	36.51	34.63	506.16																																																																																											
November	702	798		54,213	54.21	52.71	502.26																																																																																											
December	769	814	0.0	79,717	79.72	78.13	502.06																																																																																											
TOTAL	8170	12665	0.1	502,059	502.06	481.22	Permit Limit = 870																																																																																											
2007 Non Metered Boiler Pool Capacity:				304.3	MMBTU/hr ^(f)																																																																																													
Estimated Gas-Use per MMBtu rating Jan-June:					0.91		MMBtu/hr																																																																																											
Estimated Gas-Use per MMBtu rating July-Dec:					0.67		MMBtu/hr																																																																																											
Estimated Gas-Use per MMBtu - Annual					1.58		MMBtu/hr																																																																																											
Definitions: MMSCF = Million Standard Cubic Feet																																																																																																		
MSCF = Thousand Standard Cubic Feet																																																																																																		
Metered/Non-metered: Metered boilers are those units that have unit specific volumetric flow meters for the boiler(s) only.																																																																																																		
<table border="1"> <thead> <tr> <th colspan="11">Gas Use Non-Metered^(g) (MMSCF)</th> </tr> <tr> <th>AIRS Stack #</th> <th>015</th> <th>016</th> <th>017</th> <th>018</th> <th>019</th> <th>020</th> <th>021</th> <th>024</th> <th colspan="2">Insignificant Units^(h)</th> </tr> </thead> <tbody> <tr> <td>Location:</td> <td>TA-48-1</td> <td>TA-48-1</td> <td>TA-48-1</td> <td>TA-53-365</td> <td>TA-53-365</td> <td>TA-59-1</td> <td>TA-59-1</td> <td>TA-16-1484</td> <td colspan="2">Lab Wide</td> </tr> <tr> <td>ID:</td> <td>BS-1</td> <td>BS-2</td> <td>BS-6</td> <td>BHW-1</td> <td>BHW-2</td> <td>BHW-2</td> <td>Plant 5</td> <td>Various</td> <td colspan="2">Various</td> </tr> <tr> <td>Design Rate⁽ⁱ⁾</td> <td>5,335</td> <td>5,335</td> <td>7,140</td> <td>7,115</td> <td>7,115</td> <td>5,335</td> <td>5,335</td> <td>12,700</td> <td colspan="2">249</td> </tr> <tr> <td>Calculated Gas Use-Jan-June</td> <td>4,862</td> <td>4,861</td> <td>6,505</td> <td>6,482</td> <td>6,482</td> <td>4,861</td> <td>4,861</td> <td>11,571</td> <td colspan="2">226,769</td> </tr> <tr> <td>Calculated Gas Use-July-Dec</td> <td>3,577</td> <td>3,576</td> <td>4,786</td> <td>4,769</td> <td>4,769</td> <td>3,576</td> <td>3,576</td> <td>8,513</td> <td colspan="2">166,826</td> </tr> <tr> <td>Calculated Gas Use-Annual</td> <td>8,439</td> <td>8,438</td> <td>11,291</td> <td>11,251</td> <td>11,251</td> <td>8,438</td> <td>8,438</td> <td>20,084</td> <td colspan="2">383,595</td> </tr> </tbody> </table>											Gas Use Non-Metered ^(g) (MMSCF)											AIRS Stack #	015	016	017	018	019	020	021	024	Insignificant Units ^(h)		Location:	TA-48-1	TA-48-1	TA-48-1	TA-53-365	TA-53-365	TA-59-1	TA-59-1	TA-16-1484	Lab Wide		ID:	BS-1	BS-2	BS-6	BHW-1	BHW-2	BHW-2	Plant 5	Various	Various		Design Rate ⁽ⁱ⁾	5,335	5,335	7,140	7,115	7,115	5,335	5,335	12,700	249		Calculated Gas Use-Jan-June	4,862	4,861	6,505	6,482	6,482	4,861	4,861	11,571	226,769		Calculated Gas Use-July-Dec	3,577	3,576	4,786	4,769	4,769	3,576	3,576	8,513	166,826		Calculated Gas Use-Annual	8,439	8,438	11,291	11,251	11,251	8,438	8,438	20,084	383,595	
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(e) Information on non-metered boilers is provided as a data deliverable from KSL and contains all gas use at LANL minus those non-LANL sources which feed from the LANL main line and LANL sources that are individually metered. Total Gas use does not include.

(f) TA-16 Boilers include 2 boilers in plant 5. Gas use was difficult to obtain, so the boilers were included in the "boiler pool" to determine gas use. Plant 6 has been taken off line and is not expected to be reused or boilers relocated. The removal.

(g) TA-55 has two boilers with separate AIRS numbers. Each boiler has a gas meter. The gas use information is provided monthly by the TA-55 facility personnel and is included in the KSL data deliverable.

(h) The TA-50-RWTF boiler was added to EIA as a new source in 2003. This boiler is owned and operated by a contractor and has been operated at LANL since mid-2000. Originally planned as a temporary source, but current plans are to keep operating for see.

(i) The 12-month rolling average includes all gas use from all boilers listed in this spreadsheet. Boilers not included in this report due to their large size or design are TA-21 boilers & powerplant boilers at TA-3. A gas use limit of 870 MMBtu/yr. 12-month rolling average.

(j) The non-metered boiler pool capacity is the sum of all active non-metered boilers design ratings (designated value, called design rating in boiler data base) in MMBTU. This number is used to estimate the gas use rate (total non-metered gas use divided by total non-metered boiler pool capacity) for each boiler. This is calculated using the non-metered gas rate, as discussed in reference (f). The individual boiler design rating is multiplied by the gas use rate to provide.

(k) NAMED List of Insignificant Activities (995), Item (3), examples fuel burning equipment which uses gaseous fuel, has a design rate less than or equal to 5 MMBTU/yr, and is used for heating buildings for personal comfort or for producing hot water for process.

(l) The design rate for boilers includes a correction for elevation. LANL is at approximately 7,500 feet above sea level. Corrections are made for atmospheric boilers using 4% reduction (detailed) for each 1,000 feet above sea level (4% x 7.5 = 30% L. No

Emission Factors (lb/MMscf)			
Criteria Pollutant	Small Uncontrolled Boilers¹	TA-16 Low NOx Boilers⁴	TA-55-6 Boilers³
NOx	100	37.08	138
SOx	0.6	0.6	0.6
PM ²	7.6	7.6	14.2
PM-10 ²	7.6	7.6	14.2
PM-2.5 ²	7.6	7.6	14.2
CO	84	37.08	38.2
VOC	5.5	5.5	5.98
HAPs⁵			
Arsenic	0.0002		
Benzene	0.0021		
BE	0.000012		
Cadmium	0.0011		
Chromium	0.0014		
Cobalt	0.000084		
Dichlorobenzene	0.0012		
Formaldehyde	0.075		
Hexane	1.8		
Lead	0.0005		
Manganese	0.00038		
Mercury	0.00026		
Napthalene	0.00061		
Nickel	0.0021		
POM	0.000088		
Selenium	0.000024		
Toluene	0.0034		

References for Emission Factors

- (1) AP-42, 7/98, Section 1.4, Natural Gas Combustion, Small Boilers.
- (2) Emission factors for natural gas of PM-10 and PM-2.5 are roughly equal to those of PM, Natural Gas Combustion, Table 1.4-2
- (3) AP-42, 7/98, Section 1.4, Natural Gas Combustion, Small Boilers for SOx. Stack test on 3/00 for NOx. Otherwise, Emission factors from Sellers Engineering Co.
- (4) AP-42, 7/98, Section 1.4, Natural Gas Combustion, Small Boilers; Emission factors for NOx and CO from Sellers Engineering Co (low-NOx boilers).
- (5) All HAP emission factors from AP-42 7/98, Section 1.4, Natural Gas Combustion, Tables 1.4-3, 1.4-4

2007 Small Boilers Emission Summary Title V Semi-Annual Reporting			
Total Emissions (tons)			
Pollutant Criteria	Annual Emissions (Includes Insignificant Sources)	Jan-June (Includes Insignificant Sources)	July-Dec (Includes Insignificant Sources)
NOx	24.867	14.340	10.527
SOx	0.151	0.087	0.064
PM	1.977	1.140	0.836
PM-10	1.977	1.140	0.836
PM-2.5	1.977	1.140	0.836
CO	20.138	11.606	8.532
VOC	1.386	0.799	0.587
HAPs			
Arsenic	5.02E-05	2.89E-05	2.13E-05
Benzene	5.27E-04	3.04E-04	2.23E-04
BE	3.01E-06	1.74E-06	1.28E-06
Cadmium	2.76E-04	1.59E-04	1.17E-04
Chromium	3.51E-04	2.03E-04	1.49E-04
Cobalt	2.11E-05	1.22E-05	8.93E-06
Dichlorobenzene	3.01E-04	1.74E-04	1.28E-04
Formaldehyde	1.88E-02	1.09E-02	7.97E-03
Hexane	4.52E-01	2.61E-01	1.91E-01
Lead	1.26E-04	7.24E-05	5.32E-05
Manganese	9.54E-05	5.50E-05	4.04E-05
Mercury	6.53E-05	3.76E-05	2.76E-05
Napthalene	1.53E-04	8.83E-05	6.48E-05
Nickel	5.27E-04	3.04E-04	2.23E-04
POM	2.21E-05	1.27E-05	9.35E-06
Selenium	6.02E-06	3.47E-06	2.55E-06
Toluene	8.54E-04	4.92E-04	3.61E-04
TOTAL HAPs	0.474	0.273	0.201

2007 Small Boilers Emissions by Boiler for Annual EI Reporting (Tons/Year)

Pollutant	AI RS 015 TA-48-1 BS-1	AI RS 016 TA-48-1 BS-2	AI RS 017 TA-48-1 BS-6	AI RS 018 TA-53-365 BHW-1	AI RS 019 TA-53-365 BHW-2	AI RS 020 TA-59-1 BHW-1	AI RS 021 TA-59-1 BHW-2	AI RS 024 TA-16 Plant 5	AI RS 037 TA-55-6 BHW-1B	AI RS 038 TA-55-6 BHW-2B	AI RS New TA-50-2 BS-1	Total for Small Boilers
NOx	0.422	0.422	0.565	0.563	0.563	0.422	0.422	0.372	0.564	0.874	0.000	5.187
SOx	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.006	0.002	0.004	0.000	0.033
PM	0.032	0.032	0.043	0.043	0.043	0.032	0.032	0.076	0.058	0.090	0.000	0.481
PM-10	0.032	0.032	0.043	0.043	0.043	0.032	0.032	0.076	0.058	0.090	0.000	0.481
PM-2.5	0.032	0.032	0.043	0.043	0.043	0.032	0.032	0.076	0.058	0.090	0.000	0.481
CO	0.354	0.354	0.474	0.473	0.473	0.354	0.354	0.372	0.156	0.242	0.000	3.607
VOC	0.023	0.023	0.031	0.031	0.031	0.023	0.023	0.055	0.024	0.038	0.000	0.303
HAPS												
Arsenic	8.44E-07	8.44E-07	1.13E-06	1.13E-06	1.13E-06	8.44E-07	8.44E-07	2.01E-06	8.17E-07	1.27E-06	1.00E-11	1.08E-05
Benzene	8.86E-06	8.86E-06	1.18E-05	1.18E-05	1.18E-05	8.86E-06	8.86E-06	2.11E-05	8.58E-06	1.33E-05	1.05E-10	1.14E-04
BE	5.06E-08	5.06E-08	6.77E-08	6.75E-08	6.75E-08	5.06E-08	5.06E-08	1.21E-07	4.90E-08	7.60E-08	6.00E-13	6.51E-07
Cadmium	4.64E-06	4.64E-06	6.21E-06	6.19E-06	6.19E-06	4.64E-06	4.64E-06	1.10E-05	4.49E-06	6.97E-06	5.50E-11	5.97E-05
Chromium	5.91E-06	5.91E-06	7.90E-06	7.88E-06	7.88E-06	5.91E-06	5.91E-06	1.41E-05	5.72E-06	8.87E-06	7.00E-11	7.59E-05
Cobalt	3.54E-07	3.54E-07	4.74E-07	4.73E-07	4.73E-07	3.54E-07	3.54E-07	8.44E-07	3.43E-07	5.32E-07	4.20E-12	4.56E-06
Dichlorobenzene	5.06E-06	5.06E-06	6.77E-06	6.75E-06	6.75E-06	5.06E-06	5.06E-06	1.21E-05	4.90E-06	7.60E-06	6.00E-11	6.51E-05
Formaldehyde	3.16E-04	3.16E-04	4.23E-04	4.22E-04	4.22E-04	3.16E-04	3.16E-04	7.53E-04	3.06E-04	4.75E-04	3.75E-09	4.07E-03
Hexane	7.60E-03	7.59E-03	1.02E-02	1.01E-02	1.01E-02	7.59E-03	7.59E-03	1.81E-02	7.35E-03	1.14E-02	9.00E-08	9.76E-02
Lead	2.11E-06	2.11E-06	2.82E-06	2.81E-06	2.81E-06	2.11E-06	2.11E-06	5.02E-06	2.04E-06	3.17E-06	2.50E-11	2.71E-05
Manganese	1.60E-06	1.60E-06	2.15E-06	2.14E-06	2.14E-06	1.60E-06	1.60E-06	3.82E-06	1.55E-06	2.41E-06	1.90E-11	2.06E-05
Mercury	1.10E-06	1.10E-06	1.47E-06	1.46E-06	1.46E-06	1.10E-06	1.10E-06	2.61E-06	1.06E-06	1.65E-06	1.30E-11	1.41E-05
Naphthalene	2.57E-06	2.57E-06	3.44E-06	3.43E-06	3.43E-06	2.57E-06	2.57E-06	6.13E-06	2.49E-06	3.86E-06	3.05E-11	3.31E-05
Nickel	8.86E-06	8.86E-06	1.19E-05	1.18E-05	1.18E-05	8.86E-06	8.86E-06	2.11E-05	8.58E-06	1.33E-05	1.05E-10	1.14E-04
POM	3.71E-07	3.71E-07	4.97E-07	4.95E-07	4.95E-07	3.71E-07	3.71E-07	8.84E-07	3.59E-07	5.57E-07	4.40E-12	4.77E-06
Selenium	1.01E-07	1.01E-07	1.35E-07	1.35E-07	1.35E-07	1.01E-07	1.01E-07	2.41E-07	9.80E-08	1.52E-07	1.20E-12	1.30E-06
Toluene	1.43E-05	1.43E-05	1.92E-05	1.91E-05	1.91E-05	1.43E-05	1.43E-05	3.41E-05	1.39E-05	2.15E-05	1.70E-10	1.84E-04
TOTAL HAPS/Unit	7.97E-03	7.97E-03	1.07E-02	1.06E-02	1.06E-02	7.97E-03	7.97E-03	1.90E-02	7.71E-03	1.20E-02	9.44E-08	0.10

EPCRA 313		Amount in Fuel^a		Boilers^b	
Chemical	Conc.	Pounds	Emission Factor (lbs/MMscf)	Emissions (lbs)	
Lead^c			5.0E-04	0.00	
Sulfuric Acid^d			0.6	0.00	
Mercury^c			2.6E-04	0.00	
PACs^e			8.69E-07	0.00E+00	
Benzo(g,h,i)			1.20E-06	0.00E+00	
References					
(a) Amount of EPCRA chemical in fuel is considered "otherwise used" for EPCRA 313 threshold determination mercury are lead compounds and mercury compounds.					
(c) Emission Factors from AP-42, Section 1.4, Natural Gas Combustion, Tables 1.4-2, 1.4-3 and 1.4-4, July 1998					
(d) Assume all SOx emissions are converted to sulfuric acid in the stack.					
(e) EPCRA PAC Guidance Document, Table 2-3					

TA-3 Power Plant Fuel Use Totals 2007 (Data Entry)

DATA ENTRY											
Month	TA-3-22 Power Plant ^b			TA-3-22 Power Plant ^b			TA-3-22 Power Plant ^b			Monthly Totals	
	Natural Gas (MCF) ^a	Fuel Oil (gallons) ^a	Natural Gas (MCF) ^a	Fuel Oil (gallons) ^a	Natural Gas (MCF) ^a	Fuel Oil (gallons) ^a	Natural Gas (MCF) ^a	Fuel Oil (gallons) ^a	Natural Gas (MMCF) ^a	Fuel Oil (gallons)	
January	11,719	319	31,832	0	31,733	0	75,284	319			
February	36,598	0	21,940	347	611	0	59,149	347			
March	38,858	438	4,328	212	8,387	406	51,573	1056			
April	9,160	0	3,101	603	29,807	0	42,068	603			
May	362	27,893	10,074	438	24,198	50,133	34,634	78,464			
June	0	0	0	0	0	0	0.000	0			
July	25	0	0	0	0	0	0.025	0			
August	15,215	0	146	0	0	0	15,361	0			
September	24,466	438	1,230	0	88	0	25,784	438			
October	19,297	384	17,033	0	1,124	438	37,454	822			
November	2,830	274	40,509	24	2,446	274	45,785	572			
December	1,475	384	60,327	0	2,709	329	64,511	713			
Annual Totals	160,005	30,130	190,520	1,624	101,103	51,580	451,628	83,334			
Jan. - June	96,697	28,650	71,275	1,600	94,736	50,539	262,708	80,789			
July - Dec.	63,308	1,480	119,245	24	6,367	1,041	188,920	2,545			
Month	12-Mo. Rolling Total		12-Mo. Rolling Total								
January	615.3	Natural Gas (MMscf)	21463	Fuel Oil (gallons)							
February	616.0		21097								
March	609.8		21231								
April	601.9		21456								
May	602.6		99269								
June	573.2		98611								
July	546.3		97448								
August	534.6		97448								
September	526.9		97886								
October	482.3		98270								
November	463.3		82840								
December	451.6		83334								
Permit Limits:	2000	MMscf	500,000	gallons							

Totals by Fuel Type	
Natural Gas (MMscf)	451.63
Fuel Oil (Gallons)	83334.00
Annual Totals:	
Jan. - June	262.71
July - Dec.	188.92

References

(a) A.P.-42,798, Section.1.4, Natural Gas Combustion Tables 1.4-1,1.4-2

(b) Fuel usage obtained from Jerry Gonzales (FWO-U). Values are provided in a monthly data deliverable from KSL.

Emissions by Boiler 2007

Pollutant Criteria	Emission Factor		Unit Emissions Boiler #1, Stack 032			Unit Emissions Boiler #2, Stack 033			Unit Emissions Boiler #3, Stack 034			
	Natural Gas (lb/MMscf) ^(a)	Fuel Oil ^(b) Pounds/1000 gal	Annual Natl Gas (tons)	Jan-June Fuel Oil (tons)	July-Dec (gas&oil) (tons)	Annual Natl Gas (tons)	Jan-June Fuel Oil (tons)	July-Dec (gas&oil) (tons)	Annual Natl Gas (tons)	Jan-June Fuel Oil (tons)	July-Dec (gas&oil) (tons)	
			Annual Natl Gas (tons)	Annual Fuel Oil (tons)	Annual Fuel Oil (tons)	Annual Fuel Oil (tons)	Annual Fuel Oil (tons)	Annual Fuel Oil (tons)	Annual Fuel Oil (tons)	Annual Fuel Oil (tons)	Annual Fuel Oil (tons)	Annual Fuel Oil (tons)
Nox ^(c)	58	8.64	4.640	0.130	2.928	1.842	0.007	2.074	3.458	2.932	2.966	0.189
Sox ^(d)	0.6	7.4	0.048	0.111	0.135	0.024	0.006	0.027	0.036	0.030	0.215	0.006
PM ^(e)	7.6	3.3	0.608	0.050	0.415	0.243	0.003	0.273	0.453	0.384	0.085	0.026
PM-10 ^(d)	7.6	2.3	0.608	0.035	0.400	0.242	0.002	0.273	0.453	0.384	0.059	0.025
PM-2.5 ^(d)	7.6	1.55	0.608	0.023	0.390	0.242	0.001	0.272	0.453	0.384	0.040	0.025
CO ^(e)	40	5.0	3.200	0.075	2.006	1.270	0.004	1.430	2.385	2.022	2.021	0.130
VOC	5.5	0.2	0.400	0.0030	0.269	0.174	0.0002	0.196	0.328	0.278	0.005	0.018
HAPS^(f)												
Arsenic	0.0002	0.00055	1.60E-05	8.26E-06	1.75E-05	6.74E-06	1.91E-05	4.45E-07	7.57E-06	1.01E-05	1.41E-05	2.33E-05
Benzene	0.0021	-	1.68E-04	0.0	1.02E-04	6.65E-05	2.00E-04	0.0	7.48E-05	1.25E-04	1.06E-04	0.0
Beryllium	0.00012	0.00041	9.60E-07	6.19E-06	6.47E-06	6.84E-07	1.14E-06	3.34E-07	7.56E-07	7.20E-07	6.07E-07	1.10E-05
Cadmium	0.0011	0.00041	8.80E-05	6.19E-06	5.91E-05	3.51E-05	1.05E-04	3.34E-07	3.95E-05	6.56E-05	5.56E-05	6.25E-05
Chromium	0.0014	0.00041	1.12E-04	6.19E-06	7.36E-05	4.46E-05	1.33E-04	3.34E-07	5.02E-05	8.35E-05	7.08E-05	1.06E-05
Cobalt	0.000084	-	6.72E-06	0.0	4.06E-06	2.66E-06	8.00E-06	0.0	2.99E-06	5.01E-06	4.25E-06	0.0
Dichlorobenzene	0.0012	-	9.60E-05	0.0	5.80E-05	3.80E-05	1.14E-04	0.0	4.28E-05	7.15E-05	6.07E-05	0.0
Formaldehyde	0.075	0.048	6.00E-03	7.23E-04	4.31E-03	2.41E-03	7.14E-03	3.90E-05	2.71E-03	4.47E-03	3.79E-03	1.24E-03
Hexane	1.8	-	1.44E-01	0.0	8.70E-02	5.70E-02	1.71E-01	0.0	6.41E-02	1.07E-01	9.10E-02	0.0
Lead	0.0005	0.00123	4.00E-05	1.86E-05	4.18E-05	1.67E-05	4.76E-05	1.00E-06	1.88E-05	2.98E-05	2.53E-05	5.48E-05
Manganese	0.00038	0.00082	3.04E-05	1.24E-05	3.01E-05	1.26E-05	3.62E-05	6.67E-07	1.42E-05	2.27E-05	1.92E-05	2.12E-05
Mercury ^(g)	0.00026	0.00041	2.08E-05	6.19E-06	1.85E-05	8.53E-06	2.48E-05	3.34E-07	9.59E-06	1.55E-05	1.31E-05	1.06E-05
Naphthalene	0.00061	-	4.88E-05	0.0	2.95E-05	1.93E-05	5.81E-05	0.0	2.17E-05	3.64E-05	3.08E-05	0.0
Nickel	0.0021	0.00041	1.68E-04	6.19E-06	1.07E-04	6.68E-05	2.00E-04	3.34E-07	7.52E-05	1.25E-04	1.06E-04	1.10E-04
POM	0.000088	0.0033	7.04E-06	4.97E-05	5.15E-05	5.23E-06	8.38E-06	2.68E-06	5.78E-06	5.29E-06	4.45E-06	8.76E-05
Selenium	0.000024	0.00206	1.92E-06	3.10E-05	3.06E-05	2.28E-06	2.29E-06	1.67E-06	2.50E-06	1.46E-06	1.21E-06	5.31E-05
Toluene	0.0034	-	2.72E-04	0.0	1.64E-04	1.08E-04	3.24E-04	0.0	1.21E-04	2.03E-04	1.72E-04	0.0
TOTAL HAPS			1.51E-01	8.74E-04	9.21E-02	5.98E-02	1.80E-01	4.71E-05	6.73E-02	9.55E-02	1.50E-03	6.04E-03

Reference
 (a) AP-42, 7/98, Section 1.4, Natural Gas Combustion, Tables 1.4-1, 1.4-2
 (b) Fuel usage obtained from Jerry Gonzales
 (c) Average of source tests conducted on all 3 boilers September 2002 burning natural gas after FGR installed. Assumed FGR resulted in similar NOx reduction for oil.
 (d) All PM from natural gas is assumed <1µ, so PM-10, PM-2.5 and total PM have equal EFs, AP-42, Natural Gas Combustion, Table 1.4-2. The PM emission factor for fuel oil is the sum of filterable and condensable PM.
 (e) AP-42, 1/95, Section 1.4, Natural Gas Combustion, Table 1.4-2. Consistent with previous stack tests.
 (f) AP-42, 9/98, Section 1.3, Fuel Oil Combustion, Table 1.3-1 with Errata, Table 1.3-3, and Table 1.3-6.
 (g) Boilers > 100 MMBtu/hr: SOx Emission Factor (SO₂ [142S] + SO₃ [5.7S]) = 147.7 * S (from AP-42, Table 1.3-1 w/Errata) (S = weight % sulfur in oil)/(Sulfur content per analysis on oil in tanks in August 01', no new oil delivered in 02/03')
 S(%) = 0.5
 (h) HAP emission factors for natural gas from AP-42, Tables 1.4-3 an 1.4-4, for fuel oil from AP-42 Tables 1.3-8 and 1.3-10.
 (i) AP-42, Table 1.4-2, 1.4-3, and 1.4-4, July 1998

12 Month Rolling Emissions 2007 (Tons)						
Pollutant	TSP	PM10	NOx	CO	VOC	SO ₂
Permit Limit (tons/yr)						
12-Month Rolling Average	8.4	8.2	60.2	41.3	5.6	7.9
January	2.374	2.363	17.937	12.360	1.694	0.264
February	2.376	2.365	17.956	12.373	1.696	0.263
March	2.352	2.341	17.775	12.248	1.679	0.261
April	2.323	2.312	17.548	12.092	1.657	0.260
May	2.454	2.404	17.905	12.301	1.667	0.547
June	2.341	2.291	17.047	11.710	1.586	0.536
July	2.237	2.188	16.264	11.170	1.512	0.524
August	2.192	2.144	15.925	10.936	1.480	0.520
September	2.164	2.115	15.704	10.783	1.459	0.520
October	1.995	1.946	14.413	9.893	1.336	0.508
November	1.897	1.856	13.795	9.474	1.282	0.445
December	1.854	1.812	13.457	9.241	1.250	0.443
Monthly Emission Totals (Tons)						
Pollutant	TSP	PM10	NOx	CO	VOC	SO ₂
January	0.287	0.286	2.185	1.506	0.207	0.024
February	0.225	0.225	1.717	1.184	0.163	0.019
March	0.198	0.197	1.500	1.034	0.142	0.019
April	0.161	0.161	1.223	0.843	0.116	0.015
May	0.261	0.222	1.343	0.889	0.103	0.300
June	0.000	0.000	0.000	0.000	0.000	0.000
July	0.000	0.000	0.001	0.001	0.000	0.000
August	0.058	0.058	0.445	0.307	0.042	0.005
September	0.099	0.098	0.750	0.517	0.071	0.009
October	0.144	0.143	1.090	0.751	0.103	0.014
November	0.175	0.175	1.330	0.917	0.126	0.016
December	0.246	0.246	1.874	1.292	0.177	0.022
Annual Totals	1.854	1.812	13.457	9.241	1.250	0.443

Emission Summary TA-3 Power Plant 2007

Pollutant Criteria	Emission Factor		Annual Emissions (Natural Gas + Fuel Oil) (tons)	Jan-June Emissions (Natural Gas + Fuel Oil) (tons)	July-Dec Emissions (Natural Gas + Fuel Oil) (tons)	Reference		Reference
	Natural Gas	Fuel Oil ¹ (lb/1000)				Gas	Oil	
NOX	58	8.64	13,457	7,968	5,490	(c)	(c)	(a) AP-42, 798, Section 1.4, Natural Gas Combustion, Tables
SOX	0.6	7.4	0.443	0.377	0.066	(a)(i)	(g)(i)	(b) Fuel usage obtained from Jerry Gonzales
PM	7.6	3.3	1,854	1,132	0.722	(d)	(d)	(c) Average of source tests conducted on all 3 boilers, September 2002 burning natural gas after FGR installed. Assumed FGR resulted in similar NOx reduction for oil.
PM-10	7.6	2.3	1,812	1,091	0.721	(d)	(d)	
PM-2.5	7.6	1.55	1,781	1,061	0.720	(d)	(d)	(d) All PM from natural gas is assumed <1µ, so PM-10, PM-2.5 and total PM have equal EFs, AP-42, Natural Gas Combustion, Table 1.4-2. The PM emission factor for fuel oil is the sum of filterable and condensable PM.
CO	40	5.0	9,241	5,456	3,785	(b)	(g)	
VOC	5.5	0.2	1,250	0.731	0.520	(b)	(i)	
HAPs²								
Arsenic	0.0002	0.00055	6.80E-05	4.84E-05	1.96E-05	(a)	(k)	(e) AP-42, 195, Section 1.4, Natural Gas Combustion, Table 1.4-2, Consistent with previous stack tests.
Benzene	0.0021	-	4.74E-04	2.76E-04	1.98E-04	(c)	(k)	
Beryllium	0.00012	0.00041	1.98E-05	1.82E-05	1.66E-06	(c)	(k)	
Cadmium	0.0011	0.00041	2.66E-04	1.61E-04	1.04E-04	(c)	(k)	(f) AP-42, 938, Section 1.3, Fuel Oil Combustion, Table 1.3-1 with Errata, Table 1.3-3, and Table 1.3-6.
Chromium	0.0014	0.00041	3.33E-04	2.00E-04	1.33E-04	(c)	(k)	
Cobalt	0.000084	-	1.90E-05	1.10E-05	7.93E-06	(c)	(k)	
Dichlorobenzene	0.0012	-	2.71E-04	1.58E-04	1.19E-04	(c)	(k)	(g) Boilers >100 MMBtu/hr: SOX Emission Factor (SO ₂ (142S) + SO ₃ (57S)) = 147.7 * S (from AP-42, Table 1.3-1 w/Errata) (S = weight % sulfur in oil)/(Sulfur content per analysis on oil in tanks in August 01', no new oil delivered in 02/03')
Formaldehyde	0.075	0.048	1.89E-02	1.18E-02	7.15E-03	(c)	(k)	
Hexane	1.8	-	4.06E-01	2.36E-01	1.70E-01	(c)	(k)	
Lead	0.0005	0.001233	1.64E-04	1.15E-04	4.88E-05	(c)	(k)	
Manganese	0.00038	0.000822	1.20E-04	8.31E-05	3.69E-05	(c)	(k)	
Mercury	0.0026	0.000411	7.58E-05	5.08E-05	2.51E-05	(i)(c)	(i)(k)	S (%) = 0.05
Naphthalene	0.00061	-	1.38E-04	8.01E-05	5.76E-05	(c)	(k)	(h) HAP emission factors for natural gas from AP-42, Tables 1.4-3 and 1.4-4, for fuel oil from AP-42 Tables 1.3-8 and 1.3-10.
Nickel	0.0021	0.000411	4.91E-04	2.92E-04	1.99E-04	(c)	(k)	
POM	0.00088	0.0033	1.57E-04	1.45E-04	1.25E-05	(c)	(k)	
Selenium	0.00024	0.002055	9.10E-05	8.62E-05	4.88E-06	(c)	(k)	
Toluene	0.0034	-	7.68E-04	4.47E-04	3.21E-04	(c)	(k)	(i) AP-42, Table 1.4-2, 1.4-3, and 1.4-4, July 1988
TOTAL HAPS			4.29E-01	2.50E-01	1.78E-01			
EPCRA 313								
Lead	0.0005	0.00123	1.64E-04	0.329	0.329	(c)	(i)(k)	(i) Assume all SO ₃ is converted to sulfuric acid.
Sulfuric Acid	0.60	0.285	1.47E-01	294.73	294.73	(e)(i)	(e)(h)	(k) AP-42, Tables 1.3-9 and 1.3-10, September 1998.
Mercury	0.00026	0.00041	7.58E-05	0.152	0.152	(c)	(i)(k)	
PACs	8.69E-07	1.65E-05	8.84E-07	1.77E-03	1.77E-03	(f)(i)	(f)(i)	(l) EPCRA PAC Guidance Document, Table 2-3.
Benzo(g,h,i) perylene	1.20E-06	2.26E-06	3.65E-07	7.30E-04	7.30E-04	(i)(k)(c)	(f)	
Zinc	-	0.00055	2.28E-05	4.57E-02	4.57E-02	(k)	(k)	

2007 TA-21 Steam Plant Data Entry / Fuel Use									
DATA ENTRY									
Monthly Fuel									
TA-21-357									
Month	Natural Gas	Fuel Oil (gallons)	Converted Natural Gas	Month	Natural Gas Use 12-Month Rolling Total (MMscf)	Fuel Oil Use 12-Month Rolling Total (Gallons)			
January	3184	0	3.184	January	29.16	402			
February	2895	9	2.895	February	28.58	411			
March	2853	10	2.853	March	27.87	421			
April	2297	6	2.297	April	27.65	427			
May	2172	3	2.172	May	27.82	430			
June	1803	41	1.803	June	27.91	471			
July	0	0	0.000	July	26.21	137			
August	0	0	0.000	August	24.62	118			
September	0	0	0.000	September	22.91	118			
October	0	0	0.000	October	20.70	95			
November	0	0	0.000	November	18.20	75			
December	0	0	0.000	December	15.20	69			
Annual Totals:	15204	69	15.204						
Jan. - June	15204	69	15.204						
July - Dec.	0	0	0.000						
					Permit Limit = 60 MMscf/yr natural gas (12 month rolling total)				
					and 10,000 gal/yr fuel oil (12 month rolling total)				

In August, 2007, the TA-21 Steam Plant was placed on the D&D list and will no longer be operated. A letter was sent to NMED in October informing them that the plant has closed.

2007 TA-21 Steam Plant Emissions Calculations

Pollutant Criteria	Natural Gas				Fuel Oil				Reference
	Emission Factor (lb/MMscf)	Annual Emissions (tons)	Emissions (tons) Jan-June	Emissions (tons) July-Dec	Emission Factor (lb/1000 gal)	Annual Emissions (tons)	Emissions (tons) Jan-June	Emissions (tons) July-Dec	
Nox	100	0.760	0.760	0.000	20	6.90E-04	6.90E-04	0.00E+00	(g)
SOx	0.6	0.005	0.005	0.000	7.2	2.48E-04	2.48E-04	0.00E+00	(h)
PM	7.6	0.058	0.058	0.000	3.3	1.14E-04	1.14E-04	0.00E+00	(g)
PM-10	7.6	0.058	0.058	0.000	2.3	7.94E-05	7.94E-05	0.00E+00	(i)
PM-2.5	7.6	0.058	0.058	0.000	1.55	5.35E-05	5.35E-05	0.00E+00	(j)
CO	84	0.639	0.639	0.000	5.0	1.73E-04	1.73E-04	0.00E+00	(g)
VOC	5.5	0.042	0.042	0.000	0.2	6.90E-06	6.90E-06	0.00E+00	(i)
HAPs									
Arsenic	0.0002	1.52E-06	1.52E-06	0.00E+00	0.00055	1.89E-08	1.89E-08	0.00E+00	(k)
Benzene	0.0021	1.60E-05	1.60E-05	0.00E+00					
Beryllium	0.000012	9.12E-08	9.12E-08	0.00E+00	0.00041	1.42E-08	1.42E-08	0.00E+00	(k)
Cadmium	0.0011	8.36E-06	8.36E-06	0.00E+00	0.00041	1.42E-08	1.42E-08	0.00E+00	(k)
Chromium	0.0014	1.06E-05	1.06E-05	0.00E+00	0.00041	1.42E-08	1.42E-08	0.00E+00	(k)
Cobalt	0.000084	6.39E-07	6.39E-07	0.00E+00					
Dichlorobenzene	0.0012	9.12E-06	9.12E-06	0.00E+00					
Formaldehyde	0.075	5.70E-04	5.70E-04	0.00E+00	0.048	1.66E-06	1.66E-06	0.00E+00	(k)
Hexane	1.8	1.37E-02	1.37E-02	0.00E+00					
Lead	0.0005	3.80E-06	3.80E-06	0.00E+00	0.00123	4.25E-08	4.25E-08	0.00E+00	(k)
Manganese	0.00038	2.89E-06	2.89E-06	0.00E+00	0.00082	2.84E-08	2.84E-08	0.00E+00	(k)
Mercury	0.00026	1.98E-06	1.98E-06	0.00E+00	0.00041	1.42E-08	1.42E-08	0.00E+00	(k)
Napthalene	0.00061	4.64E-06	4.64E-06	0.00E+00					
Nickel	0.0021	1.60E-05	1.60E-05	0.00E+00	0.00041	1.42E-08	1.42E-08	0.00E+00	(k)
POM	0.000088	6.69E-07	6.69E-07	0.00E+00	0.0033	1.14E-07	1.14E-07	0.00E+00	(k)
Selenium	0.000024	1.82E-07	1.82E-07	0.00E+00	0.00206	7.09E-08	7.09E-08	0.00E+00	(k)
Toluene	0.0034	2.58E-05	2.58E-05	0.00E+00					
TOTAL HAPS		1.44E-02	1.44E-02	0.00E+00		2.00E-06	2.00E-06	0.00E+00	
EPCRA 313			lbs./year				lbs./year		
Lead	0.0005	3.80E-06	0.008		0.00123	4.25E-08	8.51E-05		(k)
Sulfuric Acid	0.60	4.56E-03	9.122		0.0	0.00E+00	0.000		(e)(h)
Mercury	0.00026	1.98E-06	3.95E-03		0.00041	1.42E-08	2.84E-05		(k)
PACs	8.69E-07	6.61E-09	1.32E-05		1.65E-05	5.69E-10	1.14E-06		(f)
perylene	1.20E-06	9.12E-09	1.82E-05		2.26E-06	7.80E-11	1.56E-07		(f)

2007 Generator Hours				KW	MODEL	Fuel Type	Previous Reading Date	First 6 Month Readings			Second 6 Month Readings		
TA	Blgg	Manufacturer	Previous Reading					6 Month Reading Date	Reading	Hours Run	12 Month Reading Date	Reading	Hours Run
3	38	Onan Sons	H1750DSG15	175	Diesel	3054.4	Dec-06	May-07	3057.0	2.6	3070	13	
3	38	Onan Sons	350DFCC	350	Diesel	2619.4	Dec-06	May-07	2629.4	10.0	2636.5	7.1	
3	38	Cummins	150DGA	150	Diesel	1147.0	Dec-06	May-07	1158.9	11.9	1170.6	11.7	
3	40	Onan Sons	1500DVE15R31374B	150	Diesel	3.2	Dec-06	May-07	6.1	2.9	6.6	0.5	
3	223	Onan Sons	45 OEM-15R/10742D	45	Nat. Gas	478.0	Dec-06	May-07	481.1	3.1	489.5	8.4	
3	440	Cummins	500FDR6051	260	Diesel	121.8	Dec-06	May-07	121.8	0.0	121.8	121.8	
3	440	Cummins	DFGA-5005210	500	Diesel	69.5	Dec-06	May-07	74.8	5.3	81.8	7	
3	1076	Cummins	DG BB-5601289	35	Diesel	101.2	Dec-06	Jun-07	116.7	15.5	129.7	13	
3	1400	Cummins	DFEH-5699616	400	Diesel	14.0	Apr-07	May-07	14.1	0.1	33	18.9	
3	1404	Cummins	DFLC-5554001	1250	Diesel	287.9	Dec-05	Jun-07	324.2	36.3	336.5	12.3	
3	1498	Caterpillar	SR-4	600	Diesel	303.0	Nov-05	May-07	315.0	12.0	326	11	
3	2322	Onan Sons	DG DA-5005757	80	Diesel	329.1	Nov-05	May-07	336.8	7.7	339.8	3	
16	1374	Cummins	KTA50-G2	1100	Diesel	226.3	Dec-05	Jun-07	276.2	49.9	293.4	17.2	
18	31	Onan Sons	60ENNA	60	Nat. Gas	1039.4	Nov-05	May-07	1058.9	19.5	1092.9	34	
18	31	Onan Sons	275DFML29807N	275	Diesel	173.4	Dec-05	Jun-07	180.8	7.4	180.8	0	
21	357	Caterpillar	SR-4	125	Diesel	497.5	Nov-05	May-07	541.0	43.5	558.2	17.2	
33	20	Kohler	80ROZ	30	Diesel	919.0	Nov-05	Jun-07	919.0	0.0	926.6	7.6	
33	Point	Onan Sons	300DG10A	80	Diesel	7643.1	Nov-05	Jun-07	7643.1	0.0	7643.1	0	
35	2	Onan Sons	100DGB	100	Diesel	115.5	Dec-05	Jun-07	115.3	0.0	115.5	0.2	
35	402	Cummins	DG CB-5674244	60	Diesel	107.4	Jun-07	Jun-07	107.4	0.0	138.4	31	
43	1	Cummins	4B T3.9-GC	50	Diesel	369.4	Nov-05	May-07	379.0	9.6	383.9	4.9	
43	1	Onan Sons	DVE	150	Diesel	562.6	Nov-05	May-07	589.1	26.5	620.2	31.1	
46	335	Onan Sons	300DEFCB	300	Diesel	873.8	Nov-05	May-07	900.4	26.6	969.5	59.1	
48	45	Onan Sons	DF CB-5740130	300	Diesel	16.0	Nov-05	May-07	24.9	8.9	53.5	28.6	
50	37	Cummins	680FDR6059FF	500	Diesel	485.1	Nov-05	May-07	489.1	4.0	502.9	13.8	
50	184	Onan Sons	DGF A-568741	150	Diesel	153.6	Nov-05	May-07	209.7	56.1	212.7	3	
50	188	Onan Sons	L940563879	1250	Diesel	149.0	Nov-05	Jun-07	149.0	0.0	149	0	
53	1	Kato Eng.	60ENNA	60	Nat. Gas	1165.4	Nov-05	May-07	1195.1	29.7	1234.1	39	
53	2	Onan Sons	Kamaag-14	50	Diesel	194.3	Nov-05	May-07	194.3	0.0	194.3	0	
53	M	Onan Sons	12.5JC-18R/16095AA	12.5	Nat. Gas	581.5	Nov-05	May-07	581.5	0.0	581.5	0	
54	412	Olympian	95M-07874F	500	Diesel	292.0	Nov-05	May-07	306.1	14.1	317.9	11.8	
55	5	Kohler	100RZ71	100	Nat. Gas	71.3	Dec-05	May-07	74.4	3.1	79.3	4.9	
55	8	Deico/Detroit	E7014DD	600	Diesel	805.3	Dec-05	Jun-07	814.3	9.0	822.2	7.9	
55	364	Onan Sons	1250DFLC-4987	1250	Diesel	52.6	Dec-05	Jun-07	62.0	9.4	82.8	20.8	
55	28	Onan Sons	40DL6T	40	Diesel	47.3	Dec-05	Jun-07	47.3	0.0	66.5	19.2	
55	47	Onan Sons	1465	200	Diesel	515.6	Nov-05	May-07	526.6	11.0	540	13.4	
55	142	Cummins	DF EB-4963414	400	Diesel	88.8	Dec-05	May-07	96.1	7.3	105	8.9	
59	1	Allis Chalmers	2884-0703	90	Diesel	749.3	Nov-05	Jun-07	750.0	0.7	750	0	
60	yard	Cummins	DF HD-4964979	1000	Diesel	272.4	Feb-07	Jul-07	293.9	21.5	648.4	354.5	
63	Yard	Murphy	3166-0084	30	Diesel	715.9	Nov-05	Jun-07	715.9	0.0	716	0.1	
64	1	Onan Sons	250DVG	250	Diesel	148.0	Nov-05	May-07	153.1	5.1	166.9	13.8	
64	39	Onan Sons	20 0DL4-15R	20	Diesel	189.9	Dec-05	Jun-07	189.9	0.0	189.9	0	
69	33	Cummins	DF LC-5568730	1250	Diesel	53.2	Nov-05	May-07	62.5	9.3	71.3	8.8	
43 Generators in use				TOTAL	14378				TOTAL	479.6	TOTAL	978.5	
								First half average hours per unit	11.2	Second half average hours per unit			22.8
								Annual Average of hours per unit				17.0	

2007 TA-33 Generator Emission Factors						
EMISSION FACTORS	NOx (a) lb/kw-hr	CO (a) lb/kw-hr	SOx (b) lb/kw-hr	PM (b) lb/kw-hr	PM₁₀ (b) lb/kw-hr	VOC (a) lb/kw-hr
Large Diesel fired	0.027	0.022	0.004	0.0009	0.0009	0.0005
(a) Manufacturer supplied emission factor						
(b) Emission factors from AP-42, Table 3.3-1 & Table 3.4-1						
References:						
447 kw is the size limit for determining large vs. small diesel fired generator. This information was taken from the operating permit application.						
(a) The AP-42 (fifth edition) emissions factor uses units of lb/hp-hr. There are 1.341 hp-hrs in a kwh. Therefore, take pounds/hp-hr x 1.341 hp-hr/kwh to obtain the emission factor in lb/kwh.						
(b) Emission factors for large diesel fired boilers were taken from AP-42 (fifth edition) Tables 3.4-1, 3.4-2, 3.4-3, and 3.4-4.						

Location	2007 Generator Emissions						First 6 Month Emissions						Second 6 Month Emissions					
	NOx (lb/yr)	CO (lb/yr)	SOx (lb/yr)	PM (lb/yr)	VOC (lb/yr)	HAPs (lb/yr)	NOx (lb/yr)	CO (lb/yr)	SOx (lb/yr)	PM (lb/yr)	VOC (lb/yr)	HAPs (lb/yr)	NOx (lb/yr)	CO (lb/yr)	SOx (lb/yr)	PM (lb/yr)	VOC (lb/yr)	HAPs (lb/yr)
3-38	19.1	4.1	1.4	1.4	1.4	6.2E-03	95.6	20.5	6.8	6.8	3.1E-02	95.6	20.5	6.8	6.8	6.8	6.8	3.1E-02
3-38	147.0	31.5	10.5	10.5	10.5	4.7E-02	104.4	22.4	7.5	7.5	3.4E-02	104.4	22.4	7.5	7.5	7.5	7.5	3.4E-02
3-38	75.0	16.1	5.4	5.4	5.4	2.4E-02	73.7	15.8	5.3	5.3	2.4E-02	73.7	15.8	5.3	5.3	5.3	5.3	2.4E-02
3-40	18.3	3.9	1.3	1.3	1.3	5.9E-03	3.2	0.7	0.2	0.2	1.0E-03	3.2	0.7	0.2	0.2	0.2	0.2	1.0E-03
3-223	1.1	1.8	0.0	0.0	0.0	1.6E-02	3.0	4.9	0.0	0.0	4.3E-02	3.0	4.9	0.0	0.0	0.0	0.0	4.3E-02
3-440	84.8	18.6	1.4	2.7	2.7	1.5E-02	112.0	24.5	1.9	3.5	2.0E-02	112.0	24.5	1.9	3.5	3.5	3.5	2.0E-02
3-1076	22.8	4.9	1.6	1.6	1.6	7.3E-03	19.1	4.1	1.4	1.4	6.2E-03	19.1	4.1	1.4	1.4	1.4	1.4	6.2E-03
3-1400	1.7	0.4	0.1	0.1	0.1	5.4E-04	317.5	68.0	22.7	22.7	1.0E-01	317.5	68.0	22.7	22.7	22.7	22.7	1.0E-01
3-1404	1452.0	317.6	24.5	45.4	45.4	2.6E-01	492.0	107.6	8.3	15.4	8.9E-02	492.0	107.6	8.3	15.4	15.4	15.4	8.9E-02
3-1498	230.4	50.4	3.9	7.2	7.2	4.2E-02	211.2	46.2	3.6	6.6	3.8E-02	211.2	46.2	3.6	6.6	6.6	6.6	3.8E-02
3-2322	25.9	5.5	1.8	1.8	1.8	8.3E-03	10.1	2.2	0.7	0.7	3.2E-03	10.1	2.2	0.7	0.7	0.7	0.7	3.2E-03
16-980	1756.5	384.2	29.6	54.9	54.9	3.2E-01	605.4	132.4	10.2	18.9	1.1E-01	605.4	132.4	10.2	18.9	18.9	18.9	1.1E-01
16-1374	9.4	15.2	0.0	0.0	0.1	1.3E-01	16.3	26.5	0.0	0.1	2.3E-01	16.3	26.5	0.0	0.1	0.2	0.2	2.3E-01
18-31	85.5	18.3	6.1	6.1	6.1	2.8E-02	0.0	0.0	0.0	0.0	0.0E+00	0.0	0.0	0.0	0.0	0.0	0.0	0.0E+00
21-357	228.4	48.9	16.3	16.3	16.3	7.4E-02	90.3	19.4	6.5	6.5	2.9E-02	90.3	19.4	6.5	6.5	6.5	6.5	2.9E-02
33-20	0.0	0.0	0.0	0.0	0.0	0.0E+00	9.6	2.1	0.7	0.7	3.1E-03	9.6	2.1	0.7	0.7	0.7	0.7	3.1E-03
33-Point	0.0	0.0	0.0	0.0	0.0	0.0E+00	0.0	0.0	0.0	0.0	0.0E+00	0.0	0.0	0.0	0.0	0.0	0.0	0.0E+00
35-2	0.0	0.0	0.0	0.0	0.0	0.0E+00	0.8	0.2	0.1	0.1	2.7E-04	0.8	0.2	0.1	0.1	0.1	0.1	2.7E-04
35-402	0.0	0.0	0.0	0.0	0.0	0.0E+00	78.1	16.7	5.6	5.6	2.5E-02	78.1	16.7	5.6	5.6	5.6	5.6	2.5E-02
43-1	20.2	4.3	1.4	1.4	1.4	6.5E-03	10.3	2.2	0.7	0.7	3.3E-03	10.3	2.2	0.7	0.7	0.7	0.7	3.3E-03
43-1	167.0	35.8	11.9	11.9	11.9	5.4E-02	195.9	42.0	14.0	14.0	6.3E-02	195.9	42.0	14.0	14.0	14.0	14.0	6.3E-02
46-335	335.2	71.8	23.9	23.9	23.9	1.1E-01	744.7	159.6	53.2	53.2	2.4E-01	744.7	159.6	53.2	53.2	53.2	53.2	2.4E-01
48-45	112.1	24.0	8.0	8.0	8.0	3.6E-02	360.4	77.2	25.7	25.7	1.2E-01	360.4	77.2	25.7	25.7	25.7	25.7	1.2E-01
50-37	64.0	14.0	1.1	2.0	2.0	1.2E-02	220.8	48.3	3.7	6.9	4.0E-02	220.8	48.3	3.7	6.9	6.9	6.9	4.0E-02
50-184	353.4	75.7	25.2	25.2	25.2	1.1E-01	189.9	41.1	1.4	1.4	6.1E-03	189.9	41.1	1.4	1.4	1.4	1.4	6.1E-03
50-188	0.0	0.0	0.0	0.0	0.0	0.0E+00	0.0	0.0	0.0	0.0	0.0E+00	0.0	0.0	0.0	0.0	0.0	0.0	0.0E+00
53-1	14.3	23.2	0.0	0.1	0.2	2.0E-01	18.7	30.4	0.0	0.1	2.6E-01	18.7	30.4	0.0	0.1	0.2	0.2	2.6E-01
53-2	0.0	0.0	0.0	0.0	0.0	0.0E+00	0.0	0.0	0.0	0.0	0.0E+00	0.0	0.0	0.0	0.0	0.0	0.0	0.0E+00
53-M	0.0	0.0	0.0	0.0	0.0	0.0E+00	0.0	0.0	0.0	0.0	0.0E+00	0.0	0.0	0.0	0.0	0.0	0.0	0.0E+00
54-412	225.6	49.4	3.8	7.1	7.1	4.1E-02	188.8	41.3	3.2	5.9	3.4E-02	188.8	41.3	3.2	5.9	5.9	5.9	3.4E-02
55-5	2.5	4.0	0.0	0.0	0.0	3.5E-02	3.9	6.4	0.0	0.0	5.5E-02	3.9	6.4	0.0	0.0	0.0	0.0	5.5E-02
55-8	172.8	37.8	2.9	5.4	5.4	3.1E-02	151.7	33.2	2.6	4.7	2.8E-02	151.7	33.2	2.6	4.7	4.7	4.7	2.8E-02
55-364	376.0	82.3	6.3	11.8	11.8	6.8E-02	832.0	182.0	14.0	26.0	1.5E-01	832.0	182.0	14.0	26.0	26.0	26.0	1.5E-01
55-28	0.0	0.0	0.0	0.0	0.0	0.0E+00	32.3	6.9	2.3	2.3	1.0E-02	32.3	6.9	2.3	2.3	2.3	2.3	1.0E-02
55-47	92.4	19.8	6.6	6.6	6.6	3.0E-02	112.6	24.1	8.0	8.0	3.6E-02	112.6	24.1	8.0	8.0	8.0	8.0	3.6E-02
55-142	122.6	26.3	8.8	8.8	8.8	3.9E-02	149.5	32.0	10.7	10.7	4.8E-02	149.5	32.0	10.7	10.7	10.7	10.7	4.8E-02
59-1	2.6	0.6	0.2	0.2	0.2	8.5E-04	0.0	0.0	0.0	0.0	0.0E+00	0.0	0.0	0.0	0.0	0.0	0.0	0.0E+00
60-yard	688.0	150.5	11.6	21.5	21.5	1.3E-01	1134.0	248.15	19.14	35.45	2.1E+00	1134.0	248.15	19.14	35.45	35.45	35.45	2.1E+00
63-Yard	0.0	0.0	0.0	0.0	0.0	0.0E+00	0.1	0.0	0.0	0.0	4.1E-05	0.1	0.0	0.0	0.0	0.0	0.0	4.1E-05
64-1	53.5	11.5	3.8	3.8	3.8	1.7E-02	144.9	31.1	10.4	10.4	4.7E-02	144.9	31.1	10.4	10.4	10.4	10.4	4.7E-02
64-39	0.0	0.0	0.0	0.0	0.0	0.0E+00	0.0	0.0	0.0	0.0	0.0E+00	0.0	0.0	0.0	0.0	0.0	0.0	0.0E+00
69-33	372.0	81.4	6.3	11.6	11.6	6.8E-02	352.0	77.0	5.9	11.0	6.4E-02	352.0	77.0	5.9	11.0	11.0	11.0	6.4E-02
Total Emissions	7331.9	1633.7	226.0	304.0	304.3	2.0	16453.8	4078.4	523.6	732.3	4.5	16453.8	4078.4	523.6	732.3	732.7	732.7	4.5
lbs/6 months	3.7	0.8	0.1	0.2	0.2	9.9E-04	9.2	2.0	0.3	0.4	0.4	9.2	2.0	0.3	0.4	0.4	0.4	0.4
Tons/6 months																		
YEARLY TOTAL	NOx	CO	SOx	PM	VOC	HAPs												
Tons/Year	12.89	2.86	0.37	0.52	0.52	0.003												

2007 Emissions Factors (lb/kwh)	HAPs (lbs)																		
	1,1,2,2-Tetrachloroethane 8.64E-08		1,1,2-Trichloroethane 5.23E-08		1,3-Dichloropropene 4.34E-08		Carbon Tetrachloride 6.05E-08		Chlorobenzene 4.41E-08		Chloroform 4.68E-08		Ethylbenzene 8.47E-08		Ethylene Dibromide 7.27E-08		Methanol 1.05E-05		
Diesel (small) Diesel (large) Location	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half	
3-38																			
3-38																			
3-40																			
3-223	1.21E-05	3.27E-05	7.29E-06	1.98E-05	6.05E-06	1.64E-05	8.43E-06	2.29E-05	6.15E-06	1.67E-05	6.53E-06	1.77E-05	1.18E-05	3.20E-05	1.01E-05	2.75E-05	1.48E-03	3.95E-03	
3-440																			
3-440																			
3-1076																			
3-1400																			
3-1404																			
3-1486																			
3-2322																			
16-980																			
16-1374	1.01E-04	1.76E-04	6.11E-05	1.07E-04	5.07E-05	8.89E-05	7.07E-05	1.23E-04	5.15E-05	8.99E-05	5.47E-05	9.55E-05	9.91E-05	1.73E-04	8.51E-05	1.48E-04	1.22E-02	2.13E-02	
16-31																			
21-357																			
33-20																			
33P oint																			
35-2																			
35-402																			
43-1																			
43-1																			
46-335																			
48-45																			
50-37																			
50-184																			
50-188																			
50-1	1.54E-04	2.02E-04	9.31E-05	1.22E-04	7.79E-05	1.01E-04	1.08E-04	1.41E-04	7.85E-05	1.03E-04	8.34E-05	1.09E-04	1.51E-04	1.98E-04	1.30E-04	1.70E-04	1.86E-02	2.45E-02	
53-2																			
53M	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
54-412																			
55-5	2.88E-05	4.23E-05	1.62E-05	2.56E-05	1.34E-05	2.13E-05	1.87E-05	2.98E-05	1.37E-05	2.16E-05	1.45E-05	2.29E-05	2.63E-05	4.15E-05	2.28E-05	3.56E-05	3.24E-03	5.12E-03	
55-8																			
55-364																			
55-28																			
55-47																			
55-142																			
59-1																			
60-yard																			
63-Yard																			
64-1																			
64-39																			
69-33																			
Total Emissions lbs	2.94E04	4.53E04	1.78E04	2.74E04	1.48E04	2.28E04	2.06E04	3.17E04	1.50E04	2.31E04	1.59E04	2.46E04	2.88E04	4.46E04	2.47E04	3.82E04	3.55E02	5.48E02	
Tons/HalfHAP	1.47E07	2.27E07	8.89E08	1.37E07	7.38E08	1.14E07	1.03E07	1.59E07	7.49E08	1.16E07	7.96E08	1.23E07	1.44E07	2.24E07	1.24E07	1.91E07	1.78E05	2.74E05	
Tons/yearHAP	3.74E07	2.28E07	2.28E07	2.86E07	1.88E07	1.88E07	2.61E07	1.91E07	1.91E07	1.44E07	2.02E07	3.15E07	4.52E05	4.52E05	4.52E05	4.52E05	4.52E05	4.52E05	

Emission Factors from AP-42, Volume 1, Fifth Edition (Small Diesel Engines Table 3.3-2, Large Diesel Engines Table 3.4-4, Natural Gas 4-Stroke Engines Table 3.2-3)

2007 Emissions Factors (lb/kwh)	HAPs (lbs)										Individual Generator HAP Emissions (lbs)	
	Methylene Chloride		PAH		Styrene		Toluene		Vinyl Chloride			
	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half		
Natural Gas			4.82E-07		4.06E-08		1.91E-06		2.45E-08			
Diesel (small)			5.74E-07									
Diesel (large)			7.24E-07									
Location	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half
3-38			2.61E-04	1.31E-03							6.15E-03	3.08E-02
3-38			2.01E-03	1.43E-03							4.73E-02	3.36E-02
3-38			1.02E-03	1.01E-03							2.41E-02	2.37E-02
3-40			2.50E-04	4.30E-05							5.88E-03	1.01E-03
3-223			1.98E-05	5.32E-05	1.82E-04	5.67E-06	1.54E-05	2.68E-04	7.20E-04	3.42E-06	1.57E-02	4.26E-02
3-440			0.00E+00	1.82E-02							0.00E+00	4.28E-01
3-440			1.92E-03	2.53E-03							1.54E-02	2.04E-02
3-1076			3.11E-04	2.61E-04							7.33E-03	6.15E-03
3-1400			2.30E-05	4.34E-03							5.41E-04	1.02E-01
3-1404			3.29E-02	1.11E-02							2.64E-01	8.95E-02
3-1498			5.21E-03	4.78E-03							4.19E-02	3.84E-02
3-2322			3.59E-04	1.38E-04							8.33E-03	3.24E-03
16-980			3.97E-02	1.37E-02							3.19E-01	1.10E-01
16-1374			1.65E-04	2.87E-04	5.63E-04	4.76E-05	8.29E-05	2.23E-03	3.89E-03	2.87E-05	5.00E-05	1.32E-01
16-31			1.17E-03	0.00E+00							2.75E-02	0.00E+00
21-357			3.12E-03	1.23E-03							7.35E-02	2.91E-02
33-20			0.00E+00	1.31E-04							0.00E+00	3.08E-03
33-Point			0.00E+00	0.00E+00							0.00E+00	0.00E+00
36-2			0.00E+00	1.15E-05							0.00E+00	2.70E-04
36-402			0.00E+00	1.07E-03							0.00E+00	2.51E-02
43-1			2.75E-04	1.41E-04							6.49E-03	3.31E-03
43-1			2.28E-03	2.68E-03							5.37E-02	6.31E-02
46-335			4.58E-03	1.02E-02							1.08E-01	2.40E-01
48-45			1.53E-03	4.92E-03							3.61E-02	1.16E-01
50-37			1.45E-03	5.00E-03							1.16E-02	4.02E-02
50-184			4.83E-03	2.58E-04							1.14E-01	6.08E-03
50-188			0.00E+00	0.00E+00							0.00E+00	0.00E+00
53-1			8.58E-04	1.13E-03	7.24E-05	9.51E-05	3.40E-03	4.46E-03	4.37E-05	5.74E-05	2.01E-01	2.64E-01
53-2			0.00E+00	0.00E+00							0.00E+00	0.00E+00
53-M			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
54-412			5.10E-03	4.27E-03							4.10E-02	3.43E-02
55-5			4.36E-05	6.89E-05	1.49E-04	2.36E-04	1.26E-05	5.91E-04	9.34E-04	7.60E-06	3.49E-02	5.52E-02
55-8			3.91E-03	3.43E-03							3.14E-02	2.76E-02
55-364			8.51E-03	1.88E-02							6.84E-02	1.51E-01
55-28			0.00E+00	4.41E-04							0.00E+00	1.04E-02
55-47			1.26E-03	1.54E-03							2.97E-02	3.62E-02
55-142			1.68E-03	2.04E-03							3.95E-02	4.81E-02
59-1			3.61E-05	0.00E+00							8.52E-04	0.00E+00
60-yard			1.56E-02	2.57E-01							1.25E-01	2.06E+00
63-Yard			0.00E+00	1.72E-06							0.00E+00	4.06E-05
64-1			7.32E-04	1.98E-03							1.72E-02	4.66E-02
64-39			0.00E+00	0.00E+00							0.00E+00	0.00E+00
66-33			8.42E-03	7.96E-03							6.77E-02	6.40E-02
Total Emissions lbs	4.79E-04	7.38E-04	1.50E-01	3.84E-01	1.38E-04	2.13E-04	6.48E-03	1.00E-02	8.34E-05	1.29E-04	1.98E+00	4.49E+00
Tons/Half/HAP	2.39E-07	3.69E-07	7.50E-05	1.92E-04	6.91E-08	1.07E-07	3.24E-06	5.00E-06	4.17E-08	6.43E-08		
Tons/year/HAP		6.09E-07		2.67E-04		1.76E-07		8.24E-06		1.06E-07		

Emission Factors from AP-42, Volume 1, Fifth Edition (Small Diesel Engines Table 3.3-2, Large Diesel Engines Table 3.4-4, Natural Gas 4-Stroke Engines Table 3.2-3)

2007 Usage Data for TA-55 Trichloroethylene Degreaser Operations						
Date Measured	Initial Solvent Level (inches)	Volume Added (liters)	Level Added (inches)	Volume Removed (liters)	Level Removed (inches)	Level Removed (inches)
Jan-17-2007	7	0.98	0.5	0	0	0
Feb-06-2007	7.5	0	0	14.74	14.74	7.5
Feb-14-2007	0	14.74	7.5	0	0	0
Mar-21-2007	7.2	0.3	0.15	0	0	0
A pr-04-2007	7	0.98	0.5	0	0	0
A pr-18-2007	7.5	0	0	14.74	14.74	7.5
A pr-30-2007	0	15.73	8	0	0	0
May-30-2007	8	0	0	0	0	0
Jun-26-2007	7.2	15.53	7.9	14.15	14.15	7.2
Jul-16-2007	7.4	0	0	14.55	14.55	7.4
Jul-23-2007	0	14.74	7.5	0	0	0
Aug-27-2007	7.5	0	0	1	1	0.5
Sep-27-2007	6.5	0	0	0	0	0
Oct-24-2007	6.5	0	0	0	0	0
Nov-27-2007	6.5	0	0	0	0	0
Dec-18-2007	6	0	0	0	0	0

Attachment B

2007 Annual Emissions Inventory Submittal to NMED



Environmental Protection Division
P.O. Box 1663, MS J978
Los Alamos, New Mexico 87545
(505) 667-2211/FAX: (505) 665-8858

Date: March 21, 2008
Refer to: ENV-DO:08-005

Mr. Ron Duffy
New Mexico Environment Department
Air Quality Bureau
1301 Siler Rd. Bld. B
Santa Fe, NM 87507

**IDEA ID NO. 856 – LOS ALAMOS NATIONAL LABORATORY
2007 EMISSIONS INVENTORY REPORT REQUIRED UNDER 20.2.73 NMAC**

Dear Mr. Duffy:

Enclosed is the 2007 Emissions Inventory Update for Los Alamos National Laboratory (LANL or Laboratory), required by Title 20, Chapter 2, Part 73 of the New Mexico Administrative Code (20.2.73 NMAC), Notice of Intent and Emissions Inventory Requirements.

We have updated the Excel worksheets that you provided, using the guidance in your instructions for the *2007 New Mexico Emissions Inventory Update*. All changes made to the worksheets are highlighted in yellow (additions).

In general, criteria pollutant emissions from LANL sources in 2007 are similar to emissions reported last year. Additionally, please note the following for our inventory for 2007:

- From the NMED 2007 Emissions Inventory instructions, we are directed to "Report actual emissions of individual (speciated) hazardous air pollutants (HAPs) that are equal to or greater than 0.5 tons per year per emission unit." Therefore, for each source, LANL has only reported HAPs that are equal to or greater than 0.5 tons per year.
- Emissions of radionuclides other than radon from Laboratory operations, as reported to EPA under 40 CFR 61 Subpart H, resulted in a maximum offsite dose of 0.47 mrem during 2006. For 2007, this offsite dose is estimated to be 0.5 mrem. A final dose for 2007 will be reported to EPA in June 2008.

This submittal includes a diskette (Attachment 1) containing electronic copies of the updated spreadsheets and a signed certification statement (Attachment 2). We have also included a summary report that was prepared at the completion of the Emissions

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Mr. Ron Duffy
ENV-DO:08-005
LA-UR:08-1529

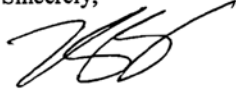
-2-

March 21, 2007

Inventory submittal for 2006 (Attachment 3). We followed the same methodology in preparing the 2007 emissions inventory updates as described in this report.

If you have any questions regarding this report, please contact Steve Story (665-2169) or Walt Whetham (665-8885), in the Laboratory's Ecology and Air Quality Group.

Sincerely,



Victoria A. George
Division Leader
Environmental Protection Division

VAG:alb

Enc: a/s

Cy:

V. Bynum, PADOPS, w/o enc., A102
R. Watkins, ADESH&Q, w/o enc., K491
S. Fong, DOE-LA-SO, w/o enc., A316
P. Wardwell, LC-ESH, w/o enc., A187
D. Wilburn, ENV-EAQ, w/o enc., J978
D. Janecky, ENV-EAQ, w/o enc., J978
S. Story, ENV-EAQ, w/o enc., J978
M. Stockton, ENV-EAQ, w/o enc., J978
D. Fuehne, ENV-EAQ, w/o enc., J978
W. Whetham, ENV-EAQ, w/o enc., J978
IRM-RM550, w/o enc., A150
ENV-EAQ Emissions Inventory File
ENV-EAQ File
ENV-DO File

LA-UR-08-1529

*Approved for public release;
distribution is unlimited.*

Title: 2007 Emissions inventory Report

Author(s): Walter Whetham

Intended for: Ron Duffy, New Mexico Environmental Department




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Form 836 (7/06)

2007 Emissions Inventory Certification

I, Victoria A. George, hereby certify on behalf of
Los Alamos National Security, LLC (LANS),
 that the information and data submitted in the 2007 Emissions Inventory for
Los Alamos National Laboratory with
 Permit Number P100M2 (IDEA/Tempo ID No. 856) are as complete, true and
 accurate as possible, to the best of my personal knowledge and professional expertise and
 experience.

Signed this twenty-first day of March, 2008, upon my
 oath of affirmation, before a notary of the State of New Mexico.

 3/17/08 505-867-2211
 SIGNATURE (Responsible Company Official) DATE PHONE

Victoria A. George Division Leader LANS
 PRINTED NAME TITLE COMPANY

Subscribed and sworn to before me on this 17th day of March, 2008.

My authorization as a Notary of the State of New Mexico expires on the 10th
 day of June, 2008.

 3/17/08
 NOTARY'S SIGNATURE DATE

Taylor Valdez _____
 NOTARY'S PRINTED NAME NOTARY SEAL

Year	Lab	Activity	ACGR	ACT	Subj Item	Alt Name	Alt ID	Local ID	Code	Unit	Notes
2007	856 Los Alamos National Laboratory	350280001	ACT	ACGR	2	006	Be Machining T335 Bldg213	SUBJ_ITEM_ALI	ALTERNATE_SI_ID	006	Not Applicable
2007	856 Los Alamos National Laboratory	350280001	ACT	ACGR	2	006	Be Machining T335 Bldg213	SUBJ_ITEM_OP_TIME	OP_TIME_151G	25	percent of time
2007	856 Los Alamos National Laboratory	350280001	ACT	ACGR	2	006	Be Machining T335 Bldg213	SUBJ_ITEM_OP_TIME	OP_TIME_171G	25	percent of time
2007	856 Los Alamos National Laboratory	350280001	ACT	ACGR	2	006	Be Machining T335 Bldg213	SUBJ_ITEM_OP_TIME	OP_TIME_141G	25	percent of time
2007	856 Los Alamos National Laboratory	350280001	ACT	ACGR	2	006	Be Machining T335 Bldg213	SUBJ_ITEM_OP_TIME	OP_TIME_161G	25	percent of time
2007	856 Los Alamos National Laboratory	350280001	ACT	ACGR	2	006	Be Machining T335 Bldg213	SUBJ_ITEM_OP_TIME	OP_TIME_1923	5	hd
2007	856 Los Alamos National Laboratory	350280001	ACT	ACGR	2	006	Be Machining T335 Bldg213	SUBJ_ITEM_OP_TIME	OP_TIME_1923	5	d/week
2007	856 Los Alamos National Laboratory	350280001	ACT	ACGR	2	006	Be Machining T335 Bldg213	SUBJ_ITEM_OP_TIME	OP_TIME_192D	52	weeks
2007	856 Los Alamos National Laboratory	350280001	ACT	ACGR	2	006	Be Machining T335 Bldg213	SUBJ_ITEM_OP_TIME	OP_TIME_19HR	1300	hr
2007	856 Los Alamos National Laboratory	350280001	ACT	ACGR	2	006	Be Machining T335 Bldg213	SUBJ_ITEM_A_TTIBUTE	ATTRIB_E45B17	516	Metal
2007	856 Los Alamos National Laboratory	350280001	ACT	ACGR	2	006	Be Machining T335 Bldg213	SUBJ_ITEM_SCC	SCC_CODE	30903004	Industrial Processes, Fabricated Metal Products, Machining Operations, Specify Material **
2007	856 Los Alamos National Laboratory	350280001	ACT	ACGR	2	006	Be Machining T335 Bldg213	SUBJ_ITEM_QUANTITIES	OUTPUT_003084	2.00E-08	tons/yr
2007	856 Los Alamos National Laboratory	350280001	ACT	ACGR	2	006	Be Machining T335 Bldg213	SUBJ_ITEM_QUANTITIES	QUANTITY_METHOD_CODE_003084	es	Esimate
2007	856 Los Alamos National Laboratory	350280001	ACT	ACGR	2	006	Be Machining T335 Bldg213	SUBJ_ITEM_QUANTITIES	TOTAL_EFFICIENCY_003084	99.95	percent
2007	856 Los Alamos National Laboratory	350280001	ACT	ACGR	2	006	Be Machining T335 Bldg213	SUBJ_ITEM_QUANTITIES	OUTPUT_002114	2.00E-08	tons/yr
2007	856 Los Alamos National Laboratory	350280001	ACT	ACGR	2	006	Be Machining T335 Bldg213	SUBJ_ITEM_QUANTITIES	QUANTITY_METHOD_CODE_002114	2	Engineer Calculation
2007	856 Los Alamos National Laboratory	350280001	ACT	ACGR	2	006	Be Machining T335 Bldg213	SUBJ_ITEM_QUANTITIES	TOTAL_EFFICIENCY_002114	99.95	percent

Emissions Inventory Report Summary for LANL for Calendar Year 2007

856	Los Alamos National Laboratory	350280001	007	Be Machining Ta3 Bldg 141	AQB-State/Local ID	007	Not Applicable
856	Los Alamos National Laboratory	350280001	007	Be Machining Ta3 Bldg 141	Actual Percent of Operation During Winter	25	percent of time
856	Los Alamos National Laboratory	350280001	007	Be Machining Ta3 Bldg 141	Actual Percent of Operation During Spring	25	percent of time
856	Los Alamos National Laboratory	350280001	007	Be Machining Ta3 Bldg 141	Actual Percent of Operation During Summer	25	percent of time
856	Los Alamos National Laboratory	350280001	007	Be Machining Ta3 Bldg 141	Actual Percent of Operation During Fall	25	percent of time
856	Los Alamos National Laboratory	350280001	007	Be Machining Ta3 Bldg 141	Actual Operating Time in Hours Per Day	24	h/d
856	Los Alamos National Laboratory	350280001	007	Be Machining Ta3 Bldg 141	Actual Operating Time in Days Per Week	7	d/week
856	Los Alamos National Laboratory	350280001	007	Be Machining Ta3 Bldg 141	Actual Operating Time in Weeks Per Year	52	weeks/y
856	Los Alamos National Laboratory	350280001	007	Be Machining Ta3 Bldg 141	Actual Operating Time in Hours Per Year	8736	h/y
856	Los Alamos National Laboratory	350280001	007	Be Machining Ta3 Bldg 141	Actual Input Materials Processed	516	Metal
856	Los Alamos National Laboratory	350280001	007	Be Machining Ta3 Bldg 141	Standard Classification (SCC) Code	30903004	Industrial Processes, Fabricated Metal Products, Machining Operations, Specify Material**
856	Los Alamos National Laboratory	350280001	007	Be Machining Ta3 Bldg 141	Actual Beryllium in tons per year	7.71E-09	tons/y
856	Los Alamos National Laboratory	350280001	007	Be Machining Ta3 Bldg 141	Actual Beryllium calculation method	1	Continuous Emissions Monitoring
856	Los Alamos National Laboratory	350280001	007	Be Machining Ta3 Bldg 141	Beryllium Actual total efficiency controlled by Fabric Filter-Medium Temp ie 180F < T < 250F	99.95	percent
856	Los Alamos National Laboratory	350280001	007	Be Machining Ta3 Bldg 141	Actual Particulate Matter (total suspended) in tons per year	7.71E-09	tons/y
856	Los Alamos National Laboratory	350280001	007	Be Machining Ta3 Bldg 141	Actual Particulate Matter (total suspended) calculation method	es	Estimate
856	Los Alamos National Laboratory	350280001	007	Be Machining Ta3 Bldg 141	Particulate Matter (total suspended)Actual total efficiency controlled by Fabric Filter-Medium Temp ie 180F < T < 250F	99.95	percent

856	Los Alamos National Laboratory	350280001	010	Be Cutting & Bead Dressing Ta-55-4	AQB-State/Local ID	010	Not Applicable
856	Los Alamos National Laboratory	350280001	010	Be Cutting & Bead Dressing Ta-55-4	Actual Percent of Operation During Winter	25	percent of time
856	Los Alamos National Laboratory	350280001	010	Be Cutting & Bead Dressing Ta-55-4	Actual Percent of Operation During Spring	25	percent of time
856	Los Alamos National Laboratory	350280001	010	Be Cutting & Bead Dressing Ta-55-4	Actual Percent of Operation During Summer	25	percent of time
856	Los Alamos National Laboratory	350280001	010	Be Cutting & Bead Dressing Ta-55-4	Actual Percent of Operation During Fall	25	percent of time
856	Los Alamos National Laboratory	350280001	010	Be Cutting & Bead Dressing Ta-55-4	Actual Operating Time in Hours Per Day	8	h/d
856	Los Alamos National Laboratory	350280001	010	Be Cutting & Bead Dressing Ta-55-4	Actual Operating Time in Days Per Week	7	d/week
856	Los Alamos National Laboratory	350280001	010	Be Cutting & Bead Dressing Ta-55-4	Actual Operating Time in Weeks Per Year	52	weeks/y
856	Los Alamos National Laboratory	350280001	010	Be Cutting & Bead Dressing Ta-55-4	Actual Operating Time in Hours Per Year	2912	h/y
856	Los Alamos National Laboratory	350280001	010	Be Cutting & Bead Dressing Ta-55-4	Actual Input Materials Processed	516	Metal
856	Los Alamos National Laboratory	350280001	010	Be Cutting & Bead Dressing Ta-55-4	Actual Output Materials Processed		
856	Los Alamos National Laboratory	350280001	010	Be Cutting & Bead Dressing Ta-55-4	Standard Classification (SCC) Code	309030004	Industrial Processes,
							Fabricated Metal Products,
							Machining Operations, Specify Material*
856	Los Alamos National Laboratory	350280001	010	Be Cutting & Bead Dressing Ta-55-4	Actual Aluminum in tons per year	3.21E-06	tons/y
856	Los Alamos National Laboratory	350280001	010	Be Cutting & Bead Dressing Ta-55-4	Actual Aluminum calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	010	Be Cutting & Bead Dressing Ta-55-4	Aluminum/Actual total efficiency controlled by Fabric Filter-V	99.95	percent
856	Los Alamos National Laboratory	350280001	010	Be Cutting & Bead Dressing Ta-55-4	Actual Beryllium in tons per year	3.21E-06	tons/y
856	Los Alamos National Laboratory	350280001	010	Be Cutting & Bead Dressing Ta-55-4	Actual Beryllium calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	010	Be Cutting & Bead Dressing Ta-55-4	Beryllium/Actual total efficiency controlled by Fabric Filter-Mi	99.95	percent

856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	AQB-StratLocal ID	031	Not Applicable
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual P percent of Operation During Winter	25	percent of time
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual P percent of Operation During Spring	25	percent of time
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual P percent of Operation During Summer	25	percent of time
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual P percent of Operation During Fall	25	percent of time
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Operating Time in Hours Per Day	24	hr/d
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Operating Time in Days Per Week	5	d/week
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Operating Time in Weeks Per Year	52	weeks/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Operating Time in Hours Per Year	8736	hr/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Fuel Consumption		
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Fuel Heating Value		
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Fuel Type		
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Percent Sulfur of Fuel		
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Percent Ash of Fuel		
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Input Materials Processed		
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Standard Classification (SCC) Code	31503001	Industrial Processes, Photographic Equipment/Health Care/Laboratories, Laboratories, Bench Scale Reagents, Research
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Acetaldehyde; (E:thyl aldehydes) in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Acetaldehyde; (E:thyl aldehydes) calculation method	rb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Acetonitrile; (Methyl cyanide) in tons per year	0.5	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Acetonitrile; (Methyl cyanide) calculation method	rb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Acetophenone in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Acetophenone calculation method	rb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Acrylonitrile in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Acrylonitrile calculation method	rb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Aniline in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Aniline calculation method	rb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Aniline in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Aniline calculation method	rb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Antimony in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Antimony calculation method	rb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Antimony compounds in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Antimony compounds calculation method	rb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Arsenic in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Arsenic calculation method	rb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Arsenic compounds in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Arsenic compounds calculation method	rb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Benzene in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Benzene calculation method	rb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Benzyl Chloride in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Benzyl Chloride calculation method	rb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Biphenyl in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Biphenyl calculation method	rb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Bromoform; (Tribromomethane) in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Bromoform; (Tribromomethane) calculation method	rb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Butadiene(1,3) in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Butadiene(1,3) calculation method	rb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Cadmium in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Cadmium calculation method	rb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Cadmium compounds in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Cadmium compounds calculation method	rb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Carbon Disulfide in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Carbon Disulfide calculation method	rb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Carbon tetrachloride; (Tetrachloroethane) in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Carbon tetrachloride; (Tetrachloroethane) calculation method	rb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Carbonyl sulfide in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Carbonyl sulfide calculation method	rb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Catechol (P-yrocatechol) in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Catechol (P-yrocatechol) calculation method	rb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Chlorine in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Chlorine calculation method	rb	Material balance

856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Selenium calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Selenium compounds in tons per year	0	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Selenium compounds calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Styrene in tons per year	0	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Styrene calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual TCE; (Trichloroethylene); (Trichloroethene) in tons per year	0	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual TCE; (Trichloroethylene); (Trichloroethene) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Tetrachloroethane(1,1,2,2) in tons per year	0	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Tetrachloroethane(1,1,2,2); calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Titanium tetrachloride in tons per year	0	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Titanium tetrachloride calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Toluene diisocyanate(2,4) in tons per year	0	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Toluene diisocyanate(2,4) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Toluene; (Methyl benzene) in tons per year	0	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Toluene; (Methyl benzene) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Total HAP in tons per year	5.8	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Total HAP calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Total HAP Actual total efficiency controlled by Uncontrolled	0	percent
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Trichloroethane(1,1,1) (Methyl Chloroform) in tons per year	0	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Trichloroethane(1,1,1) (Methyl Chloroform) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Trichloroethane(1,1,2) in tons per year	0	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Trichloroethane(1,1,2); calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Triethylamine in tons per year	0	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Triethylamine calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Trimethylpentane(2,2,4) in tons per year	0	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Trimethylpentane(2,2,4) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Urethane; (Ethyl carbamate) in tons per year	0	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Urethane; (Ethyl carbamate) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Vinyl acetate; (Vinyl acetate monomer) in tons per year	0	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Vinyl acetate; (Vinyl acetate monomer) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Volatile Organic Compounds (VOC) in tons per year	12.3	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Volatile Organic Compounds (VOC) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Xylene(m); (1,3-Dimethylbenzene); (meta-Xylene) in tons per year	0	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Xylene(m); (1,3-Dimethylbenzene); (meta-Xylene) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Xylene(o); (1,2-Dimethylbenzene); (ortho-Xylene) in tons per year	0	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Xylene(o); (1,2-Dimethylbenzene); (ortho-Xylene) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Xylene(p); (1,4-Dimethylbenzene); (para-Xylene) in tons per year	0	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Xylene(p); (1,4-Dimethylbenzene); (para-Xylene) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Xylenes (total); (Xylo) in tons per year	0	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Xylenes (total); (Xylo) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Zirconium in tons per year	0	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Zirconium calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual bis(2-ethylhexyl) phthalate; (DEHP) in tons per year	0	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual bis(2-ethylhexyl) phthalate; (DEHP) calculation method	mb	Material balance

856	Los Alamos National Laboratory	350280001	Agency Interest	Los Alamos National Laboratory	Standard Industrial Classification (SIC) Code	9711	National security
856	Los Alamos National Laboratory	350280001	Agency interest	Los Alamos National Laboratory	North American Industry Classification (NAIC) Code	92811	National Security

856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual P percent of Operation During Winter	20	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual P percent of Operation During Spring	30	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual P percent of Operation During Summer	30	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual P percent of Operation During Fall	20	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual Operating Time in Hours Per Day	12	hd
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual Operating Time in Weeks Per Week	7	dw/week
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual Operating Time in Weeks Per Year	52	weekly
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual Fuel Consumption	4368	hy
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual Fuel Heating Value		
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual Fuel Type		
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual P percent Sulfur of Fuel		
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual P percent Ash of Fuel	15	Wood
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual Input Materials Processed	15	Wood
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual Input Materials Processed	30703096	Industrial P processes, Pulp and Paper and Wood Products, Miscellaneous Wood Working Operations, Sanding/Planing Operations: Specify
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Standard Classification (SCC) Code		
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual P particulate Matter (10 microns or less) in tons per year	0.022	tons/yr
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual P particulate Matter (10 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	P particulate Matter (10 microns or less) actual total efficiency controlled by Single Cyclone	65	percent
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual P particulate Matter (2.5 microns or less) in tons per year	0.01	tons/yr
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual P particulate Matter (2.5 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	P particulate Matter (2.5 microns or less) actual total efficiency controlled by Single Cyclone	45	percent
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual P particulate Matter (total suspended) in tons per year	0.023	tons/yr
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual P particulate Matter (total suspended) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	P particulate Matter (total suspended) actual total efficiency controlled by Single Cyclone	95	percent
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual Volatile Organic Compounds (VOC) in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	TA-3-38	Carpenter Shop - General Construction	Actual Volatile Organic Compounds (VOC) calculation method	2	Engineer Calculation

856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Actual Percent of Operation During Winter	20	percent of time
856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Actual Percent of Operation During Spring	30	percent of time
856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Actual Percent of Operation During Summer	30	percent of time
856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Actual Percent of Operation During Fall	20	percent of time
856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Actual Operating Time in Hours Per Day	12	hr/d
856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Actual Operating Time in Days Per Week	7	d/week
856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Actual Operating Time in Weeks Per Year	52	weeks/y
856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Actual Operating Time in Hours Per Year	4368	hr/y
856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Actual Input Materials Processed	15	Wood
856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Standard Classification (SCC) Code	30703096	Industrial Processes, Pulp and Paper and Wood Products, Miscellaneous Wood Working Operations, Sanding/Planing Operations: Specify
856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Actual Particulate Matter (10 microns or less) in tons per year	0.044	tons/y
856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Actual Particulate Matter (10 microns or less) calculation method	dc	Design Calculation
856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Actual Particulate Matter (2.5 microns or less) in tons per year	0.022	tons/y
856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Actual Particulate Matter (2.5 microns or less) calculation method	dc	Design Calculation
856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Actual Particulate Matter (total suspended) in tons per year	0.048	tons/y
856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Actual Particulate Matter (total suspended) calculation method	dc	Design Calculation

856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	AQB-State/Local ID	004	Not Applicable
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Percent of Operation During Winter	35	percent of time
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Percent of Operation During Spring	50	percent of time
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Percent of Operation During Summer	15	percent of time
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Percent of Operation During Fall	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Operating Time in Hours Per Day	24	hr/d
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Operating Time in Days Per Week	7	days/week
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Operating Time in Weeks Per Year	52	weeks/year
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Operating Time in Hours Per Year	8736	hr/yr
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Fuel Consumption	15	MM SCFY
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Fuel Heating Value	1030	MM BTU/MM SCF
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Fuel Type	209	Natural Gas
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Percent Sulfur of Fuel	0.006	percent
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Percent Ash of Fuel	0	percent
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Input Materials Processed	209	Natural Gas
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Standard Classification (SCC) Code	10100602	External Combustion Boilers, Electric Generation, Natural Gas, Boilers < 100 Million Btu/hr except Tangential
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Carbon Monoxide in tons per year	0.84	tons/yr
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Carbon Monoxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Formaldehyde in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Formaldehyde calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Hexane in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Hexane calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Nitrogen Dioxide in tons per year	0.76	tons/yr
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Nitrogen Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Particulate Matter (10 microns or less) in tons per year	0.06	tons/yr
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Particulate Matter (10 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Particulate Matter (2.5 microns or less) in tons per year	0.06	tons/yr
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Particulate Matter (2.5 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Particulate Matter (total suspended) in tons per year	0.06	tons/yr
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Particulate Matter (total suspended) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Sulfur Dioxide in tons per year	0.005	tons/yr
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Sulfur Dioxide calculation method	es	Estimate
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Sulfur Dioxide actual total efficiency controlled by Uncontrolled		percent
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Volatile Organic Compounds (VOC) in tons per year	0.04	tons/yr
856	Los Alamos National Laboratory	350280001	TA-21-357-1	Steam Plant Boiler (k3) Ta21 Bldg357 Nat Gas	Actual Volatile Organic Compounds (VOC) calculation method	ap	EPA emission factors (e.g., AP-42)

Emissions Inventory Report Summary for LANL for Calendar Year 2007

856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	AQB-State/Local ID	005	Not Applicable
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual P percent of Operation During Winter	0	percent of time
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual P percent of Operation During Spring	0	percent of time
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual P percent of Operation During Summer	0	percent of time
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual P percent of Operation During Fall	0	percent of time
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual Operating Time in Hours Per Day	0	hr/d
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual Operating Time in Weeks Per Week	0	d/week
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual Operating Time in Weeks Per Year	0	weeks/y
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual Operating Time in Hours Per Year	0	hr/y
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual Fuel Consumption	0	MM SCF/y
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual Fuel Heating Value	0	MM B TU/MM SCF
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual Fuel Type	209	Natural Gas
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual P percent Sulfur of Fuel	0	percent
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual P percent Ash of Fuel	0	percent
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual Input Materials Processed	10100602	External Combustion Boilers, Electric Generation, Natural Gas,
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Standard Classification (SCC) Code		Boilers < 100 Million Btu/hr except Tangential
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual Carbon Monoxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual Carbon Monoxide calculation method	es	Estimate
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Carbon Monoxide actual total efficiency controlled by Uncontrolled	0	percent
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual Nitrogen Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual Nitrogen Dioxide calculation method	es	Estimate
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Nitrogen Dioxide actual total efficiency controlled by Uncontrolled	0	percent
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual P particulate Matter (total suspended) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual P particulate Matter (total suspended) calculation method	es	Estimate
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Particulate Matter (total suspended) actual total efficiency controlled by Uncontrolled	0	percent
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual Volatile Organic Compounds (VOC) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Actual Volatile Organic Compounds (VOC) calculation method	es	Estimate
856	Los Alamos National Laboratory	350280001	005	Td Site Boiler Not Built	Volatile Organic Compounds (VOC) actual total efficiency controlled by Uncontrolled	0	percent

856	Los Alamos National Laboratory	350280001	011	Metallography Ta55-4 North Stack	AQB-State/Local ID	011	Not Applicable
856	Los Alamos National Laboratory	350280001	011	Metallography Ta55-4 North Stack	Actual Percent of Operation During Winter	25	percent of time
856	Los Alamos National Laboratory	350280001	011	Metallography Ta55-4 North Stack	Actual Percent of Operation During Spring	25	percent of time
856	Los Alamos National Laboratory	350280001	011	Metallography Ta55-4 North Stack	Actual Percent of Operation During Summer	25	percent of time
856	Los Alamos National Laboratory	350280001	011	Metallography Ta55-4 North Stack	Actual Percent of Operation During Fall	25	percent of time
856	Los Alamos National Laboratory	350280001	011	Metallography Ta55-4 North Stack	Actual Operating Time in Hours Per Day	8	h/d
856	Los Alamos National Laboratory	350280001	011	Metallography Ta55-4 North Stack	Actual Operating Time in Days Per Week	7	d/week
856	Los Alamos National Laboratory	350280001	011	Metallography Ta55-4 North Stack	Actual Operating Time in Weeks Per Year	52	weeks/y
856	Los Alamos National Laboratory	350280001	011	Metallography Ta55-4 North Stack	Actual Operating Time in Hours Per Year	2912	h/y
856	Los Alamos National Laboratory	350280001	011	Metallography Ta55-4 North Stack	Actual Fuel Consumption		MM SCF/y
856	Los Alamos National Laboratory	350280001	011	Metallography Ta55-4 North Stack	Actual Fuel Heating Value		MM BTU/MM SCF
856	Los Alamos National Laboratory	350280001	011	Metallography Ta55-4 North Stack	Actual Fuel Type		percent
856	Los Alamos National Laboratory	350280001	011	Metallography Ta55-4 North Stack	Actual Percent Ash of Fuel		Metal
856	Los Alamos National Laboratory	350280001	011	Metallography Ta55-4 North Stack	Actual Input Materials Processed	516	Industrial Processes, Fabricated
856	Los Alamos National Laboratory	350280001	011	Metallography Ta55-4 North Stack	Standard Classification (SCC) Code	30900303	Metal Products, Abrasive Cleaning of Metal Parts, Polishing
856	Los Alamos National Laboratory	350280001	011	Metallography Ta55-4 North Stack	Actual Aluminum in tons per year	1.60E-06	tons/y
856	Los Alamos National Laboratory	350280001	011	Metallography Ta55-4 North Stack	Actual Aluminum calculation method	es	Estimate
856	Los Alamos National Laboratory	350280001	011	Metallography Ta55-4 North Stack	AluminumActual total efficiency controlled by Fabric Filter-Medium Temp ie 180F<T<250F	99.95	percent
856	Los Alamos National Laboratory	350280001	011	Metallography Ta55-4 North Stack	Actual Beryllium in tons per year	1.60E-06	tons/y
856	Los Alamos National Laboratory	350280001	011	Metallography Ta55-4 North Stack	Actual Beryllium calculation method	es	Estimate
856	Los Alamos National Laboratory	350280001	011	Metallography Ta55-4 North Stack	BerylliumActual total efficiency controlled by Fabric Filter-Medium Temp ie 180F<T<250F	99.95	percent

Emissions Inventory Report Summary for LANL for Calendar Year 2007

856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	AQB-State/Local ID	015	Not Applicable
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Percent of Operation During Winter	40	percent of time
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Percent of Operation During Spring	20	percent of time
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Percent of Operation During Summer	0	percent of time
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Percent of Operation During Fall	40	percent of time
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Operating Time in Hours Per Day	24	h/d
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Operating Time in Days Per Week	7	d/week
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Operating Time in Weeks Per Year	33	weeks/y
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Fuel Consumption	5544	h/y
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Fuel Heating Value	8.4	MM SCF/y
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Fuel Type	1030	MM BTU/MM SCF
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Percent Ash of Fuel	209	Natural Gas
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Percent Ash of Fuel	0	percent
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Input Materials Processed	209	Natural Gas
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Standard Classification (SCC) Code	10100602	External Combustion Boilers, Electric Generation, Natural Gas, Boilers < 100 Million Btu/hr except Tangential
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Carbon Monoxide in tons per year	0.35	tons/y
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Carbon Monoxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Hexane in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Hexane calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Nitrogen Dioxide in tons per year	0.42	tons/y
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Nitrogen Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Particulate Matter (10 microns or less) in tons per year	0.03	tons/y
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Particulate Matter (10 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Particulate Matter (2.5 microns or less) in tons per year	0.03	tons/y
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Particulate Matter (2.5 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Particulate Matter (total suspended) in tons per year	0.03	tons/y
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Particulate Matter (total suspended) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Sulfur Dioxide in tons per year	0.003	tons/y
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Sulfur Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Volatile Organic Compounds (VOC) in tons per year	0.023	tons/y
856	Los Alamos National Laboratory	350280001	015	Boiler (1a-48-1) Bs-1	Actual Volatile Organic Compounds (VOC) calculation method	ap	EPA emission factors (e.g., AP-42)

856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	AQB-State/Local ID	016	Not Applicable
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Percent of Operation During Winter	40	percent of time
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Percent of Operation During Spring	20	percent of time
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Percent of Operation During Summer	0	percent of time
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Percent of Operation During Fall	40	percent of time
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Operating Time in Hours Per Day	24	h/d
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Operating Time in Days Per Week	7	d/week
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Operating Time in Weeks Per Year	33	weeks/y
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Operating Time in Hours Per Year	5544	h/y
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Fuel Consumption	8.4	MM SCF/y
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Fuel Heating Value	1030	MM BTU/MM SCF
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Fuel Type	209	Natural Gas
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Percent Ash of Fuel	0	percent
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Input Materials Processed	209	Natural Gas
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Standard Classification (SCC) Code	10100602	External Combustion Boilers, Electric Generation, Natural Gas, Boilers < 100 Million Btu/hr except Tangential
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Carbon Monoxide in tons per year	0.35	tons/y
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Carbon Monoxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Hexane in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Hexane calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Nitrogen Dioxide in tons per year	0.42	tons/y
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Nitrogen Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Particulate Matter (10 microns or less) in tons per year	0.032	tons/y
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Particulate Matter (10 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Particulate Matter (2.5 microns or less) in tons per year	0.032	tons/y
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Particulate Matter (2.5 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Particulate Matter (total suspended) in tons per year	0.032	tons/y
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Particulate Matter (total suspended) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Sulfur Dioxide in tons per year	0.003	tons/y
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Sulfur Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Volatile Organic Compounds (VOC) in tons per year	0.023	tons/y
856	Los Alamos National Laboratory	350280001	016	Boiler (Ta-48-1) Bs-2	Actual Volatile Organic Compounds (VOC) calculation method	ap	EPA emission factors (e.g., AP-42)

Emissions Inventory Report Summary for LANL for Calendar Year 2007

856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	AOB-State/Local ID	017	Not Applicable
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Percent of Operation During Winter	40	percent of time
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Percent of Operation During Spring	20	percent of time
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Percent of Operation During Fall	40	percent of time
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Operating Time in Hours Per Day	24	h/d
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Operating Time in Days Per Week	7	d/week
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Operating Time in Weeks Per Year	33	weeks/y
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Operating Time in Hours Per Year	5544	h/y
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Fuel Consumption	11.3	MM SCF/y
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Fuel Heating Value	1030	MM BTU/MM SCF
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Fuel Type	209	Natural Gas
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Percent Ash of Fuel	0	percent
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Input Materials Processed	209	Natural Gas
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Standard Classification (SCC) Code	10100602	External Combustion Boilers, Electric Generation, Natural Gas,
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Carbon Monoxide in tons per year	0.47	Boilers < 100 Million Btu/hr except Tangential tons/y
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Carbon Monoxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Formaldehyde in tons per year	0	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Hexane in tons per year	0	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Nitrogen Dioxide in tons per year	0.57	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Nitrogen Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Particulate Matter (10 microns or less) in tons per year	0.043	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Particulate Matter (10 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Particulate Matter (2.5 microns or less) in tons per year	0.043	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Particulate Matter (2.5 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Sulfur Dioxide in tons per year	0.043	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Sulfur Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Sulfur Dioxide in tons per year	0.003	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Sulfur Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Volatile Organic Compounds (VOC) in tons per year	0.031	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	017	Boiler (Ta-48-1) Bs-6	Actual Volatile Organic Compounds (VOC) calculation method	ap	EPA emission factors (e.g., AP-42)

856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	AOB-State/Local ID	018	Not Applicable
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Percent of Operation During Winter	40	percent of time
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Percent of Operation During Spring	20	percent of time
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Percent of Operation During Summer	0	percent of time
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Percent of Operation During Fall	40	percent of time
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Operating Time in Hours Per Day	24	hr/d
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Operating Time in Days Per Week	7	d/week
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Operating Time in Weeks Per Year	33	weeks/yr
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Fuel Consumption	5544	hr/y
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Fuel Heating Value	11.3	MM BTU/MM SCF
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Fuel Type	1030	MM BTU/MM SCF
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Percent Ash of Fuel	209	Natural Gas
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Input Materials Processed	0	percent
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Standard Classification (SCC) Code	209	Natural Gas
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1		10100602	External Combustion Boilers, Electric Generation, Natural Gas, Boilers < 100 Million Btu/hr except Tangential
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Carbon Monoxide in tons per year	0.47	tons/yr
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Carbon Monoxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Formaldehyde in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Formaldehyde calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Hexane in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Hexane calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Nitrogen Dioxide in tons per year	0.56	tons/yr
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Nitrogen Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Particulate Matter (10 microns or less) in tons per year	0.043	tons/yr
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Particulate Matter (10 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Particulate Matter (2.5 microns or less) in tons per year	0.043	tons/yr
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Particulate Matter (2.5 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Particulate Matter (total suspended) in tons per year	0.043	tons/yr
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Particulate Matter (total suspended) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Sulfur Dioxide in tons per year	0.003	tons/yr
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Sulfur Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Volatile Organic Compounds (VOC) in tons per year	0.031	tons/yr
856	Los Alamos National Laboratory	350280001	018	Boiler (Ta-53-365) Bhw-1	Actual Volatile Organic Compounds (VOC) calculation method	ap	EPA emission factors (e.g., AP-42)

Emissions Inventory Report Summary for LANL for Calendar Year 2007

856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	AQB-State/Local ID	019	Not Applicable
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Percent of Operation During Winter	40	percent of time
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Percent of Operation During Spring	20	percent of time
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Percent of Operation During Summer	0	percent of time
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Percent of Operation During Fall	40	percent of time
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Operating Time in Hours Per Day	24	hr/d
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Operating Time in Days Per Week	7	d/week
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Operating Time in Weeks Per Year	33	weeks/y
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Operating Time in Hours Per Year	5544	hr/y
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Fuel Consumption	11.3	MM SCF/y
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Fuel Heating Value	1030	MM BTU/MM SCF
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Fuel Type	209	Natural Gas
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Percent Ash of Fuel	0	percent
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Input Materials Processed	209	Natural Gas
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Standard Classification (SCC) Code	10100602	External Combustion Boilers, Electric Generation, Natural Gas, Boilers < 100 Million Btu/hr except Tangential
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Carbon Monoxide in tons per year	0.47	tons/y
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Carbon Monoxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Formaldehyde in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Formaldehyde calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Hexane in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Hexane calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Nitrogen Dioxide in tons per year	0.56	tons/y
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Nitrogen Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Particulate Matter (10 microns or less) in tons per year	0.043	tons/y
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Particulate Matter (10 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Particulate Matter (2.5 microns or less) in tons per year	0.043	tons/y
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Particulate Matter (2.5 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Particulate Matter (total suspended) in tons per year	0.043	tons/y
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Particulate Matter (total suspended) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Sulfur Dioxide in tons per year	0.003	tons/y
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Sulfur Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Volatile Organic Compounds (VOC) in tons per year	0.091	tons/y
856	Los Alamos National Laboratory	350280001	019	Boiler (Ta-53-365) Bhw-2	Actual Volatile Organic Compounds (VOC) calculation method	ap	EPA emission factors (e.g., AP-42)

856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	AQB-State/Local ID	020	Not Applicable
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Percent of Operation During Winter	40	percent of time
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Percent of Operation During Spring	20	percent of time
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Percent of Operation During Summer	0	percent of time
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Percent of Operation During Fall	40	percent of time
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Operating Time in Hours Per Day	24	h/d
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Operating Time in Days Per Week	7	d/week
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Operating Time in Hours Per Year	33	5544 weeks/y
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Operating Time in Hours Per Year	8.4	MM SCF/y
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Fuel Consumption	1030	MM BTU/MM SCF
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Fuel Heating Value	209	Natural Gas
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Fuel Type	0	percent
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Percent Ash of Fuel	209	Natural Gas
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Input Materials Processed	10100602	External Combustion Boilers, Electric Generation, Natural Gas,
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Standard Classification (SCC) Code		Boilers < 100 Million Btu/hr except Tangential
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Carbon Monoxide in tons per year	0.35	tons/y
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Carbon Monoxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Hexane in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Hexane calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Nitrogen Dioxide in tons per year	0.42	tons/y
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Nitrogen Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Particulate Matter (10 microns or less) in tons per year	0.032	tons/y
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Particulate Matter (10 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Particulate Matter (2.5 microns or less) in tons per year	0.032	tons/y
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Particulate Matter (2.5 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Particulate Matter (total suspended) in tons per year	0.032	tons/y
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Particulate Matter (total suspended) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Sulfur Dioxide in tons per year	0.003	tons/y
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Sulfur Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Volatile Organic Compounds (VOC) in tons per year	0.023	tons/y
856	Los Alamos National Laboratory	350280001	020	Boiler (Ta-59-1) Bhw-1	Actual Volatile Organic Compounds (VOC) calculation method	ap	EPA emission factors (e.g., AP-42)

Emissions Inventory Report Summary for LANL for Calendar Year 2007

856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	AQB-State/Local ID	021	Not Applicable
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Percent of Operation During Winter	40	percent of time
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Percent of Operation During Spring	20	percent of time
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Percent of Operation During Summer	0	percent of time
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Percent of Operation During Fall	40	percent of time
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Operating Time in Hours Per Day	24	hr/d
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Operating Time in Days Per Week	7	d/week
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Operating Time in Weeks Per Year	33	weeks/y
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Operating Time in Hours Per Year	5544	hr/y
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Fuel Consumption	8.4	MM SCF/y
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Fuel Heating Value	1030	MM BTU/MM SCF
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Fuel Type	209	Natural Gas
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Percent Ash of Fuel	0	percent
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Input Materials Processed	209	Natural Gas
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Standard Classification (SCC) Code	10100602	External Combustion Boilers, Electric
							Generation, Natural Gas, Boilers < 100 Million Btu/hr except Tangential
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Carbon Monoxide in tons per year	0.35	tons/y
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Carbon Monoxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Hexane in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Hexane calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Nitrogen Dioxide in tons per year	0.42	tons/y
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Nitrogen Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Particulate Matter (10 microns or less) in tons per year	0.032	tons/y
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Particulate Matter (10 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Particulate Matter (2.5 microns or less) in tons per year	0.032	tons/y
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Particulate Matter (2.5 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Particulate Matter (total suspended) in tons per year	0.032	tons/y
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Particulate Matter (total suspended) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Sulfur Dioxide in tons per year	0.003	tons/y
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Sulfur Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Volatile Organic Compounds (VOC) in tons per year	0.023	tons/y
856	Los Alamos National Laboratory	350280001	021	Boiler (1a-59-1) Bhw-2	Actual Volatile Organic Compounds (VOC) calculation method	ap	EPA emission factors (e.g., AP-42)

856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	024	Not Applicable
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Percent of Operation During Winter	Actual Percent of Operation During Winter	25	percent of time
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Percent of Operation During Spring	Actual Percent of Operation During Spring	25	percent of time
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Percent of Operation During Summer	Actual Percent of Operation During Summer	25	percent of time
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Percent of Operation During Fall	Actual Percent of Operation During Fall	24	percent of time
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Operating Time in Hours Per Day	Actual Operating Time in Hours Per Day	7	hr/d
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Operating Time in Days Per Week	Actual Operating Time in Days Per Week	52	days/week
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Operating Time in Weeks Per Year	Actual Operating Time in Weeks Per Year	8736	hr/week
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Operating Time in Hours Per Year	Actual Operating Time in Hours Per Year	201	hr
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Fuel Consumption	Actual Fuel Consumption	1030	MMBTU/MM SCF
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Fuel Heating Value	Actual Fuel Heating Value	209	Natural Gas
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Fuel Type	Actual Fuel Type	0	percent
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Percent Ash of Fuel	Actual Percent Ash of Fuel	209	Natural Gas
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Input Materials Processed	Actual Input Materials Processed	10100602	External Combustion Boilers, Electric Generation, Natural Gas,
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Standard Classification (SCC) Code	Standard Classification (SCC) Code		Boilers < 100 Million Btu/hr except Tangential
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Carbon Monoxide in tons per year	Actual Carbon Monoxide in tons per year	0.37	tons/yr
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Carbon Monoxide calculation method	Actual Carbon Monoxide calculation method	11	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Formaldehyde in tons per year	Actual Formaldehyde in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Formaldehyde calculation method	Actual Formaldehyde calculation method	ap	EPA emission factors (e.g., AP 42)
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Hexane in tons per year	Actual Hexane in tons per year	0	tons/yr
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Hexane calculation method	Actual Hexane calculation method	ap	EPA emission factors (e.g., AP 42)
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Nitrogen Dioxide in tons per year	Actual Nitrogen Dioxide in tons per year	0.37	tons/yr
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Nitrogen Dioxide calculation method	Actual Nitrogen Dioxide calculation method	11	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Nitrogen Dioxide Actual total efficiency controlled by Low NOx Burners	Nitrogen Dioxide Actual total efficiency controlled by Low NOx Burners	63	percent
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Particulate Matter (10 microns or less) in tons per year	Actual Particulate Matter (10 microns or less) in tons per year	0.076	tons/yr
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Particulate Matter calculation method	Actual Particulate Matter calculation method	ap	EPA emission factors (e.g., AP 42)
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Particulate Matter (2.5 microns or less) in tons per year	Actual Particulate Matter (2.5 microns or less) in tons per year	0.076	tons/yr
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Particulate Matter (2.5 microns or less) calculation method	Actual Particulate Matter (2.5 microns or less) calculation method	ap	EPA emission factors (e.g., AP 42)
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Particulate Matter (total suspended) in tons per year	Actual Particulate Matter (total suspended) in tons per year	0.076	tons/yr
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Particulate Matter (total suspended) calculation method	Actual Particulate Matter (total suspended) calculation method	ap	EPA emission factors (e.g., AP 42)
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Sulfur Dioxide in tons per year	Actual Sulfur Dioxide in tons per year	0.006	tons/yr
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Sulfur Dioxide calculation method	Actual Sulfur Dioxide calculation method	ap	EPA emission factors (e.g., AP 42)
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Volatile Organic Compounds (VOC) in tons per year	Actual Volatile Organic Compounds (VOC) in tons per year	0.055	tons/yr
856	Los Alamos National Laboratory	350280001	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	TA-16-1484	Actual Volatile Organic Compounds (VOC) calculation method	Actual Volatile Organic Compounds (VOC) calculation method	ap	EPA emission factors (e.g., AP 42)

Emissions Inventory Report Summary for LANL for Calendar Year 2007

856	Los Alamos National Laboratory	350280001	028	Degreaser - Cold Ultrasonic Bath Ta-55-4	AQB-State/Local ID	028	Not Applicable
856	Los Alamos National Laboratory	350280001	028	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual Percent of Operation During Winter	25	percent of time
856	Los Alamos National Laboratory	350280001	028	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual Percent of Operation During Spring	25	percent of time
856	Los Alamos National Laboratory	350280001	028	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual Percent of Operation During Summer	25	percent of time
856	Los Alamos National Laboratory	350280001	028	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual Percent of Operation During Fall	25	percent of time
856	Los Alamos National Laboratory	350280001	028	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual Operating Time in Hours Per Day	4	h/d
856	Los Alamos National Laboratory	350280001	028	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual Operating Time in Days Per Week	1	d/week
856	Los Alamos National Laboratory	350280001	028	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual Operating Time in Weeks Per Year	52	weeks/y
856	Los Alamos National Laboratory	350280001	028	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual Operating Time in Hours Per Year	208	h/y
856	Los Alamos National Laboratory	350280001	028	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual Input Materials Processed	952	Solvents: All
856	Los Alamos National Laboratory	350280001	028	Degreaser - Cold Ultrasonic Bath Ta-55-4	Standard Classification (SCC) Code	40100255	Petroleum and Solvent Evaporation,
							Degreasing, Trichloroethylene: General
							Degreasing Units
856	Los Alamos National Laboratory	350280001	028	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual TCE; (Trichloroethylene); (Trichloroethene) in tons per year	0.012	
856	Los Alamos National Laboratory	350280001	028	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual TCE; (Trichloroethylene); (Trichloroethene) calculation method	mb	Material balance

856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	AQB-State/Local ID	002	Not Applicable
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Percent of Operation During Winter	30	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Percent of Operation During Spring	20	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Percent of Operation During Summer	20	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Percent of Operation During Fall	30	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Operating Time in Hours Per Day	24	h/d
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Operating Time in Days Per Week	7	days/week
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Operating Time in Weeks Per Year	52	weeks/year
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Operating Time in Hours Per Year	8736	h/y
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Fuel Consumption	160	MM SCFY
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Fuel Heating Value	1030	MM Btu/MM SCF
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Fuel Type	209	Natural Gas
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Percent Ash of Fuel	0	percent
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Input Materials Excessed	209	Natural Gas
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Standard Classification (SCC) Code	10100601	External Combustion Boilers, Electric Generation, Natural Gas
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Monoxide in tons per year	3.2	Boilers > 100 Million Btu/hr except Tangential
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Monoxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Formaldehyde in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Formaldehyde calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Hexane in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Hexane calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Nitrogen Dioxide in tons per year	4.64	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Nitrogen Dioxide calculation method	st	A actual stack test
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Nitrogen Dioxide/Actual total efficiency controlled by Flue Gas Recirculation	64	percent
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Particulate Matter (10 microns or less) in tons per year	0.61	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Particulate Matter (10 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Particulate Matter (2.5 microns or less) in tons per year	0.61	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Particulate Matter (2.5 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Particulate Matter (total suspended) in tons per year	0.61	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Particulate Matter (total suspended) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Sulfur Dioxide in tons per year	0.048	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Sulfur Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Toluene, (Methyl benzene) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Toluene, (Methyl benzene) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Volatile Organic Compounds (VOC) in tons per year	0.44	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Volatile Organic Compounds (VOC) calculation method	ap	EPA emission factors (e.g., AP-42)

Emissions Inventory Report Summary for LANL for Calendar Year 2007

856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	AQB-State/Local ID	002	Not Applicable
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Percent of Operation During Winter	30	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Percent of Operation During Spring	20	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Percent of Operation During Summer	20	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Percent of Operation During Fall	30	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Operating Time in Hours Per Day	24	hr/d
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Operating Time in Days Per Week	7	dlweek
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Operating Time in Weeks Per Year	52	weeks
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Operating Time in Hours Per Year	8736	hr/y
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Fuel Consumption	190.5	MM SCF/y
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Fuel Heating Value	1030	MM BTU/MM SCF
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Fuel Type	209	Natural Gas
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Percent Ash of Fuel	0	percent
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Input Materials Processed	209	Natural Gas
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Standard Classification (SCC) Code	10100601	External Combustion Boilers, Electric Generation, Natural Gas
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Monoxide in tons per year	3.81	Bolers > 100 Million Btu/hr except Tangential
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Monoxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Formaldehyde in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Formaldehyde calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Hexane in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Hexane calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Nitrogen Dioxide in tons per year	5.63	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Nitrogen Dioxide calculation method	st	Actual stack test
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Nitrogen Dioxide Actual total efficiency controlled by Flue Gas Recirculation	64	percent
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Particulate Matter (10 microns or less) in tons per year	0.72	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Particulate Matter (10 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Particulate Matter (2.5 microns or less) in tons per year	0.72	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Particulate Matter (2.5 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Particulate Matter (total suspended) in tons per year	0.72	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Particulate Matter (total suspended) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Sulfur Dioxide in tons per year	0.06	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Sulfur Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Volatile Organic Compounds (VOC) in tons per year	0.52	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-222	Power Plant Boiler (pph, Natural Gas)	Actual Volatile Organic Compounds (VOC) calculation method	ap	EPA emission factors (e.g., AP-42)

856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	AQB-State/Local ID	002	Not Applicable
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Percent of Operation During Winter	30	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Percent of Operation During Spring	20	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Percent of Operation During Summer	20	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Percent of Operation During Fall	30	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Operating Time in Hours Per Day	24	hd
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Operating Time in Days Per Week	7	d/week
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Operating Time in Weeks Per Year	52	weekly
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Operating Time in Hours Per Year	8736	hr
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Fuel Consumption	101	MM SCF/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Fuel Heating Value	1030	MM BTU/MM SCF
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Fuel Type	209	Natural Gas
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Percent Ash of Fuel	0	percent
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Input Materials Processed	209	Natural Gas
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Standard Classification (SCC) Code	10100601	External Combustion Boilers, Electric Generation, Natural Gas
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Carbon Monoxide in tons per year	2.02	Boilers > 100 Million Btu/hr except Tangential
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Carbon Monoxide calculation method	ap	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Formaldehyde in tons per year	0	EPA emission factors (e.g., AP 42)
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Formaldehyde calculation method	ap	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Hexane in tons per year	0	EPA emission factors (e.g., AP 42)
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Hexane calculation method	ap	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Nitrogen Dioxide in tons per year	2.93	EPA emission factors (e.g., AP 42)
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Nitrogen Dioxide calculation method	st	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Nitrogen Dioxide Actual total efficiency controlled by Flue Gas Recirculation	64	Actual stack test
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Particulate Matter (10 microns or less) in tons per year	0.38	percent
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Particulate Matter (10 microns or less) calculation method	ap	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Particulate Matter (2.5 microns or less) in tons per year	0.38	EPA emission factors (e.g., AP 42)
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Particulate Matter (2.5 microns or less) calculation method	ap	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Particulate Matter (total suspended) in tons per year	0.38	EPA emission factors (e.g., AP 42)
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Particulate Matter (total suspended) calculation method	ap	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Sulfur Dioxide in tons per year	0.03	EPA emission factors (e.g., AP 42)
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Sulfur Dioxide calculation method	ap	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Volatile Organic Compounds (VOC) in tons per year	0.28	EPA emission factors (e.g., AP 42)
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant B boiler (pph, Natural Gas)	Actual Volatile Organic Compounds (VOC) calculation method	ap	tons/y

Emissions Inventory Report Summary for LANL for Calendar Year 2007

856	Los Alamos National Laboratory	350280001	035	Tank 03-026 (No. 2 Fuel Oil)	AQB-State/Local ID	035	Not Applicable
856	Los Alamos National Laboratory	350280001	035	Tank 03-026 (No. 2 Fuel Oil)	Actual Percent of Operation During Winter	25	percent of time
856	Los Alamos National Laboratory	350280001	035	Tank 03-026 (No. 2 Fuel Oil)	Actual Percent of Operation During Spring	25	percent of time
856	Los Alamos National Laboratory	350280001	035	Tank 03-026 (No. 2 Fuel Oil)	Actual Percent of Operation During Summer	25	percent of time
856	Los Alamos National Laboratory	350280001	035	Tank 03-026 (No. 2 Fuel Oil)	Actual Percent of Operation During Fall	25	percent of time
856	Los Alamos National Laboratory	350280001	035	Tank 03-026 (No. 2 Fuel Oil)	Actual Operating Time in Hours Per Day	24	h/d
856	Los Alamos National Laboratory	350280001	035	Tank 03-026 (No. 2 Fuel Oil)	Actual Operating Time in Days Per Week	7	d/week
856	Los Alamos National Laboratory	350280001	035	Tank 03-026 (No. 2 Fuel Oil)	Actual Operating Time in Weeks Per Year	52	weeks/y
856	Los Alamos National Laboratory	350280001	035	Tank 03-026 (No. 2 Fuel Oil)	Actual Fuel Consumption	8736	hy
856	Los Alamos National Laboratory	350280001	035	Tank 03-026 (No. 2 Fuel Oil)	Actual Input Materials Processed	83334	gally
856	Los Alamos National Laboratory	350280001	035	Tank 03-026 (No. 2 Fuel Oil)	Standard Classification (SCC) Code	58	Distillate Oil (No. 2)
856	Los Alamos National Laboratory	350280001	035	Tank 03-026 (No. 2 Fuel Oil)	Actual Volatile Organic Compounds (VOC) in tons per year	39090004	Industrial Processes, In-process Fuel Use, Fuel Storage - Fixed Roof Tanks,
856	Los Alamos National Laboratory	350280001	035	Tank 03-026 (No. 2 Fuel Oil)	Actual Volatile Organic Compounds (VOC) calculation method	0.008	Distillate Oil (No. 2): Working Loss tons/y
856	Los Alamos National Laboratory	350280001	035	Tank 03-026 (No. 2 Fuel Oil)		ap	EPA emission factors (e.g., AP-42)

856	Los Alamos National Laboratory	350280001	036	Tank 03-779 (No. 2 Fuel Oil)	AQB-State/Local ID	036	Not Applicable
856	Los Alamos National Laboratory	350280001	036	Tank 03-779 (No. 2 Fuel Oil)	Actual Percent of Operation During Winter	25	percent of time
856	Los Alamos National Laboratory	350280001	036	Tank 03-779 (No. 2 Fuel Oil)	Actual Percent of Operation During Spring	25	percent of time
856	Los Alamos National Laboratory	350280001	036	Tank 03-779 (No. 2 Fuel Oil)	Actual Percent of Operation During Summer	25	percent of time
856	Los Alamos National Laboratory	350280001	036	Tank 03-779 (No. 2 Fuel Oil)	Actual Percent of Operation During Fall	25	percent of time
856	Los Alamos National Laboratory	350280001	036	Tank 03-779 (No. 2 Fuel Oil)	Actual Operating Time in Hours Per Day	24	h/d
856	Los Alamos National Laboratory	350280001	036	Tank 03-779 (No. 2 Fuel Oil)	Actual Operating Time in Days Per Week	7	d/week
856	Los Alamos National Laboratory	350280001	036	Tank 03-779 (No. 2 Fuel Oil)	Actual Operating Time in Weeks Per Year	52	weeks/y
856	Los Alamos National Laboratory	350280001	036	Tank 03-779 (No. 2 Fuel Oil)	Actual Fuel Consumption	8736	h/y
856	Los Alamos National Laboratory	350280001	036	Tank 03-779 (No. 2 Fuel Oil)	Actual Input Materials Processed	83334	gall/y
856	Los Alamos National Laboratory	350280001	036	Tank 03-779 (No. 2 Fuel Oil)	Standard Classification (SCC) Code	58	Distillate Oil (No. 2)
856	Los Alamos National Laboratory	350280001	036	Tank 03-779 (No. 2 Fuel Oil)		39090004	Industrial Processes, In-process Fuel Use, Fuel Storage - Fixed Roof Tanks,
856	Los Alamos National Laboratory	350280001	036	Tank 03-779 (No. 2 Fuel Oil)	Actual Volatile Organic Compounds (VOC) in tons per year		Distillate Oil (No. 2): Working Loss
856	Los Alamos National Laboratory	350280001	036	Tank 03-779 (No. 2 Fuel Oil)	Actual Volatile Organic Compounds (VOC) calculation method		tons/y
856	Los Alamos National Laboratory	350280001	036	Tank 03-779 (No. 2 Fuel Oil)		0.034	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	ap				

Emissions Inventory Report Summary for LANL for Calendar Year 2007

856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	AQB-State/Local ID	037	Not Applicable
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Percent of Operation During Winter	40	percent of time
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Percent of Operation During Spring	20	percent of time
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Percent of Operation During Summer	0	percent of time
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Percent of Operation During Fall	40	percent of time
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Operating Time in Hours Per Day	24	hr/d
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Operating Time in Days Per Week	7	d/week
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Operating Time in Weeks Per Year	33	weeks
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Fuel Consumption	5544	b/w
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Fuel Heating Value	8.2	MM SCF/y
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Fuel Type	1030	MM BTU/MM SCF
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Fuel Type	209	Natural Gas
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Percent Sulfur of Fuel	0.006	Percent
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Percent Ash of Fuel	209	Natural Gas
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Input Materials Processed		
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Output Materials Processed		
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Standard Classification (SCC) Code	10100602	External Combustion Boilers, Electric Generation, Natural Gas,
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Carbon Monoxide in tons per year	0.16	Boilers < 100 Million Btu/hr except Tangential
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Carbon Monoxide calculation method	11	tons/y
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Hexane in tons per year	0	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Hexane calculation method	ap	0 tons/y
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Nitrogen Dioxide in tons per year	0.56	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Nitrogen Dioxide calculation method	st	tons/y
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Particulate Matter (10 microns or less) in tons per year	0.058	Actual stack test
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Particulate Matter (10 microns or less) calculation method	11	tons/y
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Particulate Matter (2.5 microns or less) in tons per year	0.058	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Particulate Matter (2.5 microns or less) calculation method	11	tons/y
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Particulate Matter (total suspended) in tons per year	0.058	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Sulfur Dioxide in tons per year	0.002	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Sulfur Dioxide calculation method	ap	tons/y
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Sulfur Dioxide calculation method	11	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Volatile Organic Compounds (VOC) in tons per year	0.024	tons/y
856	Los Alamos National Laboratory	350280001	037	Sellers Boiler Bhw-1b(Ta 55, Bldg, P16)	Actual Volatile Organic Compounds (VOC) calculation method	11	Manufacturer Specification

Facility	Source ID	Activity	AP-42 Category	AP-42 Code	AP-42 Description	AP-42 Subcategory	AP-42 Code	AP-42 Description	AP-42 Subcategory
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	038	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	038	Not A applicable	038
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	40	Actual Percent of Operation During Winter	038	40	percent of time	40
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	20	Actual Percent of Operation During Spring	038	20	percent of time	20
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	0	Actual Percent of Operation During Summer	038	0	percent of time	0
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	40	Actual Percent of Operation During Fall	038	40	percent of time	40
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	24	Actual Operating Time in Hours Per Day	038	24	h/d	24
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	7	Actual Operating Time in Days Per Week	038	7	d/week	7
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	33	Actual Operating Time in Weeks Per Year	038	33	weeks/yr	33
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	5544	Actual Operating Time in Hours Per Year	038	5544	hr	5544
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	127	Actual Fuel Consumption	038	127	MMBtu/MMSCF	127
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	1030	Actual Fuel Heating Value	038	1030	MMBtu/MMSCF	1030
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	209	Actual Fuel Type	038	209	Natural Gas	209
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	0.006	Actual Fuel Percent	038	0.006	Percent	0.006
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	209	Actual Percent Sulfur of Fuel	038	209	Natural Gas	209
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	10100602	Actual Input Materials Processed	038	10100602	External Combustion Boilers, Electric Generation, Natural Gas	10100602
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	0.24	Actual Output Materials Processed Standard Classification (SCC) Code	038	0.24	Boilers < 100 Million Btu/hr except Tangential	0.24
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	11	Actual Carbon Monoxide in tons per year	038	11	tons/yr	11
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	0	Actual Carbon Monoxide calculation method	038	0	Manufacturer Specification	0
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	ap	Actual Formaldehyde in tons per year	038	ap	tons/yr	ap
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	0	Actual Formaldehyde calculation method	038	0	EPA emission factors (e.g., AP-42)	0
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	0	Actual Hexane in tons per year	038	0	tons/yr	0
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	0	Actual Hexane calculation method	038	0	EPA emission factors (e.g., AP-42)	0
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	0	Actual Lead in tons per year	038	0	tons/yr	0
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	11	Actual Lead calculation method	038	11	Manufacturer Specification	11
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	0.87	Actual Nitrogen Dioxide in tons per year	038	0.87	tons/yr	0.87
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	st	Actual Nitrogen Dioxide calculation method	038	st	Actual stack test	st
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	0.09	Actual Particulate Matter (10 microns or less) in tons per year	038	0.09	tons/yr	0.09
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	0.09	Actual Particulate Matter (10 microns or less) calculation method	038	0.09	Manufacturer Specification	0.09
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	0.09	Actual Particulate Matter (2.5 microns or less) in tons per year	038	0.09	tons/yr	0.09
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	0.09	Actual Particulate Matter (2.5 microns or less) calculation method	038	0.09	Manufacturer Specification	0.09
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	0.09	Actual Sulfur Dioxide in tons per year	038	0.09	tons/yr	0.09
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	0.09	Actual Sulfur Dioxide calculation method	038	0.09	Manufacturer Specification	0.09
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	0.004	Actual Sulfur Dioxide in tons per year	038	0.004	tons/yr	0.004
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	0.038	Actual Sulfur Dioxide calculation method	038	0.038	EPA emission factors (e.g., AP-42)	0.038
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	0.038	Actual Volatile Organic Compounds (VOC) in tons per year	038	0.038	tons/yr	0.038
856 Los Alamos National Laboratory	350280001	Sellers Boiler Bhw-2b(Ta.55, B.lg. P16)	038	0.038	Actual Volatile Organic Compounds (VOC) calculation method	038	0.038	Manufacturer Specification	0.038

856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Percent of Operation During Winter	25	percent of time
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Percent of Operation During Spring	25	percent of time
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Percent of Operation During Summer	25	percent of time
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Percent of Operation During Fall	25	percent of time
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Operating Time in Hours Per Day	24	h/d
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Operating Time in Days Per Week	2	d/week
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Operating Time in Weeks Per Year	12	weeks/y
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Operating Time in Hours Per Year	576	h/y
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Fuel Heating Value	0.1	MM SCF/y
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Fuel Consumption	1030	MM BTU/MM SCF
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Fuel Type	209	Natural Gas
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Percent Sulfur of Fuel	0.006	Percent
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Percent Ash of Fuel		Natural Gas
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Input Materials Processed	10100604	External Combustion Boilers, Electric Generation, Natural Gas, Tangentially Fired Units
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Standard Classification (SCC) Code		
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Carbon Monoxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Carbon Monoxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Hexane in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Hexane calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Lead in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Lead calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Nitrogen Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Nitrogen Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Particulate Matter (10 microns or less) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Particulate Matter (10 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Particulate Matter (2.5 microns or less) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Particulate Matter (2.5 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Particulate Matter (total suspended) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Particulate Matter (total suspended) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Sulfur Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Sulfur Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Volatile Organic Compounds (VOC) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	044	BoilerTA-50 RLWTF	Actual Volatile Organic Compounds (VOC) calculation method	ap	EPA emission factors (e.g., AP-42)

856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Percent of Operation During Winter	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Percent of Operation During Spring	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Percent of Operation During Summer	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Percent of Operation During Fall	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Operating Time in Hours Per Day	0	h/d
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Operating Time in Days Per Week	0	d/week
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Operating Time in Weeks Per Year	0	weeks/y
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Operating Time in Hours Per Year	0	h/y
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Fuel Consumption	0	M gal/y
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Fuel Heating Value	138	MM BTU/M gal
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Fuel Type	44	Diesel
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Percent Sulfur of Fuel	0.006	percent
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Percent Ash of Fuel	0.01	percent
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Input Materials Processed	44	Diesel
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Output Materials Processed		
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Standard Classification (SCC) Code	20100102	Internal Combustion Engines, Electric Generation,
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Carbon Monoxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Carbon Monoxide calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Lead in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Lead calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Nitrogen Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Nitrogen Dioxide calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Particulate Matter (10 microns or less) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Particulate Matter (10 microns or less) calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Particulate Matter (2.5 microns or less) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Particulate Matter (2.5 microns or less) calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Particulate Matter (total suspended) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Particulate Matter (total suspended) calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Sulfur Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Sulfur Dioxide calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Volatile Organic Compounds (VOC) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Volatile Organic Compounds (VOC) calculation method	dc	Design calculation

Emissions Inventory Report Summary for LANL for Calendar Year 2007

856	Los Alamos National Laboratory	350280001	TA-60	Tank (Asphalt Emulsion)	AQB-State/Local ID	035	Not Applicable
856	Los Alamos National Laboratory	350280001	TA-60	Tank (Asphalt Emulsion)	Actual Percent of Operation During Winter	25	percent of time
856	Los Alamos National Laboratory	350280001	TA-60	Tank (Asphalt Emulsion)	Actual Percent of Operation During Spring	25	percent of time
856	Los Alamos National Laboratory	350280001	TA-60	Tank (Asphalt Emulsion)	Actual Percent of Operation During Summer	25	percent of time
856	Los Alamos National Laboratory	350280001	TA-60	Tank (Asphalt Emulsion)	Actual Percent of Operation During Fall	25	percent of time
856	Los Alamos National Laboratory	350280001	TA-60	Tank (Asphalt Emulsion)	Actual Operating Time in Hours Per Day	24	h/d
856	Los Alamos National Laboratory	350280001	TA-60	Tank (Asphalt Emulsion)	Actual Operating Time in Days Per Week	7	d/week
856	Los Alamos National Laboratory	350280001	TA-60	Tank (Asphalt Emulsion)	Actual Operating Time in Weeks Per Year	52	weeks/y
856	Los Alamos National Laboratory	350280001	TA-60	Tank (Asphalt Emulsion)	Actual Operating Time in Hours Per Year	8736	h/y
856	Los Alamos National Laboratory	350280001	TA-60	Tank (Asphalt Emulsion)	Actual Fuel Consumption	23383	gal/y
856	Los Alamos National Laboratory	350280001	TA-60	Tank (Asphalt Emulsion)	Actual Input Materials Processed	647	Asphalt
856	Los Alamos National Laboratory	350280001	TA-60	Tank (Asphalt Emulsion)	Standard Classification (SCC) Code	A2501985000	Storage and Transport, Petroleum and Petroleum Product Storage, All Storage
856	Los Alamos National Laboratory	350280001	TA-60	Tank (Asphalt Emulsion)	Actual Volatile Organic Compounds (VOC) in tons per year	0.003	Types: Working Loss, Total: All Products
856	Los Alamos National Laboratory	350280001	TA-60	Tank (Asphalt Emulsion)	Actual Volatile Organic Compounds (VOC) calculation method	ap	EPA emission factors (e.g., AP-42)

856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/Industrial Shredder	Actual Percent of Operation During Winter	25	percent of time
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/Industrial Shredder	Actual Percent of Operation During Spring	25	percent of time
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/Industrial Shredder	Actual Percent of Operation During Summer	25	percent of time
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/Industrial Shredder	Actual Percent of Operation During Fall	25	percent of time
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/Industrial Shredder	Actual Operating Time in Hours Per Day	7	h/d
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/Industrial Shredder	Actual Operating Time in Days Per Week	5	d/week
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/Industrial Shredder	Actual Operating Time in Weeks Per Year	52	weeks/y
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/Industrial Shredder	Actual Operating Time in Hours Per Year	1820	h/y
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/Industrial Shredder	Actual Input Materials Processed	226	Paper
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/Industrial Shredder	Actual Output Materials Processed		
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/Industrial Shredder	Standard Classification (SCC) Code	A.2650000002	Waste Disposal, Treatment and Recovery, Scrap and Waste Materials, Scrap and Waste Materials, Shredding
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/Industrial Shredder	Actual Particulate Matter (10 microns or less) in tons per year	0.43	tons/y
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/Industrial Shredder	Actual Particulate Matter (10 microns or less) calculation method	11	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/Industrial Shredder	Particulate Matter (10 microns or less) Actual total efficiency controlled by Single Cyclone, Fabric Filter	95	percent
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/Industrial Shredder	Actual Particulate Matter (2.5 microns or less) in tons per year	0.29	tons/y
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/Industrial Shredder	Actual Particulate Matter (2.5 microns or less) calculation method	11	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/Industrial Shredder	Particulate Matter (2.5 microns or less) Actual total efficiency controlled by Single Cyclone, Fabric Filter	95	percent
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/Industrial Shredder	Actual Particulate Matter (total suspended) in tons per year	0.48	tons/y
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/Industrial Shredder	Actual Particulate Matter (total suspended) calculation method	11	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/Industrial Shredder	Particulate Matter (total suspended) Actual total efficiency controlled by Single Cyclone, Fabric Filter	95	percent

Emissions Inventory Report Summary for LANL for Calendar Year 2007

856	Los Alamos National Laboratory	350280001	043	Composite Mineral Oil Tank	Actual Percent of Operation During Winter	25	percent of time
856	Los Alamos National Laboratory	350280001	043	Composite Mineral Oil Tank	Actual Percent of Operation During Spring	25	percent of time
856	Los Alamos National Laboratory	350280001	043	Composite Mineral Oil Tank	Actual Percent of Operation During Summer	25	percent of time
856	Los Alamos National Laboratory	350280001	043	Composite Mineral Oil Tank	Actual Percent of Operation During Fall	25	percent of time
856	Los Alamos National Laboratory	350280001	043	Composite Mineral Oil Tank	Actual Operating Time in Hours Per Day	24	h/d
856	Los Alamos National Laboratory	350280001	043	Composite Mineral Oil Tank	Actual Operating Time in Days Per Week	5	d/week
856	Los Alamos National Laboratory	350280001	043	Composite Mineral Oil Tank	Actual Operating Time in Weeks Per Year	52	weeks/y
856	Los Alamos National Laboratory	350280001	043	Composite Mineral Oil Tank	Actual Operating Time in Hours Per Year	8736	h/y
856	Los Alamos National Laboratory	350280001	043	Composite Mineral Oil Tank	Actual Fuel Consumption	5	MM SCF/y
856	Los Alamos National Laboratory	350280001	043	Composite Mineral Oil Tank	Actual Input Materials Processed	216	Oil
856	Los Alamos National Laboratory	350280001	043	Composite Mineral Oil Tank	Actual Input Materials Processed		
856	Los Alamos National Laboratory	350280001	043	Composite Mineral Oil Tank	Standard Classification (SCC) Code	39090004	Industrial Processes, In-process Fuel Use, Fuel Storage - Fixed Roof Tanks,
856	Los Alamos National Laboratory	350280001	043	Composite Mineral Oil Tank	Actual Volatile Organic Compounds (VOC) in tons per year	0.007	Distillate Oil (No. 2): Working Loss tons/y
856	Los Alamos National Laboratory	350280001	043	Composite Mineral Oil Tank	Actual Volatile Organic Compounds (VOC) calculation method	ap	EPA emission factors (e.g., AP-42)

856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	AQB-State/Local D	002	Not Applicable
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Percent of Operation During Winter	5	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Percent of Operation During Spring	90	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Percent of Operation During Summer	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Percent of Operation During Fall	5	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Operating Time in Hours Per Day	24	h/d
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Operating Time in Days Per Week	2	d/week
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Operating Time in Weeks Per Year	12	weeks/y
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Operating Time in Hours Per Year	576	h/y
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Fuel Consumption	30.1	M gal/y
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Fuel Heating Value	137	MM BTU/M gal
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Fuel Type	44	Diesel
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Percent Ash of Fuel	<0.01	percent
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Input Materials Processed	44	Diesel
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Standard Classification (SCC) Code	10100501	External Combustion Boilers, Electric Generation, Distillate Oil, Grades 1 and 2 Oil
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Carbon Monoxide in tons per year	0.075	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Carbon Monoxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Lead in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Lead calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Nitrogen Dioxide in tons per year	0.13	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Nitrogen Dioxide calculation method	st	Actual stack test
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Particulate Matter (10 microns or less) in tons per year	0.035	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Particulate Matter (10 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Particulate Matter (2.5 microns or less) in tons per year	0.023	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Particulate Matter (2.5 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Particulate Matter (total suspended) in tons per year	0.05	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Particulate Matter (total suspended) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Sulfur Dioxide in tons per year	0.111	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Sulfur Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Volatile Organic Compounds (VOC) in tons per year	0.003	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-1	Power Plant Boiler (pph, No.2 fuel oil)	Actual Volatile Organic Compounds (VOC) calculation method	ap	EPA emission factors (e.g., AP-42)

856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	AQB-State/Local ID	002	Not Applicable
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual P percent of Operation During Winter	25	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual P percent of Operation During Spring	75	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual P percent of Operation During Summer	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual P percent of Operation During Fall	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual Operating Time in Hours Per Day	24	hd
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual Operating Time in Days Per Week	2	dweek
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual Operating Time in Weeks Per Year	12	weeks/y
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual Operating Time in Hours Per Year	576	hy
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual Fuel Consumption	1.6	Mgal/y
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual Fuel Heating Value	137	MMBTU/Mgal
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual Fuel Type	44	Diesel
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual P percent Ash of Fuel	-0.01	percent
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual Input Materials Processed	44	Diesel
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual Output Materials Processed		
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Standard Classification (S.C.C.) Code	10100501	External Combustion Boilers, Electric Generation, Distillate Oil, Grades 1 and 2 Oil
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual Carbon Monoxide in tons per year	0.004	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual Carbon Monoxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual Lead in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual Lead calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual Nitrogen Dioxide in tons per year	0.007	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual Nitrogen Dioxide calculation method	st	Actual stack test
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual P particulate Matter (10 microns or less) in tons per year	0.002	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual P particulate Matter (10 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual P particulate Matter (2.5 microns or less) in tons per year	0.001	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual P particulate Matter (2.5 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual P particulate Matter (total suspended) in tons per year	0.003	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual Sulfur Dioxide in tons per year	0.006	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual Sulfur Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual Volatile Organic Compounds (VOC) in tons per year	0.0002	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No.2 fuel oil)	Actual Volatile Organic Compounds (VOC) calculation method	ap	EPA emission factors (e.g., AP-42)

856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	AQB-State/Local ID	002	Not Applicable
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Percent of Operation During Winter	2	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Percent of Operation During Spring	95	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Percent of Operation During Summer	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Percent of Operation During Fall	3	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Operating Time in Hours Per Day	24	hr/d
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Operating Time in Days Per Week	2	d/week
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Operating Time in Weeks Per Year	12	weeks/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Operating Time in Hours Per Year	576	hr/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Fuel Consumption	51.6	M gally
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Fuel Heating Value	137	MM BTU/M gal
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Fuel Type	44	Diesel
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Percent Ash of Fuel	<0.01	percent
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Input Materials Processed	44	Diesel
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Output Materials Processed		
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Standard Classification (SCC) Code	10T00501	External Combustion Boilers, Electric Generation, Distillate Oil, Grades 1 and 2 Oil
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Carbon Monoxide in tons per year	0.13	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Carbon Monoxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Lead in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Lead calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Nitrogen Dioxide in tons per year	0.22	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Nitrogen Dioxide calculation method	st	Actual stack test
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Particulate Matter (10 microns or less) in tons per year	0.089	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Particulate Matter (10 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Particulate Matter (2.5 microns or less) in tons per year	0.04	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Particulate Matter (2.5 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Particulate Matter (total suspended) in tons per year	0.085	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Particulate Matter (total suspended) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Sulfur Dioxide in tons per year	0.19	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Sulfur Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Volatile Organic Compounds (VOC) in tons per year	0.005	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No.2 fuel oil)	Actual Volatile Organic Compounds (VOC) calculation method	ap	EPA emission factors (e.g., AP-42)

856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Percent of Operation During Winter	0	percent of time
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Percent of Operation During Spring	0	percent of time
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Percent of Operation During Summer	0	percent of time
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Percent of Operation During Fall	100	percent of time
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Operating Time in Hours Per Day	6	h/d
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Operating Time in Days Per Week	7	d/week
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Operating Time in Weeks Per Year	2	weeks/y
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Operating Time in Hours Per Year	84	h/y
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Fuel Consumption	6.3	MM SCF/y
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Fuel Heating Value	0	MM BTU/MM SCF
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Fuel Type	209	Natural Gas
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Percent Sulfur of Fuel	0.006	percent
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Percent Ash of Fuel	0	percent
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Input Materials Processed	209	Natural Gas
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Standard Classification (SCC) Code	20100201	Internal Combustion Engines, Electric Generation, Natural Gas, Turbine
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Carbon Monoxide in tons per year	0.033	tons/y
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Carbon Monoxide calculation method	st	Actual stack test
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Lead in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Lead calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Nitrogen Dioxide in tons per year	0.16	tons/y
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Nitrogen Dioxide calculation method	st	Actual stack test
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Particulate Matter (10 microns or less) in tons per year	0.021	tons/y
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Particulate Matter (10 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Particulate Matter (2.5 microns or less) in tons per year	0.021	tons/y
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Particulate Matter (2.5 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Particulate Matter (total suspended) in tons per year	0.021	tons/y
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Particulate Matter (total suspended) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Sulfur Dioxide in tons per year	0.011	tons/y
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Sulfur Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Volatile Organic Compounds (VOC) in tons per year	0.007	tons/y
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Volatile Organic Compounds (VOC) calculation method	11	Manufacturer Specification

856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Percent of Operation During Winter	5 percent of time
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Percent of Operation During Spring	10 percent of time
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Percent of Operation During Summer	85 percent of time
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Percent of Operation During Fall	0 percent of time
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Operating Time in Hours Per Day	h/d
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Operating Time in Days Per Week	2 d/week
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Operating Time in Weeks Per Year	12 weeks/y
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Operating Time in Hours Per Year	hy
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Fuel Consumption	0.07 M gally
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Fuel Heating Value	
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Fuel Type	Diesel
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Fuel Type	MM B TU/M gal
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Percent Sulfur of Fuel	137
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Percent Ash of Fuel	
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Input Materials Processed	
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Output Materials Processed	
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Standard Classification (SCC) Code	10100501
					External Combustion Boilers, Electric Generator, Distillate Oil, Grades 1 and 2 Oil	
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Carbon Monoxide in tons per year	0.0002 tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Carbon Monoxide calculation method	ap
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Formaldehyde in tons per year	0 tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Formaldehyde calculation method	ap
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Hexane in tons per year	0 tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Hexane calculation method	ap
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Nitrogen Dioxide in tons per year	0.0007 tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Nitrogen Dioxide calculation method	ap
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Particulate Matter (10 microns or less) in tons per year	0.00008 tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Particulate Matter (10 microns or less) calculation method	ap
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Particulate Matter (2.5 microns or less) in tons per year	0.00005 tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Particulate Matter (2.5 microns or less) calculation method	ap
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Particulate Matter (total suspended) in tons per year	0.00001 tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Particulate Matter (total suspended) calculation method	ap
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Sulfur Dioxide in tons per year	0.0002 tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Sulfur Dioxide calculation method	ap
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Sulfur Dioxide actual total efficiency controlled by Uncontrolled	0 percent
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Volatile Organic Compounds (VOC) in tons per year	0.0000007 tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-1b	Steam Plant Boiler (x3) Ta21 B109357 No. 2 Fuel	Actual Volatile Organic Compounds (VOC) calculation method	ap

856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Percent of Operation During Winter	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Percent of Operation During Spring	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Percent of Operation During Summer	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Percent of Operation During Fall	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Operating Time in Hours Per Day	0	h/d
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Operating Time in Days Per Week	0	d/week
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Operating Time in Weeks Per Year	0	weeks/y
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Operating Time in Hours Per Year	0	h/y
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Fuel Consumption	0	MM SCF/y
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Fuel Heating Value	0	MM BTU/MM SCF
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Fuel Type	209	Natural Gas
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Percent Sulfur of Fuel	0	percent
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Percent Ash of Fuel	0	percent
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Input Materials Processed	647	Asphalt
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Standard Classification (SCC) Code	30500255	Industrial Processes, Mineral Products, Asphalt Concrete, Drum Mix Plant
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Carbon Monoxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Carbon Monoxide calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Lead in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Lead calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Nitrogen Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Nitrogen Dioxide calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Particulate Matter (10 microns or less) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Particulate Matter (10 microns or less) calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Particulate Matter (2.5 microns or less) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Particulate Matter (2.5 microns or less) calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Particulate Matter (total suspended) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Particulate Matter (total suspended) calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Sulfur Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Sulfur Dioxide calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Volatile Organic Compounds (VOC) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDM	Asphalt Plant Dryer Nat Gas	Actual Volatile Organic Compounds (VOC) calculation method	dc	Design calculation

856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Percent of Operation During Winter	10 percent of time
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Percent of Operation During Spring	25 percent of time
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Percent of Operation During Summer	15 percent of time
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Percent of Operation During Fall	50 percent of time
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Operating Time in Hours Per Day	8 h/d
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Operating Time in Days Per Week	5 d/week
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Operating Time in Weeks Per Year	26 weekly
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Operating Time in Hours Per Year	1040 h/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Fuel Consumption	1730 tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Fuel Heating Value	91.2 MMBTU/MM SCF
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Fuel Type	Propane
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Percent Sulfur of Fuel	0 percent
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Percent Ash of Fuel	0 percent
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Output Materials Processed	647 Asphalt
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Standard Classification (SCC) Code	30600255 Industrial Processes, Mineral Products, Asphalt Concrete, Drum Mix Plant;
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Carbon Monoxide in tons per year	0.35 tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Carbon Monoxide calculation method	Rotary Drum Dryer / Mixer, Natural Gas - Fired
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Lead in tons per year	0 tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Lead calculation method	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Nitrogen Dioxide in tons per year	0.022 tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Nitrogen Dioxide calculation method	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Particulate Matter (10 microns or less) in tons per year	0.005 tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Particulate Matter (10 microns or less) calculation method	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Particulate Matter (2.5 microns or less) in tons per year	0.005 tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Particulate Matter (2.5 microns or less) calculation method	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Particulate Matter (total suspended) in tons per year	0.008 tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Particulate Matter (total suspended) calculation method	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Sulfur Dioxide in tons per year	0.004 tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Sulfur Dioxide calculation method	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Volatile Organic Compounds (VOC) in tons per year	0.017 tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer (Alt Op Scen)	Propane	Actual Volatile Organic Compounds (VOC) calculation method	EPA emission factors (e.g., AP-42)

Emissions Inventory Report Summary for LANL for Calendar Year 2007

856	Los Alamos National Laboratory	350280001	TA-54-SVE	Soil Vapor Extraction	Actual Percent of Operation During Winter	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-54-SVE	Soil Vapor Extraction	Actual Percent of Operation During Spring	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-54-SVE	Soil Vapor Extraction	Actual Percent of Operation During Summer	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-54-SVE	Soil Vapor Extraction	Actual Percent of Operation During Fall	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-54-SVE	Soil Vapor Extraction	Actual Operating Time in Hours Per Day	0	h/d
856	Los Alamos National Laboratory	350280001	TA-54-SVE	Soil Vapor Extraction	Actual Operating Time in Days Per Week	0	d/week
856	Los Alamos National Laboratory	350280001	TA-54-SVE	Soil Vapor Extraction	Actual Operating Time in Weeks Per Year	0	weeks/y
856	Los Alamos National Laboratory	350280001	TA-54-SVE	Soil Vapor Extraction	Actual Operating Time in Hours Per Year	0	h/y
856	Los Alamos National Laboratory	350280001	TA-54-SVE	Soil Vapor Extraction	Standard Classification (SCC) Code	30622201	Industrial Processes, Petroleum
856	Los Alamos National Laboratory	350280001	TA-54-SVE	Soil Vapor Extraction	Actual Volatile Organic Compounds (VOC) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-54-SVE	Soil Vapor Extraction	Actual Volatile Organic Compounds (VOC) calculation method	dc	Design calculation

Attachment C

*2007 Semiannual Emissions Reports Submitted
Under Title V Operating Permit Requirements*



Environmental Protection Division
P.O. Box 1663, MS J978
Los Alamos, New Mexico 87545
(505) 667-2211/FAX: (505) 665-8858

Date: September 17, 2007
Refer to: ENV-DO-07-019

Ms. Debra McElroy
Compliance & Enforcement Section
New Mexico Environment Department
Air Quality Bureau
2048 Galisteo Street
Santa Fe, NM 87505

**IDEA ID NO. 856 – LOS ALAMOS NATIONAL LABORATORY (LANL)
OPERATING PERMIT NO: P189M1
SEMI-ANNUAL EMISSIONS REPORT – JANUARY 1, 2007 TO JUNE 30, 2007**

Dear Ms. McElroy:

Enclosed is Los Alamos National Laboratory's (LANL) semi-annual emissions report for the period January 1, 2007 through June 30, 2007. This report is required by permit condition 4.1 and is submitted within 90 days from the end of the reporting period as required by permit condition 4.3.

The semi-annual emissions report includes actual emissions from permitted sources included in section 2.0 of LANL's Operating Permit. Emissions are also reported from insignificant boiler and generator sources. These sources are included to demonstrate that LANL has not exceeded Prevention of Significant Deterioration (PSD) applicability thresholds. In this report, actual emissions are listed along with the emission limits for ease in comparing and verifying compliance. No annual emission limits were exceeded during this reporting period.

Should you have any questions or comments regarding the information provided in this report, please contact Steve Story at (505) 665-2169.

Sincerely,

Victoria A. George
Division Leader
Environmental Protection Division

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Ms. Debra McElroy
ENV-DO-07-019
LA-UR:07-5846

-2-

September 17, 2007

VAG:alb

Enclosures

Cy:

V. Bynum, PADOPS, A102
R. Watkins, ADESH&Q, K491
S. Fong, DOE-LA-AO, A316
P. Wardwell, LC-ESII, A187
D. Wilburn, ENV-EAQ, J978
D. Janocky, ENV-EAQ, J978
S. Story, ENV-EAQ, J978
M. Stockton, ENV-EAQ, J978
W. Whetham, ENV-EAQ, J978
J. Stanton, SSS-AF-V02, A199
IRM-RM550, A150
ENV-EAQ Title V Emissions Report File
ENV-EAQ Reading File
ENV-DO Reading File

LA-UR-07-5846

Approved for public release;
distribution is unlimited.

Title:	Semi-Annual Emissions Report - Operating Permit Number P100M1 January - June 2007
Author(s):	Walt Whetham
Intended for:	New Mexico Environmental Department



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Form 836 (7/06)

9
11

ENCLOSURE

1



New Mexico Environment Department
 Air Quality Bureau
 Compliance and Enforcement Section
 2048 Gallateo
 Santa Fe, NM 87505
 Phone (505) 827-1494
 Fax (505) 427-1623



Version 11/22/06

REPORTING SUBMITTAL FORM

NMED USE ONLY

Staff _____
 Admin _____

PLEASE NOTE: * Indicates required field

SECTION I - GENERAL COMPANY AND FACILITY INFORMATION					
* Company Name: Los Alamos National Security			* Facility Name: Los Alamos National Laboratory		
* Company Address: P.O. Box 1683 MS J878			* Facility Address: Same as Company		
* City: Los Alamos	* State: NM	* Zip: 87545	* City:	* State:	* Zip:
* Company Environmental Contact: Dianne Wilburn		* Title: EAO Group Leader	* Facility Contact: Steve Story		* Title: Team Leader - Compliance
* Phone Number: 505 667 6962		* Fax Number: 505 665 8958	* Phone Number: 505 665 2189		* Fax Number: 505 665 9858
* Email Address: dianne@lanl.gov		* Email Address: story@lanl.gov			
Responsible Official: (Title V only): Richard S. Walters		* Title: Associate Director BSH&O	* Phone Number: 505 667 4218		* Fax Number: 505 665 3611
* AI Number: E56	* Title V Permit Number: P100M1	* Title V Permit Issue Date: June 15, 2006	* NSR Permit Number: 2185	* NSR Permit Issue Date: Various	
* Date of Submittal: September 17, 2007	* Reporting Period: January 1, 2007 - June 30, 2007		OR	* Proposed Test Date:	OR
* Actual Test Date:					

SECTION II - TYPE OF SUBMITTAL (check one that applies)					
A. <input type="checkbox"/>	Title V Annual Compliance Certification	Permit Condition(s):	Description:		
B. <input type="checkbox"/>	Title V Semi-annual Monitoring Report	Permit Condition(s):	Description:		
C. <input type="checkbox"/>	NSPS Requirement (40CFR60)	Regulation:	Section(s):	Description:	
		Test Protocol <input type="checkbox"/>	Test Report <input type="checkbox"/>	Other <input type="checkbox"/>	
D. <input type="checkbox"/>	MACT Requirement (40CFR63)	Regulation:	Section(s):	Description:	
		Test Protocol <input type="checkbox"/>	Test Report <input type="checkbox"/>	Other <input type="checkbox"/>	
E. <input type="checkbox"/>	NMAC Requirement (20.2.xx) or NESHAP Requirement (40CFR61)	Regulation:	Section(s):	Description:	
		Test Protocol <input type="checkbox"/>	Test Report <input type="checkbox"/>	Other <input type="checkbox"/>	
F. <input checked="" type="checkbox"/>	Permit Requirement	Permit No.: P100M1	Condition(s): 4.1	Description: Type V Semi-Annual Emissions Report	
		Test Protocol <input type="checkbox"/>	Test Report <input type="checkbox"/>	Other <input checked="" type="checkbox"/>	
G. <input type="checkbox"/>	Requirement of a Settlement Agreement or Compliance Order	NOV or SFO No.:	Section(s):	Description:	
		Test Protocol <input type="checkbox"/>	Test Report <input type="checkbox"/>	Other <input type="checkbox"/>	

SECTION III - CERTIFICATION			
After reasonable inquiry, I <u>Victoria A. George</u> certify that the information in this submittal is true, accurate and complete. <small>(Name of reporting official)</small>			
* Signature of Reporting Official: 	* Title: Environmental Protection Division Leader	* Date: 9/12/07	* Responsible Official for Title V? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Reviewed By: _____ Date Reviewed: _____

ENCLOSURE

2

— — ..

**Title V Operating Permit
Semi-Annual Emission Report**
January 1, 2007 – June 30, 2007

SECTION 1: General Information

Source Name: Los Alamos National Laboratory County: Los Alamos

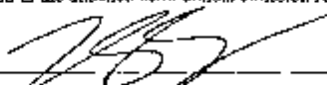
Source Address:
City: Los Alamos State: NM Zip Code: 87545

Responsible Official: Victoria A. George Ph No. (505) 665-2711 Fax No. (505) 665-8858
Technical Contact: Steven L. Story Ph No. (505) 665-2169 Fax No. (505) 665-8858
Principal Company Product or Business: National Security and Nuclear Weapons Research Primary SIC Code: 9711

Permit No.: P100MJ (IDEA/Tempo ID No. 856) Permit Issued Date: June 15, 2006

SECTION 2: Certification of Accuracy

I, Victoria A. George certify that, based on information and belief formed after reasonable inquiry, the statements and information in the attached semi-annual emission report are true, accurate, and complete.

Signature:  Date: 9/12/07

Title: Division Leader, Environmental Protection Division

ENCLOSURE

3

**Los Alamos National Laboratory
Semi-Annual Emissions Report
January 1, 2007 through June 30, 2007**

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 P100M1. The emissions were calculated using operating data recorded during the first six months of 2007.

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)	2007 Annual Emissions (tons)	Facility Wide Emission Limits (Permit Condition 2.10.1) (tons per year)
Nitrogen Oxides (NO _x)	26.8			245
Sulfur Dioxide (SO ₂)	0.6			150
Particulate Matter (PM)	2.7			120
Carbon Monoxide (CO)	18.7			225
Volatile Organic Compounds (VOCs)	7.3			200
Hazardous Air Pollutants (HAPs)	3.6			24 combined
Jan-June Highest Individual HAP (Hydrochloric Acid)	0.5			8 individual

**Los Alamos National Laboratory
Semi-Annual Emissions Report
January 1, 2007 through June 30, 2007**

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	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (Permit Condition 2.1.2) (tons per year)
NOx	0.008			1.0
SO ₂	0.002			1.0
PM	0.003			*35.4 lb/hr
CO	0.135			2.8
VOC	0.003			1.0
HAPs	0.003			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.

**Los Alamos National Laboratory
Semi-Annual Emissions Report
January 1, 2007 through June 30, 2007**

2.2 Beryllium Activities

Source	Pollutant	January - June Emissions (grams)	July - December Emissions (grams)	Annual Emissions (grams)	Permit Limits (Permit Condition 2.2.2)	
Beryllium Test Facility TA-3-141 ⁽¹⁾	Beryllium	< 0.0033			3.5 gm/yr	
Target Fabrication Facility TA-35-213 ⁽²⁾	Beryllium	< 0.00944			0.38 gm/yr	
Plutonium Facility TA-55-PF4 ⁽³⁾						
	Machining Operation	Beryllium	< 1.495			2.99 gm/yr
		Aluminum	< 1.495			2.99 gm/yr
Foundry Operation ⁽⁴⁾	Beryllium	0			8.73 x 10 ⁻⁴ gm/yr	
	Aluminum	0			8.73 x 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 Technology 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 2007. ⁽⁵⁾ Other Beryllium activities listed in section 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)	Permit Limits (Permit Condition 2.3.2) (tons per year)
NOx	15.10			80
SO ₂	0.09			50
PM	1.20			50
PM-10	1.20			50
CO	12.25			80
VOCs	0.84			50
HAPs	0.29			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. The TA-21 steam plant boilers are included in this table.

**Los Alamos National Laboratory
Semi-Annual Emissions Report
January 1, 2007 through June 30, 2007**

2.4 Carpenter Shops

Shop	Pollutant	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limit (Permit Condition 2.4.2) (tons per year)
TA-3-38	PM ₁₀	0.014			3.07
TA-15-563	PM ₁₀	0.029			2.81

2.5 Chemical Usage

Pollutant	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (Permit Condition 2.5.3.1)
VOCs	5.8			Source limits refer to facility-wide limits. (See Facility Emissions Table on Page 1)
HAPs	3.0			
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 (Permit Condition 2.6.2.1) (tons per year)
VOCs	0.005			Source limits refer to facility-wide limits. (See Facility Emissions Table on Page 1)
HAPs	0.005			

Note: Degreasers TA-55-DG-2 and TA-55-DG-3 were not used from January 1 to June 30, 2007. These degreasers are not expected to be used in the near future and are in storage.

**Los Alamos National Laboratory
Semi-Annual Emissions Report
January 1, 2007 through June 30, 2007**

2.7 Internal Combustion Sources

Generator TA-33-G-1	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (Permit Condition 2.7.2) (tons per year)
NO _x	0.000			18.1
SO _x	0.000			2.5
TSP	0.000			0.6
PM ₁₀	0.000			0.6
CO	0.000			15.2
VOC	0.000			0.3
HAPs	0.00E+00			No Source Limit

Note: This generator did not run during the first six months of 2007.

Standby Generators	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits
NO _x	3.52			No Source Specific Emission Limits for Standby Generators
SO _x	0.10			
TSP	0.14			
PM ₁₀	0.14			
CO	0.83			
VOC	0.14			
HAPs	1.40E-03			

Note: Standby Generators are insignificant sources.

2.8 Data Disintegrator

Emission Unit TA-52-11	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (Permit Condition 2.8.2) (tons per year)
TSP	0.28			9.9
PM ₁₀	0.28			9.9

**Los Alamos National Laboratory
Semi-Annual Emissions Report
January 1, 2007 through June 30, 2007**

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

Pollutant	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limit (Permit Condition 2.9.2) (tons per year)
NO _x	8.0			80.2
SO ₂	0.4			7.9
TSP	1.1			8.4
PM ₁₀	1.1			8.2
CO	5.5			41.3
VOC	0.7			5.6
HAPs	0.3			No Source Limit



Environmental Protection Division
P.O. Box 1663, MS J978
Los Alamos, New Mexico 87545
(505) 667-2211/FAX: (505) 665-8858

Date: March 21, 2008
Refer to: ENV-DO:08-006

Ms. Debra McElroy
Compliance & Enforcement Section
New Mexico Environment Department
Air Quality Bureau
1301 Siler Rd. Bld. B
Santa Fe, NM 87507

**IDEA ID NO. 856 – LOS ALAMOS NATIONAL LABORATORY (LANL)
OPERATING PERMIT NO: P100M2
SEMI-ANNUAL EMISSIONS REPORT – JULY 1, 2007 TO DECEMBER 31, 2007**

Dear Ms. McElroy:

Enclosed is Los Alamos National Laboratory's (LANL) semi-annual emissions report for the period July 1, 2007 through December 31, 2007. This report is required by permit condition 4.1 and is submitted within 90 days from the end of the reporting period as required by permit condition 4.3.

The semi-annual emissions report includes actual emissions from permitted sources included in section 2.0 of LANL's Operating Permit. Emissions are also reported from insignificant boiler and generator sources. These sources are included to demonstrate that LANL has not exceeded Prevention of Significant Deterioration (PSD) applicability thresholds. In this report, actual emissions are listed along with the emission limits for ease in comparing and verifying compliance. No annual emission limits were exceeded during this reporting period.

This submittal includes a signed certification statement (Attachment 1) and the semi-annual emissions report for the period July 1, 2007 through December 31, 2007 (Attachment 2).

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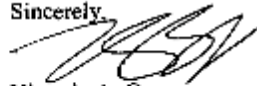
Ms. Debra McElroy
ENV-DO:08-006
LA-UR:08-1528

-2-

March 21, 2008

Should you have any questions or comments regarding the information provided in this report, please contact Steve Story at (505) 665-2169.

Sincerely,



Victoria A. George
Division Leader
Environmental Protection Division

VAG:alb

Cy:

V. Bynum, PADOPS, A102
R. Watkins, ADESH&Q, K491
S. Fong, DOE-LA-AO, A316
P. Wardwell, LC-ESH, A187
D. Wilburn, ENV-EAQ, J978
D. Janecky, ENV-EAQ, J978
S. Story, ENV-EAQ, J978
M. Stockton, ENV-EAQ, J978
W. Whetham, ENV-EAQ, J978
J. Stanton, SSS-AF-V02, A199
IRM-RM550, A150
ENV-EAQ Title V Emissions Report File
ENV-EAQ Reading File
ENV-DO Reading File

LA-UR-08-1528

Approved for public release;
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Title:	Semi-Annual Emissions Report - Operating Permit Number P100M2 July - December 2007
Author(s):	Walt Whetham
Intended for:	New Mexico Environmental Department




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Form 886 (7/06)

Attachment 1
Certification Statement

Title V Operating Permit Semi-Annual Emission Report

July 1, 2007 - December 31, 2007

Identifying Information	
Source Name: <u>Los Alamos National Laboratory</u>	County: <u>Los Alamos</u>
Source Address:	
City: <u>Los Alamos</u>	State: <u>NM</u> Zip Code: <u>87565</u>
Responsible Official: <u>Victoria A. George</u> Ph No. <u>(505) 667-2211</u> Fax No. <u>(505) 665-8858</u>	
Technical Contact: <u>Steven L. Story</u> Ph No. <u>(505) 665-2169</u> Fax No. <u>(505) 665-8858</u>	
Principal Company Product or Business: <u>National Security and Nuclear Weapons Research</u> Primary SIC Code: <u>2711</u>	
Permit No. <u>P100M2 (IDEA Template No. 856)</u> Permit Issued Date: <u>July 16, 2007</u>	
Certification of Truth, Accuracy, and Completeness	
I, <u>Victoria A. George</u> certify that, based on information and belief formed after reasonable inquiry, the statements and information in the attached semi-annual emission report are true, accurate, and complete.	
Signature: 	Date: <u>3/17/08</u>
Title: <u>Division Leader, Environmental Protection Division</u>	

Attachment 2
Semi-Annual Emissions Report
July 1, 2007 to December 31, 2007

**Los Alamos National Laboratory
2007 Semi-Annual Emissions Report
(July through December)**

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 second six months of 2007. The emissions from the first six months of 2007 were submitted in the previous Semi-Annual Emissions Report, but are included here to calculate annual emissions.

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)	2007 Annual Emissions (tons)	Facility Wide Emission Limits (Permit Condition 2.10.1) (tons per year)
Nitrogen Oxides (NO _x)	26.6	25.4	52.0	245
Sulfur Dioxide (SO ₂)	0.6	0.4	1.0	150
Particulate Matter (PM)	2.7	2.2	4.9	120
Carbon Monoxide (CO)	18.7	14.8	33.3	225
Volatile Organic Compounds (VOCs)	7.3	8.1	15.4	200
Hazardous Air Pollutants (HAPs)	3.6	3.2	6.8	24 combined
Highest Individual HAP (Hydrochloric Acid)	0.51	0.54	1.05	8 individual

**Los Alamos National Laboratory
2007 Semi-Annual Emissions Report
(July through December)**

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	0.008	0.013	0.021	1.0
SO ₂	0.002	0.002	0.004	1.0
PM	0.003	0.005	0.008	*35.4 lb/hr
CO	0.135	0.211	0.346	2.6
VOC	0.003	0.004	0.007	1.0
HAPs	0.003	0.004	0.007	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.

**Los Alamos National Laboratory
2007 Semi-Annual Emissions Report
(July through December)**

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	< 0.0033	< 0.007	3.5 gm/yr
Target Fabrication Facility TA-35-213 ⁽²⁾	Beryllium (grams)	< 0.00044	< 0.0009	< 0.018	0.36 gm/yr
Plutonium Facility TA-55-PF4 ⁽³⁾ Machining Operation	Beryllium (grams)	< 1.495	< 1.41	< 2.91	2.90 gm/yr
	Aluminum (grams)	< 1.495	< 1.41	< 2.91	2.90 gm/yr
Plutonium Facility TA-55-PF4 Foundry Operation ⁽⁴⁾	Beryllium (grams)	0	0	0.00	8.73×10^{-4} gm/yr
	Aluminum (grams)	0	0	0.00	8.73×10^{-4} gm/yr
Beryllium Total⁽⁵⁾ (tons) =		< 1.66E-06	< 1.57E-06	< 3.23E-06	
Aluminum Total (tons) =		< 1.65E-06	< 1.55E-06	< 3.30E-06	

Notes: ⁽¹⁾ Emission values shown for the Beryllium Technology 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 2007. ⁽⁵⁾ Other Beryllium activities listed in section 2.2 of the permit do not require reporting in the Semi-Annual Emissions Report.

**Los Alamos National Laboratory
2007 Semi-Annual Emissions Report
(July through December)**

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)
NO _x	15.10	10.53	25.63	80
SO ₂	0.09	0.08	0.15	50
PM	1.20	0.84	2.04	50
PM-10	1.20	0.84	2.04	50
CO	12.25	8.53	20.78	80
VOCs	0.84	0.59	1.43	50
HAPs	0.29	0.20	0.49	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 which can be found under Section 2.9 of this report. The TA-21 steam plant boilers are included in this table.

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	0.014	0.008	0.022	3.07
TA-15-563	PM ₁₀	0.029	0.015	0.044	2.81

**Los Alamos National Laboratory
2007 Semi-Annual Emissions Report
(July through December)**

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	5.83	6.82	12.25	Source limits refer to facility-wide limits. (See Facility Emissions Table on Page 1)
HAPs	2.97	2.83	5.80	
Highest Individual HAP for the first six months (Hydrochloric Acid)	0.51	0.54	1.05	

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	0.005	0.007	0.012	Source limits refer to facility-wide limits. (See Facility Emissions Table on Page 1)
HAPs	0.005	0.007	0.012	

Note: Degreasers TA-55-DG-2 and TA-55-DG-3 were not used from January 1 to December 31, 2007. These degreasers are not expected to be used in the near future and are in storage.

**Los Alamos National Laboratory
2007 Semi-Annual Emissions Report
(July through December)**

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)
NO _x	0.00	0.00	0.0	18.1
SO _x	0.00	0.00	0.0	2.5
TSP	0.00	0.00	0.0	0.6
PM ₁₀	0.00	0.00	0.0	0.6
CO	0.00	0.00	0.0	15.2
VOC	0.00	0.00	0.0	0.3
HAPs	0.00	0.00	0.0	No Source Limit

Note: This generator did not run in 2007.

Stationary Standby Generators	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits
NO _x	3.52	0.23	12.75	No Source Specific Emission Limits for Standby Generators
SO _x	0.10	0.28	0.36	
TSP	0.14	0.37	0.51	
PM ₁₀	0.14	0.37	0.51	
CO	0.83	2.04	2.87	
VOC	0.14	0.37	0.51	
HAPs	1.40E-03	2.24E-03	3.64E-03	

Note: Standby Generators are insignificant sources.

**Los Alamos National Laboratory
2007 Semi-Annual Emissions Report
(July through December)**

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	0.28	0.20	0.48	9.9
PM10	0.26	0.18	0.44	9.9

**Los Alamos National Laboratory
2007 Semi-Annual Emissions Report
(July through December)**

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)
NO _x	7.97	5.49	13.46	60.2
SO ₂	0.38	0.07	0.45	7.9
TSP	1.13	0.72	1.85	8.4
PM ₁₀	1.09	0.72	1.81	8.2
CO	5.46	3.78	9.24	41.3
VOC	0.73	0.52	1.25	5.6
HAPs	0.25	0.18	0.43	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)
NO _x	0.00	0.16	0.16	33.2
SO ₂	0.00	0.01	0.01	1.9
TSP	0.00	0.02	0.02	2.3
PM ₁₀	0.00	0.02	0.02	2.3
CO	0.00	0.03	0.03	19.8
VOC	0.00	0.01	0.01	No TPY Limit
HAPs	0.00	3.34E-03	3.34E-03	No Source Limit

Note: The combustion turbine began operation on September 23, 2007.

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