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Certified Mail No: 7003 0500 0005 1472 8583  
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**OPERATING PERMIT NO: P100M1**  
**Tempo/IDEA ID No.: -PRT20050001**  
**AIRS No. 35-028-0001**

**FACILITY NAME:** Los Alamos National Laboratory  
**FACILITY OWNER/OPERATOR:** U.S. Department of Energy National Nuclear Security Administration/Los Alamos National Security, LLC

**PERMITTEE:** Los Alamos National Security, LLC  
P.O. Box 1663  
Los Alamos, NM 87544

**RESPONSIBLE COMPANY OFFICIAL:** Richard S. Watkins  
Associate Director Environment, Safety, Health and Quality

**ISSUED BY:** New Mexico Environment Department

*for* Eih Aabae  
Mary Uhl  
Bureau Chief  
Air Quality Bureau

JUN 15 2006  
Date of Issuance

**INTRODUCTION**

Operating Permit Number P100M1 is issued by the Air Quality Bureau of the New Mexico Environment Department ("Department") to the Los Alamos National Security, LLC for the Los Alamos National Laboratory (LANL or the Laboratory) pursuant to the federal Clean Air Act ("federal Act"), the New Mexico Air Quality Control Act ("state Act") and regulations adopted pursuant to the state and federal Acts, including Title 20, New Mexico Administrative Code, Chapter 2, Part 70 (20.2.70 NMAC) - Operating Permits. This permit authorizes the operation of

this facility located at UTM Zone 13, UTMH 383.0 km, UTMV 3969.0 km, in and adjacent to Los Alamos, New Mexico in Los Alamos County. The Laboratory is located in north central New Mexico, approximately 60 miles north of Albuquerque and 25 miles northwest of Santa Fe. The facility borders the community of Los Alamos to the north and the community of White Rock toward the southeast.

This permit is valid only for the named permittee, owner, and operator. A permit modification is required to change any of those entities.

This facility is a national security laboratory operated by Los Alamos National Security (LANS), LLC, for the National Nuclear Security Administration (NNSA) of the Department of Energy. The Laboratory conducts research and development to fulfill the missions of ensuring the safety and reliability of the U.S. nuclear deterrent, reducing the global threat of weapons of mass destruction, and solving national problems in energy, environment, infrastructure and health security. Regulated air pollutant emissions from LANL are primarily associated with mission support sources, such as boilers for electricity and steam generation, asphalt production for road repair, and standby generators to provide emergency power. Miscellaneous chemical usage throughout the Laboratory results in emissions of volatile organic compounds and hazardous air pollutants.

This modification consists of removing the Paper Shredder located at TA-52-11 and replacing it with the Data Disintegrator, which is capable of destroying paper, microfiche, film, plastic magnetic tape and compact disks. Also included in this permit is a new 25 MW simple cycle natural gas turbine to be installed at the Power Plant at TA-3. In addition, emission sources that have been closed since the issuance of P100 have been removed from the operating permit. These include the afore mentioned Paper Shredder, Boilers TA-16-1485-BS-1 and BS-2, and the portable Rock Crusher.

This permit P100M1 supersedes permit P100, and will expire April 30, 2009, pursuant to 20.2.70.302.B NMAC. Application for renewal of this permit is due twelve (12) months prior to the date of expiration, pursuant to 20.2.70.300.B.2 NMAC.

Pursuant to 20.2.70.302.A.1 NMAC, the Department specifies with this permit, terms and conditions upon the operation of this facility to assure compliance with all applicable requirements, as defined in 20.2.70 NMAC at the time this permit is issued.

Pursuant to the New Mexico Air Quality Control Act NMSA 1978, Chapter 74, Article 2, all terms and conditions in this permit, including any provisions designed to limit this facility's potential to emit, are enforceable by the Department. Pursuant to 20.2.70.302.A.5 NMAC, all terms and conditions are enforceable by the Administrator of the United States Environmental Protection Agency ("EPA") and citizens under the federal Act, unless the term or condition is specifically designated in this permit as not being enforceable under the federal Act.

### **PERMIT SHIELD**

Pursuant to 20.2.70.302.J NMAC, compliance with the conditions of this permit shall be deemed to be in compliance with any applicable requirements existing as of the date of permit issuance and identified in Table A.1 of Appendix A. The requirements in Table A.1 are applicable to this facility with specific requirements identified for individual emission units.

The Department has determined that the requirements in Table A.2 of Appendix A as identified in the permit application are not applicable to this source, or they do not impose any conditions in this permit.

This permit shield does not extend to administrative amendments, to minor permit modifications, to changes made under Section 502(b)(10) of the federal Act, or to permit terms for which notice has been given to reopen or revoke all or part.

### **TOTAL ALLOWABLE EMISSIONS**

The total allowable emissions from this facility, excluding trivial activities, are shown in the following table. LANL has accepted facility-wide allowable emission limits for criteria pollutants and hazardous air pollutants (HAPs) as shown below.

**Table 1, Total Allowable Criteria Pollutant and HAP Emissions from Entire Facility:**

<b>Pollutant</b>	<b>Emissions (tons per year)</b>
Nitrogen Oxides (NO <sub>x</sub> )	245
Carbon Monoxide (CO)	225
Volatile Organic Compounds (VOC)	200
Sulfur Dioxide (SO <sub>2</sub> )	150
Particulate Matter (PM)	120
Hazardous Air Pollutants (HAPs)	24 combined / 8 individual

### **PERMIT TERMS AND CONDITIONS**

#### **1.0 GENERAL CONDITIONS**

1.1 The following permit terms and conditions are placed upon the permittee in accordance with 20.2.70.301.B NMAC and 20.2.70.302.A.2 NMAC.

1.1.1 The permittee shall abide by all terms and conditions of this permit, except as allowed under Section 502(b)(10) of the federal Act, and 20.2.70.302.H.1 NMAC. Any permit noncompliance is grounds for enforcement action, and significant or repetitious noncompliance may result in termination of this permit. Additionally, noncompliance with federally enforceable conditions of this permit constitutes a violation of the federal Act.

1.1.2 It shall not be a defense for the permittee in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

1.1.3 If the Department determines that cause exists to modify, reopen and revise, revoke and reissue, or terminate this permit, this shall be done in accordance with 20.2.70.405 NMAC.

1.1.4 The permittee shall furnish any information the Department requests in writing to determine if cause exists for reopening and revising, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. This information shall be furnished within the time period specified by the Department. Additionally, the permittee shall furnish, upon request by the Department, copies of records required by the permit to be maintained by the permittee.

1.1.5 A request by the permittee that this permit be modified, revoked and reissued, or terminated, or a notification by the permittee of planned changes or anticipated noncompliance, shall not stay any conditions of this permit.

1.1.6 This permit does not convey property rights of any sort, or any exclusive privilege.

1.1.7 In the case where an applicant or permittee has submitted information to the Department under a claim of confidentiality, the Department may also require the applicant or permittee to submit a copy of such information directly to the Administrator of the EPA.

1.2 The issuance of this permit, or the filing or approval of a compliance plan, does not relieve the permittee from civil or criminal liability for failure to comply with the state or federal Acts, or any applicable state or federal regulation or law. This condition is pursuant to 20.2.70.302.A.6 NMAC and the New Mexico Air Quality Control Act NMSA 1978, Chapter 74, Article 2.

1.3 If any part of this permit is challenged or held invalid, the remainder of the permit terms and conditions are not affected and the permittee shall continue to abide by them. This condition is pursuant to 20.2.70.302.A.1.d NMAC.

1.4 The permittee shall pay fees to the Department consistent with the fee schedule in 20.2.71 NMAC - Operating Permit Emission Fees. The fees will be assessed and invoiced separately from this permit. This condition is pursuant to 20.2.70.302.A.1.e NMAC.

1.5 A responsible official (as defined in 20.2.70 NMAC) shall certify the accuracy, truth and completeness of every report and compliance certification submitted to the Department as required by this permit. These certifications shall be part of each document. This condition is pursuant to 20.2.70.300.E NMAC.

1.6 Revocation or termination of this permit by the Department terminates the permittee's right to operate this facility. This condition is pursuant to 20.2.70.201.B NMAC.

1.7 Upon request by the Department, the permittee shall submit an emissions inventory for this facility. This condition is pursuant to 20.2.73 NMAC and 20.2.70.302.A.1 NMAC.

1.8 The source will continue to comply with all applicable requirements. For applicable requirements that will become effective during the term of the permit, the source will meet such requirements on a timely basis. This condition is pursuant to sections 300.D.11.c and 302.G.3 of 20.2.70 NMAC.

1.9 Compliance with this operating permit is sufficient to comply with all NSR permits listed in Table A.1. This condition is pursuant to 20.2.70.302.A.1 NMAC.

## 2.0 INFORMATION AND REQUIREMENTS FOR EMISSIONS UNITS

Information regarding applicable requirements, emission limits, operational requirements, and monitoring requirements, and recordkeeping requirements are provided below for each emissions unit or set of similar units.

The conditions listed are placed upon the permittee pursuant to 20.2.70.302 NMAC.

Except as otherwise specified, the following monitoring and/or testing requirements shall be used to determine compliance with applicable requirements and emission limits in this permit. Any sampling, whether by portable analyzer or EPA reference method that measures an emission rate greater than an emission limit in this permit may constitute noncompliance with this permit. The Department may require, at its discretion, additional tests pursuant to EPA Reference Methods at any time, including when sampling by portable analyzer measures an emission rate greater than an emission limit in this permit. Such requirement shall not be construed as a determination that the sampling by portable analyzer does not establish noncompliance with this permit and shall not stay enforcement of such noncompliance based on the sampling by portable analyzer.

### 2.1 Asphalt Production

All of the process equipment authorized for this source type is listed in the table shown below (emission units that were identified as insignificant or trivial and equipment not regulated pursuant to the Act are not included):

<b>Emission Unit No.</b>	<b>Location/Building</b>	<b>Make/Model</b>	<b>Type of Control</b>	<b>Design Capacity (tons per hour)</b>
TA-60-BDM	TA-60	BDM Engineering TM2000	Cyclone Baghouse	80

#### 2.1.1 Applicable Requirements

2.1.1.1 The following requirements apply to this emission unit: 20.2.11 NMAC; 40 CFR Part 60, Subpart I, and NSR Permit Number GCP3-2195G.

### 2.1.2 Emission Limits

Emission Unit	Allowable Emission Limits				
	NO <sub>x</sub>	SO <sub>2</sub>	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

2.1.2.1 Visible emissions shall not exhibit an opacity of 20 % or greater.

This condition is pursuant to 40 CFR 50, Paragraphs 1, 7 and 8 of 20.2.70.302.A NMAC.

### 2.1.3 Operational Requirements

2.1.3.1 Production shall not exceed 13,000 tons per year, 12-month rolling total.

2.1.3.2 The asphalt process equipment shall not operate without a fugitive dust control system to limit particulate emissions to the stack outlet.

2.1.3.3 Equip and operate all screens, conveyor belts, and transfer points with dust collection and control systems sufficient to prevent opacity from exceeding 20%.

2.1.3.4 The baghouse shall be equipped with a device to continuously monitor differential pressure across the baghouse.

2.1.3.5 Total sulfur content shall be no more than 0.75 percent by volume for any natural gas used.

2.1.3.6 Total sulfur content shall be no greater than 0.5 percent by weight for any propane used.

2.1.3.7 Hours of operation are limited to one-half hour following sunrise, one-half hour before sunset, and those daylight hours in between.

2.1.3.8 Hours of operation are limited to 4,380 hours per year.

2.1.3.9 All unpaved haul roads shall be watered to prevent visible emissions.

2.1.3.10 Plant operations shall be in accordance with NSR permit GCP3-2195G, section III, D,E,F,H,I,K.

The conditions of 2.1.3 are pursuant to Paragraphs 1, 7 and 8 of 20.2.70.302.A NMAC.

#### 2.1.4 Emissions Monitoring Requirements

2.1.4.1 Perform monthly six (6) minute opacity readings for each emission point having opacity greater than zero as determined by EPA Method 22.

2.1.4.2 Monitor the differential pressure (inches of water) across the baghouse by the use of a differential pressure gauge, in accordance with condition IV.C.2 of NSR permit number GCP-3-2195G.

2.1.4.3 40 CFR Part 60, Appendix A, Method 9 shall be used to determine compliance with the opacity limitation.

The conditions of Section 2.1.4 are pursuant to 20.2.70.302.C NMAC.

#### 2.1.5 Recordkeeping

2.1.5.1 The permittee shall comply with all applicable recordkeeping requirements in NSR permit number GCP-3-2195G, section IV.D keeping records of actual hours of operation, production rates, number of haul truck trips daily, fuel sulfur content, tickets of fuel purchased, quantity and frequency of water applied to haul roads, frequency of haul road sweeping, and copies of proposed and performed maintenance.

2.1.5.2 Keep compliance test results for particulate matter and opacity performed within 60 days of initial startup.

2.1.5.3 Maintain results of the monthly six (6) minute opacity readings.

2.1.5.4 Maintain records of the monitoring of the differential pressure across the baghouse.

The conditions of 2.1.5 are pursuant to Subsection C and Paragraph D(1) of 20.2.70.302 NMAC.

#### 2.1.6 Reporting

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

This condition is pursuant to 20.2.70.302.E NMAC.

## **2.2 Beryllium Activities**

All of the process equipment authorized for this source type is listed in the table shown below (emission units that were identified as insignificant or trivial and equipment not regulated pursuant to the Act are not included):

<b>Emission Unit No.</b>	<b>Location/Building</b>	<b>Process</b>	<b>Type of Control</b>
TA-3-29	TA-3-29	Chemistry and Metallurgy Research Facility	HEPA Filter
TA-3-66	TA-3-66	Sigma Facility	HEPA Filter Lubricating Bath
TA-3-141	TA-3-141	Beryllium Test Facility	Lubricating Bath Cartridge Filtration System HEPA Filter
TA-16-207	TA-16-207	Structural Testing	Wet Sanding
TA-35-87	TA-35-87	Laser Facility	Enclosed Glovebox
TA-35-213	TA-35-213	Target Fabrication Facility	Pre-Filter HEPA Filter
TA-55-PF4	TA-55-PF4	Plutonium Facility	HEPA Filter

### 2.2.1 Applicable Requirements

2.2.1.1 The following requirements apply to these emission units : 40 CFR Part 61, Subpart C, and NSR Permits Numbers 632, 634, and 1081.

### 2.2.2 Emission Limits

<b>Source</b>	<b>Allowable Emission Limits</b>	
	<b>Beryllium</b>	<b>Aluminum</b>
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	$1.8 \times 10^{-04}$ 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	$3.49 \times 10^{-5}$ gm/24 hr $8.73 \times 10^{-4}$ gm/yr	$3.49 \times 10^{-5}$ gm/24 hr $8.73 \times 10^{-4}$ gm/yr

This condition is pursuant to 20.2.70.302.A NMAC.

2.2.3 Operational Requirements

Source	Operating Requirement	Process Limit	Control Equipment Requirement
Chemistry and Metallurgy Research Facility TA-3-29	Beryllium operations will consist of registered sources in Wing 2.	None	Hood exhaust from the melting operations shall be exhausted through a HEPA filtration system prior to entering the atmosphere.
Sigma Facility TA-3-66	Beryllium operations will consist of registered polishing, electroplating/chemical milling, machining, and arc melting/casting sources.	None	Emissions from machining and arc melting/casting operations shall be exhausted through a HEPA filtration system prior to entering the atmosphere.  Polishing and electroplating/chemical milling operations shall be conducted in aqueous solution or lubricant bath.

Source	Operating Requirement	Process Limit	Control Equipment Requirement
Beryllium Test Facility TA-3-141	The continuous emission monitor will be maintained in accordance with the Laboratory's quality program.	Beryllium processed by the facility will not exceed 10,000 pounds per calendar year. Beryllium processed by the facility will not exceed 1000 pounds per day.	<p>All processes shall be exhausted through a HEPA filtration system prior to entering the atmosphere.</p> <p>Powder operations, other than closed glovebox operations, and machining operations, other than the processes used in metallographic preparation shall be exhausted through a cartridge filtration system then through the HEPA filtration system.</p> <p>Metallographic preparation activities shall be conducted in lubricating baths or equivalent.</p>
TA-16-207	Beryllium operations consist of wet sanding beryllium material.	None	Sanding of beryllium surfaces is performed wet using a fine-grit abrasive.
TA-35-87	Beryllium operations consist of punching or cutting beryllium foil.	None	All cutting and punching of beryllium foil occurs within an enclosed glovebox.
Target Fabrication Facility TA-35-213	Beryllium operations will consist of only beryllium machining and associated cleanup activities.	None	All processes shall be exhausted through a HEPA filtration system prior to entering the atmosphere.

Source	Operating Requirement	Process Limit	Control Equipment Requirement
Plutonium Facility TA-55-PF4	Regulated beryllium activities will be ducted through the pollution control equipment and out the north or south stack of PF-4.	44 pounds of beryllium (20 kg) in any 24 hour period; 1100 pounds/year (500 kg/year) using a rolling total.	Weld cutting, weld dressing, metallography, and vacuum furnace operations shall be controlled with 4 HEPA filters with a control efficiency of 99.95% each.  The non-accessible filters shall be replaced when the pressure drop across the filter either falls to levels indicating filter breakthrough or increases to levels indicative of excessive loading.

The conditions of Section 2.2.3 are pursuant to 20.2.70.302.A NMAC.

#### 2.2.4 Emissions Monitoring Requirements

Source	Monitoring Required
Chemistry and Metallurgy Research Facility TA-3-29	A log shall be maintained during operations which indicates the number of Be samples processed.
Sigma Facility TA-3-66	A log shall be maintained during operations which shows the number of metallographic specimens used in the polishing operation and the weight of Be samples processed in the electroplating/chemical milling, machining, and arc melting/casting operations.
Beryllium Test Facility TA-3-141	Facility exhaust stack will be equipped with a continuous emission monitor used to measure beryllium emissions.  Cartridge and HEPA filters will be equipped with differential pressure gauges that measure the differential pressure across the cartridge and HEPA filters while the exhaust fans are in operation.
TA-16-207	Project files shall be maintained of components prepared for testing.
TA-35-87	A log shall be maintained during operations which shows the number of beryllium filters cut.

Source	Monitoring Required
Target Fabrication Facility TA-35-213	Records of the stack emission test results (see Condition 2 of NSR Permit No. 632) and other data needed to determine total emissions shall be retained at the source and made available for inspection by the Department.
Plutonium Facility TA-55-PF4	<p>The HEPA filtration systems shall be equipped with a differential pressure gauge that measures the differential pressure (inches of water) across the HEPA filters while the exhaust fans are in operation.</p> <p>Control efficiency shall be verified by daily HEPA filter pressure drop tests and annual HEPA filter challenge tests of accessible filters.</p>

The conditions of Section 2.2.4 are pursuant to 20.2.70.302.C NMAC.

#### 2.2.5 Recordkeeping

Source	Recordkeeping Required
Chemistry and Metallurgy Research Facility TA-3-29	Recordkeeping for this source is specified in Condition 2.2.4.
Sigma Facility TA-3-66	Recordkeeping for this source is specified in Condition 2.2.4.
Beryllium Test Facility TA-3-141	<p>Generate and maintain beryllium inventory records to demonstrate compliance with the 10,000 pounds of beryllium per calendar year and the 1000 pounds of beryllium per day processing limit.</p> <p>Record pressure drop across the cartridge and HEPA filters once per day that the exhaust fans are in operation and the facility is occupied.</p> <p>Record control equipment maintenance and repair activities.</p>
TA-16-207	Recordkeeping for this source is specified in Condition 2.2.4.
TA-35-87	Recordkeeping for this source is specified in Condition 2.2.4.
Target Fabrication Facility TA-35-213	Recordkeeping for this source is specified in Condition 2.2.4.

Source	Recordkeeping Required
<p>Plutonium Facility TA-55-PF4</p>	<p>Stack emission test results and facility operating parameters including a daily record of the pressure drop measured across each appropriate HEPA plenum filtration stage, when the exhaust fans are operating.</p> <p>A copy of the annual HEPA test, a log of the daily pressure drop readings and a control equipment maintenance log shall be kept. This documentation shall be provided upon request.</p> <p>A log of the filter replacement shall be kept and shall be made available to the Department personnel upon request.</p> <p>The permittee shall keep records of the number and weight of classified parts processed during a 24-hour period and year using a rolling total. Records shall be made available to properly cleared Department personnel upon request.</p>

The conditions of Section 2.2.5 are pursuant to Subsection C and Paragraph D(1) of 20.2.70.302 NMAC.

2.2.6 Reporting

Source	Reporting Required
<p>Chemistry and Metallurgy Research Facility TA-3-29</p>	<p>See condition 4.2.</p>
<p>Sigma Facility TA-3-66</p>	<p>See condition 4.2.</p>
<p>Beryllium Test Facility TA-3-141</p>	<p>Anticipated date of initial startup of each new or modified source not less than thirty (30) days prior to the date.</p> <p>Actual date of initial startup of each new or modified source within fifteen (15) days after the startup date.</p> <p>Provide the date when each new or modified emission source reaches the maximum production rate at which it will operate within fifteen (15) days after that date.</p> <p>Notify the Department within 60 days after each</p>

Source	Reporting Required
	<p>calendar quarter of the facility's compliance status with the permitted emission rate from the continuous monitoring system.</p> <p>Provide any data generated by activities described in the Quality Assurance Plan (QAP) that will assist the Air Quality Bureau's Enforcement Section in determining the reliability of the methodology used for demonstrating compliance with the permitted emission rate within 45 days of such a request.</p>
TA-16-207	See condition 4.2.
TA-35-87	See condition 4.2.
Target Fabrication Facility TA-35-213	See conditions 4.1 and 4.2.
Plutonium Facility TA-55-PF4	<p>Stack emission test results and facility operating parameters will be made available to Department personnel upon request.</p> <p>Reports may be required to be submitted to the Department if inspections of the source indicate noncompliance with this permit or as a means of determining compliance.</p>

The conditions of Section 2.2.6 are pursuant to 20.2.70.302.E NMAC.

### 2.3 Boilers and Heaters

All of the process equipment authorized for this source type is listed in the table shown below (emission units that were identified as insignificant or trivial and equipment not regulated pursuant to the Act are not included):

Emission Unit No.	Location/ Building	Manufacturer/ Model	Maximum Heat Input (nameplate) <sup>1</sup> MMBtu/hr	Type of Control
TA-16-1484-BS-1	TA-16-1484	Sellers 183H.P.-SH-LN390	7.47	Low-NO <sub>x</sub>
TA-16-1484-BS-2	TA-16-1484	Sellers 183H.P.-SH-LN390	7.47	Low-NO <sub>x</sub>

<b>Emission Unit No.</b>	<b>Location/ Building</b>	<b>Manufacturer/ Model</b>	<b>Maximum Heat Input (nameplate)<sup>1</sup> MMBtu/hr</b>	<b>Type of Control</b>
TA-48-1-BS-1	TA-48-1	Sellers 15 Seniors-150	6.28	None
TA-48-1-BS-2	TA-48-1	Cleaver Brooks CB-700-150	6.28	None
TA-48-1-BS-6	TA-48-1	Cleaver Brooks CB-700-200 1558	8.40	None
TA-53-365-BHW-1	TA-53-365	Sellers 15 Seniors-2-200-w	8.37	None
TA-53-365-BHW-2	TA-53-365	Sellers 15 Seniors-2-200-w	8.37	None
TA-55-6-BHW-1	TA-55-6	Sellers 350 H.P. W-LN490	14.6	None
TA-55-6-BHW-2	TA-55-6	Sellers 350 H.P. W-LN490	14.6	None
TA-59-1-BHW-1	TA-59-1	Cleaver Brooks CB-700-150	6.28	None
TA-59-1-BHW-2	TA-59-1	Cleaver Brooks CB-700-150	6.28	None
TA-50-2	TA-50-2	Superior MS6-5-1500-S260-M	12.6	None
TA-21-357-1	TA-21-357	Industrial Boiler 3WB350HCG0	12.1	None
TA-21-357-2	TA-21-357	Industrial Boiler 3WB350HCG0	12.1	None
TA-21-357-3	TA-21-357	Industrial Boiler 3WB350HCG0	12.1	None

<sup>1</sup>Emission estimates from these units shall be based on the maximum heat input rating derated for altitude.

### 2.3.1 Applicable Requirements

2.3.1.1 The following requirements apply to these emission units : 40 CFR Part 60, Subpart Dc (Units TA-55-6-BHW-1 and TA-55-6-BHW-2 only); and 20.2.61 NMAC.

### 2.3.2 Emission Limits

Source	Allowable Emission Limits				
	NO <sub>x</sub> (tpy)	CO (tpy)	PM or PM <sub>10</sub> (tpy)	SO <sub>2</sub> (tpy)	VOC (tpy)
All Boilers and Heaters <sup>1</sup>	80	80	50	50	50

<sup>1</sup>Excludes TA-3-22 Power Plant addressed in Condition 2.9

2.3.2.1 Visible emissions shall not equal or exceed an opacity of 20%.

The conditions of Section 2.3.2 are pursuant to 40 CFR 50, Paragraphs 1, 7 and 8 of 20.2.70.302.A NMAC.

### 2.3.3 Operational Requirements

2.3.3.1 Natural gas usage is limited to 870 MMscf/yr, 12-month rolling total, for all boilers listed in Section 2.3 and all other boilers and heaters at LANL that qualify as insignificant activities, except emission units TA-21-357-1, TA-21-357-2, and TA-21-357-3.

2.3.3.2 For emission units TA-21-357-1, TA-21-357-2, and TA-21-357-3, natural gas usage is limited to 60 MMscf/yr and fuel oil usage to 10,000 gal/yr, 12-month rolling total.

The conditions of Section 2.3.3 are pursuant to Paragraphs 1, 7 and 8 of 20.2.70.302.A NMAC.

### 2.3.4 Emissions Monitoring Requirements

2.3.4.1 Emission units TA-21-357-1, TA-21-357-2, and TA-21-357-3: A volumetric flow meter shall be utilized to measure the total amount of natural gas being used on a monthly basis.

2.3.4.2 Emission units TA-55-6-BHW-1 and TA-55-6-BHW-2: A volumetric flow meter shall be utilized to measure the total amount of natural gas being used on a monthly basis.

2.3.4.3 40 CFR Part 60, Appendix A, Method 9 shall be used to determine compliance with the opacity limitation.

The conditions of Section 2.3.4 are pursuant to 20.2.70.302.C NMAC.

### 2.3.5 Recordkeeping

2.3.5.1 All boilers and heaters, including insignificant emission units: Records of total natural gas and fuel oil usage shall be kept on a monthly basis.

This condition is pursuant to Subsection C and Paragraph D(1) of 20.2.70.302 NMAC.

### 2.3.6 Reporting



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

This condition is pursuant to 20.2.70.302.E NMAC.

## 2.4 Carpenter Shops

All of the process equipment authorized for this source type is listed in the table shown below (emission units that were identified as insignificant or trivial and equipment not regulated pursuant to the Act are not included):

<b>Emission Unit No.</b>	<b>Location</b>	<b>Total Exhaust Rate Cubic feet per minute</b>	<b>Type of Control</b>
TA-15-563	TA-15-563	5000	None
TA-3-38	TA-3-38	5471	None

### 2.4.1 Applicable Requirements

2.4.1.1 None

### 2.4.2 Emission Limits

<b>Source</b>	<b>Allowable Emission Limits</b>
	PM <sub>10</sub> (tpy)
TA-15-563	2.81
TA-3-38	3.07

This condition is pursuant to 40 CFR 50, 20.1.3 NMAC, Paragraphs 1, 7 and 8 of 20.2.70.302.A NMAC.

### 2.4.3 Operational Requirements

2.4.3.1 Saws, drills, shaping and sanding equipment shall operate at a maximum of 4368 hours per year.

2.4.3.2 Process cyclones shall operate during shop operations that are vented to the cyclone.

The conditions of Section 2.4.3 are pursuant to Paragraphs 1, 7 and 8 of 20.2.70.302.A NMAC.

### 2.4.4 Emissions Monitoring

2.4.4.1 The permittee shall maintain logs of the hours the carpenter shops are in operation.

This condition is pursuant to 20.2.70.302.C NMAC.

2.4.5 Recordkeeping

2.4.5.1 Record the hours of operation for each shop monthly.

This condition is pursuant to Subsection C and Paragraph D(1) of 20.2.70.302 NMAC.

2.4.6 Reporting

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

This condition is pursuant to 20.2.70.302.E NMAC.

**2.5 Chemical Usage**

All of the process equipment authorized for this source type is listed in the table shown below (emission units that were identified as insignificant or trivial and equipment not regulated pursuant to the Act are not included):

Emission Unit No.	Location
LANL-FW-CHEM	Facility-wide

2.5.1 Applicable Requirements

2.5.1.1 None.

2.5.2 Operational Requirements

2.5.2.1 None.

2.5.3 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

This condition is pursuant to 40CFR50, Paragraphs 1, 7 and 8 of 20.2.70.302.A NMAC.

2.5.4 Emissions Monitoring/Recordkeeping Requirements

2.5.4.1 Maintain records of chemical purchasing through facility-wide chemical tracking system, and use the data to calculate the emissions on a semiannual basis in accordance with Condition 4.1.

This condition is pursuant to 20.2.70.302.C NMAC.

## 2.5.5 Reporting

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

This condition is pursuant to 20.2.70.302.E NMAC.

## 2.6 Degreasers

All of the process equipment authorized for this source type is listed in the table shown below (emission units that were identified as insignificant or trivial and equipment not regulated pursuant to the Act are not included):

<b>Emission Unit No.</b>	<b>Location/Building</b>	<b>Type of Degreaser</b>
TA-55-DG-1	TA-55	Ultrasonic Cold Batch
TA-55-DG-2	TA-55	Ultrasonic Cold Batch
TA-55-DG-3	TA-55	Spray Cold Batch

### 2.6.1 Applicable Requirements

2.6.1.1 The following requirement applies to these emission units: 40 CFR Part 63, Subpart T.

### 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

This condition is pursuant to 40CFR50, Paragraphs 1, 7 and 8 of 20.2.70.302.A NMAC.

### 2.6.3 Operational Requirements

2.6.3.1 The facility shall comply with the applicable requirements of 40 CFR Part 63, Subpart T including:

2.6.3.1.1 Keep degreaser closed with a tight fitting cover.

2.6.3.1.2 Maintain a freeboard ratio of 0.75 or greater.

2.6.3.1.3 Collect and store all waste solvent and wipe rags in closed containers.

2.6.3.1.4 Perform flushing within the freeboard area only.

2.6.3.1.5 Allow cleaned parts to drip for 15 seconds or until dripping stops.

2.6.3.1.6 Do not exceed the fill line on the solvent level.

2.6.3.1.7 Wipe up spills immediately.

2.6.3.1.8 Do not create observable splashing with agitation device.

2.6.3.1.9 Keep the degreaser from being exposed to drafts greater than 40 m/sec.

2.6.3.1.10 Do not clean sponges, fabric, wood, or paper.

The conditions of Section 2.6.3 are pursuant to Paragraphs 1, 7 and 8 of 20.2.70.302.A NMAC.

#### 2.6.4 Emissions Monitoring Requirements

2.6.4.1 Record the amount of solvent added to the degreaser and calculate the emissions on a semi-annual basis in accordance with Condition 4.1.

2.6.4.2 Complete checklist for work practice standards.

The conditions of Section 2.6.4 are pursuant to 20.2.70.302.C NMAC.

#### 2.6.5 Recordkeeping

2.6.5.1 Maintain records of solvent content and work practice checklists.

This condition is pursuant to Subsection C and Paragraph D(1) of 20.2.70.302 NMAC.

#### 2.6.6 Reporting

2.6.6.1 Submit notification of initial startup.

2.6.6.2 Submit a compliance report 150 days after initial startup.

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

The conditions of Section 2.6.6 are pursuant to 20.2.70.302.E NMAC.

**2.7 Internal Combustion Sources**

All of the process equipment authorized for this source type is listed in the table shown below (emission units that were identified as insignificant or trivial and equipment not regulated pursuant to the Act are not included):

Emission Unit No.	Location/ Building	Equipment Type	Manufacturer/ Model	Serial No.	Nameplate Capacity	Fuel Type
TA-33-G-1	TA-33	Diesel Fired Generator	Kohler/1600 ROZD 71	375801	1600 kW	Diesel
Standby Generators (see Note 1)	Scattered	Natural Gas, Diesel, Propane and Gasoline Fired Generators	Various	Various	See Note 1	Natural Gas, Diesel, Propane and Gasoline

Note 1: See pages 3-50 through 3-54 of the 2002 application.

**2.7.1 Applicable Requirements**

2.7.1.1 The following requirements apply to emission unit TA-33-G-1: 20.2.61 NMAC and NSR Permit Number 2195F.

**2.7.2 Emission Limits**

Source	Allowable Emission Limits											
	TSP		PM10		NO <sub>x</sub>		CO		VOC		SO <sub>x</sub>	
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

2.7.2.1 Visible emissions shall not equal or exceed an opacity of 20%.

The conditions of Section 2.7.2 are pursuant to 40CFR50, Paragraphs 1, 7 and 8 of 20.2.70.302.A NMAC.

**2.7.3 Operational Requirements**

2.7.3.1 Operation of the LANL stationary standby generator pool is limited to an average of 168 hr/year each to assure non-applicability of 202.74 NMAC, PSD.

2.7.3.2 TA-33-G-1 is limited to 12,000 kWh/day and 1,350,000 kWh/year.

2.7.3.3 TA-33-G-1 is limited at full capacity to eight hours a day between the hours of 7:00 am and 5:00 pm.

The conditions of Section 2.7.3 are pursuant to Paragraphs 1, 7 and 8 of 20.2.70.302.A NMAC.

2.7.4 Emissions Monitoring Requirements

Source	Monitoring Required
Stationary standby Generators	Track and record hours of operation for stationary standby generators on a semi-annual basis.
TA-33-G-1	Track hourly and 12-month rolling total kWh.  Record hours of operation and the time operation begins and ends each day.

2.7.4.1 40 CFR Part 60, Appendix A, Method 9 shall be used to determine compliance with the opacity limitation.

The conditions of Section 2.7.4 are pursuant to 20.2.70.302.C NMAC.

2.7.5 Recordkeeping

2.7.5.1 Recordkeeping for this source category is specified at Condition 2.7.4.

This condition is pursuant to Subsection C and Paragraph D(1) of 20.2.70.302 NMAC.

2.7.6 Reporting

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

This condition is pursuant to 20.2.70.302.E NMAC.

**2.8 Data Disintegrator**

All of the process equipment authorized for this source type is listed in the table shown below (emission units that were identified as insignificant or trivial and equipment not regulated pursuant to the Act are not included):

<b>Emission Unit No.</b>	<b>Unit Type</b>	<b>Manufacturer</b>	<b>Model No./Serial No.</b>	<b>Year of Manuf.</b>	<b>Capacity Nameplate</b>	<b>Type of Control Equipment</b>
TA-52-11	Data Disintegrator/ Industrial Shredder	Security Engineered Machinery	1424/11892	9/2002	1200 lb/hr	Cyclone w/ 75% control efficiency and cloth tube filters w/95% control efficiency

2.8.1 Applicable Requirements

2.8.1.1 NSR Permit Number 2195H.

2.8.2 Emission Limits

<b>Source</b>	<b>Allowable Emission Limits</b>			
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.

This condition is pursuant to 40 CFR 50 and Paragraphs 1, 7 and 8 of 20.2.70.302.A NMAC.

2.8.3 Operational Requirements

None.

2.8.4 Emissions Monitoring

2.8.4.1 The permittee shall maintain a log of the number of boxes of media that are destroyed and calculate the emissions on a semiannual basis in accordance with Condition 4.1. This condition is pursuant to 20.2.70.302.C NMAC.

2.8.4.2 The permittee shall perform regular maintenance and repair on the cyclone and cloth tube filter(s) per manufacturer’s recommendations. This condition was brought forward from NSR Permit No. 2195H Condition 1.d.

2.8.5 Recordkeeping

2.8.5.1 Record the number of boxes of media that are destroyed monthly.

2.8.5.2 The permittee shall maintain adequate records on site to demonstrate compliance with manufacturer's recommended repair and maintenance schedules for the cyclone and the cloth tube filter(s). This condition was brought forward from NSR Permit No. 2195H, Condition 4a.

## 2.8.6 Reporting

2.8.6.1 Report shall be submitted in accordance with conditions 4.1 and 4.2. This condition is pursuant to 20.2.70.302.E NMAC.

## 2.8.7 Compliance

2.8.7.1 If any compliance testing is required, it shall be conducted in accordance with EPA Reference Methods 1 through 4, Method 5 for TSP, and contained in CFR Title 40 Part 60 Appendix A. For combined TSP and PM10, testing shall be in accordance with 40 CFR 51, Appendix M, Method 201. Alternative test method(s) may be used if the Department approves the change. This condition was brought forward from NSR Permit No. 2195H, Condition 6.b, as amended.

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

All of the process equipment authorized for this facility is listed in the table shown below (emission units that were identified as insignificant or trivial and equipment not regulated pursuant to the Act are not included):

<b>Emission Unit No.</b>	<b>Equipment Type</b>	<b>Make/Serial No.</b>	<b>Year of Manuf.</b>	<b>Capacity<sup>1</sup></b>
TA-3-22-1	Boiler	Edgemoor Iron Works/ 4008	1950	178.5 MMBtu/hr
TA-3-22-2	Boiler	Edgemoor Iron Works/ 4009	1950	178.5 MMBtu/hr
TA-3-22-3	Boiler	Union/11804	1951	178.5 MMBtu/hr
TA-3-22 CT-1	Combustion Turbine	Rolls-Royce/RB211-6761 DLE	2003	24.6 MW
F-1	Flue Gas Recirculation Fan	Robinson Industries	2001	1800 rpm
F-2	Flue Gas Recirculation Fan	Robinson Industries	2001	1800 rpm
F-3	Flue Gas Recirculation Fan	Robinson Industries	2001	1800 rpm

<sup>1</sup>The boiler and turbine capacity listed has been derated for altitude from the maximum heat input rating.



### 2.9.1 Applicable Requirements

2.9.1.1 The boilers (Units TA-3-22-1, TA-3-22-2, TA-3-22-3) are subject to 20.2.33 and 20.2.34 NMAC. The combustion turbine (Unit TA-3-22 CT-1) is subject to 40 CFR Part 60 Subpart A and 40 CFR Part 60 Subpart GG. The boilers and the turbine are subject to 20.2.61 NMAC. NSR Permit Number 2195BM1 applies to the power plant as a whole.

### 2.9.2 Emission Limits

Source	Allowable Emission Limits											
	NO <sub>x</sub> (lb/hr)		CO (lb/hr)		SO <sub>x</sub> (lb/hr)		TSP (lb/hr)		PM <sub>10</sub> (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 <sup>1</sup>	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) <sup>1,2</sup>	33.2		19.8		1.9		2.3		2.3		-	

<sup>1</sup>Annual emission limits are 12-month rolling totals. This is pursuant to NSR Permit No. 2195BM1, Table 2.2, Note 1.

<sup>2</sup>“-“ notation implies emission rates less than or equal to 0.5 tpy.

2.9.2.1 Nitrogen dioxide emissions shall not exceed 0.3 lb/MMBtu of heat input from Units TA-3-22-1, TA-3-22-2, and TA-3-22-3 when burning natural gas or oil. This condition was brought forward from NSR Permit No. 2195BM1, Condition 2.b.

2.9.2.2 Nitrogen oxide emissions from the Unit TA-3-22 CT-1 shall not exceed 25 ppmv at 15% O<sub>2</sub>. This condition was brought forward from NSR Permit No. 2195BM1, Condition 2d.

### 2.9.3 Operational Requirements

2.9.3.1 Units TA-3-22-1, TA-3-22-2 and TA-3-22-3 shall either use pipeline quality natural gas containing no more than 2 grains of total sulfur per 100 standard cubic foot or No. 2 fuel oil that is not a blend containing waste oils or solvents and contains less than or equal to 0.05% sulfur by weight. This condition was brought forward from NSR Permit No. 2195BM1, Condition 1.g.

2.9.3.2 Units TA-3-22-1, TA-3-22-2 and TA-3-22-3 combined shall not use more than 2,000 MMscf of natural gas in any 365 day period or more than 500,000 gallons of No. 2 fuel oil in any

365 day period. These conditions were brought forward from NSR Permit No. 2195BM1, Conditions 1.g.i and 1.g.ii.

2.9.3.3 A volumetric flow meter shall be connected to the facility or to Units TA-3-22-1, TA-3-22-2 and TA-3-22-3 so that the total amount of natural gas being used by the boilers can be continually recorded. This condition was brought forward from NSR Permit No. 2195BM1, Condition 1.h.

2.9.3.4 Unit TA-3-22 CT-1 shall use pipeline quality natural gas containing no more than 2 grains of total sulfur per 100 standard cubic feet. Unit TA-3-22 CT-1 shall not use more than 646 MM standard cubic feet (SCF) of natural gas in any 365 day period. These conditions were brought forward from NSR Permit No. 2195BM1, Conditions 1.i and 1.j.

2.9.3.5 A volumetric fuel flow meter shall be connected to Unit TA-3-22 CT-1 so that the total amount of natural gas being used can be continually recorded. Although the facility is not subject to 40 CFR Part 75, Federal Acid Rain requirements, the flow meter shall meet the initial certification requirements of 40 CFR Part 75, Appendix D 2.1.5 and the quality assurance requirements of 40 CFR Part 75, Appendix D 2.1.6. This condition was brought forward from NSR Permit No. 2195BM1, Condition 1.k.

2.9.3.6 Unit TA-3-22 CT-1 shall be equipped with Rolls-Royce Dry Low Emissions (DLE) control technology (pre-mix, lean-burn series staged combustion system) to control NO<sub>x</sub> emissions. This condition was brought forward from NSR Permit No. 2195BM1, Condition 1.e.

2.9.3.7 Unit TA-3-22 CT-1 shall be operated at no less than 100% full load, except for minimal periods during startup and shutdown conditions. This condition was brought forward from NSR Permit No. 2195BM1, Condition 1.f.

2.9.3.8 Hours of operation, including start-up and shut-down times, of Units TA-3-22-1, TA-3-22-2, TA-3-22-3 and TA-3-22 CT-1 shall be monitored and recorded daily. This condition was brought forward from NSR Permit No. 2195BM1, Condition 1.l.

The conditions of Section 2.9.3 are pursuant to Paragraphs 1, 7 and 8 of 20.2.70.302.A NMAC.

#### 2.9.4 Emissions Monitoring Requirements

2.9.4.1 Total fuel oil consumption shall be monitored so that combined fuel oil usage of Units TA-3-22-1, TA-3-22-2 and TA-3-22-3 can be calculated on a rolling 365-day total. This condition was brought forward from NSR Permit No. 2195BM1, Condition 3.a.

2.9.4.2 Natural gas consumption shall be monitored so that combined natural gas usage of Units TA-3-22-1, TA-3-22-2 and TA-3-22-3 can be calculated on a rolling 365-day total. This condition was brought forward from NSR Permit No. 2195BM1, Condition 3.b.

2.9.4.3 Natural gas consumption shall be monitored so that natural gas usage for Unit TA-3-22 CT-1 can be calculated on a rolling 365-day total. This condition was brought forward from NSR Permit No. 2195BM1, Condition 3.f.

2.9.4.4 A certification of total sulfur content of the No. 2 fuel oil used by Units TA-3-22-1, TA-3-22-2 and TA-3-22-3 shall be obtained from the supplier whenever No. 2 fuel oil is delivered to the facility. This condition was brought forward from NSR Permit No. 2195BM1, Condition 3.c.

2.9.4.5 If the certification as specified by Condition 2.9.4.4 is not available at delivery, the permittee shall analyze the No. 2 fuel oil to determine the total sulfur content. The analysis shall be conducted using Department approved methods and standards for determining total sulfur content of No. 2 fuel oil. This condition was brought forward from NSR Permit No. 2195BM1, Condition 3.d.

2.9.4.6 The operating load of Unit TA-3-22 CT-1 specified by Condition 2.9.3.7 shall be monitored and recorded hourly during normal operations of that unit. Periods of startup and shutdown shall not be included in the hourly monitoring but shall be recorded separately. This condition was brought forward from NSR Permit No. 2195BM1, Condition 3.e.

2.9.4.7 Compliance with NO<sub>x</sub> pound per hour emission limits for Unit TA-3-22 CT-1 shall be determined by multiplying the daily total natural gas firing rate for the unit (expressed in thousands of SCF), as recorded pursuant to Condition 2.9.5.3, by the manufacturer's guaranteed emission rate of 0.1029 pounds NO<sub>x</sub> per thousand SCF of gas burned (applicable for worst-case conditions of negative 18 degrees Fahrenheit) and divided by the number of hours of operation of the unit during that day as recorded pursuant to Condition 2.9.3.8. Compliance with NO<sub>x</sub> annual emission limits for Unit TA-3-22 CT-1 shall be determined by multiplying the 365 day total natural gas firing rate for the unit (expressed in thousands of SCF), as recorded pursuant to Condition 2.9.5.3, by the manufacturer's guaranteed emission rate of 0.1029 pounds NO<sub>x</sub> per thousand SCF of gas burned (applicable for annual average conditions of 47.9 degrees Fahrenheit). This condition was brought forward from NSR Permit No. 2195BM1, Condition 3.g.

2.9.4.8 Compliance with CO pound per hour emission limits for Unit TA-3-22 CT-1 shall be determined by multiplying the daily total natural gas firing rate for the unit (expressed in thousands of SCF), as recorded pursuant to Condition 2.9.5.3, by the manufacturer's guaranteed emission rate of 0.731 pounds CO per thousand SCF of gas burned (applicable for worst-case conditions of negative 18 degrees Fahrenheit), and divided by the number of hours of operation of the unit during that day as recorded pursuant to Condition 2.9.3.8). Compliance with CO annual emission limits for Unit TA-3-22 CT-1 shall be determined by multiplying the 365 day total natural gas firing rate for the unit (expressed in thousands of SCF), as recorded pursuant to Condition 2.9.5.3, by the manufacturer's guaranteed emission rate of 0.0613 pounds CO per thousand SCF of gas burned (applicable for annual average conditions of 47.9 degrees Fahrenheit). This condition was brought forward from NSR Permit No. 2195BM1, Condition 3.h.

2.9.4.9 At least once each calendar quarter the permittee shall use the method specified in Conditions 2.9.4.7 and 2.9.4.8 to determine compliance of Unit TA-3-22 CT-1 with the hourly and annual emission limits specified in this permit. This condition was brought forward from NSR Permit No. 2195BM1, Condition 3.i.

2.9.4.10 Visible emissions from stationary combustion equipment shall not equal or exceed an opacity of 20%. Use of pipeline quality natural gas fuel as defined in Conditions 2.9.3.1 and 2.9.3.4 constitutes compliance with 20.2.61 NMAC unless opacity exceeds 20%. At such time as No. 2 fuel oil as defined in Condition 2.9.3.1 is used, opacity shall be measured in accordance with the procedures at 40 CFR 60, Appendix A, Method 9. Opacity measurements shall continue on a quarterly basis per calendar year for each effected unit until such time as pipeline quality natural gas is used. This condition is pursuant to 20.2.61 NMAC and NSR Permit No. 2195BM1, Condition 2.c.

2.9.4.11 Initial compliance tests are required on Unit TA-3-22 CT-1 for NO<sub>x</sub> and CO. These tests shall be conducted within sixty (60) days after the unit achieves the maximum normal production. If the maximum normal production rate does not occur within one hundred twenty (120) days of source startup, then the tests must be conducted no later than one hundred eighty (180) days after initial startup of the source. The tests shall be conducted in accordance with EPA Reference Methods 1 through 4, Method 7E for NO<sub>x</sub>, and Method 10 for CO contained in CFR Title 40, Part 60, Appendix A, and with the requirements of Subpart A, General Provisions, 60.8(f). Alternative test method(s) may be used if the Department approves the change. The permittee shall submit a testing protocol to the Department at least thirty (30) days prior to the test date, and provide notification to the Department at least thirty (30) days prior to the test date. This condition was brought forward from NSR Permit No. 2195BM1, Condition 6.b and General Condition 13.

2.9.4.12 The permittee shall comply with fuel sulfur monitoring requirements at 40 CFR 60.334(h) applicable to Unit TA-3-22 CT-1 by making the required demonstration which shows the fuel combusted in the turbine meets the definition of natural gas at 40 CFR 60.331(u).

The conditions of Section 2.9.4 are pursuant to 20.2.70.302.C NMAC.

## 2.9.5 Recordkeeping

2.9.5.1 Daily total fuel oil used by Units TA-3-22-1, TA-3-22-2 and TA-3-22-3 shall be recorded monthly to be used to calculate a 365 day rolling total.

2.9.5.2 Daily total natural gas consumption used by Units TA-3-22-1, TA-3-22-2 and TA-3-22-3 shall be recorded monthly to be used to calculate a 365 day rolling total.

2.9.5.3 Daily total natural gas consumption used by Unit TA-3-22 CT-1 shall be recorded monthly to be used to calculate a 365 day rolling total.

2.9.5.4 Records shall be kept to verify the total sulfur content of the No. 2 fuel oil used by Units TA-3-22-1, TA-3-22-2 and TA-3-22-3. Fuel supplier certifications shall be kept which include the name of the oil supplier and a statement that the sulfur content of the oil delivered contains less than or equal to 0.05% sulfur by weight. This condition was brought forward from NSR Permit No. 2195BM1, Conditions 4.a and 4.a.i.

2.9.5.5 If the permittee analyzes the fuel oil, records shall be kept which show the name of the oil supplier, the location of the oil where the sample was taken for analysis, the method used to determine the sulfur content of the oil and the results of the analysis for the sulfur content. This condition was brought forward from NSR Permit No. 2195BM1, Condition 4.a.ii.

2.9.5.6 Records of the operating load of Unit TA-3-22 CT-1 shall be maintained as required by Condition 2.9.4.6.

2.9.5.7 The permittee shall keep records of measurements and monitoring data required by Condition 2.9.4.7.

2.9.5.8 The permittee shall keep records of measurements and monitoring data required by Condition 2.9.4.8.

2.9.5.9 Quarterly records required by Condition 2.9.4.9 shall be kept on site and shall be made available to Department personnel upon request.

2.9.5.10 Records shall be kept to verify that the natural gas being consumed by Units TA-3-22-1, TA-3-22-2, TA-3-22-3 and TA-3-22 CT-1 is pipeline quality natural gas (less than or equal to 2 grains of total sulfur per 100 standard cubic foot). This condition is brought forward from NSR Permit 2195BM1, Condition 4b. In addition, the permittee shall record dates and duration of use of any fuels other than pipeline quality natural gas and the corresponding opacity measurements.

2.9.5.11 Records of initial compliance tests and any other emission tests required by the Department shall be maintained for the Unit TA-3-22 CT-1.

2.9.5.12 Unit TA-3-22 CT-1 shall comply with the recordkeeping requirements of 40 CFR 60.7 and maintain a record referenced by 40 CFR 60.334(h) demonstrating the fuel combusted meets the definition of natural gas.

The conditions of Section 2.9.5 are pursuant to Subsection C and Paragraph D(1) of 20.2.70.302 NMAC.

## 2.9.6 Reporting

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

This condition is pursuant to 20.2.60.302.E NMAC.

## 2.10 Facility Wide Emission Limits

2.10.1 The total allowable emissions from this facility, excluding trivial activities, are shown in the following table. LANL has accepted facility-wide allowable emission limits for criteria pollutants and hazardous air pollutants (HAPs) as shown below.

**Total Allowable Criteria Pollutant and HAP Emission Limits**

<b>Pollutant</b>	<b>Emission Limit (tons per year)</b>
Nitrogen Oxides (NO <sub>x</sub> )	245
Carbon Monoxide (CO)	225
Volatile Organic Compounds (VOCs)	200
Sulfur Dioxide (SO <sub>2</sub> )	150
Particulate Matter (PM)	120
Hazardous Air Pollutants (HAPs)	24 combined / 8 individual

2.10.2 20.2.72 NMAC shall apply to any construction or modification of existing equipment that triggers the applicability criteria in section 200 of 20.2.72 NMAC.

## 3.0 RECORDKEEPING

Conditions of 3.0 are pursuant to 20.2.70.302.D NMAC.

3.1 All sampling activities and measured data required by this permit for the emission units in this facility shall be recorded. The minimum information to be included in these records is:

- 3.1.1 equipment identification (include make, model and serial number for all tested equipment and emission controls), date, and time of sampling or measurements,
- 3.1.2 date analyses were performed,
- 3.1.3 analytical or test methods used,
- 3.1.4 results of analyses or tests,
- 3.1.5 operating conditions existing at the time of sampling or measurement,
- 3.1.6 name and title of persons who performed the analyses.

Conditions of 3.1 are pursuant to 20.2.70.302.D.1 NMAC.

3.2 The permittee shall keep copies of all monitoring and measurement data, equipment calibration and maintenance records, other supporting information, and reports required by this permit for at least five (5) years from the time the data was gathered or the reports were written. Each record shall show clearly to which emission unit and or piece of monitoring equipment it

applies, and the date the data was gathered. This condition is pursuant to 20.2.70.302.D.2 NMAC.

3.3 The permittee shall keep a record describing off permit changes made at this source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes. This condition is pursuant to 20.2.70.302.I.2 NMAC.

#### **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 NO<sub>x</sub>, CO, SO<sub>2</sub>, 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.

4.2 Reports of all required monitoring activities shall be submitted on a semiannual basis. All instances of deviation from permit requirements, including emergencies, shall be clearly identified in these reports. The conditions of 4.1 and 4.2 are pursuant to 20.2.70.302.E.1 NMAC.

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 1<sup>st</sup> to June 30<sup>th</sup> and July 1<sup>st</sup> to December 31<sup>st</sup>. This condition is pursuant to 20.2.70.302.E.1 NMAC.

4.4 The permittee shall submit reports of all deviations (including emergencies) from permit requirements to the Department when they occur. The permittee shall communicate initial notice of the deviation to the Department within twenty-four (24) hours of the start of the first business day following the start of the occurrence via telephone or facsimile. Within ten (10) calendar days of the start of the first business day following the start of the occurrence, written notice using the Excess Emissions Form (attached to this permit) shall be submitted to the Department. This condition is pursuant to 20.2.70.302.E.2. NMAC.

#### **5.0 COMPLIANCE**

5.1 The conditions of Section 5.1 are pursuant to 20.2.70.302.E.3 NMAC. The permittee shall submit compliance certification reports certifying the compliance status of this facility with respect to all permit terms and conditions, including applicable requirements. These reports shall be made on the current version of the Department's Compliance Certification Report Form (attached to this permit) and submitted to the Department and to EPA at least every 12 months. The reporting period is each calendar year; provided however, that the first report will only include those months within the year subsequent to permit issuance. This report is due no later than January 30<sup>th</sup> following the reporting period.

5.1.1 For sources that have submitted air dispersion modeling that demonstrates compliance with state and federal ambient air quality standards, in accordance with 20.2.70.300.D.10 NMAC or 20.2.72.203.A.4 NMAC, compliance with the terms and conditions of this permit regarding source emissions and operation shall be deemed to be compliance with state and federal ambient air quality standards (20.2.3NMAC NMAAQs and 40CFR50 NAAQS).

5.2 Conditions of 5.2 are pursuant to 20.2.70.302.G.1 NMAC. The permittee shall allow representatives of the Department, upon presentation of credentials and other documents as may be required by law, which includes proper clearances when required, to do the following:

5.2.1 enter the permittee's premises where a source or emission unit is located, or where records that are required by this permit to be maintained are kept,

5.2.2 have access to and copy, at reasonable times, any records that are required by this permit to be maintained,

5.2.3 inspect any facilities, equipment (including monitoring and air pollution control equipment), work practices or operation regulated or required under the permit,

5.2.4 sample or monitor any substances or parameters for the purpose of assuring compliance with this permit or applicable requirements or as otherwise authorized by the federal Act.

5.2.5 The Department recognizes that the permittee operates under security restrictions imposed by the Atomic Energy Act (42 USC 2011 *et seq.*) and the regulations promulgated thereunder as well as other federal laws and regulations. The Department agrees it will abide by those laws and regulations in access to property and records. Nothing in this permit condition shall be construed to deny access authorized by the Air Quality Control Act.

5.3 A copy of this permit shall be kept at the permitted facility and shall be made available to Department personnel for inspection upon request. This condition is pursuant to 20.2.70.302.G.3 NMAC.

## **6.0 EMERGENCIES**

Conditions of 6.0 are pursuant to 20.2.70.304 NMAC.

6.1 An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the permittee, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, or careless or improper operation.



6.2 An emergency constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations contained in this permit if the permittee has demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (a) An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- (b) This facility was at the time being properly operated;
- (c) During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (d) The permittee fulfilled notification requirements under Condition 4.4 of this permit. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

6.3 In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

6.4 This provision is in addition to any emergency or upset provision contained in any applicable requirement, except that this facility shall not be subject to the provisions of 20.2.7 NMAC (Excess Emissions during Malfunction, Startup, Shutdown, or Scheduled Maintenance) for permit terms and conditions issued solely under 20.2.70 NMAC, and not as a result of any other applicable requirement.

## **7.0 PERMIT REOPENING AND REVOCATION**

7.1 This permit will be reopened and revised when any one of the following conditions occurs, and may be revoked and reissued when 7.1.3 or 7.1.4 occurs. Conditions of 7.1 are pursuant to 20.2.70.405.A.1 NMAC.

7.1.1 Additional requirements under the federal Act become applicable to this source three (3) or more years before the expiration date of this permit. If the effective date of the requirement is later than the expiration date of this permit, then the permit is not required to be reopened unless the original permit or any of its terms and conditions has been extended due to the Department's failure to take timely action on a request by the permittee to renew this permit.

7.1.2 Additional requirements, including excess emissions requirements, become applicable to this source under Title IV of the federal Act (the acid rain program). Upon approval by the Administrator, excess emissions offset plans will be incorporated into this permit.

7.1.3 The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the terms and conditions of the permit.

7.1.4 The Department or the Administrator determines that the permit must be revised or revoked and reissued to assure compliance with an applicable requirement.

7.2 Proceedings to reopen or revoke this permit shall affect only those parts of this permit for which cause to reopen or revoke exists. Emissions units for which permit conditions have been revoked shall not be operated until new permit conditions have been issued for them. This condition is pursuant to 20.2.70.405.A.2 NMAC.

## **8.0 STRATOSPHERIC OZONE**

This condition is pursuant to 20.2.70.302.A.1 NMAC.

8.1 The permittee shall comply with the following standards for recycling and emissions reductions pursuant to 40CFR82, Subpart F:

8.1.1 Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to subsection 82.156.

8.1.2 Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to subsection 82.158.

8.1.3 Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to subsection 82.161.

8.2 The permittee shall comply with the standards for servicing of motor vehicle air conditioners pursuant to 40 CFR Part 82, Subpart B.

8.3 The permittee shall comply with the standards for servicing and maintaining equipment that contains halons pursuant to 40 CFR Part 82, Subpart H.

## **9.0 RADIONUCLIDE NESHAPS**

The conditions of Section 9 are pursuant to 20.2.70.302.A NMAC

9.1 The permittee shall comply with the requirements of 40 CFR Part 61, Subpart H – NESHAP for Radionuclides other than Radon from DOE Facilities.

9.2 The permittee shall comply with the requirements of 40 CFR Part 61, Subpart Q – NESHAP for Radon Emissions from DOE Facilities.

## **10.0 ASBESTOS NESHAP**

This condition is pursuant to 20.2.70.302.A NMAC.

10.1 The permittee shall comply with the requirements of 40 CFR Part 61, Subpart M- NESHAP for Asbestos.

### **APPEAL PROCEDURES**

Any person who participated in this permitting action before the Department and who is adversely affected by the action taken by the Department concerning this permit, may file a petition for a hearing before the Environmental Improvement Board ("board"). The petition must be made in writing to the board within thirty (30) days from the date notice is given of the Department's action. This petition must specify the portions of the permitting action to which the petitioner objects and certify that a copy of the petition has been mailed or hand-delivered as required by 20.2.70.403.A.2 NMAC; a copy of the permitting action for which review is sought must be attached to the petition. Upon receipt of the appeal notice, the petitioner must mail or deliver a copy of the petition to the Department, and to the applicant or permittee if the petitioner is not the applicant/permittee. Requests for a hearing shall be sent to:

Secretary, New Mexico Environmental Improvement Board  
1190 St. Francis Drive, Runnels Bldg.  
P.O. Box 26110  
Santa Fe, New Mexico 87502

Unless a timely request for a hearing is made, the decision of the Department will be final. If a timely request for hearing is made, the board will hold a hearing within sixty (60) days of receipt of the petition in accordance with the New Mexico Air Quality Control Act NMSA 1978 § 74-2-7 and 20.2.70.403.A.3 NMAC.

Any person who is adversely affected by an administrative action taken by the board pursuant to 20.2.70.403.A NMAC may appeal to the Court of Appeals in accordance with New Mexico Air Quality Control Act NMSA 1978 § 74-2-9. Petitions for judicial review must be filed no later than thirty (30) days after the administrative action. This condition is pursuant to 20.2.70.403.B NMAC and New Mexico Air Quality Control Act NMSA 1978 § 74-2-9.

### **SUBMITTAL OF REPORTS AND CERTIFICATIONS**

Test protocols, excess emission forms, test reports, compliance notifications, monitoring results and reports, emissions sampling and measurement data, monitoring activity reports, compliance schedule progress reports, emissions reports, and any other compliance status information required by this permit shall be certified by the responsible official and submitted to:

Program Manager, Compliance & Enforcement Section  
New Mexico Environment Department  
Air Quality Bureau  
P.O. Box 26110  
Santa Fe, New Mexico 87502-0110

In accordance with 20.2.70.302.E.3 NMAC, Compliance Certifications Reports shall be submitted to the Administrator at the address below:

Chief, Air Permits  
US EPA Region-6, 6PD-R  
1445 Ross Avenue, Suite 1200  
Dallas, TX 75202-2733

Questions about this permit should be referred to Rhonda Payne of the Air Quality Bureau in Santa Fe at (505) 955-8083.

Additional copies of the attachments can be downloaded from the NMED web site at URL [http://www.nmenv.state.nm.us/aqb/permit/app\\_form.html](http://www.nmenv.state.nm.us/aqb/permit/app_form.html) for your convenience.

- Attachments:**
- 1) Excess Emission Form (for reporting deviations and emergencies)
  - 2) Compliance Certification Report Form
  - 3) Acronyms

**APPENDIX A****Table A.1: APPLICABLE REQUIREMENTS FOR THIS FACILITY<sup>1</sup>**

The permittee shall comply with all applicable sections of the requirements listed in the following table.

<b>Applicable Requirements</b>	<b>Federally Enforceable</b>	<b>Entire Facility</b>	<b>Unit Nos.</b>
20.2.7 NMAC - Excess Emissions during Malfunction Startup, Shutdown or Scheduled Maintenance	X	(2)	
20.2.11 NMAC – Asphalt Process Equipment	X		TA-60-BDM
20.2.33 NMAC – Gas Burning Equipment – Nitrogen Dioxide	X		TA-3-22-1, TA-3-22-2, TA-3-22-3
20.2.34 NMAC – Oil Burning Equipment – Nitrogen Dioxide	X		TA-3-22-1, TA-3-22-2, TA-3-22-3
20.2.61 NMAC Control of Smoke and Visible Emissions	X		TA-3-22-1, TA-3-22-2, TA-3-22-3, TA-3-22-CT-1, TA-16-1484-BS-1, TA-16-1484-BS-2, TA-48-1-BS-1, TA-48-1-BS-2, TA-48-1-BS-6, TA-53-365-BHW-1, TA-53-365-BHW-2, TA-55-6-BHW-1, TA-55-6-BHW-2, TA-59-1-BHW-1, TA-59-1-BHW-2, TA-50-2, TA-21-357-1, TA-21-357-2, TA-21-357-3, TA-33-G-1
20.2.70 NMAC Operating Permits	X	X	
20.2.71 NMAC Operating Permit Emission Fees	X	X	
Air Quality Bureau Permit No: 632, 634, 1081, 2195, 2195B, 2195BM1, 2195F, GCP-3-2195-G, 2195H	X		As referenced in the permit
20.2.73 NMAC Notice of Intent and Emissions Inventory Requirements	X	X	

<b>Applicable Requirements</b>	<b>Federally Enforceable</b>	<b>Entire Facility</b>	<b>Unit Nos.</b>
40 CFR 50 National Ambient Air Quality Standards	X	X	
40 CFR 60 Subpart Dc – NSPS for Small Industrial-Commercial-Institutional Steam Generating Units	X		TA-55-6-BHW-1, TA-55-6-BHW-2
40 CFR 60 Subpart I – NSPS for Hot Mix Asphalt Facilities	X		TA-60-BDM
40 CFR 60 Subpart GG Stationary Gas Turbines	X		TA-3-22 CT-1
40 CFR 61 Subpart C – NESHAP for Beryllium	X		TA-3-141, TA-35-213, TA-55-PF4, TA-3-29, TA-3-66, TA-16-207, TA-35-87
40 CFR 61 Subpart H – NESHAP for Radionuclides other than Radon from DOE Facilities	X	X	
40 CFR 61 Subpart M – NESHAP for Asbestos	X	X	
40 CFR 61 Subpart Q – NESHAP for Radon Emissions from DOE Facilities	X	X	
40 CFR 63 Subpart T – MACT for Halogenated Solvent Cleaning	X		TA-55-DG-1, TA-55-DG-2, TA-55-DG-3
40 CFR 82 Subpart B – Servicing of Motor Vehicle Air Conditioners	X	X	
40 CFR 82 Subpart F – Recycling and Emission Reduction	X	X	
40 CFR 82 Subpart H – Halon Emissions Reduction	X	X	

(1) NMED will petition the EIB to amend the definition of “applicable requirement” in 20.2.70.7.E NMAC to state that the New Mexico Ambient Air Quality Standards (NMAAQS), 20.2.3 NMAC are not included. If the EIB denies the petition, NMED will reopen this permit to add the NMAAQS to this

table, and the permittee may challenge a determination that the NMAAQS are “applicable requirements.”

(2) Regulation 20.2.7 NMAC applies to permit terms and conditions except as provided in Table A.2.

**Table A.2: The Department has determined that the following requirements identified in the permit application are not applicable requirements for this facility, or the requirement does not impose any conditions in this permit.**

Requirements identified in the Permit Application as applicable	Not Applicable For This Facility (1)	No Requirements (2)
20.2.7 NMAC Excess Emissions during Malfunction, Startup, Shutdown, or Scheduled Maintenance	(3)	
20.2.60 NMAC Open Burning		X
20.2.72 NMAC Permits		X
20.2.74 NMAC Permits – Prevention of Significant Deterioration		X
20.2.75 NMAC Permit Fees		X

(1) No existing or planned operation/activity at this facility triggers the applicability of these requirements.

(2) Although these regulations may provide guidance, they do not impose any specific requirements on the operation of the facility as described in this permit.

(3) Regulation 20.2.7 NMAC does not apply to permit terms or conditions arising under 20.2.77 NMAC, 20.2.78 NMAC, or 20.2.82 NMAC, or created solely under the authority of regulation 20.2.70 NMAC.