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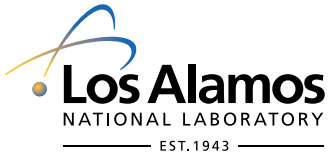
Emissions Inventory Report Summary for Los Alamos National Laboratory for Calendar Year 2008



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Emissions Inventory Report Summary for Los Alamos National Laboratory for Calendar Year 2008

Ecology and Air Quality Group

Los Alamos
NATIONAL LABORATORY
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Acronyms

AIRS	Aerometric Information Retrieval System
AQB	Air Quality Bureau
CAS	Chemical Abstracts Service
CO	carbon monoxide
CO_2	carbon dioxide
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
SO_2	sulfur dioxide
TA	Technical Area
TSP	total suspended particulates
VOC	volatile organic compound

EMISSIONS INVENTORY REPORT SUMMARY FOR LOS ALAMOS NATIONAL LABORATORY FOR CALENDAR YEAR 2008

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 2008. LANL's 2008 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 (TSP);
        - particulate matter (PM) with diameter less than 10 micrometers (PM_{10});
        - PM with diameter less than 2.5 micrometers ($PM_{2.5}$);
        - sulfur dioxide (SO_2);
        - nitrogen oxides (NO_x);
        - carbon monoxide (CO); or
        - volatile organic compounds (VOCs).

The annual emissions inventory must be submitted to NMED/AQB by May 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 2008 emissions inventory reporting, NMED imported existing facility data from the AIRS database into spreadsheets and requested facilities to update the sheets with 2008 facility emissions information.

Additionally, on April 30, 2004, LANL was issued a Title V Operating Permit from the NMED/AQB, under 20.2.70 NMAC. This permit was modified and reissued on July 16, 2007 (P-100M2) from the NMED/AQB (NMED 2007). 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.

Furthermore, LANL submitted carbon dioxide (CO_2) emissions from all stationary combustion sources in the Emissions Inventory Report as required by 20.2.87 NMAC, Greenhouse Gas Emissions Reporting, and in accordance with New Mexico's 2009 Greenhouse Mandatory Emissions Inventory Emissions Quantification Procedure. The estimated actual CO_2 emissions were reported for each combustion source in tons per year.

1.2 Contents of Annual Emissions Inventory Submittal

NMED requested that LANL submit annual emissions inventory data for 2008 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 2008.

This annual emissions inventory submittal includes air pollutant data for PM, PM_{10}, CO, NO_x, sulfur oxides (SO_x), VOCs, beryllium, hazardous air pollutants (HAPs), and aluminum.

For 2008, LANL is required to report $PM_{2.5}$ emissions. LANL previously reported $PM_{2.5}$ emissions at the request of NMED for 2006 and 2007. 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 2008.

In the 2008 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 PM_{10} 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.

The Laboratory's 2008 Emissions Inventory Report also includes direct CO_2 emissions from stationary combustion sources in tons per year. This satisfies the Laboratory's reporting requirement under 20.2.87 NMAC, Greenhouse Gas Emissions Reporting.

1.3 Contents of the Semiannual Title V Operating Permit Emissions Reports

The semiannual Title V Operating Permit emissions reports include actual estimated 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 2008 annual emissions inventory (LANL 2009a) and the 2008 semiannual emissions reports (LANL 2008 and 2009b). The source categories and the methodology used to calculate emissions are described in the following sections.

The following subsections describe emission sources included in the 2008 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 2008 emissions inventory as submitted to NMED is presented in Attachment B. The 2008 semiannual emissions reports are included as Attachment C.

2.1 Power Plant

The Laboratory operates a power plant at TA-3. The power plant produces steam for heating and electricity for much of the Laboratory when sufficient power from outside sources is not available. The heat produced from the power plant is used for comfort heat and hot water and to support facility processes. The power plant has three boilers that are fueled primarily with natural gas with No. 2 fuel oil as a backup. In the past, the Laboratory operated a second power plant at TA-21 and it was shut down in 2007.

For the 2008 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 power plants. The TA-3 power 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 power 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 power plant is now reported as six units. The boilers at the TA-21 power plant were included in the emissions inventory as two units, one for natural gas and one for No. 2 fuel oil.

Table 2.0-1
Sources Included in LANL's 2008 Annual Emissions Inventory and Semiannual Emissions Reports

Included in Annual Emissions Inventory	Included in Semiannual Emissions Reports	Comment
Power Plant (TA-3*)	Power Plant (TA-3)	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), but are not exempt for greenhouse gas reporting
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), but are not exempt for greenhouse gas reporting.
TA-3 Turbine	TA-3 Turbine	n/a

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

The 2008 emissions inventory reporting year used the updated emission factors for fuel oil for PM, PM_{10}, and $PM_{2.5}$ as described for the TA-3 power plant boilers.

Actual estimated 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 power plant when burning natural gas were also used, as appropriate.

The TA-3 power 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 power 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 2008, there was no new fuel delivered to the TA-3 power plant. Figure 2.1-1 shows a picture of the TA-3 power plant building and stacks.

For the 2008 Emissions Inventory Report, the Laboratory reported direct CO_2 emissions from the TA-3 power plant in tons per year. This satisfies the Laboratory's reporting requirement under 20.2.87 NMAC, Greenhouse Gas Emissions Reporting.

Figure 2.1-1 TA-3 power plant.

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. While most boilers are exempt from the annual emissions inventory, 160 boilers are being reported for direct CO_2 emissions, as required under 20.2.87 NMAC, Greenhouse Gas Emissions Reporting.

The boilers that are not exempt and reported in the 2008 annual emissions inventory include the following:

- 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);
- one process-related boiler at TA-50 (Eqpt 133);
- one boiler at TA-16 (Eqpt 134); and
- 160 boilers at various locations for CO_2 emissions only (Eqpt 140).

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 duration of daily operation at the TA-60 asphalt plant was provided as part of a monthly site support contractor data deliverable. The total asphalt produced in 2008 was 2,153 tons.

Per NMED request, direct CO_2 emissions from stationary combustion sources in tons per year are being reported for the first time in 2008. This satisfies the Laboratory's reporting requirement under 20.2.87 NMAC, Greenhouse Gas Emissions Reporting.

The emissions from the asphalt plant include criteria pollutants, HAPs and CO_2. None of the emissions were significant in regard to the overall Laboratory emissions. The largest pollutant emitted from the asphalt plant was CO at 0.43 tons per year.

2.4 Data Disintegrator

The data disintegrator is included in the 2008 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, PM_{10}, 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 included $PM_{2.5}$ 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%
- PM_{10} 90%
- TSP 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 2008 was 7,382.

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 2008. The emissions from the TA-55 degreaser for this reporting period are 30.3 lbs or 0.015 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 which was operated intermittently throughout 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 2008, total operation of the TA-3 carpenter shop was 50 hours and the total operation of the TA-15 carpenter shop was 110 hours. The emissions for both shops can be found in Table 2.6-1.

Table 2.6-1
Emissions for Carpenter Shops

Carpenter Shop	PM_{10} (tons)	$PM_{2.5}$ (tons)	TSP (tons)
TA-3	0.008	0.008	0.017
TA-15	0.014	0.013	0.030

2.7 Oil Storage Tanks

Two large diesel storage tanks are located at the TA-3 power 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 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 (Table 2.7-1) to provide an estimate of total annual emissions from all of the active tanks.

Table 2.7-1
Unit Emission Rates for Oil Storage Tanks

Type of Tank	Total Annual Emissions per tank (lb)	No. of Oil Storage Tanks	Annual Emissions Estimates (lb)	Annual Emissions Estimates (ton)
Horizontal Tank	1.24	11	13.64	0.0068

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 has four permitted generators with internal combustion engines located at TA-33 to support research activities. NMED issued a construction permit (Permit No. 2195-F) in October 2002 for installing the initial generator, and this unit is included in LANL's Title V Operating Permit. The unit first operated in May 2006. The unit operated for 25 hours in 2008. Three more units were

permitted in August 2007 at TA-33 (Permit No. 2195-P); they operated for a total of 75 hours in 2008.

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, the generators were included in the 2008 Emissions Inventory report in order to report CO_2 emissions in accordance with greenhouse gas regulations. These sources are also 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. A new Eqpt ID (139) has been issued that includes approximately 40 generators for CO_2 emissions to be included in the Emissions Inventory report.

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. Emission 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 2008 this combustion turbine operated for 96 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.

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.

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

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, 2008, and December 31, 2008. This dataset included 38,074 separate line items of chemicals purchased.

The dataset was reviewed electronically to identify all VOCs purchased and received at LANL in 2008. 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

Purchasing = Use = Emissions

From the dataset of chemicals purchased in 2008, 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 2008 totaled 9.0 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 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 2008 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

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

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 2008 was 4.5 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 2008, 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 1.0 tons of HCl emissions.

2.12 Emissions Summary by Source

Table 2.12-1 provides a summary of LANL's 2008 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 2008 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)	CO_2 (metric tons/yr)
TA-3 Power Plant Boilers	14.07	0.15	1.85	1.85	9.7	1.34	0.46	27001.60
Non-Exempt Boilers	5.45	0.03	0.50	0.50	3.77	0.32	0.11	6310.50
Asphalt Plant	0.03	0.01	0.01	0.01	0.43	0.01	0.01	146.20
Data Disintegrator	n/a*	n/a	0.28	0.19	n/a	n/a	n/a	n/a
Degreaser	n/a	n/a	n/a	n/a	n/a	0.02	0.02	n/a
Carpenter Shops	n/a	n/a	0.02	0.02	n/a	n/a	n/a	n/a
Oil Storage Tanks	n/a	n/a	n/a	n/a	n/a	0.01	n/a	n/a
R&D Chemical Use	n/a	n/a	n/a	n/a	n/a	9.00	4.50	n/a
TA-33 Generators	0.80	0.10	0.04	n/a	0.50	0.03	2.01E-04	46.60
TA-3 Turbine	0.43	0.03	0.06	0.06	0.09	0.02	0.01	942.50
Exempt Boilers (GHG** only)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	22,445.10
Stationary Standby Generators (GHG only)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	214.4
TOTAL	**20.78**	**0.32**	**2.76**	**2.63**	**14.49**	**10.75**	**5.1**	**57,106.90**

* n/a = Not Applicable. ** GHG = greenhouse gas

Table 2.12-2 provides a summary of 2008 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 2008 Semiannual Emissions as Reported Under Title V Operating Permit Requirements

	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 Power Plant Boilers	14.07	0.15	1.85	1.85	9.7	1.34	0.46
All Small Boilers & Heaters	25.58	0.16	2.03	2.03	20.69	1.42	0.49
Asphalt Plant	0.03	0.01	0.01	0.01	0.43	0.01	0.01
Data Disintegrator	n/a*	n/a	0.28	0.19	n/a	n/a	n/a
Degreaser	n/a	n/a	n/a	n/a	n/a	0.02	0.02
Carpenter Shops	n/a	n/a	0.02	0.02	n/a	n/a	n/a
Oil Storage Tanks**	n/a	n/a	n/a	n/a	n/a	0.01	n/a
R&D Chemical Use	n/a	n/a	n/a	n/a	n/a	9.0	4.5
Stationary Standby Generators	4.97	0.17	0.21	0.21	1.12	0.22	1.45 E-3
TA-33 Generators	0.80	0.10	0.04	n/a	0.50	0.03	2.01E-04
TA-3 Turbine	0.43	0.03	0.06	0.06	0.09	0.02	0.01
TOTAL	**45.88**	**0.62**	**4.50**	**4.37**	**32.53**	**12.07**	**5.49**

* n/a = Not Applicable. ** 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 (NMED 2005). 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.

Although these exempt boilers are not required on the Emissions Inventory report, they are required for the Greenhouse Gas Emissions reporting. Per NMED request, direct CO_2 emissions from stationary combustion sources in tons per year are being reported for the first time in 2008. This satisfies LANL's reporting requirement under 20.2.87 NMAC, Greenhouse Gas Emissions Reporting.

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 135 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, propane, 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.

Direct CO_2 emissions from stationary combustion sources are being reported for the first time in 2008. Therefore, generators that are exempt for the Emissions Inventory report are now being declared in the Greenhouse Gas Emissions report, as required by 20.2.87 NMAC, Greenhouse Gas Emissions Reporting

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.

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 VOC emissions are minimal. Emissions from fuel combustion are accounted for using emission factors for each fuel-burning unit.

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. *Note: This exemption was applied only to biological research solutions. Otherwise, this exemption was not applied.*

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 2008 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 2008 was determined to be 2,778 pounds (1.4 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 2008 emissions inventory.

4.0 EMISSIONS SUMMARY

4.1 2008 Emissions Summary

Table 4.1-1 presents facility-wide estimated actual emissions of criteria pollutants for 2008 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 estimated actual emissions for HAPs from chemical use. Emission unit information and detailed emissions calculations are included in Attachment A. The 2008 emissions inventory report as submitted to NMED is presented in Attachment B. Attachment C includes semiannual emissions reports for 2008.

Table 4.1-1
LANL Facility-Wide Criteria Pollutant Emissions for 2008

Pollutant	Estimated actual Emissions for Annual Emissions Reporting (tons/yr)	Estimated actual Emissions for Semiannual Title V Operating Permit Reporting (tons/yr)	Title V Operating Permit Facility-Wide Emission Limits (tons/yr)
NO_x	20.78	45.88	245
SO_x	0.32	0.62	150
CO	14.49	32.53	225
PM	2.76	4.50	120
PM_{10}	2.76	4.50	120
$PM_{2.5}$	2.63	4.37	—*
VOC	10.75	12.07	200
CO_2	57,107.90	n/a	—**

*No Title V Operating Permit facility-wide emission limits on $PM_{2.5}$.**No greenhouse gas emission limit and CO_2 values are in metric tonnes per year.

Table 4.1-2
LANL HAP Emissions from Top Five Chemicals Used in 2008

Pollutant	Chemical Use HAP Emissions* (tons/yr)
Top 5 HAPs	
HCl	1.0
Methylene Chloride	0.62
Hexane	0.58
Methanol	0.53
Trichloroethylene	0.35
All other HAPs from Chemical Use	1.42
Total HAPs	**3.08**

*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 2008, excluding the very small emissions sources such as the data disintegrator, asphalt plant, degreasers, and carpenter shop. As the figure shows, the TA-3 power plant and the sum of emissions from all small boilers and heaters were the largest sources of CO and NO_x emissions in 2008. R&D chemical use was the largest source of VOC emissions.

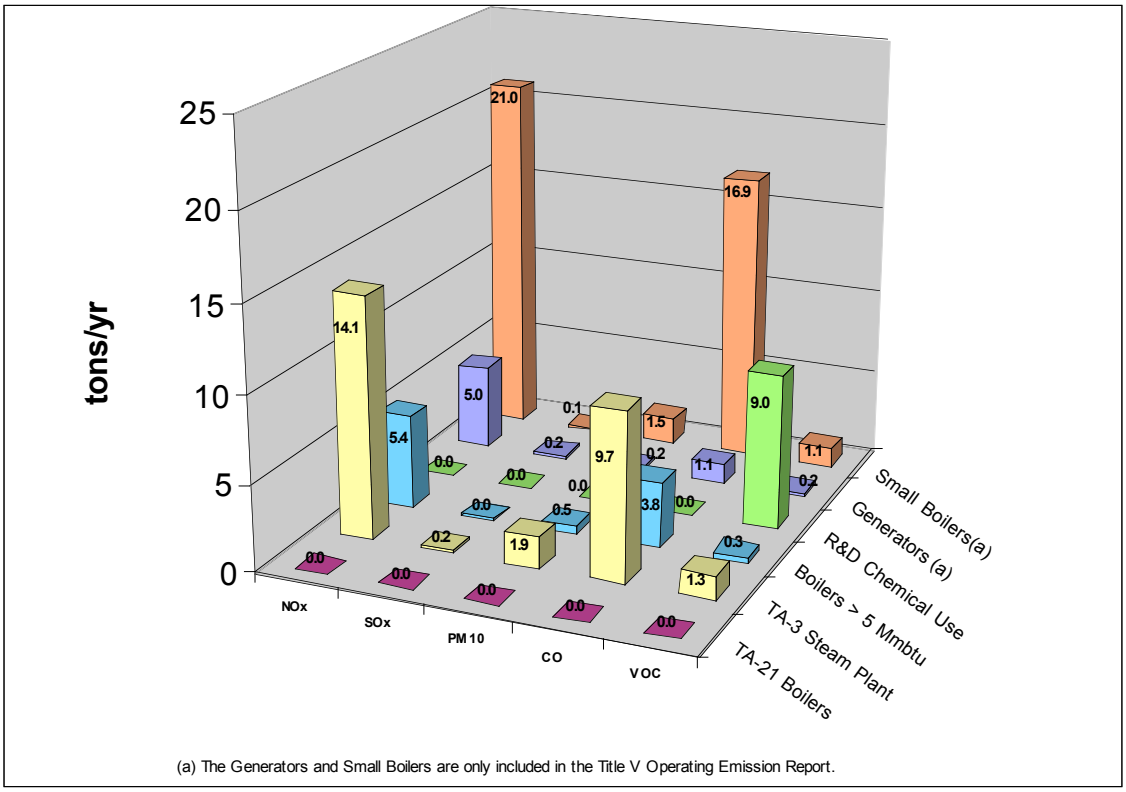

Figure 4.1-1 Emissions of criteria pollutants by source in 2008.

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 this section. 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 10 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.

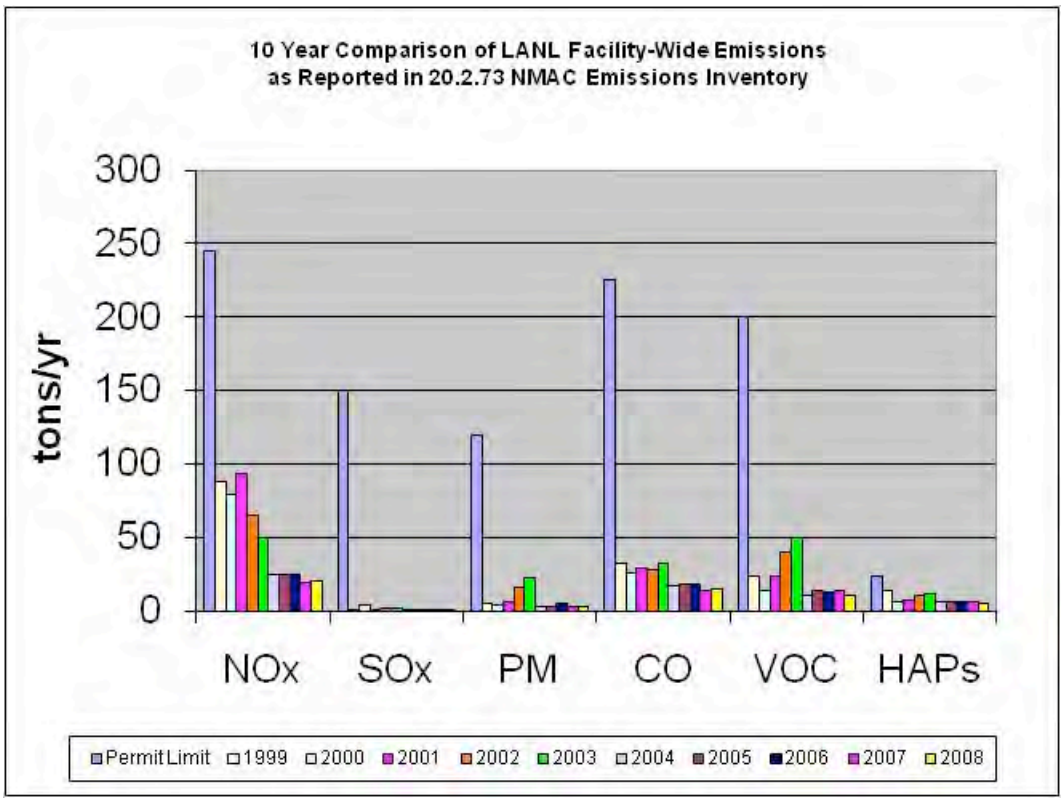

Figure 4.1-2 Comparison of facility-wide annual reported emissions from 1999–2008.

Figure 4.1-3 presents VOC and HAP emissions from chemical use activities for the last 10 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.

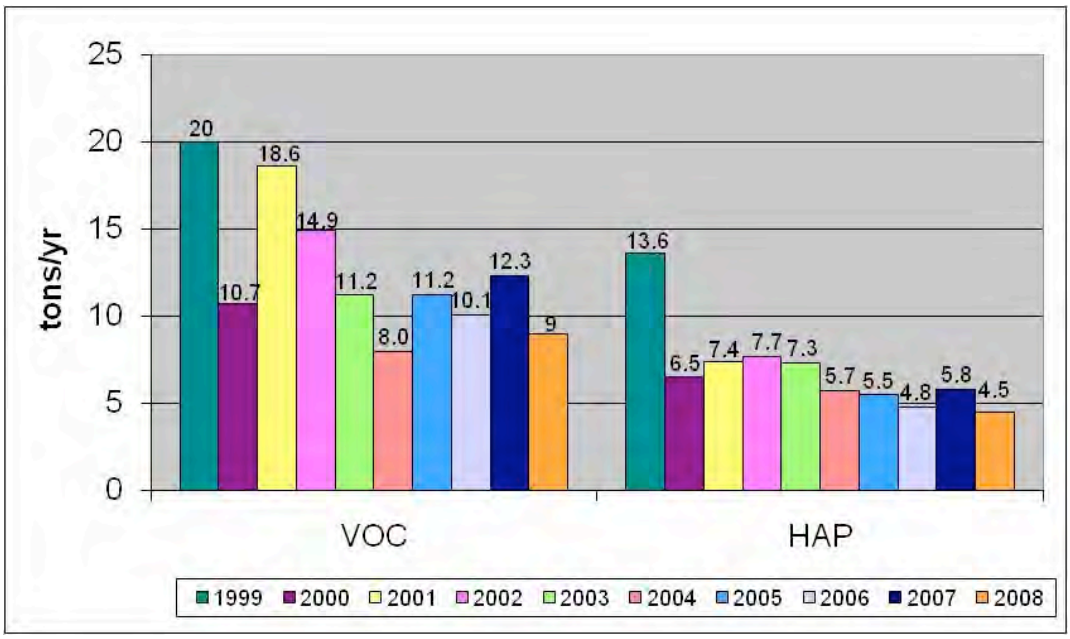

Figure 4.1-3 VOC and HAP emissions from chemical use, 1999–2008.

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Attachment A

Emission Calculation Worksheets
for Individual Emission Units

2008 TA-60 BDM Asphalt Plant

Data Reviewed By / Date: _____

Month	Data Entry Asphalt Produced (Tons)	12-Month Rolling Total	Month	Data Entry Asphalt Produced (Tons)	12-Month Rolling Total
January	86	1775	July	79	2134
February	76	1762	August	275	2334
March	223	1823	September	191	2011
April	227	1920	October	218	1951
May	243	2044	November	277	2143
June	196	2107	December	62	2153
6 mo. Total	1,051		6 mo. Total:	1,102	

Annual Hour			
Month	Hours	Month	Hours
Jan	10	Jul	9
Feb	9.5	Aug	15.7
Mar	26.1	Sep	11
Apr	17.7	Oct	16.5
May	23.9	Nov	19.2
Jun	18.9	Dec	
Total:	106.1	Total:	71.4

Tons/Asphalt Produced: 2,153

12-Month Rolling Permit Limit is 13,000 Tons

Annual Total: 177.5

Hours are Limited to 4380 per Year.

Emission Calculations

Pollutant	Emission Factor (lb/ton)	Annual Emissions (tons)	Emissions (tons) Jan-June	Emissions (tons) July-Dec	Reference
NOx	0.025	0.027	0.013	0.014	(a)
SOx	0.0046	0.005	0.002	0.003	(a)
PM	0.0096	0.010	0.005	0.005	(b)
PM-10	0.006	0.006	0.003	0.003	(c)
PM-2.5	0.006	0.006	0.003	0.003	(c)
CO	0.4	0.431	0.210	0.220	(a)
VOC	0.0082	0.009	0.004	0.005	(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)
Napthalene	0.000036	0.0000	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	0.001	0.001	(d)
Xylene	0.0027	0.003	0.001	0.001	(d)
TOTAL HAPS		0.008	0.004	0.004	
EPCRA 313		tons	lbs./year		
Lead	8.90E-07	9.58E-07	0.0019		(e)
Sulfuric Acid	0.0046	4.95E-03	9.90		(f)
Mercury	4.10E-07	4.41E-07	0.0009		(e)
PACs	2.70E-08	2.91E-08	5.81E-05		(d)
Benzo(g,h,i) perylene	5.00E-10	5.38E-10	1.08E-06		(g)

Reference
(a) AP-42, Sec. 11.1, *Hot Mix Asphalt Plants* , Table 11.1-5 & 11.1-6, Updated 4/2004
(b) Calculated using AP-42 uncontrolled emission factor and applying manufacturer's suggested control efficiencies for cyclone & baghouse.
(c) PM-10 emission factor is calculated as 64% of the PM emission factor, using the same ratio of PM to PM-10 as provided in AP-42 Table 11.1-1. No data provided for PM-2.5, assume same as PM-10.
(d) AP-42, Table 11.1-9, *Hot Mix Asphalt Plants*, Updated 4/2004
(e) AP-42, Table 11.1-11, *Hot Mix Asphalt Plants*, Updated 4/2004
(f) Assume all SOx is converted to sulfuric acid
(g) EPCRA PAC Guidance Document, EPA-260-B-01-03, June 2001, Table 2-3

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 (ft3/min)	Hours of[3] Operation (hr/yr)	(tons/year)	tons/yr	(PM) (PM > 40µm)	(PM 10) (PM 5-20 µm)	(PM 2.5) (PM <2.5 µm)
TA-3-38	2706	50	0.048	0.017	0.001	0.008	0.008
TA-15-563	2100	110	0.081	0.030	0.002	0.014	0.013

January through June Emissions

	Operation Parameters		TSP Prior to Cyclone	TSP Post Cyclone	PM Post Cyclone Emissions (tons)		
	Exhaust Flow (ft3/min)	Hours of[3] Operation (hr/period)	tons	tons	(PM) (PM > 40µm)	(PM 10) (PM 5-20 µm)	(PM 2.5) (PM <2.5 µm)
TA-3-38	2706	17	0.016	0.006	0.000	0.003	0.003
TA-15-563	2100	52	0.038	0.014	0.001	0.007	0.006

July through December Emissions

	Operation Parameters		TSP Prior to Cyclone	TSP Post Cyclone	PM Post Cyclone Emissions (tons)		
	Exhaust[1] Flow (ft3/min)	Hours of[3] Operation (hr/period)	tons	tons	(PM) (PM > 40µm)	(PM 10) (PM 5-20 µm)	(PM 2.5) (PM <2.5 µm)
TA-3-38	2706	33	0.032	0.012	0.001	0.006	0.005
TA-15-563	2100	58	0.043	0.016	0.001	0.008	0.007

Conversions:

lb/ton	lb/grain	min/hr	ton/lb
2000	0.00014	60	0.0005

Assumptions:

	Cyclone[4] Efficiencies	% PM in Wood Dust Prior[5] to Cyclone
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 [2]
0.03

	Shop Location	Flow Rate
Maximum permitted exhaust flow rate is:	TA-3-38	5000 cfm
	TA-15-563	5471 cfm

Allowable Emission Limits are: **3.07 tpy of PM10 for the TA-3-38 shop**
2.81 tpy of PM10 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 (EIIP) 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 Cyclone.

Reviewed By/Date: _____

2008 TA-3 & TA-15 Carpenter Shops

TA-3	Data Entry	TA-3	Data Entry
Month	Hours of Operation[1] TA-3	Month	Hours of Operation[1] TA-3
January	1.7	July	1.9
February	1.0	August	1.1
March	1.1	September	17.4
April	3.3	October	4.8
May	6.0	November	6.4
June	3.7	December	1.7
6 mo. Total	16.8	6 mo. Total:	33.3

TA-15	Data Entry	TA-15	Data Entry
Month	Hours of Operation[1] TA-15	Month	Hours of Operation[1] TA-15
January	7.6	July	12.4
February	9.8	August	14.5
March	8.3	September	9.4
April	14.4	October	8.6
May	5.2	November	7.1
June	6.4	December	6.4
6 mo. Total	51.7	6 mo. Total:	58.4

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.

Reviewed By/Date: _____

2008 TA-52 Data Disintegrator

Reviewed By / Date: _____

	Data Entry		Data Entry
Month	Boxes[c] Shredded	**Month**	Boxes[c] Shredded
January	876	**July**	810
February	761	**August**	1329
March	840	**September**	132
April	657	**October**	382
May	837	**November**	131
June	567	**December**	60
6 mo. Total:	4,538	**6 mo. Total:**	2,844

Annual Boxes:	**7,382**

Emission Calculations

	Emission[b] Factor	% in Exhaust[e]	Control[d] Efficiency (Cyclone)	Control[d] Efficiency (Baghouse)
PM 2.5	15%	15%	0%	95.0%
PM 10	15%	90%	75%	95.0%
TSP	15%	100%	75%	95.0%

Average Box Weight[a]	
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	332,190	373.7	0.19	560.6	0.28	622.9	0.31
January - June	204,210	229.7	0.11	344.6	0.17	382.9	0.19
July - December	127,980	144.0	0.07	216.0	0.11	240.0	0.12

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 listed in the construction permit application. (see cyclone efficiency tab for more info.)	**(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 <10µm (PM-10) per year.

Permitted Generators

TA	Bldg	Manufacturer	Serial #	MODEL	KW	Fuel Type	Reading 2nd half of previous year		First Half 2008: 6 Month Reading Date	First Half 2008: Reading	First Half 2008: Hours Run	Second Half 2008: 12 Month Reading Date	Second Half 2008: Reading	Second Half 2008: Hours Run	* Total Run Hours
33	290	Kohler	375801	1600ROZD	1600	Diesel	Dec. 07	9.3	Jun-08	25.9	16.6	Dec-08	34.3	8.4	25.0
33	151	Caterpillar	6PK01065	XQ225	225	Diesel	Jan. 08	3253.0	Jun-08	3253.0	0.0	Dec-08	3307.0	54	54.0
33	209	Kohler	2025460	20EORZ	20	Diesel	Dec. 07	383.5	Jul-08	383.5	0.0	Dec-08	384.1	0.6	0.6
33	114	Kohler	2025461	20EORZ	20	Diesel	Dec. 07	155.2	Jun-08	175.0	19.8	Dec-08	175.9	0.9	20.7

*** The 225 kW and the two 20 kW generators have a limit of 500 hours of operation per year. The 1600 kW unit is limited to 900 hours per year.**

Permit ID	Unit	First 6 Month Emissions of 2008: NOx (lbs)	CO (lbs)	SOx (lbs)	PM (lbs)	VOC (lbs)	HAPs (lbs)	Second 6 Month Emissions of 2008: NOx (lbs)	CO (lbs)	SOx (lbs)	PM (lbs)	VOC (lbs)	HAPs (lbs)
TA-33-G-1	33-290	717.1	584.3	106.2	23.9	13.3	1.5E-01	362.9	295.7	53.8	12.1	6.7	7.8E-02
TA-33-G-4	33-151	0.0	0.0	0.0	0.0	0.0	0.0E+00	510.3	109.4	36.5	36.5	36.5	1.6E-01
TA-33-G-2	33-209	0.0	0.0	0.0	0.0	0.0	0.0E+00	0.5	0.1	0.0	0.0	0.0	1.6E-04
TA-33-G-3	33-114	16.6	3.6	1.2	1.2	1.2	5.4E-03	0.8	0.2	0.1	0.1	0.1	2.4E-04
Permit ID	**Unit**	**NOx (tons)**	**CO (tons)**	**SOx (tons)**	**PM (tons)**	**VOC (tons)**	**HAPs (tons)**	**NOx (tons)**	**CO (tons)**	**SOx (tons)**	**PM (tons)**	**VOC (tons)**	**HAPs (tons)**
TA-33-G-1	33-290	0.359	0.292	0.053	0.012	0.007	7.73E-05	0.181	0.148	0.027	0.006	0.003	3.91E-05
TA-33-G-4	33-151	0.000	0.000	0.000	0.000	0.000	0.00E+00	0.255	0.055	0.018	0.018	0.018	8.21E-05
TA-33-G-2	33-209	0.000	0.000	0.000	0.000	0.000	0.00E+00	0.000	0.000	0.000	0.000	0.000	8.11E-08
TA-33-G-3	33-114	0.008	0.002	0.001	0.001	0.001	2.68E-06	0.000	0.000	0.000	0.000	0.000	1.22E-07

TOTAL

Pollutant	NOx	CO	SOx	PM	VOC	HAPs
Tons/Year	0.80	0.50	0.10	0.04	0.03	2.01E-04

Reviewed by / Date: _____

EMISSION FACTORS	NOx	CO	SOx	PM	PM_{10}	VOC
	lb/kw-hr	lb/kw-hr	lb/kw-hr	lb/kw-hr	lb/kw-hr	lb/kw-hr
1600kw Generator[a]	0.027	0.022	0.004	0.0009	0.0009	0.0005
Small Diesel fired[b]	0.042	0.009	0.003	0.003	0.003	0.003

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) Manufacturer supplied emission factors for NOx, CO, and VOCs. Emission factors for SOx, PM, and PM10 from AP-42, Table 3.3-1 & Table 3.4-1. 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.

Need to verify both a & b

(b) Emission factors for small diesel fired boilers were taken from AP-42 (fifth edition) Tables 3.3-1 and 3.3-2.

TA-33-G-1
(1600 kW Generator, 1500 kW Derated for Altitude)
12-Month Rolling kilowatt-hours

Month	Hour Meter Reading	Hours Operated	Rolling Total kw-hr	Month	Hour Meter Reading	Hours Operated	Rolling Total kw-hr
January	9.3	0.0	0	July	27.0	1.1	26550
February	9.3	0.0	0	August	31.1	4.1	32700
March	9.3	0.0	0	September	33.4	2.3	36150
April	20.1	10.8	16200	October			
May	25.4	5.3	24150	November			
June	25.9	0.5	24900	December			

Generator is limited to 1,350,000 kWh/year

	HAPS (lbs)																		Individual Generator HAP Emissions (lbs)	
Emission Factors (lb/kwh)	Benzene		Toluene		Xylenes		1,3-Butadiene		Formaldehyde		Acetaldehyde		Acrolein		Naphthalene		PAH			
Diesel (small)	3.19E-06		1.40E-06		9.73E-07		1.34E-07		4.09E-06		2.62E-06		3.16E-07		2.90E-07		5.74E-07			
Diesel (large)	2.65E-06		9.60E-07		6.59E-07				2.69E-07		8.61E-08		2.68E-08		4.44E-07		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	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half
33-290	7.04E-02	3.56E-02	2.55E-02	1.29E-02	1.75E-02	8.86E-03	0.00E+00	0.00E+00	7.16E-03	3.62E-03	2.29E-03	1.16E-03	7.15E-04	3.62E-04	1.18E-02	5.97E-03	1.92E-02	9.73E-03	1.55E-01	7.82E-02
33-151	0.00E+00	3.87E-02	0.00E+00	1.70E-02	0.00E+00	1.18E-02	0.00E+00	1.62E-03	0.00E+00	4.90E-02	0.00E+00	3.18E-02	0.00E+00	3.84E-03	0.00E+00	3.52E-03	0.00E+00	6.97E-03	0.00E+00	1.64E-01
33-209	0.00E+00	3.82E-05	0.00E+00	1.68E-05	0.00E+00	1.17E-05	0.00E+00	1.60E-06	0.00E+00	4.84E-05	0.00E+00	3.14E-05	0.00E+00	3.79E-06	0.00E+00	3.48E-06	0.00E+00	6.89E-06	0.00E+00	1.62E-04
33-114	1.26E-03	5.74E-05	5.53E-04	2.51E-05	3.85E-04	1.75E-05	5.29E-05	2.40E-06	1.80E-03	7.25E-05	1.04E-03	4.72E-05	1.25E-04	5.69E-06	1.15E-04	5.21E-06	2.27E-04	1.03E-05	5.35E-03	2.43E-04
Total Emissions (lbs)	7.17E-02	7.44E-02	2.60E-02	2.99E-02	1.79E-02	2.07E-02	5.29E-05	1.63E-03	8.75E-03	5.27E-02	3.32E-03	3.31E-02	8.40E-04	4.21E-03	1.19E-02	9.49E-03	1.96E-02	1.67E-02	1.60E-01	2.43E-01
Tons/Half/HAP	3.58E-05	3.72E-05	1.30E-05	1.50E-05	8.96E-06	1.04E-05	2.64E-08	8.13E-07	4.38E-06	2.64E-05	1.66E-06	1.65E-05	4.20E-07	2.10E-06	5.96E-06	4.75E-06	9.73E-06	8.36E-06		
Tons/year/HAP	7.30E-05		2.80E-05		1.93E-05		8.40E-07		3.07E-05		1.82E-05		2.52E-06		1.07E-05		1.81E-05			
Tons/Year Total	2.01E-04																			

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)

2008 Small Boilers Data Entry / Gas Use

	Month	Metered Boilers: TA-55 Boiler Gas Use (MSCF)[c] BHW-1B (B-602)	Metered Boilers: TA-55 Boiler Gas Use (MSCF)[c] BHW-2B (B-603)	Metered Boilers: TA-50-2[d] (MSCF) BS-1	Total Gas Use[a] (MSCF)	Total Gas Use[a] (MMSCF)	Non-Metered Gas Use (MMSCF)	12-Month Rolling Total for all Small Boilers (MMSCF)[e]
Data Entry	January	3441	2		84,295	84.30	80.65	504.57
	February	2075	8		65,798	65.80	63.52	504.27
	March	1786	2		58,027	58.03	56.04	507.94
	April	1175	951		40,942	40.94	38.62	504.67
	May	528	989		28,334	28.33	26.62	503.54
	June	0	1210	1192.4	17,402	17.40	15.99	507.41
	July	1	1312		14,028	14.03	12.62	507.75
	August	35	912		15,039	15.04	14.00	514.00
	September	644	763		21,266	21.27	19.76	515.57
	October	552	1055		37,850	37.85	36.15	516.91
	November	1633	10		58,166	58.17	56.43	520.86
	December	3140	2	578.1	74,982	74.98	71.74	516.13
	TOTAL	15010	7216	1770.5	516,129	516.13	492.13	Permit Limit = 870

2008 Non Metered Boiler Pool Capacity:	**305.1**	MMBTU/hr[f]
Estimated Gas-Use per MMBtu rating Jan-June:	0.92	MMscf/MMBtu/hr
Estimated Gas-Use per MMBtu rating July-Dec:	0.69	MMscf/MMBtu/hr
Estimated Gas-Use per MMBtu - Annual	1.61	MMscf/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.

Gas Use Non-Metered[g] (MMSCF)									
AIRS Stack #	015	016	017	018	019	020	021	024	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-1	BHW-2	Plant 5	Various
Design Rate[f] (MMBTU/hr)	**5.336**	**5.335**	**7.140**	**7.115**	**7.115**	**5.335**	**5.335**	**12.700**	**250**
Calculated Gas Use-Jan-June	4.922	4.922	6.586	6.563	6.563	4.922	4.922	11.715	230.324
Calculated Gas Use-July-Dec	3.685	3.685	4.931	4.913	4.913	3.685	3.685	8.770	172.428
Calculated Gas Use-Annual	8.608	8.606	11.517	11.476	11.476	8.606	8.606	20.485	402.752

Reviewed By / Date: _____

Emission Factors (lb/MMscf)

Criteria Pollutant	Small Uncontrolled	TA-16 Low NOx	TA-55-6 Boilers[3]
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
HAPs[5]			
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		
Mangenese	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

2008 Small Boilers Emission Summary
Title V Semi-Annual Reporting

Pollutant	Total Emissions (tons)		
	Annual Emissions (Includes Insignificant Sources)	Jan-June (Includes Insignificant Sources)	July-Dec (Includes Insignificant Sources)
Criteria			
NOx	25.584	14.603	10.982
SOx	0.155	0.088	0.066
PM	2.035	1.160	0.874
PM-10	2.035	1.160	0.874
PM-2.5	2.035	1.160	0.874
CO	20.688	11.828	8.860
VOC	1.425	0.814	0.611
HAPs			
Arsenic	5.16E-05	2.95E-05	2.21E-05
Benzene	5.42E-04	3.10E-04	2.32E-04
BE	3.10E-06	1.77E-06	1.33E-06
Cadmium	2.84E-04	1.62E-04	1.22E-04
Chromium	3.61E-04	2.06E-04	1.55E-04
Cobalt	2.17E-05	1.24E-05	9.28E-06
Dichlorobenzene	3.10E-04	1.77E-04	1.33E-04
Formaldehyde	1.93E-02	1.11E-02	8.29E-03
Hexane	4.64E-01	2.65E-01	1.99E-01
Lead	1.29E-04	7.37E-05	5.53E-05
Mangenese	9.80E-05	5.60E-05	4.20E-05
Mercury	6.71E-05	3.83E-05	2.87E-05
Napthalene	1.57E-04	8.99E-05	6.74E-05
Nickel	5.42E-04	3.10E-04	2.32E-04
POM	2.27E-05	1.30E-05	9.73E-06
Selenium	6.19E-06	3.54E-06	2.65E-06
Toluene	8.77E-04	5.01E-04	3.76E-04
TOTAL HAPS	0.487	0.278	0.209

REFERENCES
(a) 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 TA-3 Power Plant and TA-21 Steam Plant. All other sources are included in this total.
(b)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 of these boilers will be requested in the next operating permit revision.
(c) 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.
(d) The TA-50-RLWTF boiler was added to EI 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 several more years. Therefore, decision was made to include in LANL's annual EI. Fuel use has not been tracked monthly. For 2005 and beyond, the total gas use for each 6 month reporting period is taken and used to calculate emissions.
(e) 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 MMscf/yr, 12-month rolling average is a permit limit in Section 2.4 of the LANL operating permit.
(f) The non-metered boiler pool capacity is the sum of all active non-metered boilers design ratings (derated 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 the non-metered boiler pool capacity number). This value is taken from the boilers database (Access) on the database drive on the cleanair server within ENV-EAQ.
(g) The non-metered boilers gas use section provides estimates of gas use for each boiler. This is calculated using the non-metered gas rate, as discussed in reference (f). The individual boiler design rating is mutiplied by the gas use rate to provide the estimated gas used per reporting period (in MMSCF).
(h) NMED List of Insignificant Activities (9/95), Item (3.) exempts fuel burning equipment which uses gaseous fuel, has a design rate less than or equal to 5 MMBTU/hr, and is used for heating buildings for personal comfort or for producing hot water for personal use.
(i) 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 (derated) for each 1,000 feet above sea level (4% x 7.5 = 30%). For forced draft and power burner boilers, the reduction is half that of atmospheric at 15%. The correction is made using the boiler plate input rating minus the appropriate percentage.

2008 Small Boilers Emissions by Boiler for Annual EI Reporting (Tons/Year)

Pollutant / Criteria	AIRS 015 TA-48-1 BS-1	AIRS 016 TA-48-1 BS-2	AIRS 017 TA-48-1 BS-6	AIRS 018 TA-53-365 BHW-1	AIRS 019 TA-53-365 BHW-2	AIRS 020 TA-59-1 BHW-1	AIRS 021 TA-59-1 BHW-2	AIRS 024 TA-16 Plant 5	AIRS 037 TA-55-6 BHW-1B	AIRS 038 TA-55-6 BHW-2B	AIRS New TA-50-2 BS-1	Total for Small Boilers
NOx	0.430	0.430	0.576	0.574	0.574	0.430	0.430	0.380	1.036	0.498	0.089	5.447
SOx	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.006	0.005	0.002	0.001	0.034
PM	0.033	0.033	0.044	0.044	0.044	0.033	0.033	0.078	0.107	0.051	0.007	0.504
PM-10	0.033	0.033	0.044	0.044	0.044	0.033	0.033	0.078	0.107	0.051	0.007	0.504
PM-2.5	0.033	0.033	0.044	0.044	0.044	0.033	0.033	0.078	0.107	0.051	0.007	0.504
CO	0.362	0.361	0.484	0.482	0.482	0.361	0.361	0.380	0.287	0.138	0.074	3.772
VOC	0.024	0.024	0.032	0.032	0.032	0.024	0.024	0.056	0.045	0.022	0.005	0.317
HAPs												
Arsenic	8.61E-07	8.61E-07	1.15E-06	1.15E-06	1.15E-06	8.61E-07	8.61E-07	2.05E-06	1.50E-06	7.22E-07	1.77E-07	1.13E-05
Benzene	9.04E-06	9.04E-06	1.21E-05	1.20E-05	1.20E-05	9.04E-06	9.04E-06	2.15E-05	1.58E-05	7.58E-06	1.86E-06	1.19E-04
BE	5.16E-08	5.16E-08	6.91E-08	6.89E-08	6.89E-08	5.16E-08	5.16E-08	1.23E-07	9.01E-08	4.33E-08	1.06E-08	6.80E-07
Cadmium	4.73E-06	4.73E-06	6.33E-06	6.31E-06	6.31E-06	4.73E-06	4.73E-06	1.13E-05	8.26E-06	3.97E-06	9.74E-07	6.24E-05
Chromium	6.03E-06	6.02E-06	8.06E-06	8.03E-06	8.03E-06	6.02E-06	6.02E-06	1.43E-05	1.05E-05	5.05E-06	1.24E-06	7.94E-05
Cobalt	3.62E-07	3.61E-07	4.84E-07	4.82E-07	4.82E-07	3.61E-07	3.61E-07	8.60E-07	6.30E-07	3.03E-07	7.44E-08	4.76E-06
Dichlorobenzene	5.16E-06	5.16E-06	6.91E-06	6.89E-06	6.89E-06	5.16E-06	5.16E-06	1.23E-05	9.01E-06	4.33E-06	1.06E-06	6.80E-05
Formaldehyde	3.23E-04	3.23E-04	4.32E-04	4.30E-04	4.30E-04	3.23E-04	3.23E-04	7.68E-04	5.63E-04	2.71E-04	6.64E-05	4.25E-03
Hexane	7.75E-03	7.75E-03	1.04E-02	1.03E-02	1.03E-02	7.75E-03	7.75E-03	1.84E-02	1.35E-02	6.49E-03	1.59E-03	1.02E-01
Lead	2.15E-06	2.15E-06	2.88E-06	2.87E-06	2.87E-06	2.15E-06	2.15E-06	5.12E-06	3.75E-06	1.80E-06	4.43E-07	2.83E-05
Mangenese	1.64E-06	1.64E-06	2.19E-06	2.18E-06	2.18E-06	1.64E-06	1.64E-06	3.89E-06	2.85E-06	1.37E-06	3.36E-07	2.15E-05
Mercury	1.12E-06	1.12E-06	1.50E-06	1.49E-06	1.49E-06	1.12E-06	1.12E-06	2.66E-06	1.95E-06	9.38E-07	2.30E-07	1.47E-05
Napthalene	2.63E-06	2.62E-06	3.51E-06	3.50E-06	3.50E-06	2.62E-06	2.62E-06	6.25E-06	4.58E-06	2.20E-06	5.40E-07	3.46E-05
Nickel	9.04E-06	9.04E-06	1.21E-05	1.20E-05	1.20E-05	9.04E-06	9.04E-06	2.15E-05	1.58E-05	7.58E-06	1.86E-06	1.19E-04
POM	3.79E-07	3.79E-07	5.07E-07	5.05E-07	5.05E-07	3.79E-07	3.79E-07	9.01E-07	6.60E-07	3.18E-07	7.79E-08	4.99E-06
Selenium	1.03E-07	1.03E-07	1.38E-07	1.38E-07	1.38E-07	1.03E-07	1.03E-07	2.46E-07	1.80E-07	8.66E-08	2.12E-08	1.36E-06
Toluene	1.46E-05	1.46E-05	1.96E-05	1.95E-05	1.95E-05	1.46E-05	1.46E-05	3.48E-05	2.55E-05	1.23E-05	3.01E-06	1.93E-04
TOTAL HAPS/Unit	8.13E-03	8.13E-03	1.09E-02	1.08E-02	1.08E-02	8.13E-03	8.13E-03	1.93E-02	1.42E-02	6.81E-03	1.67E-03	0.11

EPCRA 313

Chemical	Amount in Fuel[a]		Emissions from all Small Boilers[b]	
	Conc.	Pounds	Emission Factor (lbs/MMscf)	Emissions (lbs)
Lead[c]			5.0E-04	0.27
Sulfuric Acid[d]			0.6	324.08
Mercury[c]			2.6E-04	0.14
PACs[e]			8.69E-07	4.69E-04
Benzo(g,h,i) perylene[c]			1.20E-06	6.48E-04

(a) Amount of EPCRA chemical in fuel is considered "othervise used" for EPCRA 313 threshold determination

(b) Combustion compounds emitted are considered "manufactured" for EPCRA 313 threshold deteminations. Lead and 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

2008 Combustion Turbine Emissions (Actual)

Pollutant Criteria	Emission Factors (lb/MMscf)	Unit Emissions TA-3-2422 Combustion Turbine Annual (tons)	Jan-June (tons)	July-Dec (tons)	Reference
NOx	50.5	0.428	0.014	0.413	a
SOx	3.5	0.030	0.001	0.029	b
PM	6.8	0.058	0.002	0.056	c
PM_{10}	6.8	0.058	0.002	0.056	c
CO	10.5	0.089	0.003	0.086	a
VOC	2.2	0.019	0.001	0.018	d
HAPs / TRI					
Acetaldehyde	4.12E-02	3.49E-04	1.18E-05	3.37E-04	e, f, g
Acrolein	6.59E-03	5.58E-05	1.89E-06	5.39E-05	e, f, g
Benzene	1.24E-02	1.05E-04	3.53E-06	1.01E-04	e, f,g
Benzo (a) anthracene	3.09E-03	2.62E-05	8.84E-07	2.53E-05	f, h
1,3-Butadiene	4.43E-04	3.75E-06	1.27E-07	3.62E-06	e, f, g
Cadmium	7.11E-03	6.02E-05	2.03E-06	5.81E-05	f, h
Chromium	1.34E-02	1.13E-04	3.83E-06	1.10E-04	f, h
Copper	7.11E-02	6.02E-04	2.03E-05	5.81E-04	f, h
Ethylbenzene	3.30E-02	2.79E-04	9.43E-06	2.70E-04	e, f, g
Fluoranthene	1.24E-03	1.05E-05	3.53E-07	1.01E-05	f, h
Formaldehyde	7.31E-01	6.19E-03	2.09E-04	5.98E-03	e, f, g
Manganese	8.24E-02	6.98E-04	2.36E-05	6.74E-04	f, h
Mercury	6.80E-03	5.76E-05	1.94E-06	5.56E-05	f, h
Napthalene	1.34E-03	1.13E-05	3.83E-07	1.10E-05	e, f, g
Nickel	1.18E-01	1.00E-03	3.39E-05	9.69E-04	f, h
PAH	2.27E-03	1.92E-05	6.48E-07	1.85E-05	e, f, g
Phenol	1.34E-02	1.13E-04	3.83E-06	1.10E-04	e, f, h
Propylene Oxide	2.99E-02	2.53E-04	8.54E-06	2.44E-04	e, f, g
Toluene	1.34E-01	1.13E-03	3.83E-05	1.10E-03	e, f, g
Xylenes (isomers)	6.59E-02	5.58E-04	1.89E-05	5.39E-04	e, f, g
TOTAL HAPS	**1.07E+00**	**1.16E-02**	**3.93E-04**	**1.12E-02**	

Reviewed By: _____

Date: _____

Ton/Year Emission Calculations[(i)]

Pollutant	NOx	CO
Annual Totals	0.87	0.52
Ton/Yr Limits	***33.2***	***19.8***

References:

(a) Values are from the initial compliance test (TRC - October 22, 2007). Test shows average NOx as 11.29 lbs/hr and CO as 2.35 lbs/hr. These were divided by the gas flow rate of 0.223620 MMscf/hr to get 50.48 lb/MMscf (rounded to 50.5) for NOx and 10.5 lb/MMscf for CO.

(b) The SOx emission factor was taken from AP-42 Table 3.1-2a. The default value is used when percent sulfur is unknown (0.0034 lb/mmbtu). This is equivilant to converting the 2 grains per 100 scf to percent. The 0.0034 lb/mmbtu was converted to lb/mmscf by multiplying by 1030 btu/scf (the heat value of natural gas), to provide 3.5 lb/mmscf.

(c) PM was calculated by taking the AP-42, Table 3.1-2a, EF of 6.6E-3 lb/MMBtu and multiplying it by 1030 BTU/scf to get 6.8 lb/MMscf. PM10 was calculated the same as PM, as most PM from natural gas combustion is less than 1 micrometer.

(d) The VOC emission factor was taken from AP-42 Table 3.1-2a. The factor, 2.1 E-03 lb/mmbtu, was converted to lb/mmscf by multiplying by 1030 giving 2.2 lbs/mmscf.

(e) These chemicals are HAPs

(f) These chemicals are EPCRA 313 listed chemicals.

(g) Emission factor from AP-42, table 3.1-3 (lb/mmbtu). This was multiplied by 1030 Btu/scf to provide the lb./mmscf factor.

(h) Emission factors from EPA FIRE database (SCC: 20300202 & 20200201). These values were also converted from lb/mmbtu to lb/mmscf. Retrieved 4-14-08.

(i) This calculations partually fulfill conditions 2.9.4.7 and 2.9.4.8 of Title V Permit P100M1.

Daily Calculations of NOx and CO Pound per Hour Emissions*

Day	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
	NOx	CO	NOx	CO	NOx	CO	NOx	CO	NOx	CO	NOx	CO	NOx	CO	NOx	CO	NOx	CO	NOx	CO	NOx	CO	NOx	CO
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	***	***	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	**	**	4.85	34.5	0	0	***	***	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	4.32	30.7	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	9.6	68.2	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	**	**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	**	**	0	0	**	**	0	0	0.55	3.9	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	1.5	10.6	0	0	0	0	0	0	0	0	0	0	0	0	1.03	7	0	0	0	0
9	0	0	0	0	0	0	0	0	**	**	0	0	0	0	0	0	0	0	5.35	38	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**	**	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	**	**	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	1.03	7.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	4.53	32.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.06	43	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	15.3	108	0	0	0	0	6.84	49	0	0	**	**
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**	**	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	13.5	95.7	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.51	10.7	0	0	22.3	159	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23.2	165	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24.3	173	0	0	0	0
23	**	**	0	0	0	0	0	0	0	0	**	**	0	0	0	0	0	0	25.4	180	0	0	0	0
24	**	**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.06	15	0	0	**	**
25	0	0	0	0	0	0	0	0	0	0	0	0	6.86	48.7	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.23	8.73	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0			0	0	0	0	0	0	0	0	5.15	36.6	0	0	0	0	0	0	0	0	0	0
31	0	0			0	0			0	0			0	0	0	0			0	0			0	0

* These calculations partually fulfill conditions 2.9.4.7 and 2.9.4.8 of Title V Permit P100M1.
** This fuel was used for compressor start-up only. No fuel went to turbine.
*** Unit started as a test or for training but never reached full load.
Deviation reported to NMED in Compliance Certification and Monitoring Report.

	NOx	CO
Lb/Hr Limits	***23.8***	***171***

2008 Daily Turbine Gas Use (MCF), 365 Day Rolling Total Gas Use, & Hours of Operation

	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
Day	Gas Use	Hrs	Gas Use	Hrs	Gas Use	Hrs	Gas Use	Hrs	Gas Use	Hrs	Gas Use	Hrs	Gas Use	Hrs	Gas Use	Hrs	Gas Use	Hrs	Gas Use	Hrs	Gas Use	Hrs	Gas Use	Hrs
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	1	0	33	0.7	0	0	26	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	42	1	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	70	0.75	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	8	0.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	5	0.5	0	0	1	0	0	0	4	0.75	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	16	1.1	0	0	0	0	0	0	0	0	0	0	0	0	5	0.5	0	0	0	0
9	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	26	0.5	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	5	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	110	2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	103	1.75	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	178	1.2	0	0	0	0	665	10	0	0	5	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	301	2.3	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0.75	0	0	1889	8.7	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5409	24	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5430	23	0	0	0	0
23	7	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2468	10	0	0	0	0
24	3	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	1	0	0	2	0
25	0	0	0	0	0	0	0	0	0	0	0	0	20	0.3	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0.67	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0			0	0	0	0	0	0	0	0	20	0.4	0	0	0	0	0	0	0	0	0	0
31	0	0			0	0			0	0			0	0	0	0			0	0			0	0
SUM	10	2.5	0	0	29	2.35	0	0	118	3	415	4.05	255	3.35	19	1.42	30	0	16050	79.5	0	0	7	0

First Half Gas Use: 572 MCF **Second Half Gas Use: 16361 MCF** **Annual Gas Use: 16933 MCF**

Rolling Gas Use (MSCF) **Jan.** 6318 **Feb.** 6318 **Mar.** 6347 **Apr.** 6347 **May** 6465 **June** 6880
July 7135 **Aug.** 7154 **Sep.** 2498 **Oct.** 16927 **Nov.** 16927 **Dec.** 16933

Permit Limit (365 day rolling total): 646 MMSCF
or 646,000 MSCF

The SCFH value (fuel flow rate) in the cell equation is from the compliance test report (223620 SCFH or 223.6 MSCFH)

Reviewed by:_____ Date:_____

2008 Generator Hours

								First 6 Month Readings			Second 6 Month Readings		
TA	*Bldg*	*Manufacturer*	*MODEL*	*KW*	*Fuel Type*	*Previous Reading Date*	*Previous Reading*	*6 Month Reading Date*	*Reading*	*Hours Run*	*12 Month Reading Date*	*Reading*	*Hours Run*
3	40	Onan Sons	1500DVE15R31374B	150	Diesel	Dec-08	6.6	Jun-08	11.8	5.2	Dec-08	12.8	1
3	223	Onan Sons	45.OEM-15R/10742D	45	Propane	Dec-08	489.5	Jun-08	492.5	3.0	Dec-08	492.5	0
3	440	Cummins	500FDR5051	260	Diesel	Dec-08	121.8	Jun-08	121.8	0.0	Dec-08	121.8	0
3	440	Cummins	DFGA-5005210	500	Diesel	Dec-08	81.8	Jun-08	93.8	12.0	Dec-08	99.9	6.1
3	1076	Cummins	DGBB-5601289	35	Diesel	Dec-08	129.7	Jun-08	141.2	11.5	Dec-08	181.1	39.9
3	1400	Cummins	DFEH-5699616	400	Diesel	Dec-08	33.0	Jun-08	37	4.0	Dec-08	44	7
3	1404	Cummins	DFLC-5554001	1250	Diesel	Dec-08	336.5	Jun-08	368.4	31.9	Dec-08	393.5	25.1
3	1498	Caterpillar	SR-4	600	Diesel	Dec-08	326.0	Jun-08	331.0	5.0	Dec-08	337	6
3	2322	Onan Sons	DGDA-5005757	80	Diesel	Dec-08	339.8	Jun-08	352	12.2	Dec-08	358.6	6.6
16	980	Cummins	KTA50-G2	1100	Diesel	Dec-08	293.4	Jun-08	305.2	11.8	Dec-08	318.6	13.4
16	1374	Onan Sons	60ENA	60	Nat. Gas	Dec-08	1092.9	Jun-08	1115.8	22.9	Dec-08	1125	9.2
18	31	Onan Sons	275DFML29807N	275	Diesel	Dec-08	180.8	Jun-08	180.8	0.0	Dec-08	180.8	0
35	2	Onan Sons	100DGDB	100	Diesel	Dec-08	115.5	Jun-08	115.5	0.0	Dec-08	115.5	0
35	402	Cummins	DGCB-5674244	60	Diesel	Dec-08	138.4	Jun-08	158.0	19.6	Dec-08	175	17
43	1	Cummins	4BT3.9-GC	50	Diesel	Dec-08	383.9	Jun-08	387.7	3.8	Dec-08	392.9	5.2
43	1	Onan Sons	DVE	150	Diesel	Dec-08	620.0	Jun-08	644.4	24.4	Dec-08	671.9	27.5
46	335	Onan Sons	300DEFCB	300	Diesel	Dec-08	959.5	Jun-08	995.4	35.9	Dec-08	1020	24.6
48	45	Onan Sons	DFCB-5740130	300	Diesel	Dec-08	53.5	Jun-08	69.5	16.0	Dec-08	78.5	9
50	37	Cummins	680FDR5059FF	500	Diesel	Dec-08	502.9	Jun-08	502.9	0.0	Dec-08	502.9	0
50	184	Onan Sons	DGFA-568741	150	Diesel	Dec-08	212.7	Jun-08	238.6	25.9	Dec-08	256	17.4
50	188	Onan Sons	L940563879	1250	Diesel	Dec-08	149.0	Jun-08	149.0	0.0	Dec-08	149	0
53	1	Onan Sons	60ENA	60	Nat. Gas	Dec-08	1234.1	Jun-08	1261.2	27.1	Dec-08	1271	9.8
53	2	Kato Eng.	Kamag-14	50	Diesel	Dec-08	194.3	Jun-08	194.3	0.0	Dec-08	194.6	0.3
53	3N	Onan	15.0JC-18R	15	Propane	Jun-08	345.3	Jun-08	345.3	0.0	Dec-08	362.3	17
54	412	Olympian	95M-07874-F	500	Diesel	Dec-08	317.9	Jun-08	324.7	6.8	Dec-08	331.7	7
55	5	Kohler	100RZ71	100	Propane	Dec-08	79.3	Jun-08	93.4	14.1	Dec-08	98.3	4.9
55	8	Delco/Detroit	E7014DD	600	Diesel	Dec-08	822.2	Jun-08	831.8	9.6	Dec-08	840.6	8.8
55	364	Onan Sons	1250DFLC-4987	1250	Diesel	Dec-08	82.8	Jun-08	101.3	18.5	Dec-08	134.3	33
55	28	Onan Sons	40DL6T	40	Diesel	Dec-08	66.5	Jul-08	72.4	5.9	Dec-08	84.6	12.2
55	47	Onan Sons	1465	200	Diesel	Dec-08	540.0	Jul-08	555.5	15.5	Dec-08	589	33.5
55	142	Cummins	DFEB-4963414	400	Diesel	Dec-08	105.0	Jul-08	114.8	9.8	Dec-08	122.1	7.3
59	1	Allis Chalmers	2884-0703	90	Diesel	Dec-08	750.0	Jul-08	750.0	0.0	Dec-08	750	0
60	yard	Cummins	DFHD-4964979	1000	Diesel	Dec-08	648.4	Jun-08	649.4	1.0	Dec-08	650	0.6
63	93	Murphy	3166-0084	30	Diesel	Dec-08	716.0	Jul-08	716.0	0.0	Dec-08	716	0
64	1	Onan Sons	250DVG	250	Diesel	Dec-08	166.9	Jul-08	171.8	4.9	Dec-08	178	6.2
69	33	Cummins	DFLC-5568730	1250	Diesel	Dec-08	71.3	Jul-08	78.6	7.3	Dec-08	85	6.4
36 Generators in use									**TOTAL**	365.6		**TOTAL**	362.0

N/R = Not Read

First half average hours per unit	10.2
Second half average hours per unit	10.1
Annual Average of hours per unit	10.1

Reviewed By / Date: _____

2008 Generator Hours

EMISSION FACTORS	NOx	CO	Sox[e]	PM	PM10	VOC
	lb/kw-hr	lb/kw-hr	lb/kw-hr	lb/kw-hr	lb/kw-hr	lb/kw-hr
Large Diesel fired [a][b]	0.032	0.007	5.4E-04	0.001	0.001	0.001
Small Diesel fired [a][c]	0.042	0.009	0.003	0.003	0.003	0.003
Natural Gas Fired[d]	0.008	0.013	2.0E-06	3.4E-05	3.2E-05	1.0E-04

References:

447	447 kw (600 hp) is the size limit for determining large vs. small diesel fired generator. This information was taken from the operating permit application and is also found in AP-42.

(a) The AP-42 (fifth edition), table 3.4-1,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 engines** were taken from AP-42 (fifth edition) Tables 3.4-1, 3.4-2, 3.4-3, and 3.4-4.

(c) Emission factors for **small diesel fired engines** were taken from AP-42 (fifth edition) Tables 3.3-1 and 3.3-2.

(d) The AP-42 (fifth edition) emission factors for **natural gas burning** 4-stroke rich-burn engines (Table 3.2-3) provides units of lb/MMBTU. There are 3413 Btus in a kilowatt-hr (kwh) or 2.928 x 10-4 kwh per BTU. Therefore, take lb/MMBTU x 3413 / 1 x 10^{6} or lb/MMbtu /106/2.928 x 10^{-4} to obtain the emissions factor in lb/kwh. The differences between the Title V application emission factors and those listed here, are that the application used the 2-stroke table, and the above emission factors are for rich burn 4-stroke engines. Most generator engines have been verified with the KSL generator crew to be 4-stroke.

(e) The Sulfur Oxide (SOx) emission factor for large diesel engines was calculated using AP-42 Table 3.4-1(fifth edition). The calculation requires the sulfur percent found in the fuel. It was verified in March of 2007, that future fuel supplied to the generators around LANL will be Ultra Low Sulfur Diesel (ULSD) (Sulfur <=15 ppm). Due to the low hours (and associated low fuel use) of most generators, the previous LANL tested fuel sulfur concentration of 0.05% will continue to be used for the rest of 2007 to allow for refueling of generators and use of the new ULSD. Calculation is 0.00809 * 0.05 * 0.608 * 2.2 = **5.4×10^{-4}**

2008 Generator Hours

	First 6 Month Emissions						Second 6 Month Emissions					
Location	*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)*
3-40	32.8	7.0	2.3	2.3	2.3	1.1E-02	6.3	1.4	0.5	0.5	0.5	2.0E-03
3-223	1.1	1.8	0.0	0.0	0.0	1.3E-02	0.0	0.0	0.0	0.0	0.0	0.0E+00
3-440	0.0	0.0	0.0	0.0	0.0	0.0E+00	0.0	0.0	0.0	0.0	0.0	0.0E+00
3-440	192.0	42.0	3.2	6.0	6.0	3.5E-02	97.6	21.4	1.6	3.1	3.1	1.8E-02
3-1076	16.9	3.6	1.2	1.2	1.2	5.4E-03	58.7	12.6	4.2	4.2	4.2	1.9E-02
3-1400	67.2	14.4	4.8	4.8	4.8	2.2E-02	117.6	25.2	8.4	8.4	8.4	3.8E-02
3-1404	1276.0	279.1	21.5	39.9	39.9	2.3E-01	1004.0	219.6	16.9	31.4	31.4	1.8E-01
3-1498	96.0	21.0	1.6	3.0	3.0	1.7E-02	115.2	25.2	1.9	3.6	3.6	2.1E-02
3-2322	41.0	8.8	2.9	2.9	2.9	1.3E-02	22.2	4.8	1.6	1.6	1.6	7.1E-03
16-980	415.4	90.9	7.0	13.0	13.0	7.6E-02	471.7	103.2	8.0	14.7	14.7	8.6E-02
16-1374	11.0	17.9	0.0	0.0	0.1	1.5E-01	4.4	7.2	0.0	0.0	0.1	6.2E-02
18-31	0.0	0.0	0.0	0.0	0.0	0.0E+00	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	0.0	0.0	0.0	0.0	0.0	0.0E+00
35-402	49.4	10.6	3.5	3.5	3.5	1.6E-02	42.8	9.2	3.1	3.1	3.1	1.4E-02
43-1	8.0	1.7	0.6	0.6	0.6	2.6E-03	10.9	2.3	0.8	0.8	0.8	3.5E-03
43-1	153.7	32.9	11.0	11.0	11.0	4.9E-02	173.3	37.1	12.4	12.4	12.4	5.6E-02
46-335	452.3	96.9	32.3	32.3	32.3	1.5E-01	310.0	66.4	22.1	22.1	22.1	1.0E-01
48-45	201.6	43.2	14.4	14.4	14.4	6.5E-02	113.4	24.3	8.1	8.1	8.1	3.7E-02
50-37	0.0	0.0	0.0	0.0	0.0	0.0E+00	0.0	0.0	0.0	0.0	0.0	0.0E+00
50-184	163.2	35.0	11.7	11.7	11.7	5.3E-02	109.6	23.5	7.8	7.8	7.8	3.5E-02
50-188	0.0	0.0	0.0	0.0	0.0	0.0E+00	0.0	0.0	0.0	0.0	0.0	0.0E+00
53-1	13.0	21.1	0.0	0.1	0.2	1.8E-01	4.7	7.6	0.0	0.0	0.1	6.6E-02
53-2	0.0	0.0	0.0	0.0	0.0	0.0E+00	0.6	0.1	0.0	0.0	0.0	2.0E-04
53-3N	0.0	0.0	0.0	0.0	0.0	0.0E+00	2.0	3.3	0.0	0.0	0.0	2.5E-02
54-412	108.8	23.8	1.8	3.4	3.4	2.0E-02	112.0	24.5	1.9	3.5	3.5	2.5E-02
55-5	11.3	18.3	0.0	0.0	0.1	1.4E-01	3.9	6.4	0.0	0.0	0.0	2.0E-02
55-8	184.3	40.3	3.1	5.8	5.8	3.4E-02	169.0	37.0	2.9	5.3	5.3	4.9E-02
55-364	740.0	161.9	12.5	23.1	23.1	1.3E-01	1320.0	288.8	22.3	41.3	41.3	3.1E-02
55-28	9.9	2.1	0.7	0.7	0.7	3.2E-03	20.5	4.4	1.5	1.5	1.5	2.4E-01
55-47	130.2	27.9	9.3	9.3	9.3	4.2E-02	281.4	60.3	20.1	20.1	20.1	6.6E-03
55-142	164.6	35.3	11.8	11.8	11.8	5.3E-02	122.6	26.3	8.8	8.8	8.8	9.1E-02
59-1	0.0	0.0	0.0	0.0	0.0	0.0E+00	0.0	0.0	0.0	0.0	0.0	3.9E-02
60-yard	32.0	7.0	0.5	1.0	1.0	5.8E-03	19.2	4.2	0.3	0.6	0.6	0.0E+00
63-93	0.0	0.0	0.0	0.0	0.0	0.0E+00	0.0	0.0	0.0	0.0	0.0	3.5E-03
64-1	51.5	11.0	3.7	3.7	3.7	1.7E-02	65.1	14.0	4.6	4.6	4.6	0.0E+00
69-33	292.0	63.9	4.9	9.1	9.1	5.3E-02	256.0	56.0	4.3	8.0	8.0	2.1E-02
lbs/6 months	4915.1	1119.4	166.5	214.6	214.9	1.6	5034.7	1116.1	164.1	215.4	215.5	1.3
Tons/6 months	**2.46**	**0.56**	**0.08**	**0.11**	**0.11**	**8.0E-04**	**2.52**	**0.56**	**0.08**	**0.11**	**0.11**	**6.5E-04**

YEARLY TOTAL	NOx	CO	SOx	PM	VOC	HAPs
Tons/Year	4.97	1.12	0.17	0.21	0.22	0.001

Emission Factors (lb/kwh)

2008 Generator Hours

	HAPS (lbs)											
	Benzene		Toluene		Xylenes		1,3-Butadiene		Formaldehyde		Acetaldehyde	
Natural Gas	5.40E-06		1.91E-06		6.66E-07		2.26E-06		7.00E-05		9.53E-06	
Diesel (small)	3.19E-06		1.40E-06		9.73E-07		1.34E-07		4.03E-06		2.62E-06	
Diesel (large)	2.65E-06		9.60E-07		6.59E-07				2.69E-07		8.61E-08	
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
3-40	2.49E-03	4.78E-04	1.09E-03	2.10E-04	7.59E-04	1.46E-04	1.04E-04	2.00E-05	3.14E-03	6.05E-04	2.04E-03	3.93E-04
3-223	7.28E-04	0.00E+00	2.57E-04	0.00E+00	8.99E-05	0.00E+00	3.06E-04	0.00E+00	9.45E-03	0.00E+00	1.29E-03	0.00E+00
3-440	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
3-440	1.59E-02	8.08E-03	5.76E-03	2.93E-03	3.95E-03	2.01E-03	0.00E+00	0.00E+00	1.62E-03	8.22E-04	5.16E-04	2.63E-04
3-1076	1.28E-03	4.45E-03	5.62E-04	1.95E-03	3.92E-04	1.36E-03	5.37E-05	1.86E-04	1.62E-03	5.63E-03	1.05E-03	3.66E-03
3-1400	5.10E-03	8.92E-03	2.23E-03	3.91E-03	1.56E-03	2.73E-03	2.14E-04	3.74E-04	6.45E-03	1.13E-02	4.19E-03	7.33E-03
3-1404	1.06E-01	8.32E-02	3.83E-02	3.01E-02	2.63E-02	2.07E-02	0.00E+00	0.00E+00	1.07E-02	8.45E-03	3.43E-03	2.70E-03
3-1498	7.95E-03	9.54E-03	2.88E-03	3.45E-03	1.98E-03	2.37E-03	0.00E+00	0.00E+00	8.08E-04	9.70E-04	2.58E-04	3.10E-04
3-2322	3.11E-03	1.68E-03	1.36E-03	7.38E-04	9.50E-04	5.14E-04	1.30E-04	7.05E-05	3.93E-03	2.13E-03	2.56E-03	1.38E-03
16-980	3.44E-02	3.91E-02	1.25E-02	1.41E-02	8.56E-03	9.72E-03	0.00E+00	0.00E+00	3.50E-03	3.97E-03	1.12E-03	1.27E-03
16-1374	7.41E-03	2.98E-03	2.62E-03	1.05E-03	9.15E-04	3.68E-04	3.11E-03	1.25E-03	9.62E-02	3.86E-02	1.31E-02	5.26E-03
18-31	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
35-2	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
35-402	3.75E-03	3.25E-03	1.64E-03	1.42E-03	1.14E-03	9.93E-04	1.57E-04	1.36E-04	4.74E-03	4.11E-03	3.08E-03	2.67E-03
43-1	6.05E-04	8.28E-04	2.65E-04	3.63E-04	1.85E-04	2.53E-04	2.54E-05	3.47E-05	7.66E-04	1.05E-03	4.98E-04	6.81E-04
43-1	1.17E-02	1.31E-02	5.11E-03	5.76E-03	3.56E-03	4.02E-03	4.89E-04	5.51E-04	1.48E-02	1.66E-02	9.59E-03	1.08E-02
46-335	3.43E-02	2.35E-02	1.50E-02	1.03E-02	1.05E-02	7.18E-03	1.44E-03	9.86E-04	4.34E-02	2.97E-02	2.82E-02	1.93E-02
48-45	1.53E-02	8.60E-03	6.70E-03	3.77E-03	4.67E-03	2.63E-03	6.41E-04	3.61E-04	1.93E-02	1.09E-02	1.26E-02	7.07E-03
50-37	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
50-184	1.24E-02	8.32E-03	5.43E-03	3.65E-03	3.78E-03	2.54E-03	5.19E-04	3.49E-04	1.57E-02	1.05E-02	1.02E-02	6.84E-03
50-188	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
53-1	8.77E-03	3.17E-03	3.10E-03	1.12E-03	1.08E-03	3.92E-04	3.68E-03	1.33E-03	1.14E-01	4.12E-02	1.55E-02	5.60E-03
53-2	0.00E+00	4.78E-05	0.00E+00	2.10E-05	0.00E+00	1.46E-05	0.00E+00	2.00E-06	0.00E+00	6.05E-05	0.00E+00	3.93E-05
53-3N	0.00E+00	1.38E-03	0.00E+00	4.86E-04	0.00E+00	1.70E-04	0.00E+00	5.77E-04	0.00E+00	1.79E-02	0.00E+00	2.43E-03
54-412	9.01E-03	1.38E-03	3.26E-03	4.86E-04	2.24E-03	1.70E-04	0.00E+00	5.77E-04	9.16E-04	1.79E-02	2.93E-04	2.43E-03
55-5	7.61E-03	9.28E-03	2.69E-03	3.36E-03	9.39E-04	2.31E-03	3.19E-03	0.00E+00	9.87E-02	9.43E-04	1.34E-02	3.01E-04
55-8	1.53E-02	2.64E-03	5.53E-03	9.34E-04	3.80E-03	3.26E-04	0.00E+00	1.11E-03	1.55E-03	3.43E-02	4.96E-04	4.67E-03
55-364	6.13E-02	1.40E-02	2.22E-02	5.07E-03	1.52E-02	3.48E-03	0.00E+00	0.00E+00	6.23E-03	1.42E-03	1.99E-03	4.54E-04
55-28	7.52E-04	1.09E-01	3.30E-04	3.96E-02	2.30E-04	2.72E-02	3.15E-05	0.00E+00	9.51E-04	1.11E-02	6.18E-04	3.55E-03
55-47	9.88E-03	1.56E-03	4.33E-03	6.82E-04	3.02E-03	4.75E-04	4.14E-04	6.52E-05	1.25E-02	1.97E-03	8.12E-03	1.28E-03
55-142	1.25E-02	2.13E-02	5.48E-03	9.36E-03	3.82E-03	6.52E-03	5.23E-04	8.95E-04	1.58E-02	2.70E-02	1.03E-02	1.76E-02
59-1	0.00E+00	9.30E-03	0.00E+00	4.08E-03	0.00E+00	2.84E-03	0.00E+00	3.90E-04	0.00E+00	1.18E-02	0.00E+00	7.65E-03
60-yard	2.65E-03	0.00E+00	9.60E-04	0.00E+00	6.59E-04	0.00E+00	0.00E+00	0.00E+00	2.69E-04	0.00E+00	8.61E-05	0.00E+00
63-93	0.00E+00	1.59E-03	0.00E+00	5.76E-04	0.00E+00	3.95E-04	0.00E+00	0.00E+00	0.00E+00	1.62E-04	0.00E+00	5.16E-05
64-1	3.90E-03	0.00E+00	1.71E-03	0.00E+00	1.19E-03	0.00E+00	1.64E-04	0.00E+00	4.94E-03	0.00E+00	3.21E-03	0.00E+00
69-33	2.42E-02	4.94E-03	8.76E-03	2.17E-03	6.01E-03	1.51E-03	0.00E+00	2.07E-04	2.46E-03	6.25E-03	7.85E-04	4.06E-03
lbs	**4.18E-01**	**3.96E-01**	**1.60E-01**	**1.52E-01**	**1.07E-01**	**1.03E-01**	**1.52E-02**	**9.47E-03**	**4.94E-01**	**3.17E-01**	**1.48E-01**	**1.20E-01**
Tons/Half/HAP	**2.09E-04**	**1.98E-04**	**8.00E-05**	**7.58E-05**	**5.37E-05**	**5.16E-05**	**7.60E-06**	**4.74E-06**	**2.47E-04**	**1.59E-04**	**7.42E-05**	**6.00E-05**
Tons/year/HAP	**4.07E-04**		**1.56E-04**		**1.05E-04**		**1.23E-05**		**4.06E-04**		**1.34E-04**	

2008 Generator Hours

Tons/Year Total	1.45E-03

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)

2008 Generator Hours

HAPS (lbs)															
Acrolein		Naphthalene		1,1,2,2-Tetrachloroethane		1,1,2-Trichloroethane		1,3-Dichloropropene		Carbon Tetrachloride		Chlorobenzene		Chloroform	
8.98E-06		3.32E-07		8.64E-08		5.23E-08		4.34E-08		6.05E-08		4.41E-08		4.68E-08	
3.16E-07		2.90E-07													
2.69E-08		4.44E-07													
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
2.46E-04	4.74E-05	2.26E-04	4.34E-05												
1.21E-03	0.00E+00	4.48E-05	0.00E+00												
0.00E+00	0.00E+00	0.00E+00	0.00E+00												
1.61E-04	8.21E-05	2.66E-03	1.35E-03												
1.27E-04	4.41E-04	1.17E-04	4.04E-04												
5.05E-04	8.85E-04	4.63E-04	8.11E-04												
1.07E-03	8.44E-04	1.77E-02	1.39E-02												
8.07E-05	9.69E-05	1.33E-03	1.60E-03												
3.08E-04	1.67E-04	2.83E-04	1.53E-04												
3.49E-04	3.97E-04	5.76E-03	6.54E-03												
1.23E-02	4.96E-03	4.56E-04	1.83E-04	1.19E-04	4.77E-05	7.18E-05	2.88E-05	5.96E-05	2.39E-05	8.31E-05	3.34E-05	6.05E-05	2.43E-05	6.43E-05	2.58E-05
0.00E+00	0.00E+00	0.00E+00	0.00E+00												
0.00E+00	0.00E+00	0.00E+00	0.00E+00												
3.72E-04	3.22E-04	3.41E-04	2.95E-04												
6.00E-05	8.21E-05	5.50E-05	7.53E-05												
1.16E-03	1.30E-03	1.06E-03	1.19E-03												
3.40E-03	2.33E-03	3.12E-03	2.14E-03												
1.52E-03	8.53E-04	1.39E-03	7.82E-04												
0.00E+00	0.00E+00	0.00E+00	0.00E+00												
1.23E-03	8.25E-04	1.13E-03	7.56E-04												
0.00E+00	0.00E+00	0.00E+00	0.00E+00												
1.46E-02	5.28E-03	5.39E-04	1.95E-04	1.40E-04	5.08E-05	8.50E-05	3.07E-05	7.05E-05	2.55E-05	9.83E-05	3.55E-05	7.16E-05	2.59E-05	7.61E-05	2.75E-05
0.00E+00	4.74E-06	0.00E+00	4.34E-06												
0.00E+00	2.29E-03	0.00E+00	8.46E-05												
9.15E-05	2.29E-03	1.51E-03	8.46E-05												
1.27E-02	9.42E-05	4.68E-04	1.55E-03												
1.55E-04	4.40E-03	2.56E-03	1.62E-04												
6.22E-04	1.42E-04	1.03E-02	2.34E-03												
7.46E-05	1.11E-03	6.83E-05	1.83E-02												
9.79E-04	1.54E-04	8.98E-04	1.41E-04												
1.24E-03	2.12E-03	1.14E-03	1.94E-03												
0.00E+00	9.22E-04	0.00E+00	8.46E-04												
2.69E-05	0.00E+00	4.44E-04	0.00E+00												
0.00E+00	1.61E-05	0.00E+00	2.66E-04												
3.87E-04	0.00E+00	3.55E-04	0.00E+00												
2.46E-04	4.90E-04	4.05E-03	4.49E-04												
5.52E-02	**3.29E-02**	**5.84E-02**	**5.66E-02**	**2.59E-04**	**9.85E-05**	**1.57E-04**	**5.96E-05**	**1.30E-04**	**4.94E-05**	**1.81E-04**	**6.89E-05**	**1.32E-04**	**5.02E-05**	**1.40E-04**	**5.33E-05**
2.76E-05	**1.65E-05**	**2.92E-05**	**2.83E-05**	**1.30E-07**	**4.93E-08**	**7.84E-08**	**2.98E-08**	**6.51E-08**	**2.47E-08**	**9.07E-08**	**3.45E-08**	**6.61E-08**	**2.51E-08**	**7.02E-08**	**2.67E-08**
4.41E-05		**5.75E-05**		**1.79E-07**		**1.08E-07**		**8.98E-08**		**1.25E-07**		**9.12E-08**		**9.69E-08**	

2008 Generator Hours

HAPS (lbs)																	
Ethylbenzene		Ethylene Dibromide		Methanol		Methylene Chloride		PAH		Styrene		Toluene		Vinyl Chloride		Individual HAP Emissions (lbs)	Generator Emissions (lbs)
8.47E-08		7.27E-08		1.05E-05		1.41E-07		4.82E-07		4.06E-08		1.91E-06		2.45E-08			
								5.74E-07									
								7.24E-07									
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
								4.48E-04	8.61E-05							1.05E-02	2.03E-03
								6.50E-05	0.00E+00							1.34E-02	0.00E+00
								0.00E+00	0.00E+00							0.00E+00	0.00E+00
								4.34E-03	2.21E-03							3.49E-02	1.77E-02
								2.31E-04	8.01E-04							5.44E-03	1.89E-02
								9.18E-04	1.61E-03							2.16E-02	3.79E-02
								2.89E-02	2.27E-02							2.32E-01	1.83E-01
								2.17E-03	2.61E-03							1.75E-02	2.10E-02
								5.60E-04	3.03E-04							1.32E-02	7.14E-03
								9.40E-03	1.07E-02							7.55E-02	8.58E-02
1.16E-04	4.68E-05	1.00E-04	4.02E-05	1.44E-02	5.77E-03	1.93E-04	7.77E-05	6.62E-04	2.66E-04	5.58E-05	2.24E-05	2.62E-03	1.05E-03	3.37E-05	1.35E-05	1.55E-01	6.22E-02
								0.00E+00	0.00E+00							0.00E+00	0.00E+00
								0.00E+00	0.00E+00							0.00E+00	0.00E+00
								6.75E-04	5.85E-04							1.59E-02	1.38E-02
								1.09E-04	1.49E-04							2.57E-03	3.51E-03
								2.10E-03	2.37E-03							4.95E-02	5.58E-02
								6.18E-03	4.23E-03							1.46E-01	9.98E-02
								2.75E-03	1.55E-03							6.49E-02	3.65E-02
								0.00E+00	0.00E+00							0.00E+00	0.00E+00
								2.23E-03	1.50E-03							5.25E-02	3.53E-02
								0.00E+00	0.00E+00							0.00E+00	0.00E+00
1.38E-04	4.98E-05	1.18E-04	4.28E-05	1.70E-02	6.15E-03	2.29E-04	8.27E-05	7.83E-04	2.83E-04	6.61E-05	2.39E-05	3.10E-03	1.12E-03	3.99E-05	1.44E-05	1.83E-01	6.62E-02
								0.00E+00	8.61E-06							0.00E+00	2.03E-04
								0.00E+00	1.23E-04							0.00E+00	2.54E-02
								2.46E-03	1.23E-04							1.98E-02	2.54E-02
								6.79E-04	2.53E-03							1.40E-01	2.04E-02
								4.17E-03	2.36E-04							3.35E-02	4.88E-02
								1.67E-02	3.82E-03							1.35E-01	3.07E-02
								1.35E-04	2.99E-02							3.19E-03	2.40E-01
								1.78E-03	2.80E-04							4.19E-02	6.60E-03
								2.25E-03	3.84E-03							5.30E-02	9.06E-02
								0.00E+00	1.68E-03							0.00E+00	3.95E-02
								7.24E-04	0.00E+00							5.82E-03	0.00E+00
								0.00E+00	4.34E-04							0.00E+00	3.49E-03
								7.03E-04	0.00E+00							1.66E-02	0.00E+00
								6.61E-03	8.89E-04							5.31E-02	2.10E-02
2.54E-04	**9.66E-05**	**2.18E-04**	**8.29E-05**	**3.14E-02**	**1.19E-02**	**4.22E-04**	**1.60E-04**	**9.88E-02**	**9.58E-02**	**1.22E-04**	**4.63E-05**	**5.72E-03**	**2.17E-03**	**7.36E-05**	**2.80E-05**	**1.59E+00**	**1.30E+00**
1.27E-07		**1.09E-07**	**4.15E-08**	**1.57E-05**	**5.96E-06**	**2.11E-07**	**8.02E-08**	**4.94E-05**	**4.79E-05**	**6.10E-08**	**2.32E-08**	**2.86E-06**	**1.09E-06**	**3.68E-08**	**1.40E-08**		
1.27E-07		**1.51E-07**		**2.16E-05**		**2.91E-07**		**9.73E-05**		**8.41E-08**		**3.94E-06**		**5.08E-08**			

TA-3 Power Plant Fuel Use Totals 2008 (Data Entry)

	DATA ENTRY							
	TA-3-22 Power Plant[b] Boiler # 1 (Edgemoor Iron Works, 210 MMBTU/hr)		TA-3-22 Power Plant[b] Boiler # 2 (Edgemoor Iron Works, 210 MMBTU/hr)		TA-3-22 Power Plant[b] Boiler # 3 (Union Iron Works, 210 MMBTU/hr)		Monthly Totals	
Month	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)[a]
January	6,912	328	63,171	0	1,108	0	71.191	328
February	19,497	493	34,960	0	3,618	0	58.075	493
March	617	603	50,578	0	866	384	52.061	987
April	0	0	37,023	219	4,276	0	41.299	219
May	0	0	23,792	0	7,242	331	31.034	331
June	148	55	11,048	0	9,920	0	21.116	55
July	9,607	55	11,565	0	1,085	0	22.257	55
August	568	0	14,574	0	23	0	15.165	0
September	219	55	20,859	0	394	40	21.472	95
October	49	164	12,359	0	23,640	0	36.048	164
November	129	0	26,123	212	21,713	0	47.965	212
December	8,068	0	1,813	0	57,018	0	66.899	0
Annual Totals:	45,814	1,753	307,865	431	130,903	755	484.582	2939
Jan. - June	27,174	1,479	220,572	219	27,030	715	274.776	2413
July - Dec.	18,640	274	87,293	212	103,873	40	209.806	526

Month	12-Mo. Rolling Total Natural Gas (MMscf)	12-Mo. Rolling Total Fuel Oil (gallons)
January	447.5	83343
February	446.5	83489
March	446.9	83420
April	446.2	83036
May	442.6	4903
June	463.7	4958
July	485.9	5013
August	485.7	5013
September	481.4	4670
October	480.0	4012
November	482.2	3652
December	484.6	2939

Permit Limits:	2000 MMscf	500,000 gallons

For References, See "Emission Summary Sheet"

Data Reviewed By: _____

Emissions by Boiler 2008

Pollutant Criteria	Emission Factor		Unit Emissions				Unit Emissions				Unit Emissions			
			Boiler #1, Stack 032				Boiler #2, Stack 033				Boiler #3, Stack 034			
	Natural Gas (lb/MMscf)[a]	Fuel Oil[f] Pounds/ 1000 gal	Annual Natl Gas (tons)	Annual Fuel Oil (tons)	Jan-June (gas&oil) (tons)	July-Dec (gas&oil) (tons)	Annual Natl Gas (tons)	Annual Fuel Oil (tons)	Jan-June (gas&oil) (tons)	July-Dec (gas&oil) (tons)	Annual Natl Gas (tons)	Annual Fuel Oil (tons)	Jan-June (gas&oil) (tons)	July-Dec (gas&oil) (tons)
Nox[c]	58	8.64	1.329	0.008	0.794	0.542	8.928	0.002	6.398	2.532	3.796	0.003	0.787	3.012
Sox[g]	0.6	7.4	0.014	0.006	0.014	0.007	0.092	0.002	0.067	0.027	0.039	0.003	0.011	0.031
PM[d]	7.6	3.3	0.174	0.003	0.106	0.071	1.170	0.001	0.839	0.332	0.497	0.001	0.104	0.395
PM-10[d]	7.6	2.3	0.174	0.002	0.105	0.071	1.170	0.000	0.838	0.332	0.497	0.001	0.104	0.395
PM-2.5[d]	7.6	1.55	0.174	0.001	0.104	0.071	1.170	0.000	0.838	0.332	0.497	0.001	0.103	0.395
CO[e]	40	5.0	0.916	0.004	0.547	0.373	6.157	0.001	4.412	1.746	2.618	0.002	0.542	2.078
VOC	5.5	0.2	0.126	0.0002	0.075	0.051	0.847	0.0000	0.607	0.240	0.360	0.000	0.074	0.286
HAPs[m]														
Arsenic	0.0002	0.00055	4.58E-06	4.80E-07	3.12E-06	1.94E-06	3.08E-05	1.18E-07	2.21E-05	8.79E-06	1.31E-05	2.07E-07	2.90E-06	1.04E-05
Benzene	0.0021	-	4.81E-05	0.0	2.85E-05	1.96E-05	3.23E-04	0.0	2.32E-04	9.17E-05	1.37E-04	0.0	2.84E-05	1.09E-04
Beryllium	0.000012	0.00041	2.75E-07	3.60E-07	4.67E-07	1.68E-07	1.85E-06	8.86E-08	1.37E-06	5.67E-07	7.85E-07	1.55E-07	3.09E-07	6.31E-07
Cadmium	0.0011	0.00041	2.52E-05	3.60E-07	1.52E-05	1.03E-05	1.69E-04	8.86E-08	1.21E-04	4.81E-05	7.20E-05	1.55E-07	1.50E-05	5.71E-05
Chromium	0.0014	0.00041	3.21E-05	3.60E-07	1.93E-05	1.31E-05	2.16E-04	8.86E-08	1.54E-04	6.11E-05	9.16E-05	1.55E-07	1.91E-05	7.27E-05
Cobalt	0.000084	-	1.92E-06	0.0	1.14E-06	7.83E-07	1.29E-05	0.0	9.26E-06	3.67E-06	5.50E-06	0.0	1.14E-06	4.36E-06
Dichlorobenzene	0.0012	-	2.75E-05	0.0	1.63E-05	1.12E-05	1.85E-04	0.0	1.32E-04	5.24E-05	7.85E-05	0.0	1.62E-05	6.23E-05
Formaldehyde	0.075	0.048	1.72E-03	4.21E-05	1.05E-03	7.06E-04	1.15E-02	1.03E-05	8.28E-03	3.28E-03	4.91E-03	1.81E-05	1.03E-03	3.90E-03
Hexane	1.8	-	4.12E-02	0.0	2.45E-02	1.68E-02	2.77E-01	0.0	1.99E-01	7.86E-02	1.18E-01	0.0	2.43E-02	9.35E-02
Lead	0.0005	0.00123	1.15E-05	1.08E-06	7.71E-06	4.83E-06	7.70E-05	2.66E-07	5.53E-05	2.20E-05	3.27E-05	4.65E-07	7.20E-06	2.60E-05
Mangenese	0.00038	0.00082	8.70E-06	7.20E-07	5.77E-06	3.65E-06	5.85E-05	1.77E-07	4.20E-05	1.67E-05	2.49E-05	3.10E-07	5.43E-06	1.98E-05
Mercury[f]	0.00026	0.00041	5.96E-06	3.60E-07	3.84E-06	2.48E-06	4.00E-05	8.86E-08	2.87E-05	1.14E-05	1.70E-05	1.55E-07	3.66E-06	1.35E-05
Napthalene	0.00061	-	1.40E-05	0.0	8.29E-06	5.69E-06	9.39E-05	0.0	6.73E-05	2.66E-05	3.99E-05	0.0	8.24E-06	3.17E-05
Nickel	0.0021	0.00041	4.81E-05	3.60E-07	2.88E-05	1.96E-05	3.23E-04	8.86E-08	2.32E-04	9.17E-05	1.37E-04	1.55E-07	2.85E-05	1.09E-04
POM	0.000088	0.0033	2.02E-06	2.89E-06	3.64E-06	1.27E-06	1.35E-05	7.11E-07	1.01E-05	4.19E-06	5.76E-06	1.25E-06	2.37E-06	4.64E-06
Selenium	0.000024	0.00206	5.50E-07	1.80E-06	1.85E-06	5.05E-07	3.69E-06	4.43E-07	2.87E-06	1.27E-06	1.57E-06	7.76E-07	1.06E-06	1.29E-06
Toluene	0.0034	-	7.79E-05	0.0	4.62E-05	3.17E-05	5.23E-04	0.0	3.75E-04	1.48E-04	2.23E-04	0.0	4.60E-05	1.77E-04
TOTAL HAPS			4.33E-02	5.08E-05	2.57E-02	1.76E-02	2.91E-01	1.25E-05	2.08E-01	8.24E-02	1.24E-01	2.19E-05	2.55E-02	9.81E-02

For References, see Emission Summary.

Data Reviewed By: _____

12 Month Rolling Emissions 2008 (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	1.838	1.796	13.339	9.159	1.239	0.442
February	1.834	1.793	13.308	9.138	1.236	0.442
March	1.836	1.794	13.322	9.148	1.237	0.442
April	1.832	1.791	13.298	9.131	1.235	0.440
May	1.690	1.687	12.856	8.864	1.218	0.151
June	1.770	1.768	13.469	9.286	1.276	0.157
July	1.855	1.852	14.114	9.731	1.337	0.164
August	1.854	1.852	14.108	9.727	1.336	0.164
September	1.837	1.835	13.981	9.640	1.324	0.162
October	1.831	1.829	13.938	9.610	1.320	0.159
November	1.838	1.837	13.999	9.653	1.326	0.158
December	1.846	1.845	14.066	9.699	1.333	0.156

Monthly Emission Totals (Tons)

Pollutant	TSP	PM10	NOx	CO	VOC	SO_2
January	0.271	0.271	2.066	1.425	0.196	0.023
February	0.221	0.221	1.686	1.163	0.160	0.019
March	0.199	0.199	1.514	1.044	0.143	0.019
April	0.157	0.157	1.199	0.827	0.114	0.013
May	0.118	0.118	0.901	0.622	0.085	0.011
June	0.080	0.080	0.613	0.422	0.058	0.007
July	0.085	0.085	0.646	0.445	0.061	0.007
August	0.058	0.058	0.440	0.303	0.042	0.005
September	0.082	0.082	0.623	0.430	0.059	0.007
October	0.137	0.137	1.046	0.721	0.099	0.011
November	0.183	0.183	1.392	0.960	0.132	0.015
December	0.254	0.254	1.940	1.338	0.184	0.020
Annual Totals	1.846	1.845	14.066	9.699	1.333	0.156

Data Reviewed By: _____

Emission Summary TA-3 Power Plant 2008

Pollutant Criteria	Emission Factor: Natural Gas (lb/MMscf)[a]	Emission Factor: Fuel Oil[f] (lb/1000 gal.)	Annual Emissions (Natural Gas + Fuel Oil) (tons)	Jan-June Emissions (Natural Gas + Fuel Oil) (tons)	July-Dec Emissions (Natural Gas + Fuel Oil) (tons)	Reference: Gas	Reference: Oil
NOx	58	8.64	14.066	7.979	6.087	(c)	(c)
SOx	0.6	7.4	0.156	0.091	0.065	(a)(j)	(g)(j)
PM	7.6	3.3	1.846	1.048	0.798	(d)	(d)
PM-10	7.6	2.3	1.845	1.047	0.798	(d)	(d)
PM-2.5	7.6	1.55	1.844	1.046	0.798	(d)	(d)
CO	40	5.0	9.699	5.502	4.197	(b)	(g)
VOC	5.5	0.2	1.333	0.756	0.577	(b)	(i)
HAPs[n]							
Arsenic	0.0002	0.00055	4.93E-05	2.81E-05	2.11E-05	(a)	(k)
Benzene	0.0021	-	5.09E-04	2.89E-04	2.20E-04	(c)	
Beryllium	0.000012	0.00041	3.51E-06	2.14E-06	1.37E-06	(c)	(k)
Cadmium	0.0011	0.00041	2.67E-04	1.52E-04	1.16E-04	(c)	(k)
Chromium	0.0014	0.00041	3.40E-04	1.93E-04	1.47E-04	(c)	(k)
Cobalt	0.000084	-	2.04E-05	1.15E-05	8.81E-06	(c)	
Dichlorobenzene	0.0012	-	2.91E-04	1.65E-04	1.26E-04	(c)	
Formaldehyde	0.075	0.048	1.82E-02	1.04E-02	7.88E-03	(c)	(k)
Hexane	1.8	-	4.36E-01	2.47E-01	1.89E-01	(c)	
Lead	0.0005	0.001233	1.23E-04	7.02E-05	5.28E-05	(c)	(k)
Manganese	0.00038	0.000822	9.33E-05	5.32E-05	4.01E-05	(c)	(k)
Mercury	0.00026	0.000411	6.36E-05	3.62E-05	2.74E-05	(i)(c)	(i)(k)
Napthalene	0.00061	-	1.48E-04	8.38E-05	6.40E-05	(c)	
Nickel	0.0021	0.000411	5.09E-04	2.89E-04	2.20E-04	(c)	(k)
POM	0.000088	0.0033	2.62E-05	1.61E-05	1.01E-05	(c)	(k)
Selenium	0.000024	0.002055	8.83E-06	5.78E-06	3.06E-06	(c)	(k)
Toluene	0.0034	-	8.24E-04	4.67E-04	3.57E-04	(c)	
TOTAL HAPS			4.58E-01	2.60E-01	1.98E-01		
EPCRA 313				lbs./year			
Lead	0.0005	0.00123	1.23E-04	0.246		(c)	(i)(k)
Sulfuric Acid	0.60	0.285	1.46E-01	291.59		(e)(j)	(e)(h)
Mercury	0.00026	0.00041	6.36E-05	0.127		(c)	(i)(k)
PACs	8.69E-07	1.65E-05	2.35E-07	4.70E-04		(f)(l)	(f)(l)
Benzo(g,h,i) perylene	1.20E-06	2.26E-06	2.94E-07	5.88E-04		(i)(k)(c)	(f)
Zinc	-	0.00055	8.05E-07	1.61E-03			(k)

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 (FWO-UI). Values are provided in a monthly data deliverable from KSL.

(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 (SO_2 {142S} + SO_3 {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(%)= 0.05

(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

(j) Assume all SO_3 is converted to sulfuric acid.

(k) AP-42, tables 1.3-9 and 1.3-10, September 1998.

(l) EPCRA PAC Guidance Document, Table 2-3.

Reviewed By/Date:

Attachment B

2008 Annual Emissions Inventory Submittal to NMED

Los Alamos
NATIONAL LABORATORY
EST.1943

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

Date: April 28, 2009
Refer to: ENV-DO:09-007

Ms. Rhonda Payne
New Mexico Environment Department
Air Quality Bureau
1301 Siler Rd. Bld. B
Santa Fe, NM 87507

SUBJECT: IDEA ID NO. 856 – LOS ALAMOS NATIONAL LABORATORY 2008 EMISSIONS INVENTORY REPORT REQUIRED UNDER 20.2.73 NMAC

Dear Ms. Payne:

Enclosed is the 2008 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 and has been submitted before New Mexico Environmental Department's revised deadline of May 1st. Additionally, this report satisfies LANL's reporting requirement under 20.2.87 NMAC, Greenhouse Gas Emissions Reporting.

We have updated the Excel worksheets that you provided, using the guidance in your instructions for the *2008 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 2008 are similar to emissions reported last year. Additionally, please note the following for our inventory for 2008:

- Three emission units were added this year: two 20 KW Kohler 20EORZ generators (EQPT 119, EQPT 120) at TA-33 and a 225 KW Caterpillar 3306 generator (EQPT 122) also at TA-33.

- Per NMED request, we have included direct CO_2 emissions from stationary combustion sources in tons per year. Additionally, we included a separate Excel workbook as an attachment that includes example calculations for all unique subject item types.

- Two Equipment IDs were added to account for the boilers and generators not required on the Emissions Inventory report, but required for the Greenhouse Gas Emissions report. These Equipment IDs do not include criteria pollutant emissions. EQPT 139 represents approximately 40 generators and EQPT 140 represents approximately 160 boilers.

- 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 0.52 mrem during 2007. For 2008, this offsite dose is estimated to be <1 mrem. A final dose for 2008 will be reported to EPA in June 2009.

This submittal includes a diskette (Attachment 1) containing electronic copies of the updated spreadsheets and a signed certification statement (Attachment 2).

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:tav

Enc: a/s

Cy:
M. Mallory, PADOPS, w/o enc., A102
C. Cantwell, 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-DO File
ENV-EAQ Emissions Inventory File
ENV-EAQ File

LA-UR-09-02567

Approved for public release; distribution is unlimited.

Title:	2008 Emissions Inventory Report
Author(s):	Walter Whetham
Intended for:	Rhonda Payne, New Mexico Environmental Department

Los Alamos
NATIONAL LABORATORY
EST. 1943

Form 836 (7/06)

2008 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-eighth day of April, 2009, upon my oath of affirmation, before a notary of the State of New Mexico.

SIGNATURE (Responsible Company Official)	DATE	PHONE
	4/28/09	505-667-2211

Victoria A. George	Division Leader	LANS
PRINTED NAME	TITLE	COMPANY

Subscribed and sworn to before me on this 28th day of April, 2009.

My authorization as a Notary of the State of New Mexico expires on the 10th day of April, ~~20~~ 2010.

NOTARY'S SIGNATURE	DATE
	4-28-09

NOTARY'S PRINTED NAME	NOTARY SEAL
Taylor Valdez	

856	Los Alamos National Laboratory	350280001	TA-35-213	Be Machining Ta35 Bldg213	AQB-State/Local ID	006	Not Applicable
856	Los Alamos National Laboratory	350280001	TA-35-213	Be Machining Ta35 Bldg213	Actual Percent of Operation During Winter	25	percent of time
856	Los Alamos National Laboratory	350280001	TA-35-213	Be Machining Ta35 Bldg213	Actual Percent of Operation During Spring	25	percent of time
856	Los Alamos National Laboratory	350280001	TA-35-213	Be Machining Ta35 Bldg213	Actual Percent of Operation During Summer	25	percent of time
856	Los Alamos National Laboratory	350280001	TA-35-213	Be Machining Ta35 Bldg213	Actual Percent of Operation During Fall	25	percent of time
856	Los Alamos National Laboratory	350280001	TA-35-213	Be Machining Ta35 Bldg213	Actual Operating Time in Hours Per Day	5	h/d
856	Los Alamos National Laboratory	350280001	TA-35-213	Be Machining Ta35 Bldg213	Actual Operating Time in Days Per Week	5	d/week
856	Los Alamos National Laboratory	350280001	TA-35-213	Be Machining Ta35 Bldg213	Actual Operating Time in Weeks Per Year	52	weeks/y
856	Los Alamos National Laboratory	350280001	TA-35-213	Be Machining Ta35 Bldg213	Actual Operating Time in Hours Per Year	1300	h/y
856	Los Alamos National Laboratory	350280001	TA-35-213	Be Machining Ta35 Bldg213	Actual Input Materials Processed	516	Metal
							Industrial Processes, Fabricated Metal Products,
856	Los Alamos National Laboratory	350280001	TA-35-213	Be Machining Ta35 Bldg213	Standard Classification (SCC) Code	30903004	Machining Operations, Specify Material**
856	Los Alamos National Laboratory	350280001	TA-35-213	Be Machining Ta35 Bldg213	Actual Beryllium in tons per year	1.98E-08	tons/y
856	Los Alamos National Laboratory	350280001	TA-35-213	Be Machining Ta35 Bldg213	Actual Beryllium calculation method	es	Estimate
					Beryllium Actual total efficiency controlled by Fabric Filter-		
856	Los Alamos National Laboratory	350280001	TA-35-213	Be Machining Ta35 Bldg213	Medium Temp ie 180F<T<250F	99.95	percent
856	Los Alamos National Laboratory	350280001	TA-35-213	Be Machining Ta35 Bldg213	Actual Particulate Matter (total suspended) in tons per year	1.98E-08	tons/y
856	Los Alamos National Laboratory	350280001	TA-35-213	Be Machining Ta35 Bldg213	Actual Particulate Matter (total suspended) calculation method	2	Engineer Calculation
					Particulate Matter (total suspended)Actual total efficiency		
856	Los Alamos National Laboratory	350280001	TA-35-213	Be Machining Ta35 Bldg213	controlled by Fabric Filter-Medium Temp ie 180F<T<250F	99.95	percent

856	Los Alamos National Laboratory	350280001	TA-3-141	Be Machining Ta3 Bldg 141	AQB-State/Local ID	007	Not Applicable
856	Los Alamos National Laboratory	350280001	TA-3-141	Be Machining Ta3 Bldg 141	Actual Percent of Operation During Winter	25	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-141	Be Machining Ta3 Bldg 141	Actual Percent of Operation During Spring	25	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-141	Be Machining Ta3 Bldg 141	Actual Percent of Operation During Summer	25	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-141	Be Machining Ta3 Bldg 141	Actual Percent of Operation During Fall	25	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-141	Be Machining Ta3 Bldg 141	Actual Operating Time in Hours Per Day	24	h/d
856	Los Alamos National Laboratory	350280001	TA-3-141	Be Machining Ta3 Bldg 141	Actual Operating Time in Days Per Week	7	d/week
856	Los Alamos National Laboratory	350280001	TA-3-141	Be Machining Ta3 Bldg 141	Actual Operating Time in Weeks Per Year	52	weeks/y
856	Los Alamos National Laboratory	350280001	TA-3-141	Be Machining Ta3 Bldg 141	Actual Operating Time in Hours Per Year	8760	h/y
856	Los Alamos National Laboratory	350280001	TA-3-141	Be Machining Ta3 Bldg 141	Actual Input Materials Processed	516	Metal
856	Los Alamos National Laboratory	350280001	TA-3-141	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	TA-3-141	Be Machining Ta3 Bldg 141	Actual Beryllium in tons per year	7.71E-09	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-141	Be Machining Ta3 Bldg 141	Actual Beryllium calculation method	1	Continuous Emissions Monitoring
856	Los Alamos National Laboratory	350280001	TA-3-141	Be Machining Ta3 Bldg 141	BerylliumActual total efficiency controlled by Fabric Filter-Medium Temp ie 180F<T<250F	99.95	percent
856	Los Alamos National Laboratory	350280001	TA-3-141	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	TA-3-141	Be Machining Ta3 Bldg 141	Actual Particulate Matter (total suspended) calculation method	es	Estimate
856	Los Alamos National Laboratory	350280001	TA-3-141	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	TA-55-PF4 (a)	Machining Operations: Beryllium machining, weld dressing and metallography	AQB-StateLocal ID	010	Not Applicable				3
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (a)	Machining Operations: Beryllium machining, weld dressing and metallography	Actual Percent of Operation During Winter	25	percent of time		1G		4
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (a)	Machining Operations: Beryllium machining, weld dressing and metallography	Actual Percent of Operation During Spring	25	percent of time		1G		5
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (a)	Machining Operations: Beryllium machining, weld dressing and metallography	Actual Percent of Operation During Summer	25	percent of time		1G		6
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (a)	Machining Operations: Beryllium machining, weld dressing and metallography	Actual Percent of Operation During Fall	25	percent of time		1G		7
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (a)	Machining Operations: Beryllium machining, weld dressing and metallography	Actual Operating Time in Hours Per Day	8	h/d		23		8
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (a)	Machining Operations: Beryllium machining, weld dressing and metallography	Actual Operating Time in Days Per Week	7	d/week		X5		9
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (a)	Machining Operations: Beryllium machining, weld dressing and metallography	Actual Operating Time in Weeks Per Year	52	weeks/y		ZD		10
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (a)	Machining Operations: Beryllium machining, weld dressing and metallography	Actual Operating Time in Hours Per Year	2912	h/y		HR		11
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (a)	Machining Operations: Beryllium machining, weld dressing and metallography	Actual Input Materials Processed	516	Metal				17
							Industrial Processes, Fabricated Metal Products,				
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (a)	Machining Operations: Beryllium machining, weld dressing and metallography	Standard Classification (SCC) Code	30903004	Machining Operations, Specify Material**				20
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (a)	Machining Operations: Beryllium machining, weld dressing and metallography	Actual Aluminum in tons per year	3.21E-06	tons/y		TY		21
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (a)	Machining Operations: Beryllium machining, weld dressing and metallography	Actual Aluminum calculation method	ap	EPA emission factors (e.g. AP-42)				22
					AluminumActual total efficiency controlled by						
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (a)	Machining Operations: Beryllium machining, weld dressing and metallography	Fabric Filter-Medium Temp ie 180F<T<250F	99.95	percent		1G		23
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (a)	Machining Operations: Beryllium machining, weld dressing and metallography	Actual Beryllium in tons per year	3.21E-06	tons/y		TY		24
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (a)	Machining Operations: Beryllium machining, weld dressing and metallography	Actual Beryllium calculation method	ap	EPA emission factors (e.g. AP-42)				25
					BeryllumActual total efficiency controlled by						
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (a)	Machining Operations: Beryllium machining, weld dressing and metallography	Fabric Filter-Medium Temp ie 180F<T<250F	99.95	percent		1G		26

856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	AOB-StateLocal ID			031			Not Applicable
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Percent of Operation During Winter			25			percent of time
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Percent of Operation During Spring			25			percent of time
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Percent of Operation During Summer			25			percent of time
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Percent of Operation During Fall			25			percent of time
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Operating Time in Hours Per Day			24			hd
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Operating Time in Days Per Week			7			d/week
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Operating Time in Weeks Per Year			52			weeks/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Operating Time in Hours Per Year			8760			hy
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Fuel Consumption						MMSCFy
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Fuel Heating Value						MMBTU/MMSCF
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Fuel Type			209			Natural Gas
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Percent Sulfur of Fuel						percent
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Percent Ash of Fuel						percent
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Input Materials Processed						
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Percent Carbon						percent
											Industrial Processes, Photographic Equipment/Health Care/Laboratories,
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Standard Classification (SCC) Code			31503001			Laboratories, Bench Scale Reagents: Research
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Acetaldehyde; (Ethyl aldehyde) in tons per year			0			tons/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Acetaldehyde; (Ethyl aldehyde) calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Acetonitrile; (Methyl cyanide) in tons per year				0	tons/y	
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Acetonitrile; (Methyl cyanide) calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Acetophenone in tons per year				0	tons/y	
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Acetophenone calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Acrylamide in tons per year			0			tons/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Acrylamide calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Acrylic acid in tons per year			0			tons/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Acrylic acid calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Acrylonitrile in tons per year			0			tons/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Acrylonitrile calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Ammonia in tons per year				0	tons/y	
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Ammonia calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Aniline in tons per year				0	tons/y	
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Aniline calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Antimony in tons per year			0			tons/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Antimony calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Antimony compounds in tons per year				0	tons/y	
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Antimony compounds calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Arsenic Compounds in tons per year				0	tons/y	
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Arsenic Compounds calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Benzene in tons per year				0	tons/y	
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Benzene calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Benzyl Chloride in tons per year			0			tons/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Benzyl Chloride calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Biphenyl in tons per year			0			tons/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Biphenyl calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Bromoform; (Tribromomethane) in tons per year			0			tons/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Bromoform; (Tribromomethane) calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Butadiene(1,3)-in tons per year			0			tons/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Butadiene(1,3)-calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Cadmium in tons per year			0			tons/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Cadmium calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Cadmium compounds in tons per year				0	tons/y	
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Cadmium compounds calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Carbon Disulfide in tons per year				0	tons/y	
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Carbon Disulfide calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Carbon tetrachloride; (Tetrachloromethane) in tons per year				0	tons/y	
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Carbon tetrachloride; (Tetrachloromethane) calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Carbonyl sulfide in tons per year			0			tons/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Carbonyl sulfide calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Catechol (Pyrocatechol) in tons per year				0	tons/y	
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Catechol (Pyrocatechol) calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Chlorine in tons per year				0	tons/y	
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Chlorine calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Chloroacetic Acid in tons per year			0			tons/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Chloroacetic Acid calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Chlorobenzene(Phenyl Chloride) in tons per year				0	tons/y	
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Chlorobenzene(Phenyl Chloride) calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Chloroform; (Trichloromethane) in tons per year				0	tons/y	
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Chloroform; (Trichloromethane) calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Chromium in tons per year			0			tons/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Chromium calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Chromium compounds, other in tons per year				0	tons/y	
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Chromium compounds, other calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Cobalt in tons per year			0			tons/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Cobalt calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Cobalt Compounds in tons per year				0	tons/y	
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Cobalt Compounds calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Cresol(m-) (Methylphenol, 3-) in tons per year			0			tons/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Cresol(m-) (Methylphenol, 3-) calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Cumene in tons per year			0			tons/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Cumene calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Cyanide in tons per year			0			tons/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Cyanide calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Cyanide compounds in tons per year				0	tons/y	
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Cyanide compounds calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Dibutylphthalate; (Di-n-butyl phthalate) in tons per year				0	tons/y	
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Dibutylphthalate; (Di-n-butyl phthalate) calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Dichloroethane(1,2-); (EDC); (Ethylene dichloride) in tons per year				0	tons/y	
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Dichloroethane(1,2-); (EDC); (Ethylene dichloride) calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Diethanolamine in tons per year			0			tons/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Diethanolamine calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Dimethyl Sulfate in tons per year			0			tons/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Dimethyl Sulfate calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Dimethyl formamide in tons per year				0	tons/y	
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Dimethyl formamide calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Dimethylhydrazine(1,1-) in tons per year			0			tons/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Dimethylhydrazine(1,1-) calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Dioxane(1,4-) (1,4-Diethyleneoxide) in tons per year				0	tons/y	
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Dioxane(1,4-) (1,4-Diethyleneoxide) calculation method			mb			Material balance
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Epichlorohydrin; (1-Chloro-2,3-epoxypropane) in tons per year			0			tons/y
856	Los Alamos National Laboratory	35028D001	031	R & D Activities - Lalvwide	Actual Epichlorohydrin; (1-Chloro-2,3-epoxypropane) calculation method			mb			Material balance

856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Epoxybutane(1,2-) (1,2-Butylene oxide) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Epoxybutane(1,2-) (1,2-Butylene oxide) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Ethyl Acrylate in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Ethyl Acrylate calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Ethyl chloride; (Chloroethane) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Ethyl chloride; (Chloroethane) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Ethylene Glycol in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Ethylene Glycol calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Ethylene dibromide; (EDB); (1,2-Dibromoethane) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Ethylene dibromide; (EDB); (1,2-Dibromoethane) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Fine mineral fibers in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Fine mineral fibers calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Formaldehyde in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Formaldehyde calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Glycol Ethers in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Glycol Ethers calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Hexachlorocyclopentadiene in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Hexachlorocyclopentadiene calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Hexamethylphosphoramide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Hexamethylphosphoramide calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Hexane in tons per year	0.6	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Hexane calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Hydrazine in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Hydrazine calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Hydrochloric acid (HCl) in tons per year	1.0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Hydrochloric acid (HCl) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Hydrofluoric Acid; (Hydrogen fluoride) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Hydrofluoric Acid; (Hydrogen fluoride) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Hydroquinone in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Hydroquinone calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Iodomethane (Methyl iodide) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Iodomethane (Methyl iodide) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Lead Compounds in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Lead Compounds calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Manganese in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Manganese calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Manganese compounds in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Manganese compounds calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Mercury compounds in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Mercury compounds calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Methanol (Methyl alcohol) in tons per year	0.5	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Methanol (Methyl alcohol) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Methyl Ethyl Ketone; (MEK); (2-Butanone) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Methyl Ethyl Ketone; (MEK); (2-Butanone) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Methyl Methacrylate in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Methyl Methacrylate calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Methyl bromide; (Bromomethane) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Methyl bromide; (Bromomethane) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Methyl chloride; (Chloromethane) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Methyl chloride; (Chloromethane) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Methyl isobutyl ketone; (Hexone); (4-Methyl-2-pentanone) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Methyl isobutyl ketone; (Hexone); (4-Methyl-2-pentanone) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Methyl tert butyl ether in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Methyl tert butyl ether calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Methylene chloride; (Dichloromethane) in tons per year	0.6	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Methylene chloride; (Dichloromethane) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Methylenediphenyl isocyanate; (MDI); (Diphenylmethane diisocyanate) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Methylenediphenyl isocyanate; (MDI); (Diphenylmethane diisocyanate) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Naphthalene in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Naphthalene calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Nickel in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Nickel calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Nickel compounds in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Nickel compounds calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Nitrobenzene; (nitro-Benzene) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Nitrobenzene; (nitro-Benzene) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Nitrophenol(4-); (p-Nitrophenol) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Nitrophenol(4-); (p-Nitrophenol) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual PAHs: Total Naphthalene plus monomethylnaphthalenes in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual PAHs: Total Naphthalene plus monomethylnaphthalenes calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual PCE; (Perchloroethylene); (Tetrachloroethylene); (Tetrachloroethene) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual PCE; (Perchloroethylene); (Tetrachloroethylene); (Tetrachloroethene) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Phenol in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Phenol calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Phenylenediamine(p-); (Phenylenediamine) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Phenylenediamine(p-); (Phenylenediamine) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Phosphine in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Phosphine calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Phosphorus in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Phosphorus calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Phthalic anhydride in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Phthalic anhydride calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Polycyclic Organic Matter in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Polycyclic Organic Matter calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Propylene oxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Propylene oxide calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Selenium in tons per year	0	tons/y
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	tons/y
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	tons/y
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	tons/y
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	tons/y
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	tons/y
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	tons/y
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	tons/y
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	4.5	tons/y
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	tons/y
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	tons/y
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	tons/y
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	tons/y
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	tons/y
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	tons/y
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	9.0	tons/y
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	tons/y
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	tons/y
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	tons/y
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); (Xylol) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Xylenes (total); (Xylol) calculation method	mb	Material balance
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual Zirconium in tons per year	0	tons/y
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; (Di-2-ethylhexyl phthalate); (DEHP) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	031	R & D Activities - Labwide	Actual bis(2-ethylhexyl) phthalate; (Di-2-ethylhexyl phthalate); (DEHP) calculation method	mb	Material balance

856	Los Alamos National Laboratory	350280001	TA-3-29	Removed-Chemistry & Metallurgy Research Facility	A QB-State/Local ID	007	Not Applicable	
856	Los Alamos National Laboratory	350280001	TA-3-29	Removed-Chemistry & Metallurgy Research Facility	Actual Percent of Operation During Winter	0	percent of time	
856	Los Alamos National Laboratory	350280001	TA-3-29	Removed-Chemistry & Metallurgy Research Facility	Actual Percent of Operation During Spring	0	percent of time	
856	Los Alamos National Laboratory	350280001	TA-3-29	Removed-Chemistry & Metallurgy Research Facility	Actual Percent of Operation During Summer	0	percent of time	
856	Los Alamos National Laboratory	350280001	TA-3-29	Removed-Chemistry & Metallurgy Research Facility	Actual Percent of Operation During Fall	0	percent of time	
856	Los Alamos National Laboratory	350280001	TA-3-29	Removed-Chemistry & Metallurgy Research Facility	Actual Operating Time in Hours Per Day	0	h/d	
856	Los Alamos National Laboratory	350280001	TA-3-29	Removed-Chemistry & Metallurgy Research Facility	Actual Operating Time in Days Per Week	0	d/week	
856	Los Alamos National Laboratory	350280001	TA-3-29	Removed-Chemistry & Metallurgy Research Facility	Actual Operating Time in Weeks Per Year	0	weeks/y	
856	Los Alamos National Laboratory	350280001	TA-3-29	Removed-Chemistry & Metallurgy Research Facility	Actual Operating Time in Hours Per Year	0	h/y	
856	Los Alamos National Laboratory	350280001	TA-3-29	Removed-Chemistry & Metallurgy Research Facility	Actual Input Materials Processed			
856	Los Alamos National Laboratory	350280001	TA-3-29	Removed-Chemistry & Metallurgy Research Facility	Actual Percent Carbon		percent	
856	Los Alamos National Laboratory	350280001	TA-3-29	Removed-Chemistry & Metallurgy Research Facility	Standard Classification (SCC) Code	30903004	Industrial Processes, Fabricated Metal Products, Machining Operations, Specify Material**	

856	Los Alamos National Laboratory	350280001	Agency Interest	TA-33 Tech Rev to modify recordkeeping requirement	Standard Industrial Classification (SIC) Code	9711	National security	
856	Los Alamos National Laboratory	350280001	Agency Interest	TA-33 Tech Rev to modify recordkeeping requirement	North American Industry Classification (NAIC) Code	92811	National Security	

856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Percent of Operation During Winter	20	percent of time	1G			4
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Percent of Operation During Spring	30	percent of time	1G			5
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Percent of Operation During Summer	30	percent of time	1G			6
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Percent of Operation During Fall	20	percent of time	1G			7
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Operating Time in Hours Per Day	12	h/d	23			8
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Operating Time in Days Per Week	7	d/week	X5			9
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Operating Time in Weeks Per Year	52	weeks/y	ZD			10
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Operating Time in Hours Per Year	4368	h/y	HR			11
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Fuel Consumption						12
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Fuel Heating Value						13
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Fuel Type						14
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Percent Sulfur of Fuel						15
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Percent Ash of Fuel						16
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Input Materials Processed	15	Wood				17
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Percent Carbon						19
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Standard Classification (SCC) Code	30703096	Industrial Processes, Pulp and Paper and Wood Products, Miscellaneous Wood Working Operations,				20
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Particulate Matter (10 microns or less) in tons per year	0.016	tons/y	TY			21
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Particulate Matter (10 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)				22
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Particulate Matter (10 microns or less)Actual total efficiency controlled by Single Cyclone	65	percent	1G			23
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Particulate Matter (2.5 microns or less) in tons per year	0.008	tons/y	TY			24
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Particulate Matter (2.5 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)				25
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Particulate Matter (2.5 microns or less)Actual total efficiency controlled by Single Cyclone	45	percent	1G			26
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Particulate Matter (total suspended) in tons per year	0.017	tons/y	TY			27
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Particulate Matter (total suspended) calculation method	ap	EPA emission factors (e.g., AP-42)				28
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Particulate Matter (total suspended)Actual total efficiency controlled by Single Cyclone	95	percent	1G			29
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Volatile Organic Compounds (VOC) in tons per year	0	tons/y	TY			30
856	Los Alamos National Laboratory	35028001	TA-3-38	Carpenter Shop - General Construction	Actual Volatile Organic Compounds (VOC) calculation method	2	Engineer Calculation				31

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		h/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		h/y
856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Actual Fuel Consumption			
856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Actual Fuel Heating Value			
856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Actual Fuel Type			
856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Actual Percent Sulfur of Fuel			
856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Actual Percent Ash of Fuel			
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	Actual Percent Carbon			
								Industrial Processes, Pulp and Paper and Wood Products, Miscellaneous Wood Working
856	Los Alamos National Laboratory	350280001	TA-15-563	Carpenter Shop - Test Stands	Standard Classification (SCC) Code	30703096		Operations, Sanding/Planning 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	0.027		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	0.013		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	0.03		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	35028001	TA-3-66	Sigma Facility-electroplating/metallography	AQB-State/Local ID	011		Not Applicable
856	Los Alamos National Laboratory	35028001	TA-3-66	Sigma Facility-electroplating/metallography	Actual Percent of Operation During Winter			percent of time
856	Los Alamos National Laboratory	35028001	TA-3-66	Sigma Facility-electroplating/metallography	Actual Percent of Operation During Spring			percent of time
856	Los Alamos National Laboratory	35028001	TA-3-66	Sigma Facility-electroplating/metallography	Actual Percent of Operation During Summer			percent of time
856	Los Alamos National Laboratory	35028001	TA-3-66	Sigma Facility-electroplating/metallography	Actual Percent of Operation During Fall			percent of time
856	Los Alamos National Laboratory	35028001	TA-3-66	Sigma Facility-electroplating/metallography	Actual Operating Time in Hours Per Day			h/d
856	Los Alamos National Laboratory	35028001	TA-3-66	Sigma Facility-electroplating/metallography	Actual Operating Time in Days Per Week			d/week
856	Los Alamos National Laboratory	35028001	TA-3-66	Sigma Facility-electroplating/metallography	Actual Operating Time in Weeks Per Year			weeks/y
856	Los Alamos National Laboratory	35028001	TA-3-66	Sigma Facility-electroplating/metallography	Actual Operating Time in Hours Per Year			h/y
								Industrial Processes, Fabricated Metal Products, Abrasive Cleaning
856	Los Alamos National Laboratory	35028001	TA-3-66	Sigma Facility-electroplating/metallography	Standard Classification (SCC) Code	30900303		of Metal Parts, Polishing
856	Los Alamos National Laboratory	35028001	TA-3-66	Sigma Facility-electroplating/metallography	Actual Aluminum in tons per year			tons/y
856	Los Alamos National Laboratory	35028001	TA-3-66	Sigma Facility-electroplating/metallography	Actual Aluminum calculation method			Estimate
856	Los Alamos National Laboratory	35028001	TA-3-66	Sigma Facility-electroplating/metallography	AluminumÂ actual total efficiency controlled by Fabric Filter-Medium Temp ie 180F<T<250F			percent
856	Los Alamos National Laboratory	35028001	TA-3-66	Sigma Facility-electroplating/metallography	Actual Beryllium in tons per year			tons/y
856	Los Alamos National Laboratory	35028001	TA-3-66	Sigma Facility-electroplating/metallography	Actual Beryllium calculation method			Estimate
856	Los Alamos National Laboratory	35028001	TA-3-66	Sigma Facility-electroplating/metallography	BerylliumÂ actual total efficiency controlled by Fabric Filter-Medium Temp ie 180F<T<250F			percent

856	Los Alamos National Laboratory	350280001	TA-48-1, BS-1	Boiler (Ta-48-1) Bs-1	Actual Carbon Dioxide Vented in tons per year	0			tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-1	Boiler (Ta-48-1) Bs-1	Actual Carbon Dioxide Vented calculation method				
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-1	Boiler (Ta-48-1) Bs-1	Actual Carbon Monoxide in tons per year		0.36		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-1	Boiler (Ta-48-1) Bs-1	Actual Carbon Monoxide calculation method	ap			EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-1	Boiler (Ta-48-1) Bs-1	Actual Hexane in tons per year		0.008		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-1	Boiler (Ta-48-1) Bs-1	Actual Hexane calculation method	ap			EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-1	Boiler (Ta-48-1) Bs-1	Actual Nitrogen Dioxide in tons per year		0.43		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-1	Boiler (Ta-48-1) Bs-1	Actual Nitrogen Dioxide calculation method	ap			EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-1	Boiler (Ta-48-1) Bs-1	Actual Particulate Matter (10 microns or less) in tons per year		0.033		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-1	Boiler (Ta-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	TA-48-1, BS-1	Boiler (Ta-48-1) Bs-1	Actual Particulate Matter (2.5 microns or less) in tons per year		0.033		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-1	Boiler (Ta-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	TA-48-1, BS-1	Boiler (Ta-48-1) Bs-1	Actual Particulate Matter (total suspended) in tons per year		0.033		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-1	Boiler (Ta-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	TA-48-1, BS-1	Boiler (Ta-48-1) Bs-1	Actual Sulfur Dioxide in tons per year		0.003		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-1	Boiler (Ta-48-1) Bs-1	Actual Sulfur Dioxide calculation method	ap			EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-1	Boiler (Ta-48-1) Bs-1	Actual Volatile Organic Compounds (VOC) in tons per year		0.024		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-1	Boiler (Ta-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	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	AQB-State/Local ID		016		Not Applicable
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Percent of Operation During Winter		40		percent of time
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Percent of Operation During Spring		20		percent of time
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Percent of Operation During Summer		0		percent of time
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Percent of Operation During Fall		40		percent of time
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Operating Time in Hours Per Day		24		h/d
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Operating Time in Days Per Week		7		d/week
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Operating Time in Weeks Per Year		33		weeks/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Operating Time in Hours Per Year		5544		h/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Fuel Consumption		8.6		MMSCF/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Fuel Heating Value		1049		MMBTU/MMSCF
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Fuel Type		209		Natural Gas
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Percent Sulfur of Fuel		0.006		percent
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Percent Ash of Fuel		0		percent
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Input Materials Processed		209		Natural Gas
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Percent Carbon		68		percent
									External Combustion Boilers, Electric Generation, Natural Gas, Boilers <100 Million Btu/hr except Tangential
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Standard Classification (SCC) Code		10300602		Btu/hr except Tangential
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Carbon Dioxide in tons per year		479		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Carbon Dioxide calculation method		pr		Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Carbon Dioxide Combusted in tons per year		479		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Carbon Dioxide Combusted calculation method		pr		Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Carbon Dioxide Vented in tons per year		0		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Carbon Dioxide Vented calculation method				
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Carbon Monoxide in tons per year		0.36		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	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	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Hexane in tons per year		0.008		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Hexane calculation method		ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Nitrogen Dioxide in tons per year		0.43		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	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	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Particulate Matter (10 microns or less) in tons per year		0.033		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	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	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Particulate Matter (2.5 microns or less) in tons per year		0.033		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	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	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Particulate Matter (total suspended) in tons per year		0.033		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	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	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Sulfur Dioxide in tons per year		0.003		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	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	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Volatile Organic Compounds (VOC) in tons per year		0.024		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS2	Boiler (Ta-48-1) Bs-2	Actual Volatile Organic Compounds (VOC) calculation method		ap		EPA emission factors (e.g., AP-42)

856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	AQB-State/Local ID	017		Not Applicable
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Percent of Operation During Winter	40		percent of time
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Percent of Operation During Spring	20		percent of time
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Percent of Operation During Fall	40		percent of time
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Operating Time in Hours Per Day		24	h/d
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Operating Time in Days Per Week	7		d/week
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Operating Time in Weeks Per Year	33		weeks/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Operating Time in Hours Per Year		5544	h/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Fuel Consumption		11.5	MM SCF/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Fuel Heating Value		1049	MM BTU/MM SCF
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Fuel Type	209		Natural Gas
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Percent Sulfur of Fuel		0.006	percent
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Percent Ash of Fuel	0		percent
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Input Materials Processed	209		Natural Gas
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Percent Carbon		68	percent
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Standard Classification (SCC) Code	10300602	External Combustion Boilers, Electric Generation, Natural Gas, Boilers <100 Million Btu/hr except Tangential	
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Carbon Dioxide in tons per year	641		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Carbon Dioxide calculation method	pr	Other Publication Reference	
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Carbon Dioxide Combusted in tons per year	641		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Carbon Dioxide Combusted calculation method	pr	Other Publication Reference	
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Carbon Dioxide Vented in tons per year	0		tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Carbon Dioxide Vented calculation method			
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Carbon Monoxide in tons per year		0.48	tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	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	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Formaldehyde in tons per year		0.0004	tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Formaldehyde calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Hexane in tons per year		0.01	tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Hexane calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Nitrogen Dioxide in tons per year		0.58	tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	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	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Particulate Matter (10 microns or less) in tons per year		0.044	tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	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	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Particulate Matter (2.5 microns or less) in tons per year		0.044	tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	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	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Particulate Matter (total suspended) in tons per year		0.044	tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Particulate Matter (total suspended) calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Sulfur Dioxide in tons per year		0.003	tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	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	TA-48-1, BS-6	Boiler (Ta-48-1) Bs-6	Actual Volatile Organic Compounds (VOC) in tons per year		0.032	tons/y
856	Los Alamos National Laboratory	350280001	TA-48-1, BS-6	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	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	AQB-State/Local ID	018		Not Applicable
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Percent of Operation During Winter	40		percent of time
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Percent of Operation During Spring	20		percent of time
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Percent of Operation During Summer	0		percent of time
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Percent of Operation During Fall	40		percent of time
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Operating Time in Hours Per Day		24	h/d
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Operating Time in Days Per Week	7		d/week
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Operating Time in Weeks Per Year	33		weeks/y
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Operating Time in Hours Per Year		5544	h/y
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Fuel Consumption		11.48	MMSCF/y
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Fuel Heating Value		1049	MMBTU/MMSCF
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Fuel Type	209		Natural Gas
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Percent Sulfur of Fuel		0.006	percent
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Percent Ash of Fuel	0		percent
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Input Materials Processed	209		Natural Gas
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Percent Carbon		68	percent
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Standard Classification (SCC) Code	1030602		External Combustion Boilers, Electric Generation, Natural Gas, Boilers <100 Million Btu/hr except Tangential
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Carbon Dioxide in tons per year	638.8		tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Carbon Dioxide calculation method	pr		Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Carbon Dioxide Combusted in tons per year	638.8		tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Carbon Dioxide Combusted calculation method	pr		Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Carbon Dioxide Vented in tons per year	0		tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Carbon Dioxide Vented calculation method			
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Carbon Monoxide in tons per year		0.48	tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	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	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Formaldehyde in tons per year		0.0004	tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Formaldehyde calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Hexane in tons per year		0.01	tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Hexane calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Nitrogen Dioxide in tons per year		0.57	tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	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	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Particulate Matter (10 microns or less) in tons per year		0.044	tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	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	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Particulate Matter (2.5 microns or less) in tons per year		0.044	tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	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	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Particulate Matter (total suspended) in tons per year		0.044	tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	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	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Sulfur Dioxide in tons per year		0.003	tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	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	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Volatile Organic Compounds (VOC) in tons per year		0.032	tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, BHW-1	Boiler (Ta-53-365) Bhw-1	Actual Volatile Organic Compounds (VOC) calculation method	ap		EPA emission factors (e.g., AP-42)

856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	AQB -State/Local ID	019		Not Applicable
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Percent of Operation During Winter	40		percent of time
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Percent of Operation During Spring	20		percent of time
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Percent of Operation During Summer	0		percent of time
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Percent of Operation During Fall	40		percent of time
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Operating Time in Hours Per Day		24	h/d
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Operating Time in Days Per Week	7		d/week
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Operating Time in Weeks Per Year	33		weeks/y
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Operating Time in Hours Per Year		5544	h/y
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Fuel Consumption		11.5	MMSCF/y
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Fuel Heating Value		1049	MMBTU/MMSCF
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Fuel Type	209		Natural Gas
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Percent Sulfur of Fuel		0.006	percent
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Percent Ash of Fuel	0		percent
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Input Materials Processed	209		Natural Gas
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Percent Carbon		68	percent
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Standard Classification (SCC) Code	10300602		External Combustion Boilers, Electric Generation, Natural Gas, Boilers <100 Million Btu/hr except Tangential
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Carbon Dioxide in tons per year		638.8	tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Carbon Dioxide calculation method	pr		Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Carbon Dioxide Combusted in tons per year		638.8	tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Carbon Dioxide Combusted calculation method	pr		Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Carbon Dioxide Vented in tons per year	0		tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Carbon Dioxide Vented calculation method			
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Carbon Monoxide in tons per year		0.48	tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Carbon Monoxide calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Formaldehyde in tons per year		0.0004	tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Formaldehyde calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Hexane in tons per year		0.01	tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Hexane calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Nitrogen Dioxide in tons per year		0.57	tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Nitrogen Dioxide calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Particulate Matter (10 microns or less) in tons per year		0.044	tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Particulate Matter (10 microns or less) calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Particulate Matter (2.5 microns or less) in tons per year		0.044	tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-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	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Particulate Matter (total suspended) in tons per year		0.044	tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Particulate Matter (total suspended) calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Sulfur Dioxide in tons per year		0.003	tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Sulfur Dioxide calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Volatile Organic Compounds (VOC) in tons per year		0.032	tons/y
856	Los Alamos National Laboratory	350280001	TA-53-365, B HW2	Boiler (Ta-53-365) B hw-2	Actual Volatile Organic Compounds (VOC) calculation method	ap		EPA emission factors (e.g., AP-42)

856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	AQB-State/Local ID			020			Not Applicable
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Percent of Operation During Winter			40			percent of time
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Percent of Operation During Spring			20			percent of time
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Percent of Operation During Summer			0			percent of time
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Percent of Operation During Fall			40			percent of time
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Operating Time in Hours Per Day				24	h/d	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Operating Time in Days Per Week			7		d/week	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Operating Time in Weeks Per Year			33		weeks/y	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Operating Time in Hours Per Year				5544	h/y	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Fuel Consumption				8.6	MMSCF/y	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Fuel Heating Value				1049	MMBTU/MMSCF	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Fuel Type			209		Natural Gas	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Percent Sulfur of Fuel				0.006	percent	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Percent Ash of Fuel			0		percent	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Input Materials Processed			209		Natural Gas	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Percent Carbon				68	percent	
											External Combustion Boilers, Electric Generation, Natural Gas, Boilers <100
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Standard Classification (SCC) Code			10300602		Million Btu/hr except Tangential	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Carbon Dioxide in tons per year				479	tons/y	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Carbon Dioxide calculation method			pr		Other Publication Reference	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Carbon Dioxide Combusted in tons per year				479	tons/y	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Carbon Dioxide Combusted calculation method			pr		Other Publication Reference	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Carbon Dioxide Vented in tons per year			0		tons/y	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Carbon Dioxide Vented calculation method						
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Carbon Monoxide in tons per year				0.36	tons/y	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	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	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Hexane in tons per year				0.008	tons/y	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Hexane calculation method			ap		EPA emission factors (e.g., AP-42)	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Nitrogen Dioxide in tons per year				0.43	tons/y	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	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	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Particulate Matter (10 microns or less) in tons per year				0.033	tons/y	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	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	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Particulate Matter (2.5 microns or less) in tons per year				0.033	tons/y	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	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	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Particulate Matter (total suspended) in tons per year				0.033	tons/y	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	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	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Sulfur Dioxide in tons per year				0.003	tons/y	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	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	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Volatile Organic Compounds (VOC) in tons per year				0.024	tons/y	
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-1	Boiler (Ta-59-1) Bhw-1	Actual Volatile Organic Compounds (VOC) calculation method			ap		EPA emission factors (e.g., AP-42)	

856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	AQB-State/Local ID		021	Not Applicable
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Percent of Operation During Winter		40	percent of time
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Percent of Operation During Spring		20	percent of time
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Percent of Operation During Summer		0	percent of time
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Percent of Operation During Fall		40	percent of time
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Operating Time in Hours Per Day	24		h/d
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Operating Time in Days Per Week		7	d/week
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Operating Time in Weeks Per Year		33	weeks/y
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Operating Time in Hours Per Year	5544		h/y
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Fuel Consumption	8.6		MMSCF/y
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Fuel Heating Value	1049		MMBTU/MMSCF
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Fuel Type		209	Natural Gas
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Percent Sulfur of Fuel	0.006		percent
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Percent Ash of Fuel		0	percent
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Input Materials Processed		209	Natural Gas
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Percent Carbon	68		percent
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-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	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Carbon Dioxide in tons per year	479		tons/y
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Carbon Dioxide calculation method		pr	Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Carbon Dioxide Combusted in tons per year	479		tons/y
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Carbon Dioxide Combusted calculation method		pr	Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Carbon Dioxide Vented in tons per year	0		tons/y
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Carbon Dioxide Vented calculation method			
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Carbon Monoxide in tons per year	0.36		tons/y
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Carbon Monoxide calculation method		ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Hexane in tons per year	0.008		tons/y
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Hexane calculation method		ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Nitrogen Dioxide in tons per year	0.43		tons/y
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Nitrogen Dioxide calculation method		ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Particulate Matter (10 microns or less) in tons per year	0.033		tons/y
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-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	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Particulate Matter (2.5 microns or less) in tons per year	0.033		tons/y
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-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	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Particulate Matter (total suspended) in tons per year	0.033		tons/y
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-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	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Sulfur Dioxide in tons per year	0.003		tons/y
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Sulfur Dioxide calculation method		ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-59-1) Bhw-2	Actual Volatile Organic Compounds (VOC) in tons per year	0.024		tons/y
856	Los Alamos National Laboratory	350280001	TA-59-1,BHW-2	Boiler (Ta-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	026	Removed-Rock Crusher	AQB-State/Local ID	026	Not Applicable
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Percent of Operation During Winter	0	percent of time
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Percent of Operation During Spring	0	percent of time
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Percent of Operation During Summer	0	percent of time
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Percent of Operation During Fall	0	percent of time
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Operating Time in Hours Per Day	0	h/d
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Operating Time in Days Per Week	0	d/week
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Operating Time in Weeks Per Year	0	weeks/y
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Operating Time in Hours Per Year	0	h/y
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Fuel Consumption		MM SCF/y
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Input Materials Processed		
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Percent Carbon		percent
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Standard Classification (SCC) Code	30502501	Mineral Products, Construction Sand and Gravel, Total Plant: General
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Carbon Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Carbon Dioxide calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Carbon Dioxide Combusted in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Carbon Dioxide Combusted calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Carbon Dioxide Vented in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Carbon Dioxide Vented calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Carbon Monoxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Carbon Monoxide calculation method	es	Estimate
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Carbon MonoxideActual total efficiency controlled by Water Sprays		percent
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Nitrogen Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Nitrogen Dioxide calculation method	es	Estimate
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Nitrogen DioxideActual total efficiency controlled by Water Sprays		percent
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Particulate Matter (10 microns or less) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Particulate Matter (10 microns or less) calculation method	es	Estimate
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Particulate Matter (10 microns or less)Actual total efficiency controlled by Water Sprays		percent
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Particulate Matter (total suspended) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Particulate Matter (total suspended) calculation method	es	Estimate
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Particulate Matter (total suspended)Actual total efficiency controlled by Water Sprays		percent
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Sulfur Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Sulfur Dioxide calculation method	es	Estimate
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Sulfur DioxideActual total efficiency controlled by Water Sprays		percent
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Volatile Organic Compounds (VOC) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Actual Volatile Organic Compounds (VOC) calculation method	es	Estimate
856	Los Alamos National Laboratory	350280001	026	Removed-Rock Crusher	Volatile Organic Compounds (VOC)Actual total efficiency controlled by Water Sprays		percent

							027		Not Applicable
856	Los Alamos National Laboratory	350280001	027	Removed- Paper Shredder	AQB-State/Local ID				
856	Los Alamos National Laboratory	350280001	027	Removed- Paper Shredder	Actual Percent of Operation During Winter			0	percent of time
856	Los Alamos National Laboratory	350280001	027	Removed- Paper Shredder	Actual Percent of Operation During Spring			0	percent of time
856	Los Alamos National Laboratory	350280001	027	Removed- Paper Shredder	Actual Percent of Operation During Summer			0	percent of time
856	Los Alamos National Laboratory	350280001	027	Removed- Paper Shredder	Actual Percent of Operation During Fall			0	percent of time
856	Los Alamos National Laboratory	350280001	027	Removed- Paper Shredder	Actual Operating Time in Hours Per Day			0	h/d
856	Los Alamos National Laboratory	350280001	027	Removed- Paper Shredder	Actual Operating Time in Days Per Week			0	d/week
856	Los Alamos National Laboratory	350280001	027	Removed- Paper Shredder	Actual Operating Time in Weeks Per Year			0	weeks/y
856	Los Alamos National Laboratory	350280001	027	Removed- Paper Shredder	Actual Operating Time in Hours Per Year			0	h/y
856	Los Alamos National Laboratory	350280001	027	Removed- Paper Shredder	Actual Input Materials Processed				Paper
856	Los Alamos National Laboratory	350280001	027	Removed- Paper Shredder	Actual Percent Carbon				percent
									Industrial Processes, Pulp and Paper and Wood Products, Miscellaneous Paper Products, Other Not Classified
856	Los Alamos National Laboratory	350280001	027	Removed- Paper Shredder	Standard Classification (SCC) Code				
856	Los Alamos National Laboratory	350280001	027	Removed- Paper Shredder	Actual Particulate Matter (10 microns or less) in tons per year				tons/y
856	Los Alamos National Laboratory	350280001	027	Removed- Paper Shredder	Actual Particulate Matter (10 microns or less) calculation method				Engineer Calculation
856	Los Alamos National Laboratory	350280001	027	Removed- Paper Shredder	Particulate Matter (10 microns or less)Actual total efficiency controlled by Single Cyclone, Baghouse				percent
856	Los Alamos National Laboratory	350280001	027	Removed- Paper Shredder	Actual Particulate Matter (2.5 microns or less) in tons per year				tons/y
856	Los Alamos National Laboratory	350280001	027	Removed- Paper Shredder	Actual Particulate Matter (2.5 microns or less) calculation method				Engineer Calculation
856	Los Alamos National Laboratory	350280001	027	Removed- Paper Shredder	Particulate Matter (2.5 microns or less)Actual total efficiency controlled by Single Cyclone, Baghouse				percent
856	Los Alamos National Laboratory	350280001	027	Removed- Paper Shredder	Actual Particulate Matter (total suspended) in tons per year				tons/y
856	Los Alamos National Laboratory	350280001	027	Removed- Paper Shredder	Actual Particulate Matter (total suspended) calculation method				Engineer Calculation
856	Los Alamos National Laboratory	350280001	027	Removed- Paper Shredder	Particulate Matter (total suspended)Actual total efficiency controlled by Single Cyclone, Baghouse				percent

856	Los Alamos National Laboratoy	350280001	TA-55-DG-1	Degreaser - Cold Ultrasonic Bath Ta-55-4	AQB-State/Local ID	028		Not Applicable
856	Los Alamos National Laboratoy	350280001	TA-55-DG-1	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual Percent of Operation During Winter	25		percent of time
856	Los Alamos National Laboratoy	350280001	TA-55-DG-1	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual Percent of Operation During Spring	25		percent of time
856	Los Alamos National Laboratoy	350280001	TA-55-DG-1	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual Percent of Operation During Summer	25		percent of time
856	Los Alamos National Laboratoy	350280001	TA-55-DG-1	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual Percent of Operation During Fall	25		percent of time
856	Los Alamos National Laboratoy	350280001	TA-55-DG-1	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual Operating Time in Hours Per Day	4		h/d
856	Los Alamos National Laboratoy	350280001	TA-55-DG-1	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual Operating Time in Days Per Week	1		d/week
856	Los Alamos National Laboratoy	350280001	TA-55-DG-1	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual Operating Time in Weeks Per Year	52		weeks/y
856	Los Alamos National Laboratoy	350280001	TA-55-DG-1	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual Operating Time in Hours Per Year	208		h/y
856	Los Alamos National Laboratoy	350280001	TA-55-DG-1	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual Input Materials Processed	952		Solvents: All
856	Los Alamos National Laboratoy	350280001	TA-55-DG-1	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual Percent Carbon			percent
856	Los Alamos National Laboratoy	350280001	TA-55-DG-1	Degreaser - Cold Ultrasonic Bath Ta-55-4	Standard Classification (SCC) Code	40100255		Petroleum and Solvent Evaporation, Organic Solvent Evaporation, Degreasing, Trichloroethylene: General Degreasing Units
856	Los Alamos National Laboratoy	350280001	TA-55-DG-1	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual TCE; (Trichloroethylene); (Trichloroethene) in tons per year		0.015	tons/y
856	Los Alamos National Laboratoy	350280001	TA-55-DG-1	Degreaser - Cold Ultrasonic Bath Ta-55-4	Actual TCE; (Trichloroethylene); (Trichloroethene) calculation method	mb		Material balance

856	Los Alamos National Laboratory	350280001	TA-55-DG-2	Degreaser - Cold Ultrasonic Bath Ta-46-24	AQB-State/Local ID	029		Not Applicable
856	Los Alamos National Laboratory	350280001	TA-55-DG-2	Degreaser - Cold Ultrasonic Bath Ta-46-24	Actual Percent of Operation During Winter	0		percent of time
856	Los Alamos National Laboratory	350280001	TA-55-DG-2	Degreaser - Cold Ultrasonic Bath Ta-46-24	Actual Percent of Operation During Spring	0		percent of time
856	Los Alamos National Laboratory	350280001	TA-55-DG-2	Degreaser - Cold Ultrasonic Bath Ta-46-24	Actual Percent of Operation During Summer	0		percent of time
856	Los Alamos National Laboratory	350280001	TA-55-DG-2	Degreaser - Cold Ultrasonic Bath Ta-46-24	Actual Percent of Operation During Fall	0		percent of time
856	Los Alamos National Laboratory	350280001	TA-55-DG-2	Degreaser - Cold Ultrasonic Bath Ta-46-24	Actual Operating Time in Hours Per Day	0		h/d
856	Los Alamos National Laboratory	350280001	TA-55-DG-2	Degreaser - Cold Ultrasonic Bath Ta-46-24	Actual Operating Time in Days Per Week	0		d/week
856	Los Alamos National Laboratory	350280001	TA-55-DG-2	Degreaser - Cold Ultrasonic Bath Ta-46-24	Actual Operating Time in Weeks Per Year	0		weeks/y
856	Los Alamos National Laboratory	350280001	TA-55-DG-2	Degreaser - Cold Ultrasonic Bath Ta-46-24	Actual Operating Time in Hours Per Year	0		h/y
856	Los Alamos National Laboratory	350280001	TA-55-DG-2	Degreaser - Cold Ultrasonic Bath Ta-46-24	Actual Input Materials Processed			
856	Los Alamos National Laboratory	350280001	TA-55-DG-2	Degreaser - Cold Ultrasonic Bath Ta-46-24	Actual Percent Carbon			percent
							40100255	Petroleum and Solvent Evaporation, Organic Solvent Evaporation, Degreasing, Trichloroethylene: General Degreasing Units
856	Los Alamos National Laboratory	350280001	TA-55-DG-2	Degreaser - Cold Ultrasonic Bath Ta-46-24	Standard Classification (SCC) Code			
856	Los Alamos National Laboratory	350280001	TA-55-DG-2	Degreaser - Cold Ultrasonic Bath Ta-46-24	Actual TCE; (Trichloroethylene); (Trichloroethene) in tons per year		0	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-DG-2	Degreaser - Cold Ultrasonic Bath Ta-46-24	Actual TCE; (Trichloroethylene); (Trichloroethene) calculation method		es	Estimate
856	Los Alamos National Laboratory	350280001	TA-55-DG-2	Degreaser - Cold Ultrasonic Bath Ta-46-24	TCE; (Trichloroethylene); (Trichloroethene)Actual total efficiency controlled by Uncontrolled			percent

856	Los Alamos National Laboratory	350280001	TA-46-24	Degreaser - Inhouse Cold Batch Ta-46-24	AQB-State/Local ID	030		Not Applicable
856	Los Alamos National Laboratory	350280001	TA-46-24	Degreaser - Inhouse Cold Batch Ta-46-24	Actual Percent of Operation During Winter	0		percent of time
856	Los Alamos National Laboratory	350280001	TA-46-24	Degreaser - Inhouse Cold Batch Ta-46-24	Actual Percent of Operation During Spring	0		percent of time
856	Los Alamos National Laboratory	350280001	TA-46-24	Degreaser - Inhouse Cold Batch Ta-46-24	Actual Percent of Operation During Summer	0		percent of time
856	Los Alamos National Laboratory	350280001	TA-46-24	Degreaser - Inhouse Cold Batch Ta-46-24	Actual Percent of Operation During Fall	0		percent of time
856	Los Alamos National Laboratory	350280001	TA-46-24	Degreaser - Inhouse Cold Batch Ta-46-24	Actual Operating Time in Hours Per Day	0		h/d
856	Los Alamos National Laboratory	350280001	TA-46-24	Degreaser - Inhouse Cold Batch Ta-46-24	Actual Operating Time in Days Per Week	0		d/week
856	Los Alamos National Laboratory	350280001	TA-46-24	Degreaser - Inhouse Cold Batch Ta-46-24	Actual Operating Time in Weeks Per Year	0		weeks/y
856	Los Alamos National Laboratory	350280001	TA-46-24	Degreaser - Inhouse Cold Batch Ta-46-24	Actual Operating Time in Hours Per Year	0		h/y
856	Los Alamos National Laboratory	350280001	TA-46-24	Degreaser - Inhouse Cold Batch Ta-46-24	Actual Input Materials Processed			
856	Los Alamos National Laboratory	350280001	TA-46-24	Degreaser - Inhouse Cold Batch Ta-46-24	Actual Percent Carbon			percent
								Petroleum and Solvent Evaporation, Organic Solvent Evaporation, Degreasing, Trichloroethylene:
856	Los Alamos National Laboratory	350280001	TA-46-24	Degreaser - Inhouse Cold Batch Ta-46-24	Standard Classification (SCC) Code	40100255		General Degreasing Units
856	Los Alamos National Laboratory	350280001	TA-46-24	Degreaser - Inhouse Cold Batch Ta-46-24	Actual TCE; (Trichloroethylene); (Trichloroethene) in tons per year	0		tons/y
856	Los Alamos National Laboratory	350280001	TA-46-24	Degreaser - Inhouse Cold Batch Ta-46-24	Actual TCE; (Trichloroethylene); (Trichloroethene) calculation method	es		Estimate
856	Los Alamos National Laboratory	350280001	TA-46-24	Degreaser - Inhouse Cold Batch Ta-46-24	TCE; (Trichloroethylene); (Trichloroethene)Actual total efficiency controlled by Uncontrolled			percent

856	Los Alamos National Laboratory	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	AQB-State/Local ID	032			Not Applicable
856	Los Alamos National Laboratory	35028001	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	35028001	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	35028001	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	35028001	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	35028001	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	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Operating Time in Days Per Week	7			d/week
856	Los Alamos National Laboratory	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Operating Time in Weeks Per Year	52			weeks/y
856	Los Alamos National Laboratory	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Operating Time in Hours Per Year	8760			h/y
856	Los Alamos National Laboratory	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Fuel Consumption		45.8		MMSCFy
856	Los Alamos National Laboratory	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Fuel Heating Value		1049		MMBTU/MMSCF
856	Los Alamos National Laboratory	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Fuel Type	209			Natural Gas
856	Los Alamos National Laboratory	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Percent Sulfur of Fuel		0.006		percent
856	Los Alamos National Laboratory	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Percent Ash of Fuel	0			percent
856	Los Alamos National Laboratory	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Input Materials Processed	209			Natural Gas
856	Los Alamos National Laboratory	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Percent Carbon		68		percent
856	Los Alamos National Laboratory	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Standard Classification (SCC) Code	10100601			External Combustion Boilers, Electric Generation, Natural Gas, Boilers > 100 Million Btu/hr except Tangential
856	Los Alamos National Laboratory	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Dioxide in tons per year		2550		tons/y
856	Los Alamos National Laboratory	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Dioxide calculation method	pr			Other Publication Reference
856	Los Alamos National Laboratory	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Dioxide Combusted in tons per year		2550		tons/y
856	Los Alamos National Laboratory	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Dioxide Combusted calculation method	pr			Other Publication Reference
856	Los Alamos National Laboratory	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Dioxide Vented in tons per year	0			tons/y
856	Los Alamos National Laboratory	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Dioxide Vented calculation method				
856	Los Alamos National Laboratory	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Monoxide in tons per year		0.92		tons/y
856	Los Alamos National Laboratory	35028001	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	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Formaldehyde in tons per year		0.002		tons/y
856	Los Alamos National Laboratory	35028001	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	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Hexane in tons per year		0.04		tons/y
856	Los Alamos National Laboratory	35028001	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	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Nitrogen Dioxide in tons per year		1.33		tons/y
856	Los Alamos National Laboratory	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Nitrogen Dioxide calculation method	st			Actual stack test
856	Los Alamos National Laboratory	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Nitrogen DioxideActual total efficiency controlled by Flue Gas Recirculation	64			percent
856	Los Alamos National Laboratory	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Particulate Matter (10 microns or less) in tons per year		0.174		tons/y
856	Los Alamos National Laboratory	35028001	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	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Particulate Matter (2.5 microns or less) in tons per year		0.174		tons/y
856	Los Alamos National Laboratory	35028001	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	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Particulate Matter (total suspended) in tons per year		0.174		tons/y
856	Los Alamos National Laboratory	35028001	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	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Sulfur Dioxide in tons per year		0.014		tons/y
856	Los Alamos National Laboratory	35028001	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	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Toluene; (Methyl benzene) in tons per year		0.00008		tons/y
856	Los Alamos National Laboratory	35028001	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	35028001	TA-3-22-1	Power Plant Boiler (pph, Natural Gas)	Actual Volatile Organic Compounds (VOC) in tons per year		0.13		tons/y
856	Los Alamos National Laboratory	35028001	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)

856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, Natural Gas)	Actual Percent Sulfur of Fuel		0.006	percent		
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, Natural Gas)	Actual Percent Ash of Fuel	0		percent		
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, Natural Gas)	Actual Input Materials Processed	209		Natural Gas		
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, Natural Gas)	Actual Percent Carbon		68	percent		
										External Combustion Boilers, Electric Generation, Natural Gas, Boilers > 100
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, Natural Gas)	Standard Classification (SCC) Code	10100601		Million Btu/hr except Tangential		
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Dioxide in tons per year	17135.7		tons/y		
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Dioxide calculation method	pr		Other Publication Reference		
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Dioxide Combusted in tons per year	17135.7		tons/y		
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Dioxide Combusted calculation method	pr		Other Publication Reference		
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Dioxide Vented in tons per year	0		tons/y		
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Dioxide Vented calculation method					
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Monoxide in tons per year		6.16	tons/y		
856	Los Alamos National Laboratory	350280001	TA-3-22-2	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-3-22-2	Power Plant Boiler (pph, Natural Gas)	Actual Formaldehyde in tons per year		0.01	tons/y		
856	Los Alamos National Laboratory	350280001	TA-3-22-2	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-3-22-2	Power Plant Boiler (pph, Natural Gas)	Actual Hexane in tons per year		0.28	tons/y		
856	Los Alamos National Laboratory	350280001	TA-3-22-2	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-3-22-2	Power Plant Boiler (pph, Natural Gas)	Actual Nitrogen Dioxide in tons per year		8.93	tons/y		
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, Natural Gas)	Actual Nitrogen Dioxide calculation method	st		Actual stack test		
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, Natural Gas)	Nitrogen DioxideActual total efficiency controlled by Flue Gas Recirculation	64		percent		
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, Natural Gas)	Actual Particulate Matter (10 microns or less) in tons per year		1.17	tons/y		
856	Los Alamos National Laboratory	350280001	TA-3-22-2	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-3-22-2	Power Plant Boiler (pph, Natural Gas)	Actual Particulate Matter (2.5 microns or less) in tons per year		1.17	tons/y		
856	Los Alamos National Laboratory	350280001	TA-3-22-2	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-3-22-2	Power Plant Boiler (pph, Natural Gas)	Actual Particulate Matter (total suspended) in tons per year		1.17	tons/y		
856	Los Alamos National Laboratory	350280001	TA-3-22-2	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-3-22-2	Power Plant Boiler (pph, Natural Gas)	Actual Sulfur Dioxide in tons per year		0.09	tons/y		
856	Los Alamos National Laboratory	350280001	TA-3-22-2	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-3-22-2	Power Plant Boiler (pph, Natural Gas)	Actual Volatile Organic Compounds (VOC) in tons per year		0.85	tons/y		
856	Los Alamos National Laboratory	350280001	TA-3-22-2	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 Boiler (pph, Natural Gas)	AQB-State/Local ID	034			Not Applicable
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Percent of Operation During Winter	30			percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Percent of Operation During Spring	20			percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Percent of Operation During Summer	20			percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Percent of Operation During Fall	30			percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Operating Time in Hours Per Day	24			h/d
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant 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 Boiler (pph, Natural Gas)	Actual Operating Time in Weeks Per Year	52			weeks/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Operating Time in Hours Per Year	8760			h/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Fuel Consumption		130.9		MMSCF/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Fuel Heating Value		1049		MMBTU/MMSCF
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Fuel Type	209			Natural Gas
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Percent Sulfur of Fuel		0.006		percent
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Percent Ash of Fuel	0			percent
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Input Materials Processed	209			Natural Gas
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Percent Carbon		68		percent
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Standard Classification (SCC) Code	10100601			External Combustion Boilers, Electric Generation, Natural Gas, Boilers > 100 Million Btu/hr except Tangential
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Dioxide in tons per year		7286.1		tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Dioxide calculation method	pr			Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Dioxide Combusted in tons per year		7286.1		tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Dioxide Combusted calculation method	pr			Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Dioxide Vented in tons per year	0			tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Dioxide Vented calculation method				
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Carbon Monoxide in tons per year		2.62		tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	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-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Formaldehyde in tons per year		0.005		tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	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-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Hexane in tons per year		0.12		tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	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-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Nitrogen Dioxide in tons per year		3.8		tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Nitrogen Dioxide calculation method	st			Actual stack test
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Nitrogen DioxideActual total efficiency controlled by Flue Gas Recirculation	64			percent
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Particulate Matter (10 microns or less) in tons per year		0.5		tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	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-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Particulate Matter (2.5 microns or less) in tons per year		0.5		tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	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-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Particulate Matter (total suspended) in tons per year		0.5		tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	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-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Sulfur Dioxide in tons per year		0.039		tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	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-3-22-3	Power Plant Boiler (pph, Natural Gas)	Actual Volatile Organic Compounds (VOC) in tons per year		0.36		tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	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	T-3-026	Tank (No. 2 Fuel Oil)	AQB-State/Local ID	035		Not Applicable
856	Los Alamos National Laboratory	350280001	T-3-026	Tank (No. 2 Fuel Oil)	Actual Percent of Operation During Winter		25	percent of time
856	Los Alamos National Laboratory	350280001	T-3-026	Tank (No. 2 Fuel Oil)	Actual Percent of Operation During Spring		25	percent of time
856	Los Alamos National Laboratory	350280001	T-3-026	Tank (No. 2 Fuel Oil)	Actual Percent of Operation During Summer		25	percent of time
856	Los Alamos National Laboratory	350280001	T-3-026	Tank (No. 2 Fuel Oil)	Actual Percent of Operation During Fall		25	percent of time
856	Los Alamos National Laboratory	350280001	T-3-026	Tank (No. 2 Fuel Oil)	Actual Operating Time in Hours Per Day	24		h/d
856	Los Alamos National Laboratory	350280001	T-3-026	Tank (No. 2 Fuel Oil)	Actual Operating Time in Days Per Week	7		d/week
856	Los Alamos National Laboratory	350280001	T-3-026	Tank (No. 2 Fuel Oil)	Actual Operating Time in Weeks Per Year	52		weeks/y
856	Los Alamos National Laboratory	350280001	T-3-026	Tank (No. 2 Fuel Oil)	Actual Operating Time in Hours Per Year	8760		h/y
856	Los Alamos National Laboratory	350280001	T-3-026	Tank (No. 2 Fuel Oil)	Actual Fuel Consumption	2939		gal/y
856	Los Alamos National Laboratory	350280001	T-3-026	Tank (No. 2 Fuel Oil)	Actual Input Materials Processed	58		Distillate Oil (No. 2)
856	Los Alamos National Laboratory	350280001	T-3-026	Tank (No. 2 Fuel Oil)	Standard Classification (SCC) Code	39090004		Industrial Processes, In-process Fuel Use, Fuel Storage - Fixed Roof Tanks, Distillate Oil (No. 2): Working Loss
856	Los Alamos National Laboratory	350280001	T-3-026	Tank (No. 2 Fuel Oil)	Actual Volatile Organic Compounds (VOC) in tons per year	0.007		tons/y
856	Los Alamos National Laboratory	350280001	T-3-026	Tank (No. 2 Fuel Oil)	Actual Volatile Organic Compounds (VOC) calculation method	ap		EPA emission factors (e.g., AP-42)

856	Los Alamos National Laboratory	35028001	T-3-779	Tank (No. 2 Fuel Oil)	AQB-State/Local ID	036	Not Applicable
856	Los Alamos National Laboratory	35028001	T-3-779	Tank (No. 2 Fuel Oil)	Actual Percent of Operation During Winter	30	percent of time
856	Los Alamos National Laboratory	35028001	T-3-779	Tank (No. 2 Fuel Oil)	Actual Percent of Operation During Spring	20	percent of time
856	Los Alamos National Laboratory	35028001	T-3-779	Tank (No. 2 Fuel Oil)	Actual Percent of Operation During Summer	20	percent of time
856	Los Alamos National Laboratory	35028001	T-3-779	Tank (No. 2 Fuel Oil)	Actual Percent of Operation During Fall	30	percent of time
856	Los Alamos National Laboratory	35028001	T-3-779	Tank (No. 2 Fuel Oil)	Actual Operating Time in Hours Per Day	24	h/d
856	Los Alamos National Laboratory	35028001	T-3-779	Tank (No. 2 Fuel Oil)	Actual Operating Time in Days Per Week	7	d/week
856	Los Alamos National Laboratory	35028001	T-3-779	Tank (No. 2 Fuel Oil)	Actual Operating Time in Weeks Per Year	52	weeks/y
856	Los Alamos National Laboratory	35028001	T-3-779	Tank (No. 2 Fuel Oil)	Actual Operating Time in Hours Per Year	8760	h/y
856	Los Alamos National Laboratory	35028001	T-3-779	Tank (No. 2 Fuel Oil)	Actual Fuel Consumption	2939	gal/y
856	Los Alamos National Laboratory	35028001	T-3-779	Tank (No. 2 Fuel Oil)	Actual Input Materials Processed	58	Distillate Oil (No. 2)
856	Los Alamos National Laboratory	35028001	T-3-779	Tank (No. 2 Fuel Oil)	Standard Classification (SCC) Code	39090004	Industrial Processes, In-process Fuel Use, Fuel Storage - Fixed Roof Tanks, Distillate Oil (No. 2): Working Loss
856	Los Alamos National Laboratory	35028001	T-3-779	Tank (No. 2 Fuel Oil)	Actual Volatile Organic Compounds (VOC) in tons per year	0.033	tons/y
856	Los Alamos National Laboratory	35028001	T-3-779	Tank (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-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	AQB-State/Local ID	037	Not Applicable
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Percent of Operation During Winter	40	percent of time
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Percent of Operation During Spring	20	percent of time
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Percent of Operation During Summer	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Percent of Operation During Fall	40	percent of time
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Operating Time in Hours Per Day	24	h/d
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Operating Time in Days Per Week	7	d/week
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Operating Time in Weeks Per Year	33	weeks/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Operating Time in Hours Per Year	5544	h/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Fuel Consumption	15.0	MMSCF/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Fuel Heating Value	1049	MMBTU/MMSCF
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Fuel Type	209	Natural Gas
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Percent Sulfur of Fuel	0.006	Percent
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Percent Ash of Fuel		
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Input Materials Processed	209	Natural Gas
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Percent Carbon	68	percent
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	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-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Carbon Dioxide in tons per year	835.5	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Carbon Dioxide calculation method	pr	Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Carbon Dioxide Combusted in tons per year	835.5	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Carbon Dioxide Combusted calculation method	pr	Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Carbon Dioxide Vented in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Carbon Dioxide Vented calculation method		
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Carbon Monoxide in tons per year	0.29	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Carbon Monoxide calculation method	11	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Hexane in tons per year	0.014	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Hexane calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Nitrogen Dioxide in tons per year	1.04	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Nitrogen Dioxide calculation method	st	Actual stack test
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Particulate Matter (10 microns or less) in tons per year	0.11	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Particulate Matter (10 microns or less) calculation method	11	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Particulate Matter (2.5 microns or less) in tons per year	0.11	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Particulate Matter (2.5 microns or less) calculation method	11	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Particulate Matter (total suspended) in tons per year	0.11	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Particulate Matter (total suspended) calculation method	11	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Sulfur Dioxide in tons per year	0.005	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Sulfur Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Volatile Organic Compounds (VOC) in tons per year	0.045	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Sellers Boiler Bhw-1b(TA 55-6, Bldg. PF6)	Actual Volatile Organic Compounds (VOC) calculation method	11	Manufacturer Specification

856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	AQB-State/Local ID	038		Not Applicable
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Percent of Operation During Winter	40		percent of time
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Percent of Operation During Spring	20		percent of time
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Percent of Operation During Summer	0		percent of time
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Percent of Operation During Fall	40		percent of time
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Operating Time in Hours Per Day		24	h/d
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Operating Time in Days Per Week	7		d/week
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Operating Time in Weeks Per Year	33		weeks/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Operating Time in Hours Per Year		5544	h/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Fuel Consumption		7.2	MMSCFy
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Fuel Heating Value		1049	MMBTU/MMSCF
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Fuel Type	209		Natural Gas
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Percent Sulfur of Fuel		0.006	Percent
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Percent Ash of Fuel			
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Input Materials Processed	209		Natural Gas
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Percent Carbon		68	percent
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	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-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Carbon Dioxide in tons per year		401.6	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Carbon Dioxide calculation method	pr		Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Carbon Dioxide Combusted in tons per year		401.6	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Carbon Dioxide Combusted calculation method	pr		Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Carbon Dioxide Vented in tons per year	0		tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Carbon Dioxide Vented calculation method			
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Carbon Monoxide in tons per year		0.14	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Carbon Monoxide calculation method	11		Manufacturer Specification
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Formaldehyde in tons per year		0	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Formaldehyde calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Hexane in tons per year		0.006	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Hexane calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Lead in tons per year		0	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Lead calculation method	11		Manufacturer Specification
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Nitrogen Dioxide in tons per year		0.50	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Nitrogen Dioxide calculation method	st		Actual stack test
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Particulate Matter (10 microns or less) in tons per year		0.051	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Particulate Matter (10 microns or less) calculation method	11		Manufacturer Specification
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Particulate Matter (2.5 microns or less) in tons per year		0.051	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Particulate Matter (2.5 microns or less) calculation method	11		Manufacturer Specification
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Particulate Matter (total suspended) in tons per year		0.051	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Particulate Matter (total suspended) calculation method	11		Manufacturer Specification
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Sulfur Dioxide in tons per year		0.002	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Sulfur Dioxide calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Volatile Organic Compounds (VOC) in tons per year		0.022	tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF6	Selles Boiler Bhw-2b(TA 55-6, Bldg. PF6)	Actual Volatile Organic Compounds (VOC) calculation method	11		Manufacturer Specification

856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	AQB-State/Local ID	024	Not Applicable
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Percent of Operation During Winter	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Percent of Operation During Spring	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Percent of Operation During Summer	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Percent of Operation During Fall	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Operating Time in Hours Per Day	0	h/d
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Operating Time in Days Per Week	0	d/week
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Operating Time in Weeks Per Year	0	weeks/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Operating Time in Hours Per Year	0	h/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Fuel Consumption		
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Fuel Heating Value		
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Fuel Type		
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Percent Sulfur of Fuel		
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Percent Ash of Fuel		
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Input Materials Processed		
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Percent Carbon		
							External Combustion Boilers, Commercial/Institutional, Natural
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Standard Classification (SCC) Code	10300603	Gas, < 10 Million Btu/hr
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Carbon Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Carbon Dioxide calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Carbon Dioxide Combusted in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Carbon Dioxide Combusted calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Carbon Dioxide Vented in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Carbon Dioxide Vented calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Carbon Monoxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Carbon Monoxide calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Lead in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Lead calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Nitrogen Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Nitrogen Dioxide calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Particulate Matter (10 microns or less) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Particulate Matter (10 microns or less) calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Particulate Matter (2.5 microns or less) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Particulate Matter (2.5 microns or less) calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Particulate Matter (total suspended) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Particulate Matter (total suspended) calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Sulfur Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Sulfur Dioxide calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Volatile Organic Compounds (VOC) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-2	Low NOx Boiler TA-16-1484-BS-2	Actual Volatile Organic Compounds (VOC) calculation method	dc	Design calculation

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			50		percent of time
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Percent of Operation During Summer			25		percent of time
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Percent of Operation During Fall			25		percent of time
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Operating Time in Hours Per Day	4				h/d
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Operating Time in Days Per Week	1				d/week
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Operating Time in Weeks Per Year			12		weeks/y
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Operating Time in Hours Per Year			25		h/y
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Fuel Consumption			37		M gal/y
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Fuel Heating Value			139		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		0.0015			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 Percent Carbon			83		percent
										Internal Combustion Engines, Electric Generation, Distillate Oil
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Standard Classification (SCC) Code	20100102				(Diesel), Reciprocating
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Carbon Dioxide in tons per year		37.6			tons/y
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Carbon Dioxide calculation method	pr				Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Carbon Dioxide Combusted in tons per year		37.6			tons/y
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Carbon Dioxide Combusted calculation method	pr				Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Carbon Dioxide Vented in tons per year	0				tons/y
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Carbon Dioxide Vented calculation method					
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Carbon Monoxide in tons per year		0.44			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		0.54			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		0.018			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		0.018			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	ap				EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Particulate Matter (total suspended) in tons per year		0.018			tons/y
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Particulate Matter (total suspended) calculation method	ap				EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Sulfur Dioxide in tons per year		0.08			tons/y
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Sulfur Dioxide calculation method	ap				EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Volatile Organic Compounds (VOC) in tons per year		0.01			tons/y
856	Los Alamos National Laboratory	350280001	TA-33-G-1	Diesel Fired Generator	Actual Volatile Organic Compounds (VOC) calculation method	ap				EPA emission factors (e.g., AP-42)

856	Los Alamos National Laboratory	350280001	TA-60	insignificant, Tank (Asphalt Emulsion)	AQB-State/Local ID	035	Not Applicable
856	Los Alamos National Laboratory	350280001	TA-60	insignificant, Tank (Asphalt Emulsion)	Actual Percent of Operation During Winter	25	percent of time
856	Los Alamos National Laboratory	350280001	TA-60	insignificant, Tank (Asphalt Emulsion)	Actual Percent of Operation During Spring	25	percent of time
856	Los Alamos National Laboratory	350280001	TA-60	insignificant, Tank (Asphalt Emulsion)	Actual Percent of Operation During Summer	25	percent of time
856	Los Alamos National Laboratory	350280001	TA-60	insignificant, Tank (Asphalt Emulsion)	Actual Percent of Operation During Fall	25	percent of time
856	Los Alamos National Laboratory	350280001	TA-60	insignificant, Tank (Asphalt Emulsion)	Actual Operating Time in Hours Per Day	24	h/d
856	Los Alamos National Laboratory	350280001	TA-60	insignificant, Tank (Asphalt Emulsion)	Actual Operating Time in Days Per Week	7	d/week
856	Los Alamos National Laboratory	350280001	TA-60	insignificant, Tank (Asphalt Emulsion)	Actual Operating Time in Weeks Per Year	52	weeks/y
856	Los Alamos National Laboratory	350280001	TA-60	insignificant, Tank (Asphalt Emulsion)	Actual Operating Time in Hours Per Year	8760	h/y
856	Los Alamos National Laboratory	350280001	TA-60	insignificant, Tank (Asphalt Emulsion)	Actual Fuel Consumption	23,767	gal/y
856	Los Alamos National Laboratory	350280001	TA-60	insignificant, Tank (Asphalt Emulsion)	Actual Input Materials Processed	647	Asphalt
856	Los Alamos National Laboratory	350280001	TA-60	insignificant, Tank (Asphalt Emulsion)	Standard Classification (SCC) Code	A2501995000	Storage and Transport, Petroleum and Petroleum Product
856	Los Alamos National Laboratory	350280001	TA-60	insignificant, Tank (Asphalt Emulsion)	Actual Volatile Organic Compounds (VOC) in tons per year	0.003	tons/y
856	Los Alamos National Laboratory	350280001	TA-60	insignificant, 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	Actual Percent Carbon				percent
								A 26500000	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	Standard Classification (SCC) Code			0.28	tons/y
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/industrial Shredder	Actual Particulate Matter (10 microns or less) in tons per year			11	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/industrial Shredder	Actual Particulate Matter (10 microns or less) calculation method			95	percent
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			0.19	tons/y
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			11	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/industrial Shredder	Actual Particulate Matter (2.5 microns or less) calculation method			95	percent
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			0.31	tons/y
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/industrial Shredder	Actual Particulate Matter (total suspended) in tons per year			11	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	Ta-52-11	Data Disintegrator/industrial Shredder	Actual Particulate Matter (total suspended) calculation method			95	percent
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				

856	Los Alamos National Laboratory	350280001	043	Insignificant, Composite Mineral Oil Tank	Actual Percent of Operation During Winter		25		percent of time
856	Los Alamos National Laboratory	350280001	043	Insignificant, Composite Mineral Oil Tank	Actual Percent of Operation During Spring		25		percent of time
856	Los Alamos National Laboratory	350280001	043	Insignificant, Composite Mineral Oil Tank	Actual Percent of Operation During Summer		25		percent of time
856	Los Alamos National Laboratory	350280001	043	Insignificant, Composite Mineral Oil Tank	Actual Percent of Operation During Fall		25		percent of time
856	Los Alamos National Laboratory	350280001	043	Insignificant, Composite Mineral Oil Tank	Actual Operating Time in Hours Per Day		24		h/d
856	Los Alamos National Laboratory	350280001	043	Insignificant, Composite Mineral Oil Tank	Actual Operating Time in Days Per Week			7	d/week
856	Los Alamos National Laboratory	350280001	043	Insignificant, Composite Mineral Oil Tank	Actual Operating Time in Weeks Per Year		52		weeks/y
856	Los Alamos National Laboratory	350280001	043	Insignificant, Composite Mineral Oil Tank	Actual Operating Time in Hours Per Year			8760	h/y
856	Los Alamos National Laboratory	350280001	043	Insignificant, Composite Mineral Oil Tank	Actual Fuel Consumption			5	Mgal/y
856	Los Alamos National Laboratory	350280001	043	Insignificant, Composite Mineral Oil Tank	Actual Input Materials Processed		823		Distillate Oil (No. 1 & 2)
856	Los Alamos National Laboratory	350280001	043	Insignificant, Composite Mineral Oil Tank	Standard Classification (SCC) Code		39090004		Industrial Processes, In-process Fuel Use, Fuel Storage - Fixed Roof Tanks, Distillate Oil (No. 2); Working Loss
856	Los Alamos National Laboratory	350280001	043	Insignificant, Composite Mineral Oil Tank	Actual Volatile Organic Compounds (VOC) in tons per year			0.007	tons/y
856	Los Alamos National Laboratory	350280001	043	Insignificant, 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	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					20	percent of time	
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Percent of Operation During Summer					50	percent of time	
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Percent of Operation During Fall					30	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					15	weeks/y	
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Operating Time in Hours Per Year					100	h/y	
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Fuel Consumption					16.9	MM SCF/y	
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Fuel Heating Value					1049	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)	Actual Percent Carbon		68				percent	
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 Dioxide in tons per year		942.5	tons/y				
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Carbon Dioxide calculation method			pr	Other Publication Reference			
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Carbon Dioxide Combusted in tons per year		942.5	tons/y				
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Carbon Dioxide Combusted calculation method			pr	Other Publication Reference			
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Carbon Dioxide Vented in tons per year	0		tons/y				
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Carbon Dioxide Vented calculation method							
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Carbon Monoxide in tons per year		0.089	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		0.43	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		0.058	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		0.058	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		0.058	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		0.03	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		0.019	tons/y				
856	Los Alamos National Laboratory	350280001	CT-1	Turbine Generation Set (TA-3, Power plant)	Actual Volatile Organic Compounds (VOC) calculation method			ap	EPA emission factors (e.g., AP-42)			

856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Percent of Operation During Winter	0	percent of time
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Percent of Operation During Spring	0	percent of time
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Percent of Operation During Summer	0	percent of time
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Percent of Operation During Fall	0	percent of time
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Operating Time in Hours Per Day	0	h/d
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Operating Time in Days Per Week	0	d/week
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Operating Time in Weeks Per Year	0	weeks/y
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Operating Time in Hours Per Year	0	h/y
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Fuel Consumption		Diesel
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Fuel Heating Value		
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Fuel Type	137	MMBTU/Mgal
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Percent Sulfur of Fuel		
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Percent Ash of Fuel		
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Input Materials Processed		
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Percent Carbon		percent
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario 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	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Carbon Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Carbon Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Carbon Dioxide Combusted in tons per year	0	tons/y
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Carbon Dioxide Combusted calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Carbon Monoxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Carbon Monoxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Formaldehyde in tons per year	0	tons/y
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Formaldehyde calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Hexane in tons per year	0	tons/y
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Hexane calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Nitrogen Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Nitrogen Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Particulate Matter (10 microns or less) in tons per year	0	tons/y
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario 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	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Particulate Matter (2.5 microns or less) in tons per year	0	tons/y
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario 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	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Particulate Matter (total suspended) in tons per year	0	tons/y
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Particulate Matter (total suspended) calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Sulfur Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Sulfur Dioxide calculation method	es	Estimate
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Sulfur DioxideActual total efficiency controlled by Uncontrolled		percent
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Volatile Organic Compounds (VOC) in tons per year	0	tons/y
856	Los Alamos National Laboratory	35028001	TA-21-357-1b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario 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-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	AQB-State/Local ID	004	Not Applicable
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Percent of Operation During Winter	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Percent of Operation During Spring	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Percent of Operation During Summer	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Percent of Operation During Fall	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Operating Time in Hours Per Day	0	h/d
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Operating Time in Days Per Week	0	d/week
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Operating Time in Weeks Per Year	0	weeks/y
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Operating Time in Hours Per Year	0	h/y
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Fuel Consumption		
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Fuel Heating Value		
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Fuel Type		
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Percent Sulfur of Fuel		
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Percent Ash of Fuel		
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Input Materials Processed		
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Percent Carbon		percent
							External Combustion Boilers, Commercial/Institutional, Distillate Oil,
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Standard Classification (SCC) Code	10300501	Grades 1 and 2 Oil
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Carbon Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Carbon Dioxide calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Carbon Dioxide Combusted in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Carbon Dioxide Combusted calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Carbon Monoxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Carbon Monoxide calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Lead in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Lead calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Nitrogen Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Nitrogen Dioxide calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Particulate Matter (10 microns or less) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Particulate Matter (10 microns or less) calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Particulate Matter (2.5 microns or less) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Particulate Matter (2.5 microns or less) calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Particulate Matter (total suspended) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Particulate Matter (total suspended) calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Sulfur Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Sulfur Dioxide calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Volatile Organic Compounds (VOC) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-2b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Volatile Organic Compounds (VOC) calculation method	dc	Design calculation

856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	AQB-State/Local ID	004	Not Applicable
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Percent of Operation During Winter	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Percent of Operation During Spring	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Percent of Operation During Summer	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Percent of Operation During Fall	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Operating Time in Hours Per Day	0	h/d
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Operating Time in Days Per Week	0	d/week
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Operating Time in Weeks Per Year	0	weeks/y
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Operating Time in Hours Per Year	0	h/y
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Fuel Consumption		
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Fuel Heating Value		
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Fuel Type		
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Percent Sulfur of Fuel		
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Percent Ash of Fuel		
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Input Materials Processed		
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Percent Carbon		percent
							External Combustion Boilers, Commercial/Institutional,
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Standard Classification (SCC) Code	10300501	Distillate Oil, Grades 1 and 2
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Carbon Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Carbon Dioxide calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Carbon Dioxide Combusted in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Carbon Dioxide Combusted calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Carbon Monoxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Carbon Monoxide calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Lead in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Lead calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Nitrogen Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Nitrogen Dioxide calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Particulate Matter (10 microns or less) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Particulate Matter (10 microns or less) calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Particulate Matter (2.5 microns or less) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Particulate Matter (2.5 microns or less) calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Particulate Matter (total suspended) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Particulate Matter (total suspended) calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Sulfur Dioxide in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Sulfur Dioxide calculation method	dc	Design calculation
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Volatile Organic Compounds (VOC) in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-21-357-3b	Steam Plant Boiler Ta21 Bldg357(Alt Op Scenario No. 2 fuel oil)	Actual Volatile Organic Compounds (VOC) calculation method	dc	Design calculation

856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Percent of Operation During Winter	10	percent of time
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Percent of Operation During Spring	30	percent of time
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Percent of Operation During Summer	30	percent of time
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Percent of Operation During Fall	30	percent of time
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Operating Time in Hours Per Day	8	h/d
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Operating Time in Days Per Week	5	d/week
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Operating Time in Weeks Per Year	26	weeks/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Operating Time in Hours Per Year	185	h/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Fuel Consumption	25312	gal/yr
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Fuel Heating Value	2516	MMBTU/MMSCF
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Fuel Type	255	Propane
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Percent Sulfur of Fuel	0	percent
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Percent Ash of Fuel		
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Input Materials Processed	647	Asphalt
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Percent Carbon		
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Standard Classification (SCC) Code	30500255	Products, Asphalt Concrete, Drum Mix Plant: Rotary Drum Dryer / Mixer, Natural Gas - Fired
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Carbon Dioxide in tons per year	146.2	tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Carbon Dioxide calculation method	pr	Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Carbon Dioxide Combusted in tons per year	146.2	tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Carbon Dioxide Combusted calculation method	pr	Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Carbon Dioxide Vented in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Carbon Dioxide Vented calculation method		
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Carbon Monoxide in tons per year	0.4	tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Carbon Monoxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Lead in tons per year	0	tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Lead calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Nitrogen Dioxide in tons per year	0.027	tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Nitrogen Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Particulate Matter (10 microns or less) in tons per year	0.006	tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Particulate Matter (10 microns or less) calculation method	11	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Particulate Matter (2.5 microns or less) in tons per year	0.006	tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Particulate Matter (2.5 microns or less) calculation method	11	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Particulate Matter (total suspended) in tons per year	0.01	tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Particulate Matter (total suspended) calculation method	11	Manufacturer Specification
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Sulfur Dioxide in tons per year	0.005	tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Sulfur Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Volatile Organic Compounds (VOC) in tons per year	0.009	tons/y
856	Los Alamos National Laboratory	350280001	TA-60-BDMb	Asphalt Plant Dryer Propane	Actual Volatile Organic Compounds (VOC) calculation method	ap	EPA emission factors (e.g., AP-42)

856	Los Alamos National Laboratory	350280001	TA-55-PF4 (b)	Foundry Operations: Beryllium Furnace	Actual Percent of Operation During Winter	0		percent of time
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (b)	Foundry Operations: Beryllium Furnace	Actual Percent of Operation During Spring	0		percent of time
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (b)	Foundry Operations: Beryllium Furnace	Actual Percent of Operation During Summer	0		percent of time
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (b)	Foundry Operations: Beryllium Furnace	Actual Percent of Operation During Fall	0		percent of time
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (b)	Foundry Operations: Beryllium Furnace	Actual Operating Time in Hours Per Day	0		h/d
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (b)	Foundry Operations: Beryllium Furnace	Actual Operating Time in Days Per Week	0		d/week
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (b)	Foundry Operations: Beryllium Furnace	Actual Operating Time in Weeks Per Year	0		weeks/y
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (b)	Foundry Operations: Beryllium Furnace	Actual Operating Time in Hours Per Year	0		h/y
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (b)	Foundry Operations: Beryllium Furnace	Actual Fuel Consumption	0		MM SCF/y
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (b)	Foundry Operations: Beryllium Furnace	Standard Classification (SCC) Code	30903004		Industrial Processes, Fabricated Metal Products, Machining Operations, Specify Material**
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (b)	Foundry Operations: Beryllium Furnace	Actual Aluminum in tons per year			tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (b)	Foundry Operations: Beryllium Furnace	Actual Aluminum calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (b)	Foundry Operations: Beryllium Furnace	AluminumActual total efficiency controlled by			percent
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (b)	Foundry Operations: Beryllium Furnace	Actual Beryllium in tons per year			tons/y
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (b)	Foundry Operations: Beryllium Furnace	Actual Beryllium calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-55-PF4 (b)	Foundry Operations: Beryllium Furnace	BerylliumActual total efficiency controlled by			percent

856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Percent of Operation During Winter				25	percent of time
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Percent of Operation During Spring				25	percent of time
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Percent of Operation During Summer				25	percent of time
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Percent of Operation During Fall				25	percent of time
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Operating Time in Hours Per Day				2	h/d
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Operating Time in Days Per Week				3	d/week
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Operating Time in Weeks Per Year				10	weeks/y
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Operating Time in Hours Per Year				21	h/y
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Fuel Consumption				35.2	gal/yr
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Fuel Heating Value				139	MMBTU/Mgal
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Fuel Type			44		Diesel
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Percent Sulfur of Fuel			44	0.0015	percent
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Percent Ash of Fuel				0.01	percent
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Input Materials Processed			44		Diesel
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Percent Carbon				83	percent
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Standard Classification (SCC) Code			20200202		Internal Combustion Engines, Industrial, Natural Gas, Reciprocating
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Carbon Dioxide in tons per year				0.36	tons/y
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Carbon Dioxide calculation method			pr		Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Carbon Dioxide Combusted in tons per year				0.36	tons/y
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Carbon Dioxide Combusted calculation method			pr		Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Carbon Dioxide Vented in tons per year				0	tons/y
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Carbon Dioxide Vented calculation method					
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Carbon Monoxide in tons per year				0.002	tons/y
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Carbon Monoxide calculation method			dc		Design calculation
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Carbon MonoxideActual total efficiency controlled by Uncontrolled					percent
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Nitrogen Dioxide in tons per year				0.008	tons/y
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Nitrogen Dioxide calculation method			dc		Design calculation
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Nitrogen DioxideActual total efficiency controlled by Uncontrolled					percent
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Particulate Matter (10 microns or less) in tons per year				0.001	tons/y
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Particulate Matter (10 microns or less) calculation method			ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Particulate Matter (10 microns or less)Actual total efficiency controlled by Uncontrolled					percent
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Particulate Matter (total suspended) in tons per year				0.001	tons/y
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Particulate Matter (total suspended) calculation method			ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Particulate Matter (total suspended)Actual total efficiency controlled by Uncontrolled					percent
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Sulfur Dioxide in tons per year				0.001	tons/y
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Sulfur Dioxide calculation method			ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Sulfur DioxideActual total efficiency controlled by Uncontrolled					percent
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Volatile Organic Compounds (VOC) in tons per year				0.001	tons/y
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Actual Volatile Organic Compounds (VOC) calculation method			dc		Design calculation
856	Los Alamos National Laboratory	350280001	TA-33-g-3	Kohler Diesel Generator 20EORZ	Volatile Organic Compounds (VOC)Actual total efficiency controlled by Uncontrolled					percent

2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Percent of Operation During Winter				25	percent of time			
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Percent of Operation During Spring				25	percent of time			
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Percent of Operation During Summer				25	percent of time			
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Percent of Operation During Fall				25	percent of time			
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Operating Time in Hours Per Day				1	h/d			
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Operating Time in Days Per Week				1	d/week			
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Operating Time in Weeks Per Year				1	weeks/y			
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Operating Time in Hours Per Year				0.6	h/y			
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Fuel Consumption				1	gal/yr			
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Fuel Heating Value				139	MMBTU/Mgal			
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Fuel Type	44	Diesel						
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Percent Sulfur of Fuel		0.0015	percent					
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Percent Ash of Fuel		0.01	percent					
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Input Materials Processed	44	Diesel						
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Percent Carbon		83	percent					
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Standard Classification (S.C.C) Code	20200202	Internal Combustion Engines, Industrial, Natural Gas, 4-cycle Rich Burn						
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Carbon Dioxide in tons per year		0.01	tons/y					
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Carbon Dioxide calculation method	pr	Other Publication Reference						
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Carbon Dioxide Combusted in tons per year		0.01	tons/y					
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Carbon Dioxide Combusted calculation method	pr	Other Publication Reference						
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Carbon Dioxide Vented in tons per year		0	tons/y					
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Carbon Dioxide Vented calculation method								
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Carbon Monoxide in tons per year		0	tons/y					
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Carbon Monoxide calculation method	dc	Design calculation						
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Carbon MonoxideActual total efficiency controlled by Uncontrolled		percent						
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Nitrogen Dioxide in tons per year		0	tons/y					
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Nitrogen Dioxide calculation method	dc	Design calculation						
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Nitrogen DioxideActual total efficiency controlled by Uncontrolled		percent						
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Particulate Matter (10 microns or less) in tons per year		0	tons/y					
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Particulate Matter (10 microns or less) calculation method	ap	EPA emission factors (e.g., AP-42)						
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Particulate Matter (10 microns or less)Actual total efficiency controlled by Uncontrolled		percent						
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Particulate Matter (total suspended) in tons per year		0	tons/y					
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Particulate Matter (total suspended) calculation method	ap	EPA emission factors (e.g., AP-42)						
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Particulate Matter (total suspended)Actual total efficiency controlled by Uncontrolled		percent						
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Sulfur Dioxide in tons per year		0	tons/y					
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Sulfur Dioxide calculation method	ap	EPA emission factors (e.g., AP-42)						
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Sulfur DioxideActual total efficiency controlled by Uncontrolled		percent						
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Volatile Organic Compounds (VOC) in tons per year		0	tons/y					
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Actual Volatile Organic Compounds (VOC) calculation method	dc	Design calculation						
2008	856	Los Alamos National Laboratory	35028001	TA-33-g-2	Kohler Diesel Generator 20E ORZ	Volatile Organic Compounds (VOC)Actual total efficiency controlled by Uncontrolled		percent						

856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Percent of Operation During Winter			25	percent of time					
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Percent of Operation During Spring			25	percent of time			1G		5
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Percent of Operation During Summer			25	percent of time			1G		6
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Percent of Operation During Fall			25	percent of time			1G		7
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Operating Time in Hours Per Day			4	h/d			23		8
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Operating Time in Days Per Week			2	d/week			X5		9
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Operating Time in Weeks Per Year			10	weeks/y			ZD		10
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Operating Time in Hours Per Year			54	h/y			HR		11
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Fuel Consumption			853	gal/y			EN		12
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Fuel Heating Value			139	MMBTU/Mgal			1F		13
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Fuel Type		44		Diesel					14
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Percent Sulfur of Fuel			0.0015	percent			PR		15
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Percent Ash of Fuel			0.01	percent			PR		16
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Input Materials Processed		44		Diesel					17
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Percent Carbon			83	percent			PR		19
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Standard Classification (SCC) Code		20200202		Internal Combustion Engines, Industrial, Natural Gas, 4-cycle Rich Burn					20
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Carbon Dioxide in tons per year			8.66	tons/y			TY		21
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Carbon Dioxide calculation method		pr		Other Publication Reference					22
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Carbon Dioxide Combusted in tons per year			8.66	tons/y			TY		24
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Carbon Dioxide Combusted calculation method		pr		Other Publication Reference					25
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Carbon Dioxide Vented in tons per year			0	tons/y			TY		27
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Carbon Dioxide Vented calculation method									28
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Carbon Monoxide in tons per year			0.06	tons/y			TY		30
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Carbon Monoxide calculation method		dc		Design calculation					31
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Carbon MonoxideActual total efficiency controlled by Uncontrolled				percent			1G		32
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Nitrogen Dioxide in tons per year			0.26	tons/y			TY		33
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Nitrogen Dioxide calculation method		dc		Design calculation					34
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Nitrogen DioxideActual total efficiency controlled by Uncontrolled				percent			1G		35
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Particulate Matter (10 microns or less) in tons per year			0.02	tons/y			TY		36
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Particulate Matter (10 microns or less) calculation method		ap		EPA emission factors (e.g., AP-42)					37
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Particulate Matter (10 microns or less)Actual total efficiency controlled by Uncontrol			0	percent			1G		38
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Particulate Matter (total suspended) in tons per year			0.02	tons/y			TY		39
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Particulate Matter (total suspended) calculation method		ap		EPA emission factors (e.g., AP-42)					40
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Particulate Matter (total suspended)Actual total efficiency controlled by Uncontrolled			0	percent			1G		41
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Sulfur Dioxide in tons per year			0.02	tons/y			TY		42
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Sulfur Dioxide calculation method		ap		EPA emission factors (e.g., AP-42)					43
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Sulfur DioxideActual total efficiency controlled by Uncontrolled				percent			1G		44
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Volatile Organic Compounds (VOC) in tons per year			0.02	tons/y			TY		45
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Actual Volatile Organic Compounds (VOC) calculation method		dc		Design calculation					46
856	Los Alamos National Laboratory	350280001	TA-33-g-4	Caterpillar 3306 225kw	Volatile Organic Compounds (VOC)Actual total efficiency controlled by Uncontrolle			0	percent			1G		47

856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Percent of Operation During Winter			25	percent of time
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Percent of Operation During Spring			25	percent of time
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Percent of Operation During Summer			25	percent of time
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Percent of Operation During Fall			25	percent of time
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Operating Time in Hours Per Day			24	h/d
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Operating Time in Days Per Week			2	d/week
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Operating Time in Weeks Per Year			12	weeks/y
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Operating Time in Hours Per Year			576	h/y
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Fuel Consumption			1.8	MMSCF/y
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Fuel Heating Value			1049	MMBTU/MMSCF
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Fuel Type			209	Natural Gas
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Percent Sulfur of Fuel			0.006	Percent
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Percent Ash of Fuel				
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Input Materials Processed			209	Natural Gas
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Percent Carbon			68	percent
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Standard Classification (SCC) Code			10100604	External Combustion Boilers, Electric Generation, Natural Gas, Tangentially Fired Units
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Carbon Dioxide in tons per year			98.5	tons/y
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Carbon Dioxide calculation method		pr		Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Carbon Dioxide Combusted in tons per year			98.5	tons/y
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Carbon Dioxide Combusted calculation method		pr		Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Carbon Dioxide Vented in tons per year		0		tons/y
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Carbon Dioxide Vented calculation method				
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Carbon Monoxide in tons per year			0.07	tons/y
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Carbon Monoxide calculation method		ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Nitrogen Dioxide in tons per year			0.09	tons/y
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Nitrogen Dioxide calculation method		ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Particulate Matter (10 microns or less) in tons per year			0.007	tons/y
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Particulate Matter (10 microns or less) calculation method		ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Particulate Matter (2.5 microns or less) in tons per year			0.007	tons/y
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	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-502-BS-1	Superior Model M56-5-1500-S260	Actual Sulfur Dioxide in tons per year			0.001	tons/y
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Sulfur Dioxide calculation method		ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Volatile Organic Compounds (VOC) in tons per year			0.005	tons/y
856	Los Alamos National Laboratory	350280001	TA-502-BS-1	Superior Model M56-5-1500-S260	Actual Volatile Organic Compounds (VOC) calculation method		ap		EPA emission factors (e.g., AP-42)

856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	AQB-State/Local ID	024		Not Applicable
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Percent of Operation During Winter	25		percent of time
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Percent of Operation During Spring	25		percent of time
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Percent of Operation During Summer	25		percent of time
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Percent of Operation During Fall	25		percent of time
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Operating Time in Hours Per Day	24		h/d
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Operating Time in Days Per Week	7		d/week
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Operating Time in Weeks Per Year	52		weeks/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Operating Time in Hours Per Year		8736	h/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Fuel Consumption		20.5	MMSCF/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Fuel Heating Value		1049	MMBTU/MMSCF
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Fuel Type	209		Natural Gas
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Percent Sulfur of Fuel		0.006	percent
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Percent Ash of Fuel		0	percent
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Input Materials Processed	209		Natural Gas
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Percent Carbon		68	percent
									External Combustion Boilers, Electric Generation, Natural Gas, Boilers < 100
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Standard Classification (SCC) Code	10100602		Million Btu/hr except Tangential
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Carbon Dioxide in tons per year	1140.2		tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Carbon Dioxide calculation method	pr		Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Carbon Dioxide Combusted in tons per year	1140.2		tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Carbon Dioxide Combusted calculation method	pr		Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Carbon Dioxide Vented in tons per year	0		tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Carbon Dioxide Vented calculation method			
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Carbon Monoxide in tons per year		0.38	tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Carbon Monoxide calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Lead in tons per year		5.12E-06	tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Lead calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Nitrogen Dioxide in tons per year		0.38	tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Nitrogen Dioxide calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Particulate Matter (10 microns or less) in tons per year		0.078	tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-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	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Particulate Matter (2.5 microns or less) in tons per year		0.078	tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-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	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Particulate Matter (total suspended) in tons per year		0.078	tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Particulate Matter (total suspended) calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Sulfur Dioxide in tons per year		0.006	tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Sulfur Dioxide calculation method	ap		EPA emission factors (e.g., AP-42)
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Volatile Organic Compounds (VOC) in tons per year		0.056	tons/y
856	Los Alamos National Laboratory	350280001	TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484-BS-1	Actual Volatile Organic Compounds (VOC) calculation method	ap		EPA emission factors (e.g., AP-42)

856	Los Alamos National Laboratory	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	AQB-State/Local ID	002			
856	Los Alamos National Laboratory	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Percent of Operation During Winter		50	percent of time	
856	Los Alamos National Laboratory	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Percent of Operation During Spring		30	percent of time	
856	Los Alamos National Laboratory	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Percent of Operation During Summer		10	percent of time	
856	Los Alamos National Laboratory	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Percent of Operation During Fall		10	percent of time	
856	Los Alamos National Laboratory	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Operating Time in Hours Per Day	24		hr/d	
856	Los Alamos National Laboratory	35028000	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	35028000	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	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Operating Time in Hours Per Year		576	hr/y	
856	Los Alamos National Laboratory	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Fuel Consumption		1753	gal/y	
856	Los Alamos National Laboratory	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Fuel Heating Value		139	MMBTU/M gal	
856	Los Alamos National Laboratory	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Fuel Type	44		Diesel	
856	Los Alamos National Laboratory	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Percent Sulfur of Fuel		0.05	percent	
856	Los Alamos National Laboratory	35028000	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	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Input Materials Processed	44		Diesel	
856	Los Alamos National Laboratory	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Output Materials Processed				
856	Los Alamos National Laboratory	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Percent Carbon		83	percent	
856	Los Alamos National Laboratory	35028000	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	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Carbon Dioxide in tons per year		17.8	tons/y	
856	Los Alamos National Laboratory	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Carbon Dioxide calculation method	pr		Other Publication Reference	
856	Los Alamos National Laboratory	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Carbon Dioxide Combusted in tons per year		17.8	tons/y	
856	Los Alamos National Laboratory	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Carbon Dioxide Combusted calculation method	pr		Other Publication Reference	
856	Los Alamos National Laboratory	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Carbon Dioxide Vented in tons per year	0		tons/y	
856	Los Alamos National Laboratory	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Carbon Dioxide Vented calculation method				
856	Los Alamos National Laboratory	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Carbon Monoxide in tons per year		0.004	tons/y	
856	Los Alamos National Laboratory	35028000	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	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Nitrogen Dioxide in tons per year		0.008	tons/y	
856	Los Alamos National Laboratory	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Nitrogen Dioxide calculation method	ap		EPA emission factors (e.g., AP-42)	
856	Los Alamos National Laboratory	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Particulate Matter (10 microns or less) in tons per year		0.002	tons/y	
856	Los Alamos National Laboratory	35028000	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	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Particulate Matter (total suspended) in tons per year		0.003	tons/y	
856	Los Alamos National Laboratory	35028000	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	35028000	TA-3-22-1	Power Plant Boiler (pph,No.2 fuel oil)	Actual Sulfur Dioxide in tons per year		0.006	tons/y	
856	Los Alamos National Laboratory	35028000	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	35028000	TA-3-22-1	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	35028000	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 Percent of Operation During Winter	0	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No. 2 fuel oil)	Actual Percent of Operation During Spring	50	percent of time
856	Los Alamos National Laboratory	350280001	TA-3-22-2	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-3-22-2	Power Plant Boiler (pph, No. 2 fuel oil)	Actual Percent of Operation During Fall	50	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	h/d
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	d/week
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	h/y
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No. 2 fuel oil)	Actual Fuel Consumption	431	gal/y
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No. 2 fuel oil)	Actual Fuel Heating Value	139	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 Percent Sulfur of Fuel	0.05	Percent
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No. 2 fuel oil)	Actual Percent Ash of Fuel	<0.01	Percent
856	Los Alamos National Laboratory	350280001	TA-3-22-2	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 Percent Carbon	83	percent
856	Los Alamos National Laboratory	350280001	TA-3-22-2	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-3-22-2	Power Plant Boiler (pph, No. 2 fuel oil)	Actual Carbon Dioxide in tons per year	4.4	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No. 2 fuel oil)	Actual Carbon Dioxide calculation method	pr	Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No. 2 fuel oil)	Actual Carbon Dioxide Combusted in tons per year	4.4	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No. 2 fuel oil)	Actual Carbon Dioxide Combusted calculation method	pr	Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No. 2 fuel oil)	Actual Carbon Dioxide Vented in tons per year		tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No. 2 fuel oil)	Actual Carbon Dioxide Vented calculation method		
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	0.001	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 Formaldehyde in tons per year	1.03E-05	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No. 2 fuel oil)	Actual Formaldehyde 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 Hexane 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 Hexane 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	0.002	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)	Nitrogen DioxideActual total efficiency controlled by Flue Gas Recirculation	64	percent
856	Los Alamos National Laboratory	350280001	TA-3-22-2	Power Plant Boiler (pph, No. 2 fuel oil)	Actual Particulate Matter (10 microns or less) 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 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 Particulate Matter (2.5 microns or less) 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 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 Particulate Matter (total suspended) 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 Particulate Matter (total suspended) 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 Sulfur Dioxide 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 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	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		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 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		5	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		h/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	h/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No. 2 fuel oil)	Actual Fuel Consumption		755	gal/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No. 2 fuel oil)	Actual Fuel Heating Value		139	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 Sulfur of Fuel		0.05	Percent
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 Percent Carbon		83	percent
								External Combustion Boilers, Electric
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No. 2 fuel oil)	Standard Classification (SCC) Code	10100501		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 Dioxide in tons per year		7.7	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No. 2 fuel oil)	Actual Carbon Dioxide calculation method	pr		Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No. 2 fuel oil)	Actual Carbon Dioxide Combusted in tons per year		7.7	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No. 2 fuel oil)	Actual Carbon Dioxide Combusted calculation method	pr		Other Publication Reference
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No. 2 fuel oil)	Actual Carbon Dioxide Vented 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 Carbon Dioxide Vented calculation method			
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		0.002	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 Formaldehyde in tons per year		1.80E-05	tons/y
856	Los Alamos National Laboratory	350280001	TA-3-22-3	Power Plant Boiler (pph, No. 2 fuel oil)	Actual Formaldehyde 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 Hexane 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 Hexane 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		0.003	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)	Nitrogen DioxideActual total efficiency controlled by Flue Gas Recirculation	64		percent
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		0.001	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		0.001	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		0.001	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		0.003	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	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	GENERATORS	Generators - GHG only	Actual Fuel Consumption		20607.4	gal			12
856	Los Alamos National Laboratory	350280001	GENERATORS	Generators - GHG only	Actual Fuel Heating Value		139	MMBTU/Mgal			13
856	Los Alamos National Laboratory	350280001	GENERATORS	Generators - GHG only	Actual Fuel Type		44	Diesel			14
856	Los Alamos National Laboratory	350280001	GENERATORS	Generators - GHG only	Actual Percent Sulfur of Fuel		0.0015	percent			15
856	Los Alamos National Laboratory	350280001	GENERATORS	Generators - GHG only	Actual Percent Ash of Fuel		0.01	percent			16
856	Los Alamos National Laboratory	350280001	GENERATORS	Generators - GHG only	Actual Output Materials Processed						18
856	Los Alamos National Laboratory	350280001	GENERATORS	Generators - GHG only	Actual Percent Carbon		83	percent			19
								Internal Combustion Engines, Electric Generation, Distillate Oil (Diesel), Reciprocating			
856	Los Alamos National Laboratory	350280001	GENERATORS	Generators - GHG only	Standard Classification (SCC) Code		20100102				20
856	Los Alamos National Laboratory	350280001	GENERATORS	Generators - GHG only	Actual Carbon Dioxide Combusted in tons per year		213.1	tons/y	TY		21
856	Los Alamos National Laboratory	350280001	GENERATORS	Generators - GHG only	Actual Carbon Dioxide Combusted calculation method		pr	Other Publication Reference			22

856	Los Alamos National Laboratory	350280001	BOILERS	Boilers - GHG only	Actual Fuel Consumption			403.3	MMSCF/y				12
856	Los Alamos National Laboratory	350280001	BOILERS	Boilers - GHG only	Actual Fuel Heating Value			1049	MMBTU/MMSCF				13
856	Los Alamos National Laboratory	350280001	BOILERS	Boilers - GHG only	Actual Fuel Type		209		Natural Gas				14
856	Los Alamos National Laboratory	350280001	BOILERS	Boilers - GHG only	Actual Percent Sulfur of Fuel			0.006	percent				15
856	Los Alamos National Laboratory	350280001	BOILERS	Boilers - GHG only	Actual Percent Ash of Fuel			0	percent				16
856	Los Alamos National Laboratory	350280001	BOILERS	Boilers - GHG only	Actual Output Materials Processed								18
856	Los Alamos National Laboratory	350280001	BOILERS	Boilers - GHG only	Actual Percent Carbon			68	percent				19
					Standard Classification (SCC) Code	10100602			External Combustion Boilers, Electric Generation, Natural Gas, Boilers < 100 Million Btu/hr except Tangential				20
856	Los Alamos National Laboratory	350280001	BOILERS	Boilers - GHG only	Actual Carbon Dioxide Combusted in tons per year			22,445.10	tons/y			TY	21
856	Los Alamos National Laboratory	350280001	BOILERS	Boilers - GHG only	Actual Carbon Dioxide Combusted calculation method		pr		Other Publication Reference				22

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 Industry, , Underground Storage and Other Remediation: Vapor Extract
856	Los Alamos National Laboratory	350280001	TA-54-SVE	Soil Vapor Extraction	Actual Total HAP in tons per year			tons/y
856	Los Alamos National Laboratory	350280001	TA-54-SVE	Soil Vapor Extraction	Actual Total HAP calculation method	dc		Design calculation
856	Los Alamos National Laboratory	350280001	TA-54-SVE	Soil Vapor Extraction	Total HAPActual total efficiency controlled by Catalytic Oxidation			percent
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

2008 Semi-Annual Emissions Reports Submitted Under Title V Operating Permit Requirements

Los Alamos
NATIONAL LABORATORY
EST. 1943

Environmental, Safety, Health & Quality
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Date: September 12, 2008
Refer To: ESH&Q-08-050

Ms. Debra McElroy
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1301 Siler Road, Building B
Santa Fe, New Mexico 87507

SUBJECT: SEMI-ANNUAL EMISSIONS REPORT - JANUARY 1, 2008 – JUNE 30, 2008
AIR QUALITY TITLE V OPERATING PERMIT P100M2
IDEA ID NO. 856 – LOS ALAMOS NATIONAL LABORATORY (LANL)

Dear Ms. McElroy:

Enclosed is Los Alamos National Laboratory's (LANL) semi-annual emissions report for the period January 1, 2008 through June 30, 2008 (Enclosure-1). 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.

A Construction Permit (NSR Permit 2195-P) was issued on August 8, 2007 to construct and operate three electrical generator engines at Technical Area 33. These three units are not listed in the current Operating Permit, but have been included in the LANL Operating Permit application submitted in April of 2008. The three units are included in this emissions report.

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

Sincerely,

Richard S. Watkins
Associate Director, ESH&Q

Ms. Debra McElroy
ESH&Q-08-050
LA-UR: 08-05553

WWW

Enc: a/s

Cy: M. Mallory, w/o enc.,ADPADOPS, A102
S. Fong, w/o enc., DOE-LA-AO, A316
P. Wardwell, w/o enc., LC-ESH, A187
D. Wilburn, w/o enc., 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-08-05553

Approved for public release; distribution is unlimited.

Title:	Semi-Annual Emissions Report - Operating Permit Number P100M2 January - June 2008
Author(s):	Walt Whetham Evelyn Rainey
Intended for:	New Mexico Environmental Department

Los Alamos
NATIONAL LABORATORY
EST. 1943

Enclosure - 1

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

Title V Report Certification Form

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

III. Certification of Truth, Accuracy, and Completeness

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

Signature RS Watkins Date: 9/12/08

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

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

Facility Emissions

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

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

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

Source Emissions

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

Permit Condition/Source

2.1 Asphalt Production

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

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

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

2.2 Beryllium Activities

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

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

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

2.3 Boilers and Heaters

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

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

2.4 Carpenter Shops

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

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

2.5 Chemical Usage

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

2.6 Degreasers

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

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

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

2.7 Internal Combustion Sources

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

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

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

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

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

LA-UR-08-05553

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

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

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

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

Note: Standby Generators are insignificant sources.

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

2.8 Data Disintegrator

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

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

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

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

Los Alamos
NATIONAL LABORATORY
EST. 1943

Associate Directorate for ESH&Q
P.O. Box 1663, MS K491
Los Alamos, New Mexico 87545
505-667-4218/Fax 505-665-3811

Date: March 20, 2009
Refer To: ESH&Q-09-014

Compliance Reporting Manager
Compliance & Enforcement Section
New Mexico Environment Department
Air Quality Bureau
1301 Siler Road, Building B
Santa Fe, NM 87507

IDEA ID NO. 856 – LOS ALAMOS NATIONAL LABORATORY (LANL)
OPERATING PERMIT NO: P100M2
SEMI-ANNUAL EMISSIONS REPORT – JULY 1, 2008 TO DECEMBER 31, 2008

Dear Compliance Reporting Manager:

Enclosed is Los Alamos National Laboratory's (LANL) Semi-Annual Emissions report for the period July 1, 2008 through December 31, 2008. 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,

J. Chris Cantwell
Associate Director, ESH&Q

WWW

ESH&Q-09-014
LA-UR:09-01479

March 20, 2009

Cy:

M. Mallory, PADOPS, A102
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
IRM-RM550, A150
ENV-EAQ Title V Emissions Report File
ENV-EAQ Admin File
ESH&Q File

Enclosure

Los Alamos National Laboratory's
Title V Operating Permit
Emissions Report for the period
July 1 – December 31, 2008

Title V Operating Permit
Semi-Annual Emission Report

July 1, 2008 – December 31, 2008

Identifying Information

Source Name: Los Alamos National Laboratory County: Los Alamos

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

Responsible Official: J. Chris Cantwell Ph No. (505) 606-2354 Fax No. (505) 665-3811
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. P100M2 {IDEA/Tempo ID No. 856} Permit Issued Date: July 16, 2007

Certification of Truth, Accuracy, and Completeness

I, J. Chris Cantwell 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 J C Cantwell Date: 3/16/09

Title: Associate Director Environmental, Safety, Health, and Quality

Title V Semi-Annual Emission Report for Permit P100M2

Emission Reporting Requirements

4.0 Reporting

Conditions of 4.0 are pursuant to 20.2.70.302.E NMAC.

4.1 Reports of actual emissions from permitted sources in Section 2.0 shall be submitted on a 6 month basis. Reports shall not include emissions from insignificant activities. Emission estimates of criteria pollutants NOx, CO, SO2, PM and VOCs shall not include fugitive emissions. Emission estimates of HAPs shall include fugitive emissions. 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 2.10 of this permit.

4.3 The report required by Condition 4.1 shall be submitted within 90 days from the end of the reporting period. The semiannual report required by Condition 4.2 shall be submitted within 45 days from the end of the reporting period. The reporting periods are January 1st to June 30th and July 1st to December 31st. This condition is pursuant to 20.2.70.302.E.1 NMAC.

Specific Emissions Reports:

2.1 Asphalt Production

2.1.2 Emission Limits

Emission Unit	Allowable Emission Limits				
	NO_x	SO_2	PM	CO	VOC
TA-60-BDM	1.0 tpy	1.0 tpy	0.04 gr/dscf 35.4 lbs/hr	2.6 tpy	1.0 tpy

Reporting Requirement

2.1.6.1 Reports shall be submitted in accordance with conditions 4.1 and 4.2.[1]

4.1 Reports of actual emissions from permitted sources in Section 2.0 shall be submitted on a 6 month basis. Reports shall not include emissions from insignificant activities. Emission estimates of criteria pollutants NOx, CO, SO_2, PM and VOCs shall not include fugitive emissions. Emission estimates of HAPs shall include fugitive emissions. 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 2.10 of this permit.

[1] Condition 4.2 refers to submitting a Semi-Annual Monitoring report which LANL submitted on February 5, 2009, Tracking Number SBR20090001.

Has this reporting requirement been met during this reporting period with a separate reporting submittal? Answer Yes or No below.

☐ **Yes** **Date report submitted:** **Tracking Number:**

☒ **No** **Provide comments and identify any supporting documentation as an attachment.**

Comments:

Asphalt Plant TA-60-BDM	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (Condition 2.1.2) (tons per year)
NOx	0.013	0.014	0.027	1.0
SO_2	0.002	0.003	0.005	1.0
PM	0.005	0.005	0.010	*35.4 lb/hr
CO	0.210	0.220	0.430	2.6
VOC	0.004	0.005	0.009	1.0
HAPs	0.004	0.004	0.008	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.

2.2 Beryllium Activities

2.2.2 Emission Limits

Source	Allowable Emission Limits	
	Beryllium	Aluminum
Chemistry and Metallurgy Research Facility TA-3-29	10 gm/24 hr	Not Applicable
Sigma Facility TA-3-66	10 gm/24 hr	Not Applicable
Beryllium Test Facility TA-3-141	0.35 gm/24 hr 3.5 gm/yr	Not Applicable
TA-16-207	10 gm/24 hr	Not Applicable
TA-35-87	10 gm/24 hr	Not Applicable
Target Fabrication Facility TA-35-213	1.8×10^{-01} gm/hr 0.36 gm/yr	Not Applicable

Source	Allowable Emission Limits	
	Beryllium	Aluminum
Plutonium Facility TA-55-PF4		
Machining Operation	0.12 gm/24 hr 2.99 gm/yr	0.12 gm/24 hr 2.99 gm/yr
Foundry Operation	3.49×10^{-5} gm/24 hr 8.73×10^{-3} gm/yr	3.49×10^{-5} gm/24 hr 8.73×10^{-3} gm/yr

Reporting Requirement

2.2.6 Reports shall be submitted in accordance with conditions 4.1 and 4.2.[1]

4.1 Reports of actual emissions from permitted sources in Section 2.0 shall be submitted on a 6 month basis. Reports shall not include emissions from insignificant activities. Emission estimates of criteria pollutants NOx, CO, SO_2, PM and VOCs shall not include fugitive emissions. Emission estimates of HAPs shall include fugitive emissions. 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 2.10 of this permit.

[1] Condition 4.2 refers to submitting a Semi-Annual Monitoring report which LANL submitted on February 5, 2009, Tracking Number SBR20090001.

Has this reporting requirement been met during this reporting period with a separate reporting submittal? Answer Yes or No below.

☐ **Yes** **Date report submitted:** **Tracking Number:**

☒ **No** **Provide comments and identify any supporting documentation as an attachment.**

Comments: Continued on the next page

2008 Semi-Annual Emissions Report
(July through December)
Permit Number P100M2
LA-UR-09-01479

Page 3 of 15

2.2 Beryllium Activities - continued

Comments:

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)	< 0.00944	< 0.009	< 0.018	0.36 gm/yr
Plutonium Facility TA-55-PF4 Machining Operation[3]	Beryllium (grams)	< 1.495	< 1.41	< 2.91	2.99 gm/yr
	Aluminum (grams)	< 1.495	< 1.41	< 2.91	2.99 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 Test Facility are from actual stack emission measurements which are submitted to NMED quarterly. [2] Emissions for the Target Fabrication Facility are from initial compliance testing of that source and calculated based on a conservative assumption of 8 hour work days. Log books were checked to verify that work days were much less than 8 hours. [3] Emissions for the Plutonium Facility are calculated based on permitted throughputs. Log books were checked to verify that throughputs were much less than permitted values. [4] The Plutonium Facility foundry operations did not operate in 2008. [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

2.3.2 Emission Limits

Source	Allowable Emission Limits				
All Boilers and Heaters[1]	NO_x (tpy)	CO (tpy)	PM or PM_{10} (tpy)	SO_2 (tpy)	VOC (tpy)
	80	80	50	50	50

[1] Excludes TA-3-22 Power Plant addressed in Condition 2.9

Reporting Requirement

2.3.6.1 Reports shall be submitted in accordance with conditions 4.1 and 4.2.(1)

4.1 Reports of actual emissions from permitted sources in Section 2.0 shall be submitted on a 6 month basis. Reports shall not include emissions from insignificant activities. Emission estimates of criteria pollutants NOx, CO, SO_2, PM and VOCs shall not include fugitive emissions. Emission estimates of HAPs shall include fugitive emissions. 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 2.10 of this permit.

(1) Condition 4.2 refers to submitting a Semi-Annual Monitoring report which LANL submitted on February 5, 2009, Tracking Number SBR20090001.

Has this reporting requirement been met during this reporting period with a separate reporting submittal? Answer Yes or No below.

☐ **Yes** **Date report submitted:** **Tracking Number:**

☒ **No** **Provide comments and identify any supporting documentation as an attachment.**

Comments:

Boilers and Heaters	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (Condition 2.3.2) (tons per year)
NOx	14.60	10.98	25.58	80
SO_2	0.09	0.07	0.16	50
PM	1.16	0.87	2.03	50
PM-10	1.16	0.87	2.03	50
CO	11.83	8.86	20.69	80
VOCs	0.81	0.61	1.42	50
HAPs	0.28	0.21	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. These can be found under Section 2.9 of this report.

2.4 Carpenter Shops

2.4.2 Emission Limits

Source	Allowable Emission Limits
	PM_{10} (tpy)
TA-15-563	2.81
TA-3-38	3.07

Reporting Requirement

2.4.6.1 Reports shall be submitted in accordance with conditions 4.1 and 4.2.(1)

4.1 Reports of actual emissions from permitted sources in Section 2.0 shall be submitted on a 6 month basis. Reports shall not include emissions from insignificant activities. Emission estimates of criteria pollutants NOx, CO, SO_2, PM and VOCs shall not include fugitive emissions. Emission estimates of HAPs shall include fugitive emissions. 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 2.10 of this permit.

(1) Condition 4.2 refers to submitting a Semi-Annual Monitoring report which LANL submitted on February 5, 2009, Tracking Number SBR20090001.

Has this reporting requirement been met during this reporting period with a separate reporting submittal? Answer Yes or No below.

☐ **Yes** **Date report submitted:** **Tracking Number:**

☒ **No** **Provide comments and identify any supporting documentation as an attachment.**

Comments:

Shop	Pollutant	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (Condition 2.4.2) (tons per year)
TA-3-38	PM_{10}	0.006	0.011	0.017	3.07
TA-15-563	PM_{10}	0.013	0.015	0.028	2.81

2.5 Chemical Usage

2.5.2 Emission Limits

2.5.3.1 The contribution of VOC and/or HAPs emissions from chemical usage shall not cause the exceedence of the corresponding facility-wide limit listed below:

200 tons per year of facility-wide VOCs
8 tons per year of individual facility-wide HAP
24 tons per year of total facility-wide HAPs

Reporting Requirement

2.5.5.1 Reports shall be submitted in accordance with conditions 4.1 and 4.2.(1)

4.1 Reports of actual emissions from permitted sources in Section 2.0 shall be submitted on a 6 month basis. Reports shall not include emissions from insignificant activities. Emission estimates of criteria pollutants NOx, CO, SO_2, PM and VOCs shall not include fugitive emissions. Emission estimates of HAPs shall include fugitive emissions. 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 2.10 of this permit.

(1) Condition 4.2 refers to submitting a Semi-Annual Monitoring report which LANL submitted on February 5, 2009, Tracking Number SBR20090001.

Has this reporting requirement been met during this reporting period with a separate reporting submittal? Answer Yes or No below.

☐ **Yes** **Date report submitted:** **Tracking Number:**

☒ **No** **Provide comments and identify any supporting documentation as an attachment.**

Comments:

Chemical Usage LANL-FW-CHEM	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (Condition 2.5.3.1)
VOCs	4.7	4.3	9.0	Source limits refer to facility-wide limits.
HAPs	2.6	1.9	4.5	
Highest individual HAP for both the first and the second six months (Hydrochloric Acid)	0.5	0.5	1.0	

2.6 Degreasers

2.6.2 Emission Limits

2.6.2.1 The contribution of VOC and/or HAP emissions from chemical usage shall not cause the exceedence of the corresponding facility-wide limit listed below:

200 tons per year of facility-wide VOCs
8 tons per year of an individual facility-wide HAP
24 tons per year of total facility-wide HAPs

Reporting Requirement

2.6.6.3 Reports shall be submitted in accordance with conditions 4.1 and 4.2.(1)

4.1 Reports of actual emissions from permitted sources in Section 2.0 shall be submitted on a 6 month basis. Reports shall not include emissions from insignificant activities. Emission estimates of criteria pollutants NOx, CO, SO_2, PM and VOCs shall not include fugitive emissions. Emission estimates of HAPs shall include fugitive emissions. 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 2.10 of this permit.

(1) Condition 4.2 refers to submitting a Semi-Annual Monitoring report which LANL submitted on February 5, 2009, Tracking Number SBR20090001.

Has this reporting requirement been met during this reporting period with a separate reporting submittal? Answer Yes or No below.

☐ **Yes** **Date report submitted:** **Tracking Number:**

☒ **No** **Provide comments and identify any supporting documentation as an attachment.**

Comments:

Degreaser TA-55-DG-1	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (Condition 2.6.2.1) (tons per year)
VOCs	0.010	0.005	0.015	Source limits refer to facility-wide limits. (See Facility Emissions Table on Page 1)
HAPs	0.010	0.005	0.015	

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

2.7 Internal Combustion Sources

2.7.2 Emission Limits

Source	Allowable Emission Limits											
	TSP		PM10		NO_x		CO		VOC		SO_x	
TA-33-G-1	pph	tpy	pph	tpy	pph	tpy	pph	tpy	pph	tpy	pph	tpy
	1.4	0.6	1.4	0.6	40.3	18.1	33.7	15.2	0.7	0.3	5.5	2.5

Reporting Requirement

2.7.6.1 Reports shall be submitted in accordance with conditions 4.1 and 4.2.(1)

4.1 Reports of actual emissions from permitted sources in Section 2.0 shall be submitted on a 6 month basis. Reports shall not include emissions from insignificant activities. Emission estimates of criteria pollutants NOx, CO, SO_2, PM and VOCs shall not include fugitive emissions. Emission estimates of HAPs shall include fugitive emissions. 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 2.10 of this permit.

(1) Condition 4.2 refers to submitting a Semi-Annual Monitoring report which LANL submitted on February 5, 2009, Tracking Number SBR20090001.

Has this reporting requirement been met during this reporting period with a separate reporting submittal? Answer Yes or No below.

☐ **Yes** **Date report submitted:** **Tracking Number:**

☒ **No** **Provide comments and identify any supporting documentation as an attachment.**

Comments:

Generator TA-33-G-1	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (Condition 2.7.2) (tons per year)
NOx	0.359	0.181	0.540	18.1
SO_x	0.053	0.027	0.080	2.5
TSP	0.012	0.006	0.018	0.6
PM_{10}	0.012	0.006	0.018	0.6
CO	0.292	0.148	0.440	15.2
VOC	0.007	0.003	0.010	0.3
HAPs	7.73E-05	3.91E-05	1.16E-04	No Source Limit

Continued on the next page.

2.7 Internal Combustion Sources - continued

Comments:

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

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

Generator TA-33-G-3	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (NSR Permit 2195-P Condition 2) (tons per year)
NOx	0.008	0.000	0.009	0.21
SO_X	0.001	0.000	0.001	Not Required
TSP	0.001	0.000	0.001	Not Required
PM_{10}	0.001	0.000	0.001	Not Required
CO	0.002	0.000	0.002	0.1
VOC	0.001	0.000	0.001	Not Required
HAPs	2.68E-06	0.00.E+00	2.68E-06	No Source Limit

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

Generator TA-33-G-4	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (NSR Permit 2195-P Condition 2) (tons per year)
NOx	0.000	0.255	0.255	2.33
SO_X	0.000	0.018	0.018	0.16
TSP	0.000	0.018	0.018	Not Required
PM_{10}	0.000	0.018	0.018	Not Required
CO	0.000	0.055	0.055	1.4
VOC	0.000	0.018	0.018	0.2
HAPs	0.00E+00	8.21.E-05	8.21E-05	No Source Limit

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

Continued on the next page.

2.7 Internal Combustion Sources - continued

Comments:

Stationary Standby Generators	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits
NOx	2.46	2.52	4.97	No Source Specific Emission Limits for Standby Generators
SOx	0.08	0.08	0.17	
TSP	0.11	0.11	0.21	
PM_{10}	0.11	0.11	0.21	
CO	0.56	0.56	1.12	
VOC	0.11	0.11	0.22	
HAPs	7.97E-04	6.49E-04	1.45E-03	

Note: Standby Generators are insignificant sources.

2.8 Data Disintegrator

2.8.2 Emission Limits

Source	Allowable Emission Limits			
TA-52-11	TSP (pph)	TSP (tpy)	PM10 (pph)	PM10 (tpy)
	2.3	9.9	2.3	9.9

PM10 and TSP emissions limits shown in above Table are after controls.

Reporting Requirement

2.8.6.1 Reports shall be submitted in accordance with conditions 4.1 and 4.2.(1)

4.1 Reports of actual emissions from permitted sources in Section 2.0 shall be submitted on a 6 month basis. Reports shall not include emissions from insignificant activities. Emission estimates of criteria pollutants NOx, CO, SO_2, PM and VOCs shall not include fugitive emissions. Emission estimates of HAPs shall include fugitive emissions. 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 2.10 of this permit.

(1) Condition 4.2 refers to submitting a Semi-Annual Monitoring report which LANL submitted on February 5, 2009, Tracking Number SBR20090001.

Has this reporting requirement been met during this reporting period with a separate reporting submittal? Answer Yes or No below.

☐ Yes **Date report submitted:** **Tracking Number:**

☒ No **Provide comments and identify any supporting documentation as an attachment.**

Comments:

Data Disintegrator TA-52-11	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limits (Condition 2.8.2) (tons per year)
TSP	0.19	0.12	0.31	9.9
PM10	0.17	0.11	0.28	9.9

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

2.9.2 Emission Limits

Source	Allowable Emission Limits											
	NOx (lb/hr)		CO (lb/hr)		SOx (lb/hr)		TSP (lb/hr)		PM_{10} (lb/hr)		VOC (lb/hr)	
	Gas	Oil	Gas	Oil	Gas	Oil	Gas	Oil	Gas	Oil	Gas	Oil
TA-3-22-1	10.2	11.3	7.0	6.5	1.1	9.6	1.3	4.3	1.3	3.0	1.0	0.3
TA-3-22-2	10.2	11.3	7.0	6.5	1.1	9.6	1.3	4.3	1.3	3.0	1.0	0.3
TA-3-22-3	10.2	11.3	7.0	6.5	1.1	9.6	1.3	4.3	1.3	3.0	1.0	0.3
Boilers Combined[1]	60.2 tpy		41.3 tpy		7.9 tpy		8.4 tpy		8.2 tpy		5.6 tpy	
TA-3-22 CT-1 (lb/hr)	23.8		170.9		1.4		1.6		1.6		1.0	
TA-3-22 CT-1 (tpy)[1,2]	33.2		19.8		1.9		2.3		2.3		-	

[1]Annual emission limits are 12-month rolling totals. This is pursuant to NSR Permit No. 2195BM1, Table 2.2, Note 1.
[2]"-" notation implies emission rates less than or equal to 0.5 tpy.

Reporting Requirement

2.9.6.1 Reports shall be submitted in accordance with conditions 4.1 and 4.2.(1)

4.1 Reports of actual emissions from permitted sources in Section 2.0 shall be submitted on a 6 month basis. Reports shall not include emissions from insignificant activities. Emission estimates of criteria pollutants NOx, CO, SO_2, PM and VOCs shall not include fugitive emissions. Emission estimates of HAPs shall include fugitive emissions. 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 2.10 of this permit.

(1) Condition 4.2 refers to submitting a Semi-Annual Monitoring report which LANL submitted on February 5, 2009, Tracking Number SBR20090001.

Has this reporting requirement been met during this reporting period with a separate reporting submittal? Answer Yes or No below.

☐ **Yes** **Date report submitted:** **Tracking Number:**

☒ **No** **Provide comments and identify any supporting documentation as an attachment.**

Comments: Continued on the next page

2008 Semi-Annual Emissions Report
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2.9 Power Plant at Technical Area 3 (TA-3-22) - Continued

Comments:

Boilers TA-3-22-1, TA-3-22-2 TA-3-22-3	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limit (Condition 2.9.2) (tons per year)
NOx	7.98	6.09	14.07	60.2
SO_2	0.09	0.06	0.15	7.9
TSP	1.05	0.80	1.85	8.4
PM_{10}	1.05	0.80	1.85	8.2
CO	5.50	4.20	9.70	41.3
VOC	0.76	0.58	1.34	5.6
HAPs	0.26	0.20	0.46	No Source Limit

Combustion Turbine TA-3-22 CT-1	January - June Emissions (tons)	July - December Emissions (tons)	Annual Emissions (tons)	Permit Limit (Condition 2.9.2) (tons per year)
NOx	0.014	0.413	0.427	33.2
SO_2	0.001	0.029	0.030	1.9
TSP	0.002	0.056	0.058	2.3
PM_{10}	0.002	0.056	0.058	2.3
CO	0.003	0.086	0.089	19.8
VOC	0.001	0.018	0.019	No TPY Limit
HAPs	3.93E-04	1.12E-02	1.16E-02	No Source Limit

2.10 Facility Wide Emission Limits

2.10.1 Emission Limits

Total Allowable Criteria Pollutant and HAP Emission Limits

Pollutant	Emission Limit (tons per year)
Nitrogen Oxides (NO_x)	245
Carbon Monoxide (CO)	225
Volatile Organic Compounds (VOCs)	200
Sulfur Dioxide (SO_2)	150
Particulate Matter (PM)	120
Hazardous Air Pollutants (HAPs)	24 combined / 8 individual

Reporting Requirement

4.1 Reports of actual emissions from permitted sources in Section 2.0 shall be submitted on a 6 month basis. Reports shall not include emissions from insignificant activities. Emission estimates of criteria pollutants NOx, CO, SO_2, PM and VOCs shall not include fugitive emissions. Emission estimates of HAPs shall include fugitive emissions. 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 2.10 of this permit.

Has this reporting requirement been met during this reporting period with a separate reporting submittal? Answer Yes or No below.

☐ **Yes** **Date report submitted:** **Tracking Number:**

☒ **No** **Provide comments and identify any supporting documentation as an attachment.**

Comments:

Pollutant	January - June Emissions (tons)	July - December Emissions (tons)	2008 Annual Emissions (tons)	Facility Wide Emission Limits (Permit Condition 2.10.1) (tons per year)
Nitrogen Oxides	25.4	20.4	45.8	245
Sulfur Dioxide	0.3	0.3	0.6	150
Particulate Matter	2.5	2.0	4.5	120
Carbon Monoxide	18.4	14.1	32.5	225
Volatile Organic Compounds	6.4	5.6	12.0	200
Hazardous Air Pollutants	3.2	2.3	5.5	24 combined
Highest Individual HAP (Hydrochloric Acid)	0.5	0.5	1.0	8 individual


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