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Air Quality Bureau
TITLE V OPERATING PERMIT - **DRAFT**
Issued under 20.2.70 NMAC

Note to Applicant for Draft Permit Reviews: The permit specialist provides this draft permit to the applicant as a courtesy to assist AQB with developing practically enforceable permit terms & conditions and correcting any technical errors. Please note that the draft permit may change following completion of the Department's internal reviews and if time allows, the applicant may be provided an opportunity for additional review before the permit is issued.

Certified Mail No:
Return Receipt Requested

Operating Permit No:	P100-R3
Facility Name:	Los Alamos National Laboratory
Facility Owner/Permittee:	U.S. Department of Energy, National Nuclear Security Administration
Operator Names:	Triad National Security, LLC
Mailing Address:	Newport News Nuclear BWXT – Los Alamos, LLC P.O. Box 1663, MS K491 Los Alamos, New Mexico 87545
TEMPO/IDEA ID No:	856-PRT20190004
AIRS No:	35 0280001
Permitting Action:	Title V Renewal
Source Classification:	Title V Major, PSD Synthetic Minor
Facility Location:	380,790 m E by 3,970,800 m N, Zone 13; Datum NAD83
County:	Los Alamos
Air Quality Bureau Contact:	James E. Nellessen
Main AQB Phone No.	(505) 476-4300
TV Permit Expiration Date:	_____
TV Renewal Application Due:	_____

Liz Bisbey-Kuehn
Bureau Chief
Air Quality Bureau

Date

[Delete all below at time final permit submitted for signature.]

FILE NAME: TV_PERMIT_PART_A_Master

SAVE DATE: 7/16/2020 5:39:00 PM

Print Date: 7/16/2020 5:39:00 PM

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PART B GENERAL CONDITIONS (Attached)

PART C MISCELLANEOUS: Supporting On-Line Documents; Definitions; Acronyms (Attached)

PART A FACILITY SPECIFIC REQUIREMENTS

A100 Introduction

A. Not Applicable.

A101 Permit Duration (expiration)

- A. The term of this permit is five (5) years. It will expire five years from the date of issuance. Application for renewal of this permit is due twelve (12) months prior to the date of expiration. (20.2.70.300.B.2 and 302.B NMAC)
- B. If a timely and complete application for a permit renewal is submitted, consistent with 20.2.70.300 NMAC, but the Department has failed to issue or disapprove the renewal permit before the end of the term of the previous permit, then the permit shall not expire and all the terms and conditions of the permit shall remain in effect until the renewal permit has been issued or disapproved. (20.2.70.400.D NMAC)

A102 Facility: Description

- A. Los Alamos National Laboratory (LANL or the Laboratory) conducts research and development. 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.
- B. The Laboratory is located in UTM Zone 13, UTMH 380.790 km, UTMV 3970.800 km, in and adjacent to Los Alamos, New Mexico in Los Alamos County. These coordinates are 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 to the southeast. The surrounding land is largely undeveloped, with large tracts of land being held by Santa Fe National Forest, Bureau of Land Management, Bandelier National Monument, and San Ildefonso Pueblo. (20.2.70.302.A(7) NMAC)
- C. Tables 102.A and Table 102.B show the potential to emit (PTE) from this facility for information only. This is not an enforceable condition and excludes insignificant or trivial activities.

Table 102.A: Total Potential to Emit (PTE) from Entire Facility

Pollutant	Emissions (tons per year)
Nitrogen Oxides (NOx)	245

Table 102.A: Total Potential to Emit (PTE) from Entire Facility

Pollutant	Emissions (tons per year)
Carbon Monoxide (CO)	225
Volatile Organic Compounds (VOC) ¹	200
Sulfur Dioxide (SO ₂)	150
Particulate Matter (PM) ²	120
Particulate Matter 10 microns or less (PM ₁₀)	120
Particulate Matter 2.5 microns or less (PM _{2.5})	120
Greenhouse Gas (GHG) as CO ₂ e	264,450

- VOC total includes emissions from Fugitives.
- PM is a regulated new source review pollutant per 20.2.74 NMAC Prevention of Significant Deterioration and 20.2.70 NMAC, Title V. No ambient air quality standards apply to total suspended particulates or PM.

Table 102.B: Total Potential to Emit (PTE) for ¹Hazardous Air Pollutants (HAPs) and State Toxic Air Pollutants (TAPs) that exceed 1.0 ton per year

Pollutant	Emissions (tons per year)
Ammonia ³	23.2
Individual HAP (limit for each/any individual HAP)	8.0
Total HAPs ²	24.0

- HAP emissions are already included in the VOC emission total.
- The individual and total HAPs emissions as listed are facility-wide emission caps.
- Listed as a state toxic air pollutant (TAP) per 20.2.72,502 NMAC.

A103 Facility: Applicable Regulations and Non-Applicable Regulations

- A. The permittee shall comply with all applicable sections of the requirements listed in Table 103.A.

Table 103.A: Applicable Requirements

Applicable Requirements	Federally Enforceable	Unit No.
NSR Permit Nos: 632, 634-M2, 1081-M1, 1081-M1R1, 1081-M1R3, 1081-M1R5, 1081-M1R6, 2195B-M3, 2195F-R4, GCP-3-2195G, 2195H, 2195N-R2 and 2195P-R4 (Per 20.2.72 NMAC)	X	NSR permitted Facilities as included in this permit
20.2.1 NMAC General Provisions	X	Entire Facility
20.2.7 NMAC Excess Emissions	X	Entire Facility
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, TA3-22-3
20.2.34 NMAC Oil Burning Equipment – Nitrogen Dioxide	X	TA-3-22-1, TA-3-22-2, TA3-22-3
20.2.60 NMAC Open Burning	X	Entire Facility

Table 103.A: Applicable Requirements

Applicable Requirements	Federally Enforceable	Unit No.
20.2.61 NMAC Smoke and Visible Emissions	X	All stationary combustion sources (except TA-60-BDM)
20.2.65 NMAC Smoke Management	X	Entire Facility
20.2.70 NMAC Operating Permits	X	Entire Facility
20.2.71 NMAC Operating Permit Emission Fees	X	Entire Facility
20.2.72 NMAC Construction Permits	X	NSR Permit Nos: 632, 634-M2, 1081-M1, 1081-M1R1, 1081-M1R3, 1081-M1R5, 1081-M1R6, 2195B-M3, 2195F-R4, GCP-3-2195G, 2195H, 2195N-R2 and 2195P-R4
20.2.73 NMAC Notice of Intent and Emissions Inventory Requirements	X	Entire Facility
20.2.77 NMAC New Source Performance Standards (NSPS)	X	Units subject to 40 CFR 60
20.2.78 NMAC National Emission Standards for Hazardous Air Pollutants (NESHAP)	X	Units subject to 40 CFR 61
20.2.82 NMAC Maximum Achievable Control Technology (MACT) Standards for Source Categories of HAPs	X	Units subject to 40 CFR 63
40 CFR 50 National Ambient Air Quality Standards	X	Entire Facility
40 CFR 60, Subpart A, General Provisions	X	Units subject to 40 CFR 60
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, RLUOB-BHW-1 through RLUOB-BHW-4, and TA-3-22-4 and TA-3-22-5
40 CFR 60, Subpart I, NSPS for Hot Mix Asphalt Facilities	X	TA-60-BDM
40 CFR 60, Subpart GG, NSPS for Stationary Gas Turbines	X	TA-3-22-CT-1
40 CFR 60, Subpart IIII, NSPS for Stationary Compression Ignition Internal Combustion Engines	X	RLUOB-GEN-1, 2, and 3; TA-48-GEN-1; TA-55-GEN-1, 2, and 3; TA-50-GEN-184; TA-55-GEN-474; TA-55-GEN-475; TA-63-GEN-TRU; and TA-3-1404-GEN
40 CFR 60, Subpart KKKK, NSPS for Stationary Combustion Turbines	X	TA-3-22-CHP-1 (both the turbine and the HRSG)

Table 103.A: Applicable Requirements

Applicable Requirements	Federally Enforceable	Unit No.
40 CFR 61, Subpart A, General Provisions	X	Units subject to 40 CFR 61
40 CFR 61, Subpart C, NESHAP for Beryllium	X	TA-3-141, TA-35-213, TA-55-PF4, TA-3-66
40 CFR 61, Subpart H, NESHAP for Radionuclides other than Radon from DOE Facilities	X	Entire Facility
40 CFR 61, Subpart M, NESHAP for Asbestos	X	Entire Facility
40 CFR 61, Subpart Q, NESHAP for Radon Emissions from DOE Facilities	X	Entire Facility
40 CFR 63, Subpart A, General Provisions	X	Units subject to 40 CFR 63
40 CFR 63, Subpart T, MACT for Halogenated Solvent Cleaning	X	TA-55-DG-1
40 CFR 63, Subpart CCCCCC, MACT for Gasoline Dispensing Facilities (GDF)	X	All GDF at LANL
40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners (MVAC)	X	Entire Facility
40 CFR 82, Subpart F, Recycling and Emission Reduction	X	Entire Facility
40 CFR 82, Subpart H, Halon Emissions Reduction	X	Entire Facility
40 CFR 82, Subpart I, Ban on Refrigeration and Air Conditioning Appliances Containing HCFCs.	X	Entire Facility

- B. Table 103.B lists requirements that are **not** applicable to this facility. This table only includes those requirements cited in the application as applicable and determined by the Department to be not applicable, or the Department determined that the requirement does not impose any conditions on a regulated piece of equipment.

Table 103.B: Non-Applicable Requirements

Non-Applicable Requirements	(1)	(2)	Justification For Non-Applicability
20.2.3 NMAC Ambient Air Quality Standards	X		
20.2.34 NMAC Oil Burning Equipment – Nitrogen Dioxide	X		Boilers are below annual capacity threshold

1. Not Applicable for this Facility: No existing or planned operation/activity at this facility triggers the applicability of these requirements.
2. No Requirements: Although these regulations may apply, they do not impose any specific requirements on the operation of the facility as described in this permit.

- C. Compliance with the terms and conditions of this permit regarding source emissions and operation demonstrate compliance with national ambient air quality standards specified at 40 CFR 50, which were applicable at the time air dispersion modeling was performed for the facility's NSR Permits 632, 634-M2, 1081-M1, 1081-M1R1, 1081-M1R3, 1081-M1R5, 1081-M1R6, 2195B-M3, 2195F-R4, GCP-3-2195G, 2195H, 2195N-R2 and 2195P-R4.

A104 Facility: Regulated Sources

- A. Source category specific Regulated Equipment Tables are included in Section Series A600 through A1600 under the Equipment Specific Requirements part of this permit. The Regulated Equipment Tables list all of the process equipment authorized for this facility. Emission units identified as insignificant or trivial activities (as defined in 20.2.70.7 NMAC) and/or equipment not regulated pursuant to the Act are not included.

A105 Facility: Control Equipment

- A. Source category specific Control Equipment Tables are included in Section Series A600 through A1600 under the Equipment Specific Requirements part of this permit. The Control Equipment Tables list all the pollution control equipment required for this facility. Each emission point is identified by the same number that was assigned to it in the permit application.

A106 Facility: Allowable Emissions

- A. Source category specific Allowable Emissions are established in Section Series A600 through A1600 under the Equipment Specific Requirements part of this permit. Table 106.A below shows a summary of these emission limits, which are subject to permit fees. (40 CFR 50; Paragraphs 1, 7, and 8 of 20.2.70.302.A NMAC; and NSR Permits 632, 634-M2, 1081-M1, 1081-M1R1, 1081-M1R3, 1081-M1R5, 1081-M1R6, 2195B-M3, 2195F-R4, GCP-3-2195G, 2195H, 2195N-R2 and 2195P-R4).

Table 106.A: Facility: Allowable Emissions per Source Category

Source Category (Section No.)	¹ NO _x tpy	CO tpy	VOC tpy	SO ₂ tpy	PM ⁶ tpy	PM ₁₀ tpy	PM _{2.5} tpy
Asphalt Production (A600)	2050.0 ⁵	1030.0 ⁵	2050.0 ⁵	2050.0	2050.0 ⁵	-	-
Beryllium Activities (A700)	²	-	-	-	-	-	-
External Combustion (A800)	80.0	80.0	50.0	50.0	-	50.0	³ 1.9
Chemical Usage (A900)	-	-	* ⁴	-	-	-	-
Degreasers (A1000)	-	-	*	-	-	-	-
Internal Combustion (A1100)	20.85	16.8	0.5	2.66	-	-	-

Table 106.A: Facility: Allowable Emissions per Source Category

Source Category (Section No.)	¹ NO _x tpy	CO tpy	VOC tpy	SO ₂ tpy	PM ⁶ tpy	PM ₁₀ tpy	PM _{2.5} tpy
Data Disintegrator (A1200)	-	-	-	-	-	9.9	9.9
Power Plant (A1300) ⁷	90.8	93.7	4.3	9.1	-	9.2	9.0
Power Plant (A1300) ⁸	97.6	106.8	5.5	9.3	-	12.4	12.2
Power Plant (A1300) ⁹	69.5	71.4	16.1	5.7	-	34.7	34.7
Open Burning (A1400)	-	-	-	-	-	-	-

- 1 Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO₂.
- 2 “-” indicates the application represented that emissions of this pollutant are not expected *or* that allowable emission limits have not been previously established for this pollutant and source category.
- 3 This PM_{2.5} total represents the RLUOB boilers only; PM_{2.5} emission limits have not been established for any other external combustion sources.
- 4 “*” indicates the application represented that emissions of this pollutant are expected and are included in the facility-wide allowable emissions limit established in Condition A106.B. Annual VOC emission limits for these individual source categories have not been established.
- 5 These are voluntary emission limits that are less than the applicable limits in the Asphalt production permit, GCP-3-2195G. Limits are taken to reduce total emission in Table 106.A to below the facility-wide allowable emissions in Table 106.B.
- 6 PM is a regulated new source review pollutant per 20.2.74 NMAC Prevention of Significant Deterioration and 20.2.70 NMAC, Title V. No ambient air quality standards apply to total suspended particulates or PM.
- 7 Power Plant *prior* to implementing phased construction upgrades authorized in NSR 2195B-M3.
- 8 Power Plant Phase 1 allowable limits as authorized in NSR 2195B-M3 (Table 106.A).
- 9 Power Plant *after* implementing Phase 3 construction upgrades authorized in NSR 2195B-M3.

B. Facility-wide emissions for criteria pollutants, VOC, and HAPs from all emission units, combined, shall not exceed the limits in Table 106.B.

Table 106.B: Facility-Wide Allowable Emissions¹

Facility-Wide	² NO _x tpy	CO tpy	VOC tpy	SO ₂ tpy	PM ₁₀ tpy	PM _{2.5} tpy	Any Individual HAP	Total HAPs
Sum of emissions from all sources	245.0	225.0	200.0	150.0	120.0	120.0	8.0	24.0

- 1 Title V annual fee assessments are based on the allowable facility-wide emission limits in Table 106.B.
- 2 Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO₂.

C. The permittee shall maintain records of the Facility-Wide annual emissions totals for each pollutant listed in Table 106.B. The records shall include estimated actual emissions from all sources on a semi-annual and calendar year basis.

A107 Facility: Allowable Startup, Shutdown, & Maintenance (SSM)

- A. **SSM emissions are only authorized for the Power Plant facility (Section A1300, Specific sub-section A1304).** The maximum allowable SSM emission limits for this facility are listed in Table 1304.A of Section A1304 and were relied upon by the Department to determine compliance with applicable regulations.

A108 Facility: Hours of Operation

- A. The operating hours for this facility are established under each source category in Section Series A600 through A1600 under the Equipment Specific Requirements part of this permit. As applicable, monitoring, recordkeeping, and reporting provisions are specified to demonstrate compliance with allowable hours of operation that are also established under each source category in Section Series A600 through A1600.

A109 Facility: Reporting Schedules (20.2.70.302.E NMAC)

- A. A Semi-Annual Report of monitoring activities is due within 45 days following the end of every 6-month reporting period. The six-month reporting periods start on January 1st and July 1st of each year.
- B. A Semi-Annual Report of actual emissions from all permitted sources unless otherwise specified in this permit is due within 90 days following the end of every 6-month reporting period as defined at Condition A109.A. Emission estimates of pollutants NO_x, CO, SO₂, VOC, **PM₁₀**, PM₁₀, and PM_{2.5} shall not include fugitive emissions. Emission estimates of HAPs shall include fugitive emissions. Emission estimates shall not include Insignificant or Trivial Activities, except that facility-wide emissions from all natural gas combustion sources and the Soil Vapor Extraction equipment at Material Disposal Area L shall be estimated. The reports shall include a comparison of actual emissions that occurred during the reporting period with the facility-wide allowable emission limits at Table 106.B
- C. The Annual Compliance Certification Report is due within 30 days of the end of every 12-month reporting period. The 12-month reporting period starts on January 1st of each year.
- D. The permittee shall post start-up notifications required by 20.2.72.212(B) NMAC and 40 CFR Parts 60, 61 or 63, to the permittee's Electronic Public Reading Room at <http://epr.lanl.gov/oppie/service>.

A110 Facility: Fuel and Fuel Sulfur Requirements (as required)

- A. Sulfur requirements are defined by source category, as applicable, in Section Series A600 through A1600 under the Equipment Specific Requirements part of this permit.

A111 Facility: 20.2.61 NMAC Opacity

- A. Opacity requirements are defined by source category, as applicable, in Section Series A600 through A1600 under the Equipment Specific Requirements part of this permit.

A112 Alternative Operating Scenario – Not Required**A113 Other Provisions – Not Required****A114 Reducing Facility Emissions – Internal Combustion Source Category Section A1100**

- A. **Reducing Facility Emissions (Portable CI RICE Unit TA-33-G-1P)**

Requirement: The permittee shall submit an NSR permit application to revise NSR 2195F-R4. The permittee has voluntarily requested lower emission limits for Unit TA-33-G-1P as implemented in Table 1102.A of this TV renewal permit. The permittee submitted calculations to substantiate the limits set in Table 1102.A. NSR 2195F-R4 shall be revised to match the allowable limits set in this TV P100-R3.

- (1) Within 180 days of the issuance date of this permit TV P100-R3 the permittee shall submit to the Department an application to revise Permit Number NSR 2195F-R4.
- (2) The application shall contain all required calculations to verify the allowable emission limits set in this TV P100-R3. The application shall contain all necessary information requested by the Department to process the application, including a full regulatory analysis of all applicable rules and requirements that apply to Unit TA-33-G-1P and its emission limits. If the permittee requests emission limits that are different than those set in Table 1102.A of this TV P100-R3 then the TV permit shall be revised through the appropriate Department TV modification procedures.

A115 Radionuclide NESHAP

- A. The permittee shall comply with the requirements of 40 CFR 61, Subpart H – NESHAP for Radionuclides other than Radon from DOE Facilities.
- B. The permittee shall comply with the requirements of 40 CFR 61, Subpart Q – NESHAP for Radon Emissions from DOE Facilities.

A116 Asbestos NESHAP

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

A117 Stratospheric Ozone

- A. The permittee shall comply with the standards for servicing of motor vehicle air conditioners pursuant to 40 CFR 82, Subpart B.
- B. The permittee shall comply with the standards for servicing and maintaining and disposing equipment containing refrigerants pursuant to 40 CFR 82, Subpart F.
- C. The permittee shall comply with the standards for servicing and maintaining equipment that contains halons pursuant to 40 CFR 82, Subpart H.
- D. The permittee shall comply with the standards on the ban on refrigeration and air-conditioning appliances containing HCFCs pursuant to 40 CFR 82, Subpart I.

EQUIPMENT SPECIFIC REQUIREMENTS

A200 Oil and Gas Industry – Not Required

A300 Construction Industry – Not Required

A400 Power Generation Industry – Not Required

A500 Solid Waste Disposal (Landfills) Industry – Not Required

ASPHALT PRODUCTION

A600 Regulated Sources – Asphalt Production

A. Table 600.A lists all of the process equipment authorized for this source category. Emission units that were identified as insignificant or trivial activities (as defined in 20.2.70.7 NMAC) and equipment not regulated pursuant to the Act are not included.

Table 600.A: Regulated Sources List

Unit No.	Source Description/ Location	Make Model	Serial No.	Operational Capacity / Design Capacity	Construction Date / Manufacture Date
TA-60-BDM	Hot Mix Asphalt Plant, TA-60	BDM Engineering TM2000	unknown	49.5 tpy / 60 tph	10-29-2002 / After 6-11-1973 /

A601 Control Equipment – Asphalt Production

A. Table 601.A lists all of the pollution control equipment required for the applicable regulated equipment in this source category. Each emission point is identified by the same number that was assigned to it in the permit application.

Table 601.A: Control Equipment List

Control Equipment Unit No.	Control Description	Pollutant being Controlled	Control for Unit No. ¹
TA-60-BDM	Drum Dryer Cyclone Baghouse 99.97% efficiency	PM ₁₀ FSP	TA-60-BDM

1. Control for unit number refers to a unit number from the Regulated Sources List.

A602 Emission Limits – Asphalt Production

- A. Table 602.A lists the emission units, and their allowable emission limits. (40 CFR 50; Paragraphs 1, 7, and 8 of 20.2.70.302.A NMAC; 20.2.11 NMAC; 40 CFR 60, Subpart I; NSR Permit GCP-3-2195G)

Table 602.A: Allowable Emissions

Unit No.	NOx tpy	CO tpy	VOC tpy	SO2 tpy	PM
TA-60-BDM (dryer stack only)	2050.0 ¹	1030.0 ¹	2050.0 ¹	2050.0	0.04 gr/dscf 33.8 lb/hr 2050.0 ¹ tpy

1. Voluntary emission limits that are less than the applicable limits in GCP-3-2195G. Limits taken to reduce total emissions in Table 106.A to below the facility-wide allowable emissions in Table 106.B.

A603 Applicable Requirements – Asphalt Production

- A. The permittee shall comply with all applicable sections of the requirements listed in Table 603.A.

Table 603.A: Applicable Requirements

Applicable Requirements	Federally Enforceable	Unit No.
NSR Permit GCP-3-2195G	X	TA-60-BDM
20.2.11 NMAC Asphalt Process Equipment	X	TA-60-BDM
40 CFR 60, Subpart A	X	TA-60-BDM
40 CFR 60, Subpart I	X	TA-60-BDM

A604 Operational Limitations – Asphalt Production

- A. The permittee shall meet the requirements of NSR permit no. GCP-3-2195G, including the requirements in this permit.
- B. The equipment in this source category is authorized to operate during those daylight hours occurring between one-half hour after sunrise and through one-half hour before sunset each day of the year. Annual hours of operation are limited to 4380 hrs/y. This limitation on operating hours does not apply to the use of the hot oil heater or the loading and/or hauling of asphalt products or materials. Monitoring, recordkeeping, and reporting for operational hours shall be conducted according to NSR Permit GCP-3-2195G.

A605 Fuel Requirements – Asphalt Production

- A. Asphalt Plant Combustion Sources (Unit TA-60-BDM)

Requirement: Combustion sources located at the asphalt plant shall combust only those fuels
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allowed under Condition III.A.3 of the NSR Permit GCP-3-2195G.
Monitoring: N/A
Recordkeeping: The permittee shall meet the recordkeeping requirements of GCP-3 and maintain records in accordance with Section B109.
Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

A606 20.2.61 NMAC Opacity – Asphalt Production – Not Required

A607 Other Operational Requirements – Asphalt Production

A. Asphalt Plant Baghouse – Differential Pressure (Unit TA-60-BDM)

Requirement: The baghouse shall be equipped with a device to continually measure the pressure drop across the baghouse.
Monitoring: The permittee shall monitor the differential pressure (inches of water) across the filters by the use of a differential pressure gauge. Pressure gauge readings and the time period the rotary dryer drum operates shall be recorded by a datalogger each time the rotary dryer drum is operating. The pressure data shall confirm whether the filter(s) are operating within the unit's specifications.
Recordkeeping: The permittee shall manually record the baghouse pressure drop readings at least once each day the rotary drum dryer operates and maintain records of all baghouse differential pressure readings in accordance with Section B109.
Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

B. Asphalt Plant Baghouse - Stack Height (Unit TA-60-BDM)

Requirement: The rotary dryer/baghouse exhaust stack shall be no less than 10 meters in height.
Monitoring: N/A
Recordkeeping: The permittee shall maintain records in accordance with Section B109.
Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

C. Asphalt Plant Baghouse – Opacity (Unit TA-60-BDM)

Requirement: Visible emissions from the rotary dryer/baghouse exhaust stack shall not exhibit an opacity of 20% or greater averaged over a (6) minute period.
Monitoring: During periods of drum dryer operation, the permittee shall perform six (6) minute opacity readings on the rotary dryer/baghouse stack. Opacity readings shall be performed at least once per month during any month the drum dryer operates. The observations shall be conducted according to 40 CFR 60, Appendix A, Method 9.
Recordkeeping: The permittee shall maintain records of all opacity observations and in accordance with Section B109.
Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

D. Asphalt Plant Baghouse – Fines Cleanout (Unit TA-60-BDM)

Requirement: The permittee shall sequester or remove particulates collected by the control equipment to prevent wind-blown particulate emissions. Recycled baghouse fines shall be recycled into the drum mixer via a closed-loop system.
Monitoring: N/A
Recordkeeping: The permittee shall maintain records in accordance with Section B109.
Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

E. Asphalt Plant Production Rate (Unit TA-60-BDM)

Requirement: To avoid Compliance Assurance Monitoring (CAM) requirements under 40 CFR 64, the asphalt plant shall limit uncontrolled potential PM emissions by limiting asphalt production to less than or equal to 6,000 tons per year.
Monitoring: The permittee shall monitor the total daily production rate.
Recordkeeping: The permittee shall calculate a weekly rolling, 12-month total production rate and maintain records in accordance with Section B109.
Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

F. Asphalt Plant Operations – General (Unit TA-60-BDM)

Requirement: The permittee shall: <ol style="list-style-type: none"> 1) Install, operate, and maintain equipment in accordance with standard operating procedures, and 2) equip and operate the asphalt processing equipment such as screens, conveyor belts, and conveyor transfer points with dust control systems to control particulate matter emissions, and 3) operate the Plant in accordance with NSR Permit GCP-3-2195G, Section III, A, B, C, D, E, F, and H. 4) Ensure that no visible emissions from the facility are observed crossing the perimeter of the restricted area for no more than 5 minutes during any 2 consecutive hours during facility operations.
Monitoring: The permittee shall perform all monitoring required under NSR Permit GCP-3-2195G.
Recordkeeping: The permittee shall maintain records of all standard operating procedures, records of all maintenance and/or replacement of dust control systems, and all records required under NSR Permit GCP-3-2195G, Section IV.B, and including records of actual hours of operation, records of all required monitoring, daily and weekly total asphalt production and the weekly rolling 12 month total production, number of haul truck trips daily including materials delivery and product, frequency of haul road sweeping, and copies of the applicant's proposed maintenance requirements and records demonstrating conformance with said requirements. The permittee shall maintain records of all compliance test results for total suspended -particulate matters (PMTSP) , particulate matter (including PM10) , nitrogen oxides, carbon monoxide, and records of all opacity/visible emissions observations performed.
Reporting: The permittee shall submit reports described in Section A109 and in accordance

with Section B110.

G. Asphalt Plant Fugitive Dust (Unit TA-60-BDM)

Requirement: Fugitive dust emissions from asphalt processing equipment, including the system used to recycle fabric filter fines, shall exhibit no more than five (5) minutes of visible emissions during any two consecutive hours. This condition does not apply to fugitive dust emissions from other support operations such as storage piles, front end loaders, or materials handling around the asphalt process equipment.
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Monitoring: The permittee shall perform a Method 22 test at least once per month on all screens, conveyor drop points, and hoppers during the months the asphalt plant operates. The duration of the test shall be a minimum of ten (10) minutes. If visible emissions are observed for more than two (2) minutes, the Method 22 test shall continue for two (2) hours or until scheduled operation of the plant ends.

Recordkeeping: The permittee shall maintain records of all equipment standard operating procedures, records of all maintenance and/or replacement of dust control systems, results of all visible emissions observations, and all records required under NSR Permit GCP-3-2195G.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

BERYLLIUM ACTIVITIES

A700 Regulated Sources – Beryllium Activities

- A. Table 700.A lists all of the process equipment authorized for this source category. Emission units that were identified as insignificant or trivial activities (as defined in 20.2.70.7 NMAC) and equipment not regulated pursuant to the Act are not included.

Table 700.A: Regulated Sources List

Unit No.	Location/ Building	Process Description	Construction Date / Manufacture Date
TA-3-66	TA-3-66	Sigma Facility - Electroplating and Chemical Milling; Metallographic Operations; and Machining and Arc Melting/Casting	1950 / 1950
TA-3-141	TA-3-141	Beryllium Technology Facility	1998 / 1998
TA-35-213	TA-35-213	Target Fabrication Facility	1985 / 1985
TA-55-PF4	TA-55-PF4	Plutonium Facility – Machining and Foundry	1992 / 1992

A701 Control Equipment – Beryllium Activities

- A. Table 701.A lists all of the pollution control equipment required for the applicable regulated equipment in this source category. Each emission point is identified by the same number that was assigned to it in the permit application.

Table 701.A: Control Equipment List

Control Equipment Unit No.¹	Location/ Building	Process Description	Pollutant being Controlled	Type of Control
TA-3-66	TA-3-66	Sigma Facility Electroplating and Chemical Milling and Metallographic Operations	Beryllium Particulate Matter	Aqueous Solution or Lubricant Bath
		Sigma Facility Machining and Arc Melting/Casting	Beryllium Particulate Matter	HEPA Filter 99.95% Efficiency
TA-3-141	TA-3-141	Beryllium Technology Facility	Beryllium Particulate Matter	Lubricating Bath/Cartridge Filtration System/HEPA Filter 99.95% Efficiency
TA-35-213	TA-35-213	Target Fabrication Facility	Beryllium Particulate Matter	Pre-Filter 48% Efficiency, HEPA Filter 99.95% Efficiency
TA-55-PF4	TA-55-PF4	Plutonium Facility	Beryllium and Aluminum Particulate Matter	4-Stage HEPA Filter 99.95% Efficiency

1. Control for unit number refers to a unit number from the Regulated Sources List.

A702 Emission Limits – Beryllium Activities

- A. Table 702.A lists the emission units, and their allowable emission limits. (40 CFR 61, Subpart C; NSR Permits 632; 634-M2; 1081-M1, 1081M1-R1, 1081-M1-R3, 1081-M1-R5, and 1081-M1-R6)

Table 702.A: Allowable Emissions

Source	Beryllium Particulate Matter	Aluminum Particulate Matter
Sigma Facility TA-3-66	10 gm ¹ /24 hr	N/A
Beryllium Technology Facility TA-3-141	0.35 gm/24 hr 3.5 gm/yr	N/A
Target Fabrication Facility TA-35-213	1.8 x 10 ⁻⁰⁴ gm/hr 0.36 gm/yr	N/A
Plutonium Facility TA-55-PF-4 Machining Operation	0.12 gm/24 hr 2.99 gm/yr	0.12 gm/24 hr 2.99 gm/y

Source	Beryllium Particulate Matter	Aluminum Particulate Matter
Plutonium Facility TA-55-PF-4	3.49 x 10 ⁻⁰⁵ gm/24 hr	3.49 x 10 ⁻⁰⁵ gm/24 hr
Foundry Operation	8.73 x 10 ⁻⁰⁴ gm/yr	8.73 x 10 ⁻⁰⁴ gm/y

1. gm = gram.

A703 Applicable Requirements – Beryllium Activities

A. The permittee shall comply with all applicable sections of the requirements listed in Table 703.A.

Table 703.A: Applicable Requirements

Applicable Requirements	Federally Enforceable	Unit No.
NSR Permits 632; 634-M2; 1081-M1, 1081-M1R1, 1081-M1R3, 1081-M1R5, and 1081-M1R6	X	All Beryllium Sources Listed in Table 700.A per applicable permit
40 CFR 61, Subpart C	X	All Beryllium Sources Listed in Table 700.A

A704 Operational Limitations – Beryllium Activities

A. The equipment/operations in this source category are authorized to operate any time during the year. No monitoring, recordkeeping, or reporting requirements are required to demonstrate compliance with its hours of operation.

A705 Fuel Sulfur Requirements – Beryllium Activities – Not Required

A706 20.2.61 NMAC Opacity – Beryllium Activities – Not Required

A707 Other Operational Requirements – Beryllium Activities

A. Operational Requirements – Beryllium Activities

Source	Operating Requirements	Process Limits	Control Equipment Requirements
Sigma Facility TA-3-66	Beryllium operations will consist of registered metallographic operations, electroplating /chemical milling, and relocated machining, and arc	None	Metallographic operations and electroplating / chemical milling operations shall be conducted in aqueous solution or lubricant bath. Emissions from machining and arc melting/casting operations shall be exhausted through a HEPA filtration system prior to entering the atmosphere.

	melting/casting sources.		
Beryllium Technology 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.	All processes shall be exhausted through a HEPA filtration system prior to entering the atmosphere. 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. Metallographic preparation activities shall be conducted in lubricating baths or equivalent. (NSR permit 634-M2)
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.
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. (NSR Permit 1081-M1R3, Specific Condition 1.b., partial, revised) The electric furnace shall be enclosed in a glove box, have a maximum operating temperature of 1600 degrees centigrade, and an inside volume space less than 1.1 cubic feet. (NSR Permit 1081-M1R6, Specific Condition 1.d.,	44 pounds of beryllium (20 kg) in any 24-hour period; 1100 pounds/year (500 kg/year) using a rolling total. (NSR Permit 1081-M1R3, Specific Condition 1.c.)	Weld cutting, weld dressing, metallography, and electric furnace operations shall be controlled with four (4) HEPA filters with a control efficiency of 99.95% each. (NSR Permit 1081-M1R1, Condition 3, partial, revised) 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. (NSR Permit 1081-M1R1, Condition 3, partial, revised)

	partial, revised)		
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B. Emissions Monitoring Requirements – Beryllium Activities

Source	Monitoring Requirements
Sigma Facility TA-3-66	A log shall be maintained during operations, which shows the number of metallographic specimens used in the metallographic operation and the weight or volume of beryllium (Be) samples processed in the electroplating/chemical milling, machining, and arc melting/casting operations.
Beryllium Technology Facility TA-3-141	Facility exhaust stack will be equipped with a continuous emission monitor used to measure beryllium emissions. Cartridge and HEPA filters shall be equipped with differential pressure gauges that measure the differential pressure across the cartridge and HEPA filters while the exhaust fans are in operation. (NSR permit 634-M2)
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	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. (NSR Permit 1081-M1R3, Condition 11) Control efficiency shall be verified by daily HEPA filter pressure drop tests and annual HEPA filter challenge tests of accessible filters. (NSR Permit 1081-M1R1, Condition 3, partial, revised) The furnace temperature shall be continuously monitored and the flow rate from the glove box containing the furnace shall be measured once during each metal melt operation. (NSR Permit 1081-M1R6, Condition 11, revised)

C. Recordkeeping Requirements – Beryllium Activities

Source	Recordkeeping Requirements
Sigma Facility TA-3-66	Recordkeeping for this source is specified in Condition A707.B.
Beryllium Technology Facility TA-3-141	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. Record pressure drop across the cartridge and HEPA filters once per day that the exhaust fans are in operation and the facility is occupied. Record control equipment maintenance and repair activities. (NSR permit 634-M2)

<p>Target Fabrication Facility TA-35-213</p>	<p>Recordkeeping for this source is specified in Condition A707.B.</p>
<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>(NSR Permit 1081-M1R3, Condition 9, partial, revised)</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>(NSR Permit 1081-M1R1, Condition 3, partial, revised)</p> <p>A log of the filter replacement shall be kept and shall be made available to the Department personnel upon request.</p> <p>(NSR Permit 1081-M1R1, Condition 3, partial, revised)</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> <p>(NSR Permit 1081-M1R3, Condition 9, partial, revised)</p> <p>The permittee shall for each use of the furnace record the following operating parameters: metal type, theoretical melting point of the metal, metal melt duration once melting is commenced, maximum furnace temperature and glove box flow rate.</p> <p>(NSR Permit 1081-M1R6, Condition 9, partial, revised)</p> <p>A record of the furnace’s internal volume shall be maintained at the facility.</p> <p>(NSR Permit 1081-M1R6, Condition 9, partial, revised)</p>

D. Reporting Requirements – Beryllium Activities

<p>Source</p>	<p>Reporting Requirements</p>
<p>Sigma Facility TA-3-66</p>	<p>The permittee shall submit reports described in Section A109 and in accordance with Section B110.</p>
<p>Beryllium Technology 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 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 Project Plan (QAPP) 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> <p>The permittee shall submit reports described in Section A109 and in accordance with Section B110.</p>
Target Fabrication Facility TA-35-213	The permittee shall submit reports described in Section A109 and in accordance with Section B110.
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> <p>The permittee shall submit reports described in Section A109 and in accordance with Section B110.</p>

EXTERNAL COMBUSTION

A800 Regulated Sources – External Combustion

A. Table 800.A lists all of the process equipment authorized for this source category.

Table 800.A: Regulated Sources List¹

Unit No.	Source Description	Location/ Building	Make	Model	Serial No.	Construction Date / Manufacture Date	Manufacturer Rated Capacity / Permitted Capacity ²
RLUOB-BHW-1	Boiler-CMRR	TA-55-440	Unilux	ZF1100W	A1874	2009 / 2009	11 MM BTU/h / 11 MM BTU/h
RLUOB-BHW-2	Boiler-CMRR	TA-55-440	Unilux	ZF1100W	A1875	2009 / 2009	11 MM BTU/h / 11 MM BTU/h
RLUOB-BHW-3	Boiler-CMRR	TA-55-440	Unilux	ZF1100W	A1876	2009 / 2009	11 MM BTU/h / 11 MM BTU/h
RLUOB-BHW-4	Boiler-CMRR	TA-55-440	Unilux	ZF1100W	TBD ¹	2009 / 2009	11 MM BTU/h / 11 MM BTU/h

Table 800.A: Regulated Sources List¹

Unit No.	Source Description	Location/ Building	Make	Model	Serial No.	Construction Date / Manufacture Date	Manufacturer Rated Capacity / Permitted Capacity ²
TA-16-1484-BS-1	Low NOx Boiler	TA-16-1484	Sellers	183 H.P.-SH-LN390	100848-B	1995 / 1995	7.47 MM BTU/h / 7.47 MM BTU/h
TA-16-1484-BS-2	Low NOx Boiler	TA-16-1484	Sellers	183 H.P.-SH-LN390	100848-A	1995 / 1995	7.47 MM BTU/h / 7.47 MM BTU/h
TA-53-365-BHW-1	Boiler	TA-53-365	Sellers	15 Seniors-2-200-w	99031-1	1988 / 1988	8.37 MM BTU/h / 8.37 MM BTU/h
TA-53-365-BHW-2	Boiler	TA-53-365	Sellers	15 Seniors-2-200-w	99031-2	1988 / 1988	8.37 MM BTU/h / 8.37 MM BTU/h
TA-55-6-BHW-1	Boiler	TA-55-6	Sellers	350 H.P W-LN490	101319-B	2001 / 2001	14.6 MM BTU/h / 14.6 MM BTU/h
TA-55-6-BHW-2	Boiler	TA-55-6	Sellers	350 H.P W-LN490	101319-A	1998 / 1998	14.6 MM BTU/h / 14.6 MM BTU/h

1. All TBD (to be determined) units and like-kind replacements must be evaluated for applicability to NSPS and MACT requirements.
2. Emission estimates from these units shall be based on the maximum heat input rating, derated for altitude.

A801 Control Equipment – External Combustion

- A. Table 801.A lists all of the pollution control equipment required for the applicable regulated equipment in this source category. Each emission unitpoint is identified by the same number that was assigned to it in the permit application.

Table 801.A: Control Equipment List

Control Equipment Unit No. ¹	Location/Building	Control Description	Pollutant being controlled
RLUOB-BHW-1	TA-55-440	Low-NOx Burner ²	NOx
RLUOB-BHW-2	TA-55-440	Low-NOx Burner	NOx
RLUOB-BHW-3	TA-55-440	Low-NOx Burner	NOx
RLUOB-BHW-4	TA-55-440	Low-NOx Burner	NOx
TA-16-1484-BS-1	TA-16-1484	Low-NOx Burner	NOx
TA-16-1484-BS-2	TA-16-1484	Low-NOx Burner	NOx
TA-53-365-BHW-1	TA-53-365	none	none
TA-53-365-BHW-2	TA-53-365	none	none
TA-55-6-BHW-1	TA-55-6	Low-NOx Burner	NOx
TA-55-6-BHW-2	TA-55-6	Low-NOx Burner	NOx

- 1 Control for unit number refers to a unit number from the Regulated Sources List.

- 2 Low-NOx burners are required for Units RLUOB-BHW-1 through -4 by NSR Permit 2195N-R2, Specific Condition 1.f.

A802 Emission Limits – External Combustion

- A. Table 802.A lists ~~specific emission units and their~~ allowable annual emission limits for all boilers and heaters at LANL combined, exclusive of TA-3-22 Power Plant boilers in Section A1300. (40 CFR 50; Paragraphs 1, 7, and 8 of 20.2.70.302.A NMAC; 40 CFR 60, Subpart Dc).

Table 802.A: Allowable Annual Emissions

Unit No.	¹ NO _x tpy	CO tpy	VOC tpy	SO ₂ tpy	PM ₁₀ tpy	PM _{2.5} tpy
Combined annual emissions for all <u>boilers and heaters units listed in Table 800.A</u> ²	80.0	80.0	50.0	50.0	50.0	1.9 ³

- 1 Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO₂.
- 2 Includes all Table 800.A boilers as well as all boilers and heaters not listed in this permit, but eExcludes TA-3-22 Power Plant boilers addressed in Section A1300.
- 3 This PM2.5 total represents the RLUOB boilers only; PM2.5 emission limits have not been established for any other external combustion sources.

- B. Table 802.B lists specific emission units and their allowable emission limits. (40 CFR 50; Paragraphs 1, 7, and 8 of 20.2.70.302.A NMAC; 40 CFR 60, Subpart Dc; NSR Permit 2195N-R2)

Table 802.B: Allowable Emissions^{2,3}

Unit No.	¹ NO _x pph	NO _x tpy	CO pph	CO tpy	VOC pph	VOC tpy	SO ₂ pph	SO ₂ tpy	PM ₁₀ pph	PM ₁₀ tpy	PM _{2.5} pph	PM _{2.5} tpy
RLUOB-BHW-1 (GAS)	0.7	2.9	1.1	4.8	< ⁴	1.5	0.1	0.3	0.1	0.4	0.1	0.4
RLUOB-BHW-1 (OIL)	1.6	<	0.5	<	0.5	<	0.65 / 8	<	0.2	<	0.2	<
RLUOB-BHW-2 (GAS)	0.7	2.9	1.1	4.8	<	1.5	0.1	0.3	0.1	0.4	0.1	0.4
RLUOB-BHW-2 (OIL)	1.6	<	0.5	<	0.5	<	0.65 / 8	<	0.2	<	0.2	<
RLUOB-BHW-3 (GAS)	0.7	2.9	1.1	4.8	<	1.5	0.1	0.3	0.1	0.4	0.1	0.4

Unit No.	¹ NO _x pph	NO _x tpy	CO pph	CO tpy	VOC pph	VOC tpy	SO ₂ pph	SO ₂ tpy	PM ₁₀ pph	PM ₁₀ tpy	PM _{2.5} pph	PM _{2.5} tpy
RLUOB-BHW-3 (OIL)	1.6	<	0.5	<	0.5	<	0.65 / 8	<	0.2	<	0.2	<
RLUOB-BHW-4 (GAS)	0.7	2.9	1.1	4.8	<	1.5	0.1	0.3	0.1	0.4	0.1	0.4
RLUOB-BHW-4 (OIL)	1.6	<	0.5	<	0.5	<	0.65 / 8	<	0.2	<	0.2	<
All boilers – Oil⁵	N/A	2.9	N/A	0.9	<	1.0	N/A	10.4	N/A	0.3	N/A	0.3
Combined Total⁶	N/A	14.5	N/A	20.1	N/A	7.0	N/A	11.6	N/A	1.9	N/A	1.9

- 1 Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO₂.
- 2 Title V annual fee assessments are based on the sum of allowable tons per year emission limits in Sections A106 and A107.
- 3 To report excess emissions for sources with no pound per hour and/or ton per year emission limits, see condition B110.E.
- 4 The “<” symbol indicates a value that was considered negligible and not permitted under NSR 2195N-R2.
- 5 **Annual** tpy emission cap for any combination of oil-fired boilers.
- 6 The annual tpy combined emission totals represent enforceable emission limit caps for all 4 **RLUOB** boilers combined, fired with any combination of allowed fuel types.

C. Units RLUOB-BHW-1 through -4 shall not emit oxides of nitrogen in excess of 30 ppmv, corrected to 3% oxygen on a dry basis. This emissions limitation applies to natural gas fuel only. (NSR Permit 2195N-R2, Specific Condition 1.f., partial, revised)

A803 Applicable Requirements – External Combustion

A. The permittee shall comply with all applicable sections of the requirements listed in Table 803.A.

Table 803.A: Applicable Requirements

Applicable Requirements	Federally Enforceable	Unit No.
NSR Permit 2195N-R2	X	RLUOB-BHW-1 through -4
20.2.61 NMAC Smoke and Visible Emissions	X	All combustion sources
40 CFR 60, Subpart Dc	X	TA-55-6-BHW-1, TA-55-6-BHW-2, RLUOB-BHW-1 through -4

A804 Operational Limitations – External Combustion

- A. All external combustion equipment, except Units RLUOB-BHW-1 through -4 when operating with fuel oil, is authorized to operate any time during the year. No monitoring, recordkeeping, or reporting requirements are required to demonstrate compliance with a unit's hours of operation.
- B. Units RLUOB-BHW-1 through -4 shall be operated on fuel oil for no more than 48 hours per year per boiler for non-emergency maintenance and readiness testing. This condition establishes exemption from 40 CFR 63, Subpart JJJJJ.
- C. Total annual fuel oil consumption for each of Units RLUOB-BHW-1 through -4 shall not exceed 3854289,100 gallons (or 15,418 gallons combined) in a calendar year to comply with the 48-hour exemption under 40 CFR 63, Subpart JJJJJ on a rolling 365-day total basis.

A805 Fuel Sulfur Requirements – External Combustion

- A. All Boilers and Heaters (**except** Units RLUOB-BHW-1 through -4)

<p>Requirement: All boilers and heaters, except Units RLUOB-BHW-1 through -4 and the Power Plant <u>boilers</u> addressed in Section A1300, shall combust only natural gas containing no more than 2 grains of total sulfur per 100 dry standard cubic feet.</p>
<p>Monitoring: None. <u>Compliance is demonstrated by keeping records.</u></p>
<p>Recordkeeping:</p> <ul style="list-style-type: none"> (1) The permittee shall demonstrate compliance with the natural gas limit on total sulfur content by maintaining records of a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, or fuel gas analysis, specifying the allowable limit or less. (2) If fuel gas analysis is used, the analysis shall not be older than one year. (3) <u>Alternatively, compliance shall be demonstrated by keeping a receipt or invoice from a commercial fuel supplier, with each fuel delivery, which shall include the delivery date, the fuel type delivered, the amount of fuel delivered, and the maximum sulfur content of the fuel.</u>
<p>Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.</p>

- B. Units RLUOB-BHW-1 through -4

<p>Requirement: Units RLUOB-BHW-1 through -4 shall combust either natural gas containing no more than 2.0 grains of total sulfur per 100 dry standard cubic feet or No. 2 fuel oil containing no more than 0.5 wt% total sulfur. (NSR Permit 2195N-R2, Specific Condition 1.c.)</p>
<p>Monitoring: None. <u>Compliance is demonstrated by keeping records.</u></p>
<p>Recordkeeping:</p> <ul style="list-style-type: none"> (1) The permittee shall demonstrate compliance with the natural gas limit and/or fuel oil limit on total sulfur content by maintaining records of a current, valid purchase

contract, tariff sheet or transportation contract for the gaseous or liquid fuel, or fuel analysis, specifying the allowable limit or less.

- (2) If a fuel analysis is used, the analysis shall not be older than one year. (NSR Permit 2195N-R2, Specific Condition 3.c., revised)
- (3) Alternatively, compliance may be demonstrated by keeping a receipt or invoice from a commercial fuel supplier with each fuel delivery, which shall include the delivery date, the fuel type delivered, and amount of fuel delivered, and the maximum sulfur content of the fuel.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

A806 20.2.61 NMAC Opacity – External Combustion

A. All Boilers and Heaters (**except** Units RLUOB-BHW-1 through -4)

Requirement: Visible emissions from all external combustion emission stacks shall not equal or exceed an opacity of 20 percent in accordance with the requirements at 20.2.61.109 NMAC.

Monitoring:

- (1) Use of natural gas fuel constitutes compliance with 20.2.61 NMAC unless opacity equals or exceeds 20% averaged over a 10-minute period. When any visible emissions are observed during operation other than during startup mode, opacity shall be measured over a 10-minute period, in accordance with the procedures at 40 CFR 60, Appendix A, Reference Method 9 (EPA Method 9) as required by 20.2.61.114 NMAC, or the operator will be allowed to shut down the equipment to perform maintenance/repair to eliminate the visible emissions. Following completion of equipment maintenance/repair, the operator shall conduct visible emission observations following startup in accordance with the following procedures:
 - (a) Visible emissions observations shall be conducted over a 10-minute period during operation after completion of startup mode in accordance with the procedures at 40 CFR 60, Appendix A, Reference Method 22 (EPA Method 22). If no visible emissions are observed, no further action is required.
 - (b) If any visible emissions are observed during completion of the EPA Method 22 observation, subsequent opacity observations shall be conducted over a 10-minute period, in accordance with the procedures at EPA Method 9 as required by 20.2.61.114 NMAC.

For the purposes of this condition, *Startup mode* is defined as the startup period that is described in the facility's startup plan.

Recordkeeping:

- (1) If any visible emissions observations were conducted, the permittee shall keep records in accordance with the requirements of Section B109 and as follows:
 - (a) For any visible emissions observations conducted in accordance with EPA Method 22, record the information on the form referenced in EPA Method 22, Section 11.2.

- (b) For any opacity observations conducted in accordance with the requirements of EPA Method 9, record the information on the form referenced in EPA Method 9, Sections 2.2 and 2.4.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

~~**Requirement:** Exhaust emissions from these external combustion sources shall not exceed 20% opacity averaged over a 10-minute period.~~

~~**Monitoring:** Use of natural gas fuel meeting the requirement at Condition A805.A constitutes compliance with 20.2.61 NMAC unless opacity exceeds 20% averaged over a 10-minute period. When any visible emissions are observed during steady state operation and are determined to be not due to condensed water vapor only, opacity shall be measured over a 10-minute period, in accordance with the procedures at 40 CFR 60, Appendix A, Method 9 as required by 20.2.61.114 NMAC.~~

~~**Recordkeeping:** The permittee shall record dates of any opacity measurements and the corresponding opacity readings.~~

~~**Reporting:** The permittee shall report dates of any opacity measurements and the corresponding opacity readings. The permittee shall submit reports described in Section A109 and in accordance with Section B110.~~

B. Units RLUOB-BHW-1 through -4: Natural Gas-Fired

Requirement: Visible emissions from all external combustion emission stacks shall not equal or exceed an opacity of 20 percent in accordance with the requirements at 20.2.61.109 NMAC.

Monitoring:

- (1) Use of natural gas fuel constitutes compliance with 20.2.61 NMAC unless opacity equals or exceeds 20% averaged over a 10-minute period. When any visible emissions are observed during operation other than during startup mode, opacity shall be measured over a 10-minute period, in accordance with the procedures at 40 CFR 60, Appendix A, Reference Method 9 (EPA Method 9) as required by 20.2.61.114 NMAC, or the operator will be allowed to shut down the equipment to perform maintenance/repair to eliminate the visible emissions. Following completion of equipment maintenance/repair, the operator shall conduct visible emission observations following startup in accordance with the following procedures:
- (a) Visible emissions observations shall be conducted over a 10-minute period during operation after completion of startup mode in accordance with the procedures at 40 CFR 60, Appendix A, Reference Method 22 (EPA Method 22). If no visible emissions are observed, no further action is required.
 - (b) If any visible emissions are observed during completion of the EPA Method 22 observation, subsequent opacity observations shall be conducted over a 10-minute period, in accordance with the procedures at EPA Method 9 as required by 20.2.61.114 NMAC.

For the purposes of this condition, *Startup mode* is defined as the startup period that is described in the facility's startup plan.

Recordkeeping:

- (1) If any visible emissions observations were conducted, the permittee shall keep records in accordance with the requirements of Section B109 and as follows:
- (a) For any visible emissions observations conducted in accordance with EPA Method 22, record the information on the form referenced in EPA Method 22, Section 11.2.
 - (b) For any opacity observations conducted in accordance with the requirements of EPA Method 9, record the information on the form referenced in EPA Method 9, Sections 2.2 and 2.4.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

~~**Requirement:** Exhaust emissions from these external combustion sources shall not exceed 20% opacity averaged over a 10-minute period.~~

~~**Monitoring:** Use of natural gas fuel meeting the requirement at Condition A805.A constitutes compliance with 20.2.61 NMAC unless opacity exceeds 20% averaged over a 10-minute period. When any visible emissions are observed during steady state operation and are determined to be not due to condensed water vapor only, opacity shall be measured over a 10-minute period, in accordance with the procedures at 40 CFR 60, Appendix A, Method 9 as required by 20.2.61.114 NMAC.~~

~~**Recordkeeping:** The permittee shall record dates of any opacity measurements and the corresponding opacity readings.~~

~~**Reporting:** The permittee shall report dates of any opacity measurements and the corresponding opacity readings. The permittee shall submit reports described in Section A109 and in accordance with Section B110.~~

C. Units RLUOB-BHW-1 through -4: Fuel Oil-Fired

Requirement: Visible emissions from external combustion Units RLUOB-BHW-1 through -4 when burning fuel oil shall not equal or exceed an opacity of 20 percent.

Monitoring: When these units are combusting fuel oil compliance with 20.2.61 NMAC shall be demonstrated by not exceeding an opacity of 20% averaged over a 10-minute period. Perform at least one (1) opacity observation each day that fuel oil is used for two (2) hours or more to fire any of Units RLUOB-BHW-1 through -4. At such time when fuel oil as fuel other than natural gas or natural gas liquids is used, or when any visible emissions are observed during steady state operation, opacity shall be measured over a 10-minute period in accordance with the procedures at 40 CFR 60, Appendix A, Method 9 as required by 20.2.61.114 NMAC. Opacity measurements shall continue on a quarterly basis per calendar year for each affected unit if it is fired with fuel oil for two (2) or more hours in a calendar quarter until such time as natural gas or natural gas liquids are used. (NSR Permit 2195N-R2, Specific Condition 3.d., revised)

Recordkeeping: The permittee shall record dates and duration of use of any fuel oils other than

~~natural gas or natural gas liquids~~ and the corresponding opacity readings. The opacity measures and readings shall be recorded in accordance with Method 9 in 40 CFR 60, Appendix A. (NSR Permit 2195N-R2, Specific Condition 4.b., revised)

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

A807 Other Operational Requirements – External Combustion

A. Natural Gas Fuel Usage (Sources listed in Table 800.A **except** RLUOB-BHW-1 through -4)

Requirement: The combined natural gas fuel usage shall be limited to 870 MMscf/y. This limitation shall apply to all boilers and heaters listed in Table 800.A **except** Units RLUOB-BHW-1 through -4, but including all other boilers and heaters at the Facility that qualify as Title V Insignificant Activities.

Monitoring: The permittee shall monitor the monthly total volumetric flow of natural gas to Units TA-55-6-BHW-1 and TA-55-6-BHW-2 through use of a totalizing flow meter.

Recordkeeping: The permittee shall:

- 1) Calculate the monthly rolling 12-month total natural gas fuel usage for the emission units listed in Table 800.A **except** Units RLUOB-BHW-1 through -4.
- 2) Calculate the actual emissions rates for the emission units listed in Table 800.A **except** Units RLUOB-BHW-1 through -4. The calculation shall be based on the actual fuel usage of Units equipped with individual flow meters and the Facility-Wide metered or estimated natural gas usage.
- 3) Calculate the semi-annual and annual total emissions rate (tons/year) for this source category and compare them to the emission limits in Table 802.A. The permittee shall maintain records in accordance with Section B109.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

B. Natural Gas and Fuel Oil Usage (Units RLUOB-BHW-1 through -4)

Requirement: The permittee shall comply with the emission limits in Table 802.B for each fuel type.

Monitoring: The permittee shall:

- 1) Monitor the monthly total volumetric flow of natural gas to Units RLUOB-BHW-1 through -4 using a totalizing flow meter. (NSR Permit 2195N-R2, Specific Condition 3.a., partial, revised)
- 2) Monitor the daily fuel oil consumption during which any of the 4 RLUOB boilers are fired with this fuel type. (NSR Permit 2195N-R2, Specific Condition 3.a., partial, revised)
- 3) Monitor the hours of operation for each boiler when fired on fuel oil and during non-emergency maintenance and readiness testing.

Recordkeeping: The permittee shall:

- 1) Calculate and record the annual fuel oil usage for Units RLUOB-BHW-1 through -4 to

demonstrate compliance for the 48-hour calendar year limit exemption per 40 CFR 63, Subpart JJJJJJ as a daily-rolling 365-day total.

- 2) Calculate and record **the pph emission rates to verify the limits and calculate and record** the semiannual and calendar year total emissions rate (tons/year) for each fuel type and for the combination of both fuels compare to the emission limits in Table 802.B.
- 3) Record the annual hours of operation of each boiler when fired on fuel oil during non-emergency maintenance and readiness testing and compare to the limitation at Condition A804.B.
- 4) The permittee shall maintain records in accordance with Section B109.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

C. 40 CFR 60, Subpart Dc (Units TA-55-6-BHW-1, TA-55-6-BHW-2, RLUOB-BHW-1 through -3)

Requirement: The units are subject to 40 CFR 60, Subpart Dc and the permittee shall comply with the following applicable requirements:

1. When combusting oil in the affected boilers, meet the 0.5 weight percent fuel sulfur standard in 40 CFR 60.42c(d). This standard applies at all times per §60.42c(i). The permittee shall demonstrate compliance per the requirements of §60.42c(h).

Monitoring: The permittee shall comply with the fuel supplier certification requirements in 40 CFR 60.46c(e). The permittee shall monitor fuel usage to meet the recordkeeping requirements of 40 CFR 60.48c(g).

Recordkeeping: The permittee shall comply with the recordkeeping requirements of 40 CFR 60.48c(c), (f) and (g) 40 CFR 60.7(b) and (f) and maintain the records according to §60.48c(i) except when records are required to be maintained for a longer time period in accordance with Section B109.

Reporting: The permittee shall comply with the initial notification requirements of 40 CFR 60.48c(a) and 40 CFR 60.7(a)(1), (a)(4) and (g) and the periodic reporting requirements of 40 CFR 60.48c(b), (d), (e)(11) and (f). Reports shall be submitted according to §60.48c(j). The reporting period may be modified to coincide with the Semi-Annual reporting period in Section A109. The permittee shall report in accordance with Section B110.

D. 40 CFR 60, Subpart Dc (Unit RLUOB-BHW-4)

Requirement: This unit is subject to 40 CFR 60, Subpart Dc and the permittee shall comply with the following applicable requirements:

1. When combusting oil in the affected boilers, meet the 0.5 weight percent fuel sulfur standard in 40 CFR 60.42c(d), and (g). This standard applies at all times per §60.42c(i). The permittee shall demonstrate compliance per the requirements of §60.42c(h).
2. For boiler RLUOB-BHW-4, the permittee shall demonstrate initial compliance with the SO₂ standard through a certification from the fuel supplier per 40 CFR 60.44c(h).

Monitoring: The permittee shall comply with the fuel supplier certification requirements in 40 CFR 60.46c(e).

The permittee shall monitor fuel usage to meet the recordkeeping requirements of 40 CFR 60.48c(g).

Recordkeeping: The permittee shall comply with the recordkeeping requirements of 40 CFR 60.48c(c), (f) and (g) and 40 CFR 60.7(b) and (f) and maintain the records according to §60.48c(i) except when records are required to be maintained for a longer time period in accordance with Section B109.

Reporting: The permittee shall comply with the initial notification requirements of 40 CFR 60.48c(a) and 40 CFR 60.7(a)(1), (a)(3) and (g) and the periodic reporting requirements of 40 CFR 60.48c(b), (d), (e)(11) and (f). Reports shall be submitted according to §60.48c(j). The reporting period may be modified to coincide with the Semi-Annual reporting period in Section A109.

E. Initial Compliance Testing (Unit RLUOB-BHW-4)

Requirement: Initial compliance tests are required for boiler Unit RLUOB-BHW-4. The tests shall be conducted for NO_x and CO while burning natural gas fuel only. This condition applies only if boiler Unit RLUOB-BHW-4 is not an identical make and model to boiler units RLUOB-BHW-1 through -3. (NSR Permit 2195N-R2, Specific Condition 6.a., revised)

Monitoring: The permittee shall conduct EPA Method tests for CO and NO_x within six (6) months of any new boiler start up. Method 19 may be used for determining stack flow rates. This requirement supersedes Condition B111.A(2). Initial compliance testing shall be conducted in accordance with Section B111.

Recordkeeping: The permittee shall maintain records in accordance with Section B109.

Reporting: The permittee shall report in accordance with Section B110 and Section B111.

F. Operational Inspection (Sources listed in Table 800.A)

Requirement:

- (1) Compliance with the allowable emission limits in Sections A106 and A802 shall be demonstrated by performing annual inspections to ensure proper operation of the units.
- (2) At a minimum, the operational inspections shall meet those recommended by the manufacturer, or shall meet the facility specific procedure submitted to the Department.
- (3) If the permittee is using a facility specific procedure it shall submit an electronic version of the procedure to the Department's Permit Section Manager within 90 days of implementing the procedure. If the plan cannot be submitted within 90 days, the permittee shall obtain written approval to extend the deadline from the Department's Permit Section, either by regular or electronic mail. The permittee shall provide additional information or make changes to the plan as requested by the Department.
- (4) The permittee shall make changes or improvements to the inspection procedure based on experience with the unit and/or new information provided by the manufacturer. This updated procedure shall be made available to the Department upon request.

Monitoring:

- (1) Inspections shall be completed at least once per year or at the frequency recommended by the manufacturer.
- (2) At a minimum, inspections shall include the following:
 - (a) checking indicators to verify that the optimal amount of excess combustion air is introduced into the boiler combustion process such as a blue colored, steady flame;

(b) inspections of the unit(s) components and housing for cracks or worn parts.
<p>Recordkeeping:</p> <p>(1) The permittee shall maintain records of operational inspections, including the indicators used to verify optimal excess combustion air, a description of the indicators, the unit component and housing inspections, and any adjustments needed to ensure optimal operation of the unit.</p> <p>(2) The permittee shall also keep records of the manufacturer’s recommended or the permittee’s facility specific operational inspection procedure and shall keep records of the percent of excess combustion air required for optimal performance.</p> <p>(3) The permittee shall maintain records in accordance with Section B109.</p>
<p>Reporting: The permittee shall report in accordance with Section B110.</p>

<p>Requirement: Compliance with the allowable emission limits in Table 802.A shall be demonstrated by performing periodic inspections to ensure proper operations.</p>
<p>Monitoring: The permittee shall conduct annual operational inspections to determine that the boilers are operating properly. The operational inspections shall include operational checks for indications of insufficient excess air, or too much excess combustion air. These operational checks shall include observation of common physical indications of improper combustion, including indications specified by the boiler manufacturer, and indications based on operational experience with these units.</p>
<p>Recordkeeping: The permittee shall maintain records of operational inspections, describing the results of all operational inspections noting chronologically any adjustments needed to bring the boilers into compliance. The permittee shall maintain records in accordance with Section B109.</p>
<p>Reporting: The permittee shall report in accordance with Section B110.</p> <p>Within ninety (90) days of permit issuance, the permittee shall submit for Department approval a procedure which the permittee will use to carry out the operational inspections. The permittee may at any time submit revisions for Department approval.</p>

CHEMICAL USAGE

A900 Regulated Sources – Chemical Usage

A. Table 900.A lists all of the process equipment authorized for this source category.

Table 900.A: Regulated Sources List

Unit No.	Source Description/Location	Emission Type
LANL-FW-CHEM	Chemical Usage, Facility-wide (except RLUOB)	VOC, HAPs, TAPs

Unit No.	Source Description/Location	Emission Type
RLUOB-CHEM	Chemical Usage, Bldg. TA-55-400 (the laboratory portion only of this RLUOB building)	VOC, HAPs, TAPs

A901 Control Equipment – Chemical Usage – Not Required

A902 Emission Limits – Chemical Usage

A. Table 902.A lists the emission units, and their allowable emission limits. (40 CFR 50; Paragraphs 1, 7, and 8 of 20.2.70.302.A NMAC, NSR Permit 2195N-R2).

Table 902.A: Allowable Emissions

Unit No.	VOC/HAPs tpy
LANL-FW-CHEM	-- ¹
RLUOB-CHEM	3.75 ¹

1 The VOC emissions from this source category are included in the facility-wide allowable emissions limit established in Table 106.B: 200 tpy VOC, 8.0 tpy per individual HAP, and 24.0 tpy of combined total HAPs. Any VHAPs that are also defined as a VOC shall be included in the VOC total.

A903 Applicable Requirements – Chemical Usage

A. The permittee shall comply with all applicable sections of the requirements listed in Table 903.A.

Table 903.A: Applicable Requirements

Applicable Requirements	Federally Enforceable	Unit No.
NSR Permit 2195N-R2	X	RLUOB-CHEM

A904 Operational Limitations – Chemical Usage

A. The Chemical Usage source category is authorized for continuous operation. No monitoring, recordkeeping, or reporting requirements are required to demonstrate compliance with continuous hours of operation.

B. For Unit RLUOB-CHEM, the permittee shall obtain a NSR permit revision prior to the use of any TAP that is expected to be emitted in excess of the stack-height-corrected screening levels at 20.2.72.502 NMAC. (NSR Permit 2195N-R2, Specific Condition 1.i, revised)

A905 Fuel Sulfur Requirements – Chemical Usage – Not Required

A906 20.2.61 NMAC Opacity – Chemical Usage – Not Required

A907 Other Operational Requirements – Chemical Usage

A. Emission calculations (Unit LANL-FW-CHEM)

Requirement: The permittee shall comply with the facility-wide VOC and HAP emission limits at Table 106.B.
Monitoring: The permittee shall monitor facility-wide chemical purchasing and site location using an electronic chemical tracking system. The quantity of chemicals that are vented to the atmosphere shall be estimated on a semi-annual basis, and categorized as VOC, HAP, or a combination of these categories.
Recordkeeping: The permittee shall record the quantity of total VOC emitted and the quantity of each individual and total HAPs on a semi-annual basis. These records shall be maintained in accordance with Section B109.
Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110. With respect to individual HAPs, reports shall include any HAP emitted in a quantity greater than 0.5 tons per year.

B. Emission calculations (Unit RLUOB-CHEM)

Requirement: The permittee shall comply with the source-specific VOC emission limit at Table 902.A and the facility-wide VOC and HAP emission limits at Table 106.B. (NSR Permit 2195N-R2, Specific Condition 2.a., revised)
Monitoring: The permittee shall monitor chemical purchasing for the RLUOB-CHEM facility using an electronic chemical tracking system. The quantity of chemicals that are vented to the atmosphere shall be estimated on a monthly basis, and categorized as VOC, HAP, TAP, or a combination of these categories. (NSR Permit 2195N-R2, Specific Condition 4.c., revised)
Recordkeeping: The permittee shall record the quantity of total VOC and TAP, each individual HAP, and the total HAPs emitted on a monthly rolling, 12-month total basis. These records shall be maintained in accordance with Section B109. (NSR Permit 2195N-R2, Specific Condition 4.c., revised)
Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110. With respect to individual HAPs, reports shall include any HAP emitted in a quantity greater than 0.5 tons per year.

DEGREASERS

A1000 Regulated Sources – Degreasers

A. Table 1000.A lists all of the process equipment authorized for this source category.

Table 1000.A: Regulated Sources List

Unit No.	Source Description/Location	Emissions Type
TA-55-DG-1	Ultrasonic Cold Batch	VOCs, HAPs

A1001 Control Equipment – Degreasers – Not Required

A1002 Emission Limits –Degreasers

- A. Table 1002.A lists the emission units, and their allowable emission limits. (40 CFR 50; Paragraphs 1, 7, and 8 of 20.2.70.302.A NMAC).

Table 1002.A: Allowable Emissions

Unit No.	VOC/HAPs tpy
TA-55-DG-1	-- ¹

- ¹ The VOC emissions from this source category are included in the facility-wide allowable emissions limit established in Table 106.B: 200 tpy VOC, 8.0 tpy per individual HAP, and 24.0 tpy of combined total HAPs. Any VHAPs that are also defined as a VOC shall be included in the VOC total.

A1003 Applicable Requirements – Degreasers

- A. The permittee shall comply with all applicable sections of the requirements listed in Table 1003.A.

Table 1003.A: Applicable Requirements

Applicable Requirements	Federally Enforceable	Unit No.
40 CFR 63, Subpart T National Emission Standards for Halogenated Solvent Cleaning	X	TA-55-DG-1

A1004 Operational Limitations – Degreasers

- A. The Degreasers source category is authorized for continuous operation. No monitoring, recordkeeping, or reporting requirements are required to demonstrate compliance with continuous hours of operation.

A1005 Fuel Sulfur Requirements – Degreasers – Not Required

A1006 20.2.61 NMAC Opacity – Degreasers – Not Required

A1007 Other Operational Requirements – Degreasers

- A. Operational Requirements (Degreasers)

<p>Requirement: The permittee shall comply with the applicable requirements according to 40 CFR 63, Subpart T, including, but not limited to:</p> <ol style="list-style-type: none"> 1) Ensure the degreaser is closed with a tight-fitting cover whenever not in use, and 2) Maintain a freeboard ratio of 0.75 or greater, and 3) Collect and store all waste solvent and wipe rags in closed containers, and 4) Perform flushing within the freeboard area only, and 5) Allow cleaned parts to drip for 15 seconds or until dripping stops, and 6) Do not exceed the fill line on the solvent level, and 7) Wipe up spills immediately, and 8) Do not create observable splashing with agitation device, and 9) Ensure that the degreaser is not exposed to drafts greater than 40 meters/min, and 10) Do not clean sponges, fabric, wood, or paper.
<p>Monitoring: The permittee shall monitor and record the amount of solvent added to the degreaser.</p>
<p>Recordkeeping: The permittee shall:</p> <ol style="list-style-type: none"> 1) Calculate the actual emissions rate (pounds/month) of VOC and HAPs based on the quantity of solvent lost to evaporation on a monthly basis. 2) Calculate the semi-annual emissions rate (tons/year) for this source category and add to the facility-wide emission rates in Table 106.B. 3) Maintain records of the degreaser solvent content and quantity added and work practice checklists. 4) The permittee shall maintain records in accordance with Section B109.
<p>Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.</p>

INTERNAL COMBUSTION

A1100 Regulated Sources – Internal Combustion

A. Table 1100.A lists all of the process equipment authorized for this source category.

Table 1100.A: Regulated Sources List

Unit No.	Source Location	Source Type ¹	Generator Make/ Model	Generator Serial No.	Capacity (maximum)	Engine Make / Model	Engine Serial No.	Construction Date / Manufacture Date
TA-33-G-1P	TA-33	CI-RICE, Portable Generator	Cummins/D FHD	H010276941	1490 hp	Cummins/QS T30-G5-NR1	37199764	2004 / 2001
TA-33-G-2	TA-33, TA-36 and TA-39	CI-RICE, Portable Generator	Kohler/ 20EORZ	2025460	36 hp	YANMAR 4TNE84T-EKRW	52993	2007 / 2003

Unit No.	Source Location	Source Type ¹	Generator Make/ Model	Generator Serial No.	Capacity (maximum)	Engine Make / Model	Engine Serial No.	Construction Date / Manufacture Date
TA-33-G-3	TA-33, TA-36 and TA-39	CI-RICE, Portable Generator	Kohler/ 20EORZ	2025461	36 hp	YANMAR 4TNE84T-EKRW	52992	2007 / 2003
TA-33-G-4	TA-33, TA-36 and TA-39	CI-RICE, Portable Generator	Caterpillar/ SR4B	6PK01065	316 hp	Caterpillar/33 06	8JJ00615	2007 / 1999
RLUOB-GEN-1	TA-55-00585 (RLUOB)	CI-RICE Stationary Generator	Cummins/ DFLE-5754172	1060970810	2220 hp	Cummins/KT A50G9	25314401	2009 / 9/2006
RLUOB-GEN-2	TA-55-0584 (RLUOB)	CI-RICE Stationary Generator	Cummins/ DFLE-5754172	1060970811	2220 hp	Cummins/KT A50G9	25314399	2009 / 9/2006
RLUOB-GEN-3	TA-55-0583 (RLUOB)	CI-RICE Stationary Generator	Cummins/ DFLE-5754172	1060970812	2220 hp	Cummins/KT A50G9	33165566	2009 / 9/2006
TA-48-GEN-1	TA-48-1	CI-RICE Stationary Generator	Cummins/15 0DSGAC	L100178636	250 hp	QSB7-G3 NR3	73176927	2013 / 2010
TA-50-GEN-184	TA-50-184	CI RICE Emergency Generator	Cummins/ DFEJ-1798846	J170270398	765 hp	n/a	n/a	2018 / 2017
TA-55-GEN-1	TA-55-PF10	CI-RICE Stationary Generator	Whisper Watt/DCA 25SSiU4F DF-027012	7150008	40.2 hp	ISUZU Model: BZ-4LE2T	4LE2-298868	2014 / 2014
TA-55-GEN-2	TA-55-PF11	CI-RICE Stationary Generator	Whisper Watt/DCA 25SSiU4F DF-027012	7150066	40.2 hp	ISUZU Model: BZ-4LE2T	4LE2-299432	2014 / 2014
TA-55-GEN-3	TA-55-371	CI-RICE Stationary Generator	Caterpillar/S R4B-6D	G5C03702	1335 hp	Caterpillar/C 32	SYCO526 3	2010 / 2009
TA-55-GEN-474	TA-55-474	CI RICE Emergency Generator	Cummins/ DFEJ-A056Y434	B170157959	680 hp	n/a	n/a	2018 / 2017
TA-55-GEN-475	TA-55-475	CI RICE Emergency Generator	Cummins/ QSX15-G9	B170157958	680 hp	n/a	n/a	2018 / 2017
TA-63-GEN-TRU	TA-63-TRU	CI RICE Emergency Generator	Cummins/ DSGAD	F150838701	324 hp	n/a	n/a	2016 / 2015

1. Portable units are subject to NSPS or NESHAP requirements if they fail to meet the definition of a Nonroad engine as defined in 40 CFR 1068.30.

A1101 Control Equipment – Internal Combustion – Not Required

A1102 Emission Limits – Internal Combustion

A. Table 1102.A lists the emission units, and their allowable emission limits. (40 CFR 50; Paragraphs 1, 7, and 8 of 20.2.70.302.A NMAC; NSR Permits 2195F-R4 and 2195P)

Table 1102.A: Allowable Emissions^{2,3}

Unit No.	¹ NO _x pph	NO _x tpy	CO pph	CO tpy	VOC pph	VOC tpy	SO ₂ pph	SO ₂ tpy	PM ₁₀ pph	PM ₁₀ tpy	PM _{2.5} pph	PM _{2.5} tpy
TA-33-G-1P	20.9	9.4	2.2	1.0	1.6	0.7	0.6	0.3	0.7	0.3	0.7	0.3
TA-33-G-2	0.83	0.21	0.2	0.1	0.1	< ⁴	<	<	<	<	<	<
TA-33-G-3	0.83	0.21	0.2	0.1	0.1	< ⁴	<	<	<	<	<	<
TA-33-G-4	9.33	2.33	5.7	1.4	0.75	0.2	0.6	0.16	<	<	<	<

- 1 Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO₂.
- 2 Title V annual fee assessments are based on the sum of allowable tons per year emission limits in Sections A106 and A107.
- 3 To report excess emissions for sources with no pound per hour and/or ton per year emission limits, see condition B110.E.
- 4 The “<” symbol indicates a value that was considered negligible but are included in the facility-wide allowable emissions limits established in condition A106.B: For example for VOC: 200 tpy, 8.0 tpy per individual HAP, and 24.0 tpy of combined HAPs.

A1103 Applicable Requirements – Internal Combustion

A. The permittee shall comply with all applicable sections of the requirements listed in Table 1103.A.

Table 1103.A: Applicable Requirements

Applicable Requirements	Federally Enforceable	Unit No.
NSR Permit 2195F-R4 (and as required in Condition A114 of this TV P100-R3)	X	TA-33-G-1P
NSR Permit 2195P and 2195-P3, 2195P-R1 and 2195P-R3	X	TA-33-G-2 through -4

Applicable Requirements	Federally Enforceable	Unit No.
NSR Permit 2195N-R1 (Admin NOE)	X	RLUOB-GEN-1 through -3
20.2.61 NMAC Smoke and Visible Emissions	X	All Internal Combustion Sources
20.2.77 New Source Performance Standards	X	Applicable to RLUOB-GEN-1 through -3, TA-48-GEN-1, TA-55-GEN-1 TA-55-GEN-2 and TA-55-GEN-3; and TA-50-GEN-184; TA-55-GEN-474; TA-55-GEN-475; TA-63-GEN-TRU
40 CFR 60, Subpart A, General Provisions	X	Applicable to RLUOB-GEN-1 through -3, TA-48-GEN-1, TA-55-GEN-1
40 CFR 60 Subpart IIII, Stationary CI-RICE	X	TA-55-GEN-2 and TA-55-GEN-3; and TA-50-GEN-184; TA-55-GEN-474; TA-55-GEN-475; TA-63-GEN-TRU
40 CFR 89, Control of Emissions from New and In-Use Nonroad Compression Ignition Engines	X	TA-33-G-2 through -4

A1104 Operational Limitations – Internal Combustion

A. Hours of Operation and Emission Limits for Unit TA-33-G-1P

<p>Requirements:</p> <ol style="list-style-type: none"> 1) Unit TA-33-G-1P is limited to eight (8) hours of daily operation at full capacity. Operation shall occur between the hours of 7:00 AM and 5:00 PM. (NSR Permit 2195F-R4, Condition A1104.A) 2) Unit TA-33-G-1P is limited to the emissions limits stated in Table 1102.A and the permittee shall meet the requirements Condition A114. (NSR Permit 2195F-R4, Condition A1104.A, revised) 3) Unit TA-33-G-1P shall be certified to be in compliance with applicable non-road emission standards in 40 CFR 89.
<p>Monitoring: The permittee shall monitor the time(s) of operation each day, and the daily and monthly rolling 12-month total hours of operation for Unit TA-33-G-1P using a non-resettable hour meter. Hours that do not represent hours the unit is operated at the TA-33 site may be monitored separately for subsequent subtraction from the daily and monthly rolling 12-month totals.</p>
<p>Recordkeeping: The permittee shall maintain the following records and in accordance with Section B109:</p> <ol style="list-style-type: none"> 1) The permittee shall keep records of the time(s) of operation each day, and the daily, monthly, and the monthly rolling 12-month total hours of operation of the genset listed

<p>above, as indicated on the non-resettable hour meter. The permittee may record and subtract hours of operation that do not represent operating hours at the TA-33 site.</p> <p>2) The permittee shall calculate and record the pph emission rates and shall calculate and record the annual emissions of all criteria and hazardous air pollutants from Unit TA-33-G-1P. The permittee may subtract emissions that are not the result of operations at TA-33.</p> <p>3) Maintain a copy of the engine certification to the applicable non-road emission standards in 40 CFR 89.</p>
<p>Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.</p>

B. Hours of Operation and Emission Limits for Units TA-33-G-2 through -4

<p>Requirements:</p> <p>1) Units TA-33-G-2 through -4 are authorized to operate 500 hours per generator per calendar year. (NSR Permit 2195P, Specific Condition 1.b.)</p> <p>2) Units TA-33-G-2 through -4 shall each be certified to be in compliance with applicable non-road emission standards in 40 CFR 89. (NSR Permit 2195P, Specific Condition 1.c.)</p>
<p>Monitoring: The permittee shall monitor the total hours of operation for each genset, Units TA-33-G-2 through -4, using a non-resettable hour meter.</p>
<p>Recordkeeping: The permittee shall:</p> <p>1) Record the total hours operation of the gensets listed above, as indicated on the non-resettable hour meter. (NSR Permit 2195P, Specific Condition 4.a., revised)</p> <p>2) Calculate and record the pph emission rates and calculate and record the semi-annual and annual emissions of criteria and hazardous air pollutants from each genset, Units TA-33-G-2 through -4.</p> <p>3) Maintain a copy of the engine certification to the applicable non-road emission standards in 40 CFR 89. (NSR Permit 2195P, Specific Condition 4.c.)</p>
<p>Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.</p>

C. Hours of Operation (Non-NSPS subject standby emergency generator pool)

<p>Requirement: To ensure compliance with source category allowable emission limits in Table 106.A, the pool of all non-NSPS subject standby emergency generators operated by LANL shall be limited to an average of 100 annual hours for diesel-fired units and 500 annual hours for natural gas-fired units.</p>
<p>Monitoring: The permittee shall monitor the dates and hours of operation for each of the units.</p>
<p>Recordkeeping: The permittee shall record the hours of operation daily for each unit and shall:</p> <p>1) Calculate and record the monthly rolling 12-month total hours of operation for all units burning diesel fuel, and</p> <p>2) Calculate and record the monthly rolling 12-month total hours of operation for all units burning natural gas, and</p> <p>3) Shall meet the recordkeeping requirements in Section B109.</p>
<p>Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.</p>

A1105 Fuel Sulfur Requirements – Internal Combustion

A. Fuel Sulfur Requirement for Unit TA-33-G-1P

Requirement: Unit TA-33-G-1P while in use at TA-33 shall combust only diesel fuel containing no more than 500 ppmw total sulfur.
Monitoring: None. Compliance is demonstrated by keeping records.
Recordkeeping: <ol style="list-style-type: none"> (1) The permittee shall demonstrate compliance with the limit on total fuel sulfur content by maintaining records of a current, valid purchase contract, tariff sheet or transportation contract for the fuel, or fuel analysis, specifying the fuel grade and certification or allowable sulfur limit. (2) If fuel analysis is used, the analysis shall not be older than one year. (3) Alternatively, compliance may be demonstrated by keeping a receipt or invoice from a commercial fuel supplier with each fuel delivery, which shall include the delivery date, the fuel type delivered, and amount of fuel delivered, and the maximum sulfur content of the fuel.
Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

A1106 20.2.61 NMAC Opacity – Internal CombustionA. **CI-RICE** - TA-33-G-1P, TA-33-G-2, TA-33-G-3, TA-33-G-4, RLUOB-GEN-1, RLUOB-GEN-2, RLUOB-GEN-3, TA-48-GEN-1, TA-55-GEN-1 TA-55-GEN-2, TA-55-GEN-3, TA-50-GEN-184; TA-55-GEN-474; TA-55-GEN-475, and TA-63-GEN-TRU

Requirement: Visible emissions from all emission stacks of all compression ignition engines shall not equal or exceed an opacity of 20 percent in accordance with the requirements at 20.2.61.109 NMAC.
Monitoring: <ol style="list-style-type: none"> (1) <u>Units TA-33-G-1P, TA-33-G-2, TA-33-G-3, TA-33-G-4:</u> For compression ignition engines that are used to generate facility power and/or used for facility processing and are not emergency, black start, or limited use engines as defined at 40 CFR 63, Subpart ZZZZ, the permittee shall, at least once every 90 days of operation, measure opacity on each Unit for a minimum of 10 minutes in accordance with the procedures of 40 CFR 60, Appendix A, Method 9. The permittee shall also measure opacity on a Unit's emissions stack when any visible emissions are observed during steady state operation. (2) <u>Units RLUOB-GEN-1, RLUOB-GEN-2, RLUOB-GEN-3, TA-48-GEN-1, TA-55-GEN-1 TA-55-GEN-2, TA-55-GEN-3, TA-50-GEN-184; TA-55-GEN-474; TA-55-GEN-475, and TA-63-GEN-TRU:</u> For emergency, standby, or limited use compression ignition engines that operate on a limited basis, the permittee shall, at least once during any year that the unit is operated and no less frequently than once every 5 years regardless of unit operation, measure

opacity during steady state operation on each Unit for a minimum of 10 minutes in accordance with the procedures of 40 CFR 60, Appendix A, Method 9. The permittee shall also measure opacity on a Unit's emissions stack anytime when visible emissions are observed during steady state operation.

(3) Alternatively, for any compression ignition engine, if visible emissions are observed during steady state operation, within 1 hour of seeing visible emissions, the permittee shall shut down the engine and perform maintenance and/or repair to eliminate the visible emissions. Following completion of equipment maintenance and/or repair, the permittee shall conduct visible emission observations following startup in accordance with the following procedures:

- (a) Visible emissions observations shall be conducted over a 10-minute period during operation after completion of startup mode in accordance with the procedures at 40 CFR 60, Appendix A, Reference Method 22 (EPA Method 22). If no visible emissions are observed, no further action is required.
- (b) If any visible emissions are observed during completion of the EPA Method 22 observation, subsequent opacity observations shall be conducted over a 10-minute period, in accordance with the procedures at EPA Method 9 as required by 20.2.61.114 NMAC.

For the purposes of this condition, *Startup mode* is defined as the startup period that is described in the facility's startup plan.

Recordkeeping:

- (1) If any visible emissions observations were conducted, the permittee shall keep records in accordance with the requirements of Section B109 and as follows:
- (2) For any visible emissions observations conducted in accordance with EPA Method 22, record the information on the form referenced in EPA Method 22, Section 11.2.
- (3) For any opacity observations conducted in accordance with the requirements of EPA Method 9, record the information on the form referenced in EPA Method 9, Sections 2.2 and 2.4.
- (4) For each emergency, black start, and limited use compression ignition engine, the permittee shall also record the number of operating hours per year of each Unit and the reason for operating the unit.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Requirement: ~~Visible emissions from the stacks of the above listed sources shall not equal or exceed an opacity of 20 percent.~~

Monitoring: ~~During steady state operation, opacity shall be measured over a 10-minute period in accordance with the procedures at 40 CFR 60, Appendix A, Method 9 as required by 20.2.61.114 NMAC. Opacity measurements shall be conducted on a quarterly basis per calendar~~

~~year as qualified by the Section B108.D monitoring provisions. This requirement excludes Insignificant and Trivial Activities.~~

~~**Recordkeeping:** The permittee shall maintain records of all Method 9 observations, and in accordance with Section B109.~~

~~**Reporting:** The permittee shall report date, time, and results of all Method 9 observations. The permittee shall submit reports described in Section A109 and in accordance with Section B110.~~

A1107 NSPS and Other Requirements – Internal Combustion

A. 40 CFR 60, Subpart III (Emergency Generators Units RLUOB-GEN-1 through -3)

Requirement: ~~Tier I~~ **Tier I emission standard subject units:** The units **RLUOB-GEN-1 through -3** are subject to 40 CFR 60, Subpart III and the permittee shall comply with the applicable **Tier I** emission standards and fuel requirements in §60.4205(a), §60.4206 and §60.4207(b) ~~and Table 1102.B~~. In addition the permittee shall follow the compliance requirements stated in §60.4211(a, b, and f) and the general provisions of 40 CFR 60 Subpart A as required in §60.4218.

Monitoring: ~~None~~ **The permittee shall comply with all applicable monitoring requirements in 40 CFR 60, Subpart A and Subpart III, including but not limited to §60.4211.**

Recordkeeping: The permittee shall **comply with all applicable recordkeeping requirements in 40 CFR 60, Subpart A and Subpart III, including but not limited to §60.4214 and in maintain records in** accordance with Section B109.

Reporting: The permittee shall comply with all applicable reporting requirements of 40 CFR 60, Subpart A **and** as required in **§60.4214 and §60.4218** and in accordance with Section B110.

B. 40 CFR 60, Subpart III (Emergency Generators Unit TA-48-GEN-1, TA-55-GEN-1 TA-55-GEN-2 and TA-55-GEN-3)

Requirement: ~~Tiers III and IV~~ **Tiers III and IV emission standard subject units:** The units **TA-48-GEN-1, TA-55-GEN-1 TA-55-GEN-2 and TA-55-GEN-3** are subject to 40 CFR 60, Subpart III and the permittee shall comply with the applicable **Tiers III and IV** emissions standards and fuel requirements in §60.4205(b), §60.4202(a)(2), §60.4206 and §60.4207(b) ~~and Table 1102.B~~. In addition the permittee shall follow the compliance requirements stated in §60.4211(a, c and f) and the general provisions of 40 CFR 60 Subpart A as required in §60.4218.

Monitoring: ~~None~~ **The permittee shall comply with all applicable monitoring requirements in 40 CFR 60, Subpart A and Subpart III, including but not limited to §60.4211.**

Recordkeeping: The permittee shall **comply with all applicable recordkeeping requirements in 40 CFR 60, Subpart A and Subpart III, including but not limited to §60.4214 and in maintain records in** accordance with Section B109.

Reporting: The permittee shall comply with all applicable reporting requirements of 40 CFR 60, Subpart A **and** as required in **§60.4214 and §60.4218** and in accordance with Section B110.

C. 40 CFR 60, Subpart III (Emergency Generators Units TA-50-GEN-184; TA-55-GEN-474; TA-55-GEN-475, and TA-63-GEN-TRU)

Requirement: **Tier II emission standard subject units:** The units **TA-50-GEN-184; TA-55-GEN-474; TA-55-GEN-475, and TA-63-GEN-TRU** are subject to 40 CFR 60, Subpart III and the permittee shall comply with the applicable **Tier II emissions standards and fuel requirements**

in §60.4205(b), §60.4202(a)(2), §60.4206 and §60.4207(b). In addition, the permittee shall follow the compliance requirements stated in §60.4211(a, c, and f) and the general provisions of 40 CFR 60 Subpart A as required in §60.4218.
Monitoring: The permittee shall comply with all applicable monitoring requirements in 40 CFR 60, Subpart A and Subpart III, including but not limited to §60.4211.
Recordkeeping: The permittee shall comply with all applicable recordkeeping requirements in 40 CFR 60, Subpart A and Subpart III, including but not limited to §60.4214 and in accordance with Section B109.
Reporting: The permittee shall comply with all applicable reporting requirements of 40 CFR 60, Subpart A and as required in §60.4214 and §60.4218 and in accordance with Section B110.

DATA DISINTEGRATOR

A1200 Regulated Sources – Data Disintegrator

A. Table 1200.A lists all of the process equipment authorized for this source category.

Table 1200.A: Regulated Sources List

Unit No.	Source Description	Manufacturer	Model No./ Serial No.	Construction Date / Manufacture Date	Capacity
TA-52-11	Data Disintegrator/ Industrial Shredder	Security Engineered Machinery	1424 / 11892	7/2004 / 9/2002	1200 lb/hr

A1201 Control Equipment – Data Disintegrator

A. Table 1201.A lists all of the pollution control equipment required for the applicable regulated equipment in this source category. Each emission point is identified by the same number that was assigned to it in the permit application.

Table 1201.A: Control Equipment List

Control Equipment Unit No. / Location ¹	Control Description	Efficiency	Pollutant being Controlled
TA-52-11	Cyclone and cloth tube filters	98.75%	TSP/PM10

¹ Control for unit number refers to a unit number from the Regulated Sources List.

A1202 Emission Limits – Data Disintegrator

- A. Table 1202.A lists the emission units, and their allowable emission limits. (40 CFR 50; Paragraphs 1, 7, and 8 of 20.2.70.302.A NMAC; NSR Permit 2195H).

Table 1202.A: Allowable Emissions

Unit No.	PM10 pph	PM10 tpy
TA-52-11	2.3	9.9

1 PM10 emissions limits are after controls.

A1203 Applicable Requirements – Data Disintegrator

- A. The permittee shall comply with all applicable sections of the requirements listed in Table 1203.A.

Table 1203.A: Applicable Requirements

Applicable Requirements	Federally Enforceable	Unit No.
NSR Permit No: 2195H	X	TA-52-11

A1204 Operational Limitations – Data Disintegrator

- A. Operational Throughput Limitation (Unit Data Disintegrator)

Requirement: The Unit Data Disintegrator is limited to processing no more than 25,000 boxes per year or 565 tons per year of media. To avoid Compliance Assurance Monitoring (CAM) requirements under 40 CFR 64, the Data Disintegrator shall limit uncontrolled potential PM emissions by limiting media processing to no more than 25,000 boxes per year or 565 tons per year.
Monitoring: The permittee shall perform the monitoring required in Condition A1207.A.
Recordkeeping: The permittee shall perform the recordkeeping required in Condition A1207.A.
Reporting: The permittee shall perform the reporting required in Condition A1207.A.

A1205 Fuel Sulfur Requirements – Data Disintegrator – Not Required

A1206 20.2.61 NMAC Opacity – Data Disintegrator – Not Required

A1207 Other Operational Requirements – Data Disintegrator

- A. Emission Calculations (Data Disintegrator)

Requirement: The permittee shall calculate Data Disintegrator emissions based on the records of the number of boxes of media or of the mass quantity (in tons) that are destroyed.
Monitoring: The permittee shall monitor the quantity of media destroyed on a monthly basis. The total weight shall be based on a previously determined average box weight. This average

weight determination shall be maintained as part of the records for this facility.
Recordkeeping: The permittee shall calculate the actual emissions rate (tons per reporting period) for the emission units listed in Table 1200.A on a semi-annual basis. The emission rate in tons per year shall be calculated by summing the emissions from the previous reporting period with the current period. Records shall be maintained in accordance with Section B109.
Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

B. Cyclone and Cloth Tube Filters (Data Disintegrator)

Requirement: The permittee shall perform regular maintenance and repair on the cyclone and cloth tube filter(s) per manufacturer's recommendations. (NSR Permit 2195H, Specific Condition 1.d.)
Monitoring: N/A
Recordkeeping: 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). (NSR Permit 2195H, Specific Condition 4.a.) Records shall be maintained in accordance with Section B109.
Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

C. Compliance Testing (Data Disintegrator)

Requirement: If upon notification by the Department, compliance testing is required, it shall be conducted in accordance with EPA Reference Methods 1 through 4, Method 5 for PMTSP , and conducted in accordance with 40450 CFR 60, Appendix A. For combined PMTSP and PM10, testing shall be in accordance with 40 CFR 51, Appendix M, Method 201 if it demonstrates compliance with the PM10 limits . Alternative test method(s) may be used if the Department approves the change. (NSR Permit 2195H, Specific Condition 6.b., revised)
Monitoring: N/A
Recordkeeping: The permittee shall maintain records in accordance with Section B109.
Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

TA-3 POWER PLANT

A1300 Applicable Regulations – TA-3 Power Plant

- A. The permittee shall comply with all applicable sections of the requirements listed in [Table 1300.A](#).

Table 1300.A: Applicable Requirements

Applicable Requirements	Federally Enforceable	Unit No.
NSR Permit No: 2195B-M3	X	All Power Plant sources
20.2.61 NMAC Smoke and Visible Emissions	X	TA-3-22-1 through TA-3-22-5, TA-3-22-CT-1, and TA-3-CHP-1
20.2.77 NMAC New Source Performance	X	Units subject to 40 CFR 60
40 CFR 60, Subpart A, General Provisions	X	Units subject to 40 CFR 60
40 CFR 60, Subpart Dc	X	TA-3-22-4 and TA-3-22-5
40 CFR 60, Subpart GG, Stationary Gas Turbines	X	TA-3-22-CT1
40 CFR 60, Subpart IIII, NSPS for CI RICE	X	TA-3-1404-GEN
40 CFR 60, Subpart KKKK, Stationary Combustion Turbines	X	TA-3-22-CHP-1 and HRSG

A1301 Regulated Sources – TA-3 Power Plant

- A. Tables 1301.A and 1301.B list all of the regulated emission units authorized for the phased construction of this source category.

Table 1301.A: Regulated Sources List Phase 1

Unit No.	Source Description	Make	Model	Serial No.	Construction/Reconstruction Date	Manufacture Date	Manufacturer Rated Capacity and Permitted Capacity
TA-3-22-1	Boiler	Edgemoor Iron Works	TBD	4008	1950	1950	178.5 MMBtu/hr
TA-3-22-2	Boiler	Edgemoor Iron Works	TBD	4009	1950	1950	178.5 MMBtu/hr
TA-3-22-3	Boiler	Union Iron Works	TBD	11804	1952	1952	178.5 MMBtu/hr
TA-3-22-CT-1	Combustion Turbine	Rolls Royce	RB211-6761DLE	2011	2005	2003	27 MW (92.1 MMBtu/hr)
TA-3-22-4	Boiler	<u>Victory Energy Operations Cleaver Brooks</u>	<u>F2-WB-1800-S150E CBEX-Elite</u>	14974-1 ¹	TBD ¹	8/27/2019 ¹	72.3 MMBtu/hr
TA-3-22-5	Boiler	<u>Victory Energy Operations Cleaver Brooks</u>	<u>F2-WB-1800-S150E CBEX-Elite</u>	14974-2 ¹	TBD ¹	8/27/2019 ¹	72.3 MMBtu/hr
TA-3-22-CHP-1	Turbine plus HRSG	Rolls Royce turbine + TBD HRSG	TBD	2011+ TBD ¹	2003 + TBD ¹	2005 + TBD ¹	47 MW (160.4 MMBtu/hr)

Table 1301.A: Regulated Sources List Phase 1

Unit No.	Source Description	Make	Model	Serial No.	Construction/Reconstruction Date	Manufacture Date	Manufacturer Rated Capacity and Permitted Capacity
TA-3-1404-GEN	Emergency Diesel Generator	Cummins	DFLC-5554001	E020369571	2003 (installed > 7-26-2018)	2002	1250 kW

1. All TBD (to be determined) units and like-kind engine replacements must be evaluated for applicability to NSPS and MACT requirements.

Table 1301.B: Regulated Sources List Phase 3

Unit No.	Source Description	Make	Model	Serial No.	Construction/Reconstruction Date	Manufacture Date	Manufacturer Rated Capacity and Permitted Capacity
TA-3-22-CHP-1	Turbine plus HRSG	Rolls Royce turbine + TBD HRSG	TBD ¹	2011+ TBD	2003 + TBD	2005 + TBD	47 MW (160.4 MMBtu/hr)
TA-3-22-3 ²	Boiler	Union Iron Works	TBD	11804	1952	1952	178.5 MMBtu/hr
TA-3-22-4	Boiler	<u>Victory Energy Operations</u> Clever Brooks	<u>F2-WB-1800-S150E</u> <u>CBEX Elite</u>	14974-1 ¹	TBD ¹	8/27/2019 ¹	72.3 MMBtu/hr
TA-3-22-5	Boiler	<u>Victory Energy Operations</u> Clever Brooks	<u>F2-WB-1800-S150E</u> <u>CBEX Elite</u>	14974-2 ¹	TBD ¹	8/27/2019 ¹	72.3 MMBtu/hr
TA-3-1404-GEN	Emergency Diesel Generator	Cummins	DFLC-5554001	E020369571	2003 (installed > 7-26-2018)	2002	1250 kW

1. All TBD (to be determined) units and like-kind engine replacements must be evaluated for applicability to NSPS and MACT requirements.

2. This unit will be decommissioned during Phase 3 (see Conditions A1308.D and A1308.E).

A1302 Control Equipment – TA-3 Power Plant

- A. **Tables 1302.A and 1302.B** list all the pollution control equipment required for the phased construction of this source category. Each emission point is identified by the same number that was assigned to it in the permit application.

Table 1302.A: Control Equipment List (Phase 1):

Control Equipment Unit No.	Control Description	Pollutant being Controlled	Control for Unit Number(s) ¹
F-1	Flue Gas Recirculation Fan, 1800 rpm	NOx	TA-3-22-1
F-2	Flue Gas Recirculation Fan, 1800 rpm	NOx	TA-3-22-2
F-3	Flue Gas Recirculation Fan, 1800 rpm	NOx	TA-3-22-3
TA-3-22-CT-1	Rolls-Royce DLE System (DLE = dry low emissions pre-mix lean burn staged combustion)	NOx	TA-3-22-CT-1

1. Control for unit number refers to a unit number from the Regulated Equipment List.

Table 1302.B: Control Equipment List (Phase 3):

Control Equipment Unit No.	Control Description	Pollutant being Controlled	Control for Unit Number(s) ¹
F-3	Flue Gas Recirculation Fan, 1800 rpm	NOx	TA-3-22-3
TA-3-22-CHP-1	Rolls-Royce DLE System (DLE = dry low emissions pre-mix lean burn staged combustion)	NOx	TA-3-22-CHP-1
HRSG	Selective Catalytic Reduction (SCR) catalyst	NOx	TA-3-22-CHP1 (Turbine + HRSG emissions route to single stack)
HRSG	Oxidation catalyst	CO and VOCs	TA-3-22-CHP1 (Turbine + HRSG emissions route to single stack)

1. Control for unit number refers to a unit number from the Regulated Equipment List.

A1303 Allowable Emissions – TA-3 Power Plant

A. Tables 1303.A and 1303.B and other conditions in this Section list the emission units and their allowable emission limits for the phased construction of this source category. (40 CFR 50, Paragraphs 1, 7, and 8 of 20.2.70.302.A NMAC; 40 CFR 60, Subparts A, GG, IIII, and KKKK; and NSR Permit 2195B-M3).

Table 1303.A: Allowable Emissions in Phase 1^{2,3}

Unit No.	¹ NO _x pph	NO _x tpy	CO pph	CO tpy	VOC pph	VOC tpy	SO ₂ pph	SO ₂ tpy	PM ₁₀ pph	PM ₁₀ tpy	PM _{2.5} pph	PM _{2.5} tpy
TA-3-22-1 (gas)	10.2	* ⁴	7.0	*	1.0	*	0.1	*	1.3	*	1.3	*
TA-3-22-1 (oil)	11.3	*	6.5	*	0.3	*	9.6	*	3.0	*	2.0	*
TA-3-22-2 (gas)	10.2	*	7.0	*	1.0	*	0.1	*	1.3	*	1.3	*
TA-3-22-2 (oil)	11.3	*	6.5	*	0.3	*	9.6	*	3.0	*	2.0	*

Table 1303.A: Allowable Emissions in Phase 1^{2,3}

Unit No.	¹ NO _x pph	NO _x tpy	CO pph	CO tpy	VOC pph	VOC tpy	SO ₂ pph	SO ₂ tpy	PM ₁₀ pph	PM ₁₀ tpy	PM _{2.5} pph	PM _{2.5} tpy
TA-3-22-3 (gas)	10.2	*	7.0	*	1.0	*	0.1	*	1.3	*	1.3	*
TA-3-22-3 (oil)	11.3	*	6.5	*	0.3	*	9.6	*	3.0	*	2.0	*
TA-3-22-4 (gas)	0.8	*	2.7	*	0.3	*	0.2	*	0.5	*	0.5	*
TA-3-22-4 (oil)	6.2	*	2.7	*	0.1	*	3.3	*	1.6	*	1.6	*
TA-3-22-5 (gas)	0.8	*	2.7	*	0.3	*	0.2	*	0.5	*	0.5	*
TA-3-22-5 (oil)	6.2	*	2.7	*	0.1	*	3.3	*	1.6	*	1.6	*
Boilers Combined (TA-3-22- 1, 2, 3) ⁵	*4	31.5	*	21.5	*	2.8	*	2.2	*	4.4	*	4.2
TA-3-22-3 (gas) ⁶	*	1.5	*	1.0	*	0.1	*	0.2	*	0.2	*	0.2
TA-3-22-3 (oil) ⁶	*	1.9	*	1.1	*	0.05	*	1.7	*	0.7	*	0.7
TA-3-22-4 and -5 combined (gas) ⁶	*	3.0	*	10.8	*	1.0	*	0.8	*	2.2	*	2.2
TA-3-22-4 and -5 combined (oil) ⁶	*	0.3	*	0.12	*	0.004	*	0.16	*	0.08	*	0.08
TA-3-22- CT-1	23.8	59.4	29.0	72.3	0.6	1.5	1.7	4.2	1.9	4.8	1.9	4.8
TA-3-22- CT-1	25 ppmvd @ 15% O ₂		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

1 Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO₂.

2 Title V annual fee assessments are based on the sum of allowable tons per year emission limits in Sections A106 and A107.

3 To report excess emissions for sources with no pound per hour and/or ton per year emission limits, see Condition B110.E.

4 Tons per year (tpy) limits are set for combined boiler units (see combined unit rows) and pounds per hour (pph) are set for individual boiler units.

5 These ton per year limits apply to the combined emissions of older Units TA-3-22-1, 2, and 3 until (i.e., prior to) boilers TA-3-22-4 and TA-3-22-5 becoming operational.

6 These ton per year limits apply to the combined emissions beginning when boilers TA-3-22-4 and TA-3-22-5 become operational.

Table 1303.B: Allowable Emissions in Phase 3^{2,3}

Unit No.	¹ NO _x pph	NO _x tpy	CO pph	CO tpy	VOC pph	VOC tpy	SO ₂ pph	SO ₂ tpy	PM ₁₀ pph	PM ₁₀ tpy	PM _{2.5} pph	PM _{2.5} tpy
TA-3-22-4 (gas)	0.8	* ⁴	2.7	*	0.3	*	0.2	*	0.5	*	0.5	*
TA-3-22-4 (oil)	6.2	*	2.7	*	0.1	*	3.3	*	1.6	*	1.6	*
TA-3-22-5 (gas)	0.8	*	2.7	*	0.3	*	0.2	*	0.5	*	0.5	*
TA-3-22-5 (oil)	6.2	*	2.7	*	0.1	*	3.3	*	1.6	*	1.6	*
TA-3-22-4 and -5 combined (gas) ⁵	* ⁴	6.6	*	23.8	*	2.2	*	1.6	*	4.8	*	4.8
TA-3-22-4 and -5 combined (oil) ⁵	*	0.3	*	0.12	*	0.004	*	0.16	*	0.08	*	0.08
TA-3-22- CT-1	14.2	62.2	8.7	38.1	2.9	12.7	0.9	3.9	6.8	29.8	6.8	29.8
TA-3-22- CT-1	25 ppmvd @ 15% O ₂		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TA-3-22- CT-1	NH₃ (pph)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5.3											

- 1 Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO₂.
- 2 Title V annual fee assessments are based on the sum of allowable tons per year emission limits in Sections A106 and A107.
- 3 To report excess emissions for sources with no pound per hour and/or ton per year emission limits, see Condition B110.E.
- 4 Tons per year (tpy) limits are set for combined boiler units (see combined unit rows) and pounds per hour (pph) are set for individual boiler units.
- 5 These ton per year limits apply to the combined emissions beginning when boilers TA-3-22-4 and TA-3-22-5 commence Phase 3 operations.

B. NO_x emissions (all oxides of nitrogen expressed as NO₂) from the boilers (Units TA-3-22-1 through -3) shall not exceed 0.3 lb/MMBtu of heat input when burning natural gas ~~or oil~~ as required by 20.2.33 and 20.2.34 NMAC. (NSR Permit 2195B-M2, Specific Condition A106.B, revised).

- C. NOx emissions from the **Combustion Turbine Unit TA-3-22-CT-1** ~~associated with the Combined heat and Power unit (Unit TA-3-22-CHP-1)~~ shall not exceed 110.4 ppmv at 15 percent oxygen on a dry basis (**NSPS GG**, 40 CFR 60.332(a)(1)). The NOx ppmv limit in Table 1303.A is more stringent than this NSPS limit and therefore is the controlling requirement. (NSR Permit 2195B-M3, Condition A106.B, revised)
- D. SO₂ emissions from the Combustion Turbine (Unit TA-3-22-CT-1) shall not exceed 0.015 percent by volume at 15 percent oxygen on a dry basis or shall not burn fuel which contains sulfur in excess of 0.8 percent by weight (8000 ppmw) (**NSPS GG**, 40 CFR 60.333). The sulfur content of natural gas is limited to 2 gr/100 scf gas which is more stringent than this NSPS limit and therefore is the controlling requirement. (NSR Permit 2195B-M3, Condition A106.C)
- E. NOx emissions **from the Combustion Turbine (Unit TA-3-22-CHP-1) shall not exceed 25 ppm at 15 percent oxygen** and the HRSG attached to Unit TA-3-22-CHP-1 shall not exceed 54 ppm at 15 percent oxygen on a dry basis. (**NSPS KKKK**, 40 CFR 60.4320, Table 1) (NSR Permit 2195B-M3, Condition A106.D, revised)
- F. SO₂ emissions from Unit TA-3-22-CHP-1 shall not exceed 0.90 pounds per megawatt-hour (lb/MWh) based on the MWh gross output of the HRSG portion of the unit. (**NSPS KKKK**, 40 CFR 60.4330(a)(1)) (NSR Permit 2195B-M3, Condition A106.E, revised)

A1304 Allowable Startup, Shutdown, & Maintenance (SSM) – TA-3 Power Plant

- A. The maximum allowable SSM emission limits for this source category are listed in [Table 1304.A](#) and were relied upon by the Department to determine compliance with applicable regulations.

Table 1304.A: Allowable SSM Units, Activities, and Emission Limits

Unit No.	Description	NOx pph	NOx tpy	CO pph	CO tpy	VOC pph	VOC tpy	SOx pph	SOx tpy	PM ₁₀ pph	PM ₁₀ tpy	PM _{2.5} pph	PM _{2.5} tpy
SSM from TA-3-22-CHP-1	Routine (SSM)	11.0	0.4	304.0	9.4	35.0	1.1	0.2	0.005	3.3	0.1	3.3	0.1

- 1. To report excess emissions for sources with no pound per hour and/or ton per year emission limits, see Condition B110.E.

- B. SSM pound per hour (pph) Operating Requirements for Turbine/HRSG Combined Heat and Power (Unit TA-3-22-CHP-1)

Requirement: To demonstrate compliance with the pph routine or predictable startup, shutdown, and/or maintenance (SSM) emission limits in Table 1304.A, the permittee shall comply with the facility’s Operational Plan to Mitigate SSM Emissions (Plan) required by 20.2.7.14.A NMAC. The

Plan shall at a minimum:

- (1) Ensure that, at all times, operators maintain the combined cycle, the air pollution control equipment, and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions; and
- (2) Contain a detailed operational plan for minimizing emissions during periods of routine or predictable Startups and Shutdowns associated with planned maintenance or normal operations.

The permittee shall also limit each startup and shutdown event to no more than 45-minutes per event. (NSR Permit 2195B-M3, Condition A107.B)

Monitoring: The permittee shall monitor each startup and shutdown event using an electronic monitoring and recording system for Unit TA-3-22-CHP-1.

Recordkeeping: The permittee shall keep records of the current Operational Plan to Mitigate SSM Emissions (Plan) and its revisions and shall keep records according to the Plan, to include at a minimum:

Records of each startup and shutdown event date and times, any excursion from the Plan requirements or exceedance of the event time limit, and the actions taken to mitigate SSM emissions during any excursion or exceedance in accordance with the Plan.

The permittee shall update the Plan based on operational experience with the facility.

The permittee shall keep records according to Section B107.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

C. SSM Ton Per Year (TPY) Operating Requirements for Combined Turbine/HRSG Heat and Power (Unit TA-3-22-CHP-1)

Requirement: The permittee shall demonstrate compliance with the tpy emissions in Table 1304.A due to routine or predictable startup, shutdown, and maintenance (SSM) events by limiting the number of startups and shutdowns to 100 startups and 100 shutdowns per year. (NSR Permit 2195B-M3, Condition A107.C)

Monitoring: The permittee shall monitor the date, start time, and stop time for each SSM event for Unit TA-3-22-CHP-1 on a monthly basis and on a monthly rolling 12-month total basis.

Recordkeeping: The permittee shall calculate and record the number and length of the SSM events on a monthly basis and on a monthly rolling 12-month basis.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

D. The authorization of emission limits for startup, shutdown, maintenance, and malfunction does not supersede the requirements to minimize emissions according to General Conditions B101.C and B107.A.

A1305 Allowable Operations – TA-3 Power Plant

- A. This facility is authorized for continuous operation. Monitoring, recordkeeping, and reporting are not required to demonstrate compliance with continuous hours of operation.
- B. Units TA-3-22-1 through -5 shall be operated on fuel oil for no more than 48 hours per **calendar** year per boiler for non-emergency maintenance and readiness testing. This condition establishes exemption from 40 CFR 63, Subpart JJJJJ (40 CFR 63.11195(e) and gas fired boiler definition in definitions at 40 CFR 63.11237).
- C. Hours of Operation (Unit TA-3-1404-GEN)

<p>Requirement: To ensure the facility remains a PSD minor source, Unit TA-3-1404-GEN, a minor NSR exempt unit per 20.2.72.202.B(3) NMAC, shall operate for no more than 500 hrs/yr on a 6-month rolling 12-month total basis. (NSR Permit 2195B-M3, Condition A108.C)</p>
<p>Monitoring: The permittee shall monitor the annual hours of operation using a non-resettable hour meter.</p>
<p>Recordkeeping: During the first 12 months, each 6 months the permittee shall calculate and record the total sum of operating hours for the engine. After the first 12 months, each 6-month period the permittee shall calculate and record the 6-month rolling 12-month total hours of operation. The permittee shall meet the recordkeeping requirements in Section B109.</p>
<p>Reporting: The permittee shall submit reports described in Section A109 and according to Section B110.</p>

A1306 Fuel and Fuel Sulfur Requirements – TA-3 Power Plant

- A. Boilers (Units TA-3-22-1 and TA-3-22-2)

<p>Requirement: Boilers TA-3-22-1 and TA-3-22-2 at the TA-3 Power Plant shall combust only natural gas containing no more than 2 gr/100 scf total sulfur or No. 2 fuel oil containing no more than 0.05 wt% total sulfur. (NSR Permit 2195B-M3, Condition A110.A)</p>
<p>Monitoring: No monitoring is required. Compliance is demonstrated through records.</p>
<p>Recordkeeping: The permittee shall demonstrate compliance with the limit on total fuel sulfur content by maintaining records of a current, valid purchase contract, tariff sheet or transportation contract for the gaseous or liquid fuel, or fuel analysis, specifying the fuel grade and certification or allowable sulfur limit. If fuel analysis is used, the analysis shall not be older than one year. Alternatively, compliance may be demonstrated by keeping a receipt or invoice from a commercial fuel supplier with each fuel delivery, which shall include the delivery date, the fuel type delivered, and amount of fuel delivered, and the maximum sulfur content of the fuel.</p>
<p>Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.</p>

B. Boilers (Units TA-3-22-3, TA-3-22-4 and TA-3-22-5)

Requirement: Boilers TA-3-22-3, TA-3-22-4 and TA-3-22-5 at the TA-3 Power Plant shall combust only natural gas containing no more than 0.75 gr/100 scf total sulfur or No. 2 fuel oil containing no more than 0.05 wt% total sulfur. (NSR Permit 2195B-M3, Condition A110.B)
Monitoring: No monitoring is required. Compliance is demonstrated through records.
Recordkeeping: The permittee shall demonstrate compliance with the limit on total fuel sulfur content by maintaining records of a current, valid purchase contract, tariff sheet or transportation contract for the gaseous or liquid fuel, or fuel analysis, specifying the fuel grade and certification or allowable sulfur limit. If fuel analysis is used, the analysis shall not be older than one year. Alternatively, compliance may be demonstrated by keeping a receipt or invoice from a commercial fuel supplier with each fuel delivery, which shall include the delivery date, the fuel type delivered, and amount of fuel delivered, and the maximum sulfur content of the fuel.
Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

C. Phase 1 Combustion Turbine (Unit TA-3-22-CT-1)

Requirement: The combustion turbine Unit TA-3-22-CT-1 at the TA-3 Power Plant shall combust only natural gas containing no greater than 2 gr/100 scf total sulfur. (NSR Permit 2195B-M3, Condition A110.C)
Monitoring: No monitoring is required. Compliance is demonstrated through records.
Recordkeeping: The permittee shall demonstrate compliance with the limit on total fuel sulfur content by maintaining records of a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, or fuel analysis, specifying the fuel grade and certification or allowable sulfur limit. If fuel analysis is used, the analysis shall not be older than one year.
Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

D. Phase 3 Combined Turbine/HRSG Heat and Power (Unit TA-3-22-CHP-1)

Requirement: Unit TA-3-22-CHP-1 at the TA-3 Power Plant shall combust only natural gas containing no greater than 0.75 gr/100 scf total sulfur. (NSR Permit 2195B-M3, Condition A110.D)
Monitoring: No monitoring is required. Compliance is demonstrated through records.
Recordkeeping: The permittee shall demonstrate compliance with the limit on total fuel sulfur content by maintaining records of a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, or fuel analysis, specifying the fuel grade and certification or allowable sulfur limit. If fuel analysis is used, the analysis shall not be older than one year.
Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

A1307 20.2.61 NMAC Opacity – TA-3 Power Plant

- A. 20.2.61 NMAC Opacity Limit (Natural Gas Combustion: Units TA-3-22-1 through TA-3-22-5, TA-3-22-CT-1, and TA-3-22-CHP-1)

Requirement: Visible emissions from all stationary combustion emission stacks shall not equal or exceed an opacity of 20 percent in accordance with the requirements at 20.2.61.109 NMAC. (NSR Permit 2195B-M3, Condition A111.A, revised)

Monitoring:

- (1) Use of natural gas fuel constitutes compliance with 20.2.61 NMAC unless opacity equals or exceeds 20% averaged over a 10-minute period. When any visible emissions are observed during operation other than during startup mode, opacity shall be measured over a 10-minute period, in accordance with the procedures at 40 CFR 60, Appendix A, Reference Method 9 (EPA Method 9) as required by 20.2.61.114 NMAC, or the operator will be allowed to shut down the equipment to perform maintenance/repair to eliminate the visible emissions. Following completion of equipment maintenance/repair, the operator shall conduct visible emission observations following startup in accordance with the following procedures:
- (a) Visible emissions observations shall be conducted over a 10-minute period during operation after completion of startup mode in accordance with the procedures at 40 CFR 60, Appendix A, Reference Method 22 (EPA Method 22). If no visible emissions are observed, no further action is required.
 - (b) If any visible emissions are observed during completion of the EPA Method 22 observation, subsequent opacity observations shall be conducted over a 10-minute period, in accordance with the procedures at EPA Method 9 as required by 20.2.61.114 NMAC.

For the purposes of this condition, *Startup mode* is defined as the startup period that is described in the facility's startup plan.

Recordkeeping:

- (1) If any visible emissions observations were conducted, the permittee shall keep records in accordance with the requirements of Section B109 and as follows:
- (a) For any visible emissions observations conducted in accordance with EPA Method 22, record the information on the form referenced in EPA Method 22, Section 11.2.
 - (b) For any opacity observations conducted in accordance with the requirements of EPA Method 9, record the information on the form referenced in EPA Method 9, Sections 2.2 and 2.4.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

Requirement: ~~Visible emissions from all stationary combustion emission stacks shall not equal or exceed an opacity of 20 percent.~~

Monitoring: ~~Use of natural gas fuel or natural gas liquids constitutes compliance with 20.2.61 NMAC unless opacity equals or exceeds 20% averaged over a 10-minute period. At such time as fuel other than natural gas or natural gas liquids is used, or when any visible emissions are observed during steady state operation, opacity shall be measured over a 10-minute period in accordance with the procedures at 40 CFR 60, Appendix A, Method 9 as required by 20.2.61.114 NMAC. Opacity measurements shall continue on a quarterly basis per calendar year for each affected unit until such time as natural gas or natural gas liquids are used.~~

Recordkeeping: ~~The permittee shall record dates and duration of use of any fuels other than natural gas or natural gas liquids and the corresponding opacity readings. The opacity measures and readings shall be recorded in accordance with Method 9 in 40 CFR 60, Appendix A.~~

Reporting: ~~The permittee shall report in accordance with Section B110.~~

- B. 20.2.61 NMAC Opacity Limit (No. 2 Fuel Oil Combustion: Units TA-3-22-1 through TA-3-22-5)

Requirement: Visible emissions from all stationary combustion emission stacks shall not equal or exceed an opacity of 20 percent. (NSR Permit 2195B-M2, Condition A111.B, revised)

Monitoring: Use of natural gas fuel or Fuel Oil No. 2 constitutes compliance with 20.2.61 NMAC unless opacity equals or exceeds 20% averaged over a 10-minute period. At such time as fuel other than natural gas is used (Fuel Oil No. 2), or when any visible emissions are observed during steady state operation, opacity shall be measured over a 10-minute period in accordance with the procedures at 40 CFR 60, Appendix A, Method 9 as required by 20.2.61.114 NMAC. Opacity measurements shall continue on a quarterly basis per calendar year for each affected unit until such time as natural gas is used.

Recordkeeping: The permittee shall record dates and duration of use of any fuels other than natural gas and the corresponding opacity readings. The opacity measures and readings shall be recorded in accordance with Method 9 in 40 CFR 60, Appendix A, and the permittee shall maintain all records in accordance with Section B109.

Reporting: The permittee shall report date, time, and results of all Method 9 observations. The permittee shall submit reports described in Section A109 and in accordance with Section B110.

A1308 Requirements During Source Construction, Removal, and Change in Emissions Control; and Operating Scenarios – TA-3 Power Plant

- A. During Phase 1 the power plant will consist of three boilers and one combustion turbine listed in Table 1301.A, and minor NSR exempt equipment (but NSR exempt equipment is not necessarily TV insignificant and may have TV applicable requirements). During Phase

1 two of the existing boilers (TA-3-22-1 and TA-3-22-2) will be removed, two new auxiliary boilers will be constructed (TA-3-22-4 and TA-3-22-5), and boiler TA-3-22-3 will be on standby status. Phase 1 also includes the installation of minor NSR exempt comfort heaters and makeup air heaters and upgrading the natural gas fuel system. (NSR Permit 2195B-M3, Condition A117.A, revised)

- B. Phase 2 consists of upgrading the steam distribution system and is not a source of air emissions. Thus, no Phase 2 specific conditions are required. (NSR Permit 2195B-M3, Condition A117.B)
- C. Each condition in this **source category** applies to all three construction phases (1, 2, and 3) unless otherwise specified in the condition title. This permit does not authorize simultaneous operation under Phase 1 and Phase 3 conditions. (NSR Permit 2195B-M3, Condition A117.C)
- D. Once Phase 3 construction is complete, the power plant will consist of two boilers and a combustion turbine fitted with a heat recovery steam generator (HRSG) with a natural gas fueled duct burner, and minor NSR exempt equipment (**but NSR exempt equipment is not necessarily TV insignificant and may have TV applicable requirements**). Phase 3 of this permit is defined as including the following changes: installing a HRSG on the emissions stack of the Turbine to create a combined heat and power unit, TA-3-22-CHP-1, that will power a steam turbine generator (STG). The STG produces power by converting steam heat energy to mechanical energy and produces no emissions. NO_x emissions from the combined cycle unit (TA-3-22-CHP-1) will be controlled with a selective catalytic reduction (SCR) unit using an ammonia catalyst and CO and VOC emissions will be controlled with an oxidation catalyst. The deadline to complete construction of Phase 3 is six years from the issue date of Permit Number 2195B-M3. If construction of the changes authorized in Permit Number 2195B-M3 have not commenced within five years of the issue date of that permit, the Department shall automatically cancel the permit pursuant to 20.2.72.211.A NMAC. However, if construction of the changes authorized by Permit Number 2195B-M3 are not completed or are suspended for two years or more, the Department will not cancel the permit if final construction is completed within six years, or later date approved by the Department (20.2.72.211.B NMAC). (NSR Permit 2195B-M3, Condition A117.D, revised)

E. **Construction Operating Scenarios**

Requirement: This condition specifies the governing permit conditions and/or operating requirements for this facility during the transition between effective air quality permits and is required to demonstrate compliance with ambient air quality standards. NSR Permit Number 2195B-M3 requires that the following actions be completed by the specified deadlines (NSR Permit 2195B-M3, Condition A117.E, revised):

- (1) Construction Operating Phase 1 (Units TA-3-22-1 and TA-3-22-2)
 - (a) Simultaneous operation in Phase 1: To demonstrate compliance with ambient air quality standards, at no time shall the permittee operate boiler TA-3-22-4 or boiler TA-

3-22-5 when boiler TA-3-22-1 or boiler TA-3-22-2 are operating. Also, once boilers TA-3-22-4 and TA-3-22-5 are fully operational, boilers TA-3-22-1 and TA-3-22-2 will be decommissioned. The permittee shall decommission unit numbers TA-3-22-1 and TA-3-22-2 within 6 months of the time that new units TA-3-22-4 and TA-3-22-5 start operating.

(b) Permit Requirements for Existing Equipment To be Removed: Up until the earliest date of the permanent cessation of operations or removal/decommissioning of units TA-3-22-1 and TA-3-22-2 the permittee shall continue to meet all applicable emission limits and other permit conditions that apply to those regulated sources found in Permit Number 2195B-M2. If a unit that is required to be removed/decommissioned has permanently ceased operations at this facility, the permittee is not required to start up the source to complete any periodic monitoring/testing that may be required by the cited permit.

(2) Construction Operating Phases 1 and 3 (Units TA-3-22-3 and TA-3-22-CHP-1)

(a) Simultaneous operation: To demonstrate compliance with ambient air quality standards, at no time shall units TA-3-22-CHP-1 and TA-3-22-3 operate simultaneously.

(b) Permit Requirements for Existing Equipment To be Removed: Up until the earliest date of the permanent cessation of operations or removal/decommissioning of Unit TA-3-22-3 the permittee shall continue to meet all applicable emission limits and other permit conditions that apply to those regulated sources found in Permit Number 2195B-M2. If a source that is required to be removed/decommissioned has permanently ceased operations at this facility, the permittee is not required to start up the source to complete any periodic monitoring/testing that may be required by the cited permit.

(c) The permittee shall remove or decommission unit number TA-3-22-3 within 18 months of the time that new unit TA-3-22-CHP-1 starts operation.

(d) As part of the Phase 3 construction, the permittee shall install a HSRG, and SCR to control NOx and oxidation catalyst to control CO and VOCs ~~from~~ the combustion turbine stack and the permittee shall not commence operating the unit without these controls upon commencing of operating as Phase 3 of the Power Plant.

(3) Extension of any deadline(s) in this condition may be requested in writing, through an administrative permit revision pursuant to 20.2.72.219.A NMAC, before the deadline addressed to the Department's Permit Programs Manager and shall include the permit, condition, and unit numbers. The Department may determine a 20.2.72.219.D revision is required.

(4) The operations authorized or limited by this permit condition do not authorize the owner/operator to operate the facility as a Title V or Prevention of Significant Deterioration (PSD) source, unless approved otherwise by regulation or an applicable air quality permit.

Monitoring: The startup and shutdown times of each unit that is subject to these construction scenarios shall be continuously monitored with an electronic monitoring and recording system.

Recordkeeping: For each source subject to this permit condition, the permittee shall record:

- (1) The date that each unit to be removed or decommissioned ceases operating;
- (2) The date of removal (or decommissioning) of each unit; and
- (3) Commencing at the start of actual construction of new units: the start and end dates and times of operation of units TA-3-22-1, TA-3-22-2, TA-3-22-3, TA-3-22-4, TA-3-22-5, and TA-3-22-CHP-1. This recordkeeping ends for each unit on the date that the unit is removed or decommissioned.

Reporting:

- (1) Upon completion of Phase 1 and upon completion of Phase 3, the permittee shall report the date of completion of the associated modification(s) and the status of completion of any remaining actions in accordance with Section B105.C.
- (2) Upon completion of each phase, the permittee shall submit the records required by this condition to the Manager, Compliance and Enforcement Section within sixty (60) days and shall meet the reporting requirements at Section B110.

A1309 Combustion Turbine and Combined Heat and Power – TA-3 Power Plant**A. Fuel Usage Phase 1 (Combustion Turbine, Unit TA-3-22-CT-1)**

Requirement: The combustion turbine shall not consume more than 1400 MMscf of natural gas in any 12-month period. Volumetric flow shall be measured using a gas fuel flowmeter installed on the fuel inlet of the combustion turbine. (NSR Permit 2195B-M3, Condition A802.A)

Monitoring: The natural gas fuel flow rate for the combustion turbine shall be continuously monitored whenever natural gas is combusted.

Recordkeeping: The permittee shall record the daily total of gaseous fuel (scf) for the turbine on a monthly basis, to include a monthly total. Annual fuel usage shall be calculated and recorded in the first 12 months on a cumulative basis and thereafter on a monthly rolling 12-month total basis. The record shall include the monthly total hours and monthly rolling 12-month total hours of operation. The permittee shall maintain records in accordance with Section B109.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

B. Fuel Usage Phase 3 (Combined Heat and Power, Unit TA-3-22-CHP-1)

Requirement: The combustion turbine plus HRSG (Unit TA-3-22-CHP-1) shall not consume more than 3,215 MMscf of natural gas in any 12-month period. Volumetric flow shall be measured using a gas fuel flowmeter installed on the fuel inlet of the combustion turbine. (NSR Permit 2195B-M3, Condition A802.B)

Monitoring: The natural gas fuel flow rate for the combustion turbine plus HRSG (Unit TA-3-22-CHP-1) shall be continuously monitored whenever natural gas is combusted.

Recordkeeping: The permittee shall record the daily total of gaseous fuel (scf) for the turbine plus HRSG (Unit TA-3-22-CHP-1) on a monthly basis, to include a monthly total. Annual fuel

usage shall be calculated and recorded in the first 12 months on a cumulative basis and thereafter on a monthly rolling 12-month total basis. The record shall include the monthly total hours and monthly rolling 12-month total hours of operation. The permittee shall maintain records in accordance with Section B109.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

C. Phase 1 Load and Startup and Shutdown Requirements (Combustion Turbine, Unit TA-3-22-CT-1)

Requirement: The combustion turbine shall be operated at no less than 80% and no greater than 100% load as determined by the electronic monitoring system, except during startup and shutdown conditions. The permittee shall follow the manufacturer's recommended startup/shutdown procedures in order to minimize the duration of these events. (NSR Permit 2195B-M3, Condition A802.C)

Monitoring: The operating load of the combustion turbine, the ambient temperature, and the set point power output shall be monitored at all times of operation with an electronic monitoring system.

Recordkeeping: The permittee shall record the daily monitored operating load for the combustion turbine for each hour of each operating day as well as record the ambient temperature and the set point power output for each hour of each operating day. The permittee shall maintain a record of the manufacturer's recommended startup/shutdown procedure and the manufacturer's criteria for the determination of turbine load. The permittee shall maintain a record for each startup/shutdown or malfunction event for the combustion turbine. The record shall include the date, the start/end time and duration for each event, which is defined as the length of time the combustion turbine is operating at less than 80% or greater than 100% load. The permittee shall maintain records in accordance with Section B109.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

D. Phase 3 Load Requirement (Unit TA-3-22-CHP-1)

Requirement: The combustion turbine shall be operated at no less than 50% and no greater than 100% load as determined by the electronic monitoring system, except as authorized during startup and shutdown conditions. The permittee shall follow the manufacturer's recommended startup/shutdown procedures in order to minimize the duration of these events. (NSR Permit 2195B-M3, Condition A802.D)

Monitoring: The operating load of the combustion turbine, the ambient temperature, and the set point power output shall be monitored at all times of operation with an electronic monitoring system.

Recordkeeping: The permittee shall record the daily monitored operating load for the combustion turbine for each hour of each operating day as well as record the ambient temperature and the set point power output for each hour of each operating day. The permittee shall maintain records in accordance with Section B109.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

E. Phase 1 Control Device Operation (Combustion Turbine, Unit TA-3-22-CT-1)

Requirement: The combustion turbine shall be equipped with Rolls-Royce Dry Low Emissions (DLE) control technology (pre-mix, lean-burn series staged combustion system) to control NOx emissions. (NSR Permit 2195B-M3, Condition A802.E)

Monitoring: N/A. Compliance is achieved by keeping records.

Recordkeeping: The permittee shall maintain a record of the DLE system associated with the combustion turbine. The permittee shall maintain records in accordance with Section B109.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

F. 40 CFR 60, Subparts A and GG (Combustion Turbine, Unit TA-3-22-CT-1/~~CHP-1~~)

Requirement: The combustion turbine is subject to 40 CFR 60, Subpart GG and the permittee shall comply with the applicable requirements of 40 CFR 60, Subpart A and Subpart GG.

Monitoring: The permittee shall comply with the monitoring and testing requirements of 40 CFR 60.334 and §60.335.

Recordkeeping: The permittee shall comply with the recordkeeping requirements of 40 CFR 60.334 and 40 CFR 60.7.

Reporting: The permittee shall comply with the reporting requirements of 40 CFR 60.7.

G. Phase 1 and 3 Periodic Emissions Tests (Combustion Turbine, Unit TA-3-22-CT-1)

Requirement: Compliance with the allowable emission limits in Tables 1303.A and A1303.B, including the NOx ppmv limitation, shall be demonstrated by conducting periodic emission tests during the monitoring period. (NSR Permit 2195B-M3, Condition A802.G)

Monitoring: The permittee shall test using a portable analyzer or EPA Reference Methods subject to the requirements and limitations of Section B108, General Monitoring Requirements. Emission testing is required for NOx and CO, and shall be carried out as described below.

Test results that demonstrate compliance with the NOx and CO emission limits shall also be considered to demonstrate compliance with the VOC emission limits.

(1) The testing shall be conducted as follows:

(a) Testing frequency shall be once per year subject to the frequency of testing requirements outlined in Section B.108.D.

(b) The monitoring period is defined as a calendar year.

(2) The tests shall continue based on the existing testing schedule.

(3) All subsequent testing shall occur in each succeeding monitoring period. No two monitoring events shall occur closer together in time than 25% of a monitoring period.

(4) The permittee shall follow the General Testing Procedures of Section B111.

(5) Performance testing required by 40 CFR 60, Subpart GG and/or 40 CFR 60, Subpart KKKK may be used to satisfy these periodic testing requirements if they meet the requirements of this condition and are completed during the specified monitoring period.

Recordkeeping: The permittee shall maintain records in accordance with Sections B109, B110, and B111.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Sections B109, B110, and B111.

H. Phase 3 Operational Inspection HRSG (Unit TA-3-22-CHP-1 HRSG portion)

Requirement: The permittee shall comply with the allowable emission limits for Unit TA-3-22-CHP-1 in Table 1303.B. (NSR Permit 2195B-M3, Condition A802.H)

Monitoring: The permittee shall conduct monthly operational inspections to determine that the HRSG is operating properly. The operational inspections shall include operational checks for indications of insufficient excess air, or excess combustion air to include observation of common physical indications of improper combustion, including indications specified by the HRSG manufacturer, and indications based on operational experience with these units.

Recordkeeping: The permittee shall maintain records of operational inspections, describing the results of all operational inspections noting chronologically any adjustments needed to bring the HRSGs into compliance. Records shall be maintained according to Section B109.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

I. Phase 3 Initial Compliance Test (Combined Heat and Power, Unit TA-3-22-CHP-1)

Requirement: Compliance with the allowable emission limits in Table 1303.B shall be demonstrated by performing initial compliance testing. (NSR Permit 2195B-M3, Condition A802.I)

Monitoring: The permittee shall perform an initial compliance test in accordance with the General Testing Requirements of Section B111. Emission testing is required for NO_x and CO. Test results that demonstrate compliance with the CO emission limits shall also be considered to demonstrate compliance with the VOC emission limits. The monitoring exemptions of Section B108 do not apply to this requirement.

Recordkeeping: The permittee shall maintain records in accordance with applicable Sections in B109, B110, and B110.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with the applicable Sections in B109, B110, and B111.

J. Phase 3 Periodic Emissions Tests (Combined Heat and Power, Unit TA-3-22-CHP-1)

Requirement: Compliance with the allowable emission limits in Table 1303.B, including the NO_x ppmv limitation, shall be demonstrated by conducting periodic emission tests during the monitoring period. (NSR Permit 2195B-M3, Condition A802.J)

Monitoring: The permittee shall test using a portable analyzer or EPA Reference Methods subject to the requirements and limitations of Section B108, General Monitoring Requirements. Emission testing is required for NO_x and CO, and shall be carried out as described below.

Test results that demonstrate compliance with the NO_x and CO emission limits shall also be considered to demonstrate compliance with the VOC emission limits.

(1) The testing shall be conducted as follows:

- (a) Testing frequency shall be once per year subject to the frequency of testing requirements outlined in Section B.108.D.

<p>(b) The monitoring period is defined as a calendar year.</p> <p>(2) The tests shall continue based on the existing testing schedule.</p> <p>(3) All subsequent testing shall occur in each succeeding monitoring period. No two monitoring events shall occur closer together in time than 25% of a monitoring period.</p> <p>(4) The permittee shall follow the General Testing Procedures of Section B111.</p> <p>(5) Performance testing required by 40 CFR 60, Subpart GG and/or 40 CFR 60, Subpart KKKK may be used to satisfy these periodic testing requirements if they meet the requirements of this condition and are completed during the specified monitoring period.</p>
<p>Recordkeeping: The permittee shall maintain records in accordance with Sections B109, B110, and B111.</p>
<p>Reporting: The permittee shall submit reports described in Section A109 and in accordance with Sections B109, B110, and B111.</p>

K. Phase 3 Selective Catalytic Reduction (SCR) (Unit TA-3-22-CHP-1)

<p>Requirement: At all times Unit TA-3-22-CHP-1 is operating NO_x exhaust stack emissions shall be routed to and reduced with a properly functioning selective catalytic reduction system (SCR) except during the first 45 minutes after startup as authorized in Section A1304.</p> <p>Compliance with the NH₃ emission limit in Table 1303.B shall be met by operating the SCR system within temperature ranges and ammonia injection rates as recommended by the SCR manufacturer or supplier. The SCR shall be operated to minimize the ammonia slip. The permittee shall maintain the SCR system according to manufacturer or supplier recommended maintenance and replacement schedule. (NSR Permit 2195B-M3, Condition A802.K)</p>
<p>Monitoring: The permittee shall monitor the SCR catalyst operating temperature and ammonia injection rates.</p>
<p>Recordkeeping: Records shall be kept of SCR maintenance, replacement, the total hours used and number of months since first installation or replacement of the SCR catalyst; and of the manufacturer or supplier recommended maintenance, replacement schedule, and warranty specifications. Records shall be kept of the dates and times the SCR catalyst operating temperature, ammonia injection rate, and/or other operating parameters are outside of the range recommended by the SCR manufacturer or supplier.</p>
<p>Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.</p>

L. Phase 3 CO and VOC Control Oxidation Catalyst (Unit TA-3-22-CHP-1)

<p>Requirement: During all times Unit TA-3-22-CHP-1 operates the stack exhaust shall be routed to a properly functioning oxidation catalyst in order to control CO and VOC emissions. During the first 45-minutes during startup, CO and VOC emissions may not be controlled by the catalyst and emission limits are as authorized in Section A1304.</p> <p>During periods of catalyst maintenance, the permittee shall either shut down the turbine or replace the catalyst with a functionally equivalent spare.</p>

The permittee shall maintain the oxidation catalyst according to the manufacturer or supplier recommended maintenance and replacement schedule. (NSR Permit 2195B-M3, Condition A802.L)

Monitoring: Compliance is demonstrated through recordkeeping.

Recordkeeping: Records shall be kept of oxidation catalyst maintenance, replacement, and the total hours used and number of months since first installation or catalyst replacement; and of the manufacturer or supplier recommended maintenance, replacement schedule, and warranty specifications.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

M. Phase 3 40 CFR 60, Subpart KKKK (Unit TA-3-22-CHP-1 and HRSG portion)

Requirement: The HRSG unit and Unit TA-3-22-CHP-1 are subject to 40 CFR 60, Subpart KKKK at §60.4305 and the permittee shall comply with all applicable requirements of 40 CFR 60, Subpart A and Subpart KKKK, including standards at §60.4320, Table 1; and standards at §60.4330.

Monitoring: The permittee shall comply with all applicable monitoring and testing requirements, including but not limited to 40 CFR 60.4333.

Recordkeeping: The permittee shall comply with all applicable recordkeeping requirements, including but not limited to 40 CFR 60.7.

Reporting: The permittee shall comply with all applicable reporting requirements, including but not limited to 40 CFR 60.4375, §60.4395, and §60.7.

A1310 Boilers – TA-3 Power Plant

A. Fuel Usage (Boilers, Units TA-3-22-1 through -3)

Requirement: Until units TA-3-22-1 and TA-3-22-2 are retired or decommissioned, combined boiler operation shall not consume more than 1000 MMscf of natural gas in any 12-month period and shall not operate for more than 48 hours per unit burning no more than 500,000 gallons of No. 2 fuel oil in any calendar year 12-month period. Volumetric flow shall be measured using liquid or gas fuel flowmeters installed on the natural gas fuel inlet to each respective unit (3 separate gas flowmeters) and on the combined fuel oil inlet to the boilers (one fuel oil flowmeter). (NSR Permit 2195B-M3, Condition A803.A, revised)

Monitoring: The liquid fuel flow rate shall be continuously monitored whenever liquid fuel is combusted. The natural gas fuel flow rate for each boiler shall be continuously monitored whenever natural gas is combusted. The hours of operation, including startup and shutdown times of each boiler shall be continuously monitored.

Recordkeeping: The permittee shall record the daily total of liquid fuel (gallons) for all boilers combined, or gaseous fuel (scf) for each boiler on a monthly basis, to include a monthly total. Annual fuel usage shall be calculated and recorded on a monthly rolling 12-month total basis. The permittee shall record the daily hours of operation of each boiler on a monthly basis, to include a monthly total. The record shall include the monthly rolling 12-

month total hours of operation for all 3 boilers combined. **For No. Fuel Oil the permittee shall record the dates, times, and duration of time burning fuel oil for each unit, and keep a cumulative tracking record until 48 hours in a calendar year has been reached for each unit, and calculate emissions from fuel oil.** The permittee shall maintain records in accordance with Section B109.

Reporting: The permittee shall **submit reports described in Section A109 and** in accordance with Section B110.

B. Phase 1 Fuel Usage (Boilers, Units TA-3-22-3 through 5)

Requirement: After units TA-3-22-1 and TA-3-22-2 are retired or decommissioned, combined boiler operation from units TA-3-22-3, TA-3-22-4, and TA-3-22-5 shall not consume more than 612 MMscf of natural gas and **shall not operate for more than 48 hours per unit burning no more than 500,000 gallons of** No. 2 fuel oil in any **calendar year/2-month period**. Volumetric flow shall be measured using liquid or gas fuel flowmeters installed on the natural gas fuel inlet to each respective unit (3 separate gas flowmeters) and on the combined fuel oil inlet to the boilers (one fuel oil flowmeter). (NSR Permit 2195B-M3, Condition A803.B, revised)

Monitoring: The liquid fuel flow rate shall be continuously monitored whenever liquid fuel is combusted. The natural gas fuel flow rate for each boiler shall be continuously monitored whenever natural gas is combusted. The hours of operation, including startup and shutdown times of each boiler shall be continuously monitored.

Recordkeeping: The permittee shall record the daily total of **liquid fuel (gallons) for all boilers combined, or** gaseous fuel (scf) for each boiler on a monthly basis, to include a monthly total. Annual fuel usage shall be calculated and recorded on a monthly rolling 12-month total basis. The permittee shall record the daily hours of operation of each boiler on a monthly basis, to include a monthly total. The record shall include the monthly rolling 12-month total hours of operation for all 3 boilers combined. **For No. 2 Fuel Oil the permittee shall record the dates, times, and duration of time burning fuel oil for each unit, and keep a cumulative tracking record until 48 hours in a calendar year has been reached for each unit, and calculate emissions from fuel oil.** The permittee shall maintain records in accordance with Section B109.

Reporting: The permittee shall **submit reports described in Section A109 and** in accordance with Section B110.

C. Phase 3 Fuel Usage (Boilers, Units TA-3-22-4 and TA-3-22-5)

Requirement: After units TA-3-22-1 through TA-3-22-3 are retired or decommissioned, combined boiler operation from units TA-3-22-4 and TA-3-22-5 shall not consume more than 1230 MMscf of natural gas and **shall not operate for more than 48 hours per unit burning no more than 500,000 gallons of** No. 2 fuel oil in any **calendar year/2-month period**. Volumetric flow shall be measured using liquid or gas fuel flowmeters installed on the natural gas fuel inlet to each respective unit (2 separate gas flowmeters) and on the combined fuel oil inlet to the boilers (one fuel oil flowmeter). (NSR Permit 2195B-M3, Condition A803.C, revised)

Monitoring: The liquid fuel flow rate shall be continuously monitored whenever liquid fuel is combusted. The natural gas fuel flow rate for each boiler shall be continuously monitored whenever natural gas is combusted. The hours of operation, including startup and shutdown

<p>times of each boiler shall be continuously monitored.</p>
<p>Recordkeeping: The permittee shall record the daily total of liquid fuel (gallons) for all boilers combined, or gaseous fuel (scf) for each boiler on a monthly basis, to include a monthly total. Annual fuel usage shall be calculated and recorded on a monthly rolling 12-month total basis. The permittee shall record the daily hours of operation of each boiler on a monthly basis, to include a monthly total. The record shall include the monthly rolling 12-month total hours of operation for all 3 boilers combined. For No. 2 Fuel Oil the permittee shall record the dates, times, and duration of time burning fuel oil for each unit, and keep a cumulative tracking record until 48 hours in a calendar year has been reached for each unit, and calculate emissions from fuel oil. The permittee shall maintain records in accordance with Section B109.</p>
<p>Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.</p>

D. Operational Inspections of Boilers and/or Heaters (Units TA-3-22-4 and TA-3-22-5)

<p>Requirement:</p> <ol style="list-style-type: none"> (1) Compliance with the allowable emission limits in Section A1303 shall be demonstrated by performing annual inspections to ensure proper operation of the units. (2) At a minimum, the operational inspections shall meet those recommended by the manufacturer, or shall meet the facility specific procedure submitted to the Department. (3) If the permittee is using a facility specific procedure it shall submit an electronic version of the procedure to the Department’s Permit Section Manager within 90 days of implementing the procedure. If the plan cannot be submitted within 90 days, the permittee shall obtain written approval to extend the deadline from the Department’s Permit Section, either by regular or electronic mail. The permittee shall provide additional information or make changes to the plan as requested by the Department. (4) The permittee shall make changes or improvements to the inspection procedure based on experience with the unit and/or new information provided by the manufacturer. This updated procedure shall be made available to the Department upon request. <p>(NSR Permit 2195B-M3, Condition A803.D)</p>
<p>Monitoring:</p> <ol style="list-style-type: none"> (1) Inspections shall be completed at least once per year or at the frequency recommended by the manufacturer. (2) At a minimum, inspections shall include the following: <ol style="list-style-type: none"> (a) Checking indicators to verify that the optimal amount of excess combustion air is introduced into the boiler combustion process such as a blue colored, steady flame; (b) Inspections of the unit(s) components and housing for cracks or worn parts.
<p>Recordkeeping:</p> <ol style="list-style-type: none"> (1) The permittee shall maintain records of operational inspections, including the indicators used to verify optimal excess combustion air, a description of the indicators, the unit component and housing inspections, and any adjustments needed to ensure optimal operation of the unit. (2) The permittee shall also keep records of the manufacturer’s recommended or the

<p>permittee's facility specific operational inspection procedure and shall keep records of the percent of excess combustion air required for optimal performance.</p> <p>(3) The permittee shall maintain records in accordance with Section B109.</p>
<p>Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.</p>

E. 40 CFR 60, Subpart Dc (Units TA-3-22-4 and TA-3-22-5)

<p>Requirement: The units are subject to 40 CFR 60, Subpart Dc and the permittee shall comply with the applicable requirements of 40 CFR 60, Subpart A and Subpart Dc.</p>
<p>Monitoring: The permittee shall comply with all applicable monitoring and testing requirements of 40 CFR 60, Subpart Dc.</p>
<p>Recordkeeping: The permittee shall comply with the recordkeeping requirements of 40 CFR 60.48c.</p>
<p>Reporting: The permittee shall comply with the reporting requirements of 40 CFR 60.48c and the Section B110 of the permit.</p>

F. Initial Compliance Test (Units TA-3-22-4 and TA-3-22-5)

<p>Requirement: Compliance with the allowable emission limits in Section A1303 shall be demonstrated by performing initial compliance tests. (NSR Permit 2195B-M3, Condition A803.F)</p>
<p>Monitoring:</p> <ol style="list-style-type: none"> (1) The permittee shall perform an initial compliance test in accordance with the General Testing Requirements of Section B111. Emission testing is required for NO_x and CO. (2) Test results that demonstrate compliance with the CO emission limits shall also be considered to demonstrate compliance with the VOC emission limits. (3) The monitoring exemptions of Section B108 do not apply to this requirement.
<p>Recordkeeping: The permittee shall maintain records in accordance with the applicable Sections in B109, B110, and B111.</p>
<p>Reporting:</p> <ol style="list-style-type: none"> (1) The permittee shall submit reports described in Section A109 and in accordance with the applicable Sections in B109, B110, and B111. (2) The test report shall also include the gas flow rate (or generator load), the stack gas temperature, the level of excess air, and the percent moisture.

G. Control Device Operation (Boilers, Units TA-3-22-1 through -3)

<p>Requirement: Until units TA-3-22-1 through TA-3-22-3 are retired or decommissioned, each boiler (Units TA-3-22-1 through -3) shall only be operated with a properly operating flue gas recirculation fan (Control Units F-1 through -3, respectively). Any malfunction of the flue gas recirculation system during boiler operation may be subject to the excess emissions requirements of 20.2.7 NMAC. (NSR Permit 2195B-M3, Condition A803.G)</p>
<p>Monitoring: The flue gas recirculating fans shall be inspected for proper operation and maintenance once during each calendar month that the unit was operating.</p>
<p>Recordkeeping: The permittee shall record all inspections of the flue gas recirculating fans and any event during which a fan malfunctions. The record shall include the date, time, name</p>

of operator conducting the inspection, and any discrepancies noted. For malfunction events, the record shall also include the nature and duration of the malfunction, and any corrective action taken. The permittee shall maintain records in accordance with Section B109.
Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B110.

A1311 Emergency Generators – TA-3 Power Plant

A. **40 CFR 60, Subpart IIII (Emergency Generator Unit TA-3-1404-GEN)**

Requirement: The unit is subject to 40 CFR 60, Subparts A and IIII and shall comply with the notification requirements in Subpart A and the specific requirements of Subpart IIII. This unit if also subject to 40 CFR 63, Subpart ZZZZ, shall meet MACT ZZZZ by meeting NSPS IIII.
Monitoring: The permittee shall comply with all applicable monitoring requirements in 40 CFR 60, Subpart A and Subpart IIII, including but not limited to §60.4211.
Recordkeeping: The permittee shall comply with all applicable recordkeeping requirements in 40 CFR 60, Subpart A and Subpart IIII, including but not limited to §60.4214.
Reporting: The permittee shall comply with all applicable reporting requirements in 40 CFR 60, Subpart A and Subpart IIII, including but not limited to §60.4214.

OPEN AND PRESCRIBED BURNING

A1400 Regulated Sources – Open and Prescribed Burning

A. Table 1400.A lists all of the process equipment authorized for this source category.

Table 1400.A: Regulated Sources List

Unit No./Location	Source Description
Facility-Wide Open Burning	All open lands within LANL property boundary

A1401 Control Equipment – Open and Prescribed Burning – Not Required

A1402 Emission Limits – Open and Prescribed Burning

A. Table 1402.A lists the emission units, and their allowable emission limits. (40 CFR 50; Paragraphs 1, 7, and 8 of 20.2.70.302.A NMAC; 20.2.60 NMAC; 20.2.65 NMAC).

Table1402.A: Allowable Emissions

Unit No.	Individual HAP ¹ (tpy)	Total HAPs ¹ (tpy)
Facility-Wide Open Burning	8.0	24.0

1 Individual and Total HAPs emitted by Open Burning are included in the facility-wide HAP emission limits at Table 106.B.

A1403 Applicable Requirements – Open and Prescribed Burning

A. The permittee shall comply with all applicable sections of the requirements listed in Table 1403.A.

Table 1403.A: Applicable Requirements

Applicable Requirements	Federally Enforceable	Unit No.
20.2.60 NMAC Open Burning	X	Facility-Wide Open Burning
20.2.65 NMAC Smoke Management	X	Facility-Wide Open Burning

A1404 Operational Limitations – Open and Prescribed Burning

A. This source category is authorized to operate at any time of the day or night on any day of the year. No monitoring, recordkeeping, or reporting requirements are required to demonstrate compliance with continuous hours of operation.

A1405 Fuel Sulfur Requirements – Open and Prescribed Burning – Not Required

A1406 20.2.61 NMAC Opacity – Open and Prescribed Burning – Not Required

A1407 Other Operational Requirements – Open and Prescribed Burning

A. Operational Requirements

<p>Requirement: The permittee shall comply with the applicable requirements of 20.2.60 NMAC and 20.2.65 NMAC, including, but not limited to:</p> <ol style="list-style-type: none"> 1) Prior to initiating a burn consisting of vegetative material, the permittee shall submit to the Department a sampling and analysis plan and upon approval conduct representative sampling of the intended burn material and analyze samples for radionuclides, target analyte list (TAL) inorganic elements, polychlorinated biphenyls (PCBs), and high explosives (HE); and 2) The permittee shall submit to the Department a background concentration report for the contaminants listed in Condition A1407.A, Requirement (1). The report shall indicate locations where background concentrations were taken and compare sample results with background concentrations of the constituents; and 3) The permittee shall not burn vegetative material which includes any contaminant above the relevant background concentration; and
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4) Upon receiving Department approval, the permittee shall conduct public notification in a display ad in at least four newspapers: Los Alamos Monitor, Rio Grande Sun, Santa Fe New Mexican, and the Albuquerque Journal, no less than 21 days in advance of a planned burn.
Monitoring: The permittee shall monitor all open burning as required by Department regulation or burn approval.
Recordkeeping: The permittee shall maintain records of all sampling and analysis plans and any representative sampling conducted. Records shall be kept in accordance with Section B109.
Reporting: The permittee shall submit reports as outlined in the Condition 1407.A Requirements, as described in Section A109, and in accordance with Section B110.

EVAPORATIVE SPRAYERS

A1500 Regulated Sources – Evaporative Sprayers

A. Table A1500.A lists **all regulated air emission sources at the TA-60 SERF facility (Sanitary Effluent Reclamation Facility) of the process equipment for this** source category.

Table A1500.A: Regulated Sources List – TA-60 SERF

Unit No.	Source Description	Make Model	Serial No.	Maximum Capacity/ Permitted Capacity	Manufacture Date	Construction Date
TA-60-EVAP-1	Water spray evaporator	SMI Evaporative Solutions SMI 120	0053	9 gal per min/ 7.51 gal per min	2016	July 2016
TA-60-EVAP-2	Water spray evaporator	SMI Evaporative Solutions SMI 120	0054	9 gal per min/ 7.51 gal per min	2016	July 2016
TA-60-EVAP-3	Water spray evaporator	SMI Evaporative Solutions SMI 120	0055	9 gal per min/ 7.51 gal per min	2016	July 2016
TA-60-EVAP-4	Water spray evaporator	SMI Evaporative Solutions SMI 120	0056	9 gal per min/ 7.51 gal per min	2016	July 2018
TA-60-EVAP-5	Water spray evaporator	SMI Evaporative Solutions SMI 120	0057	9 gal per min/ 7.51 gal per min	2016	July 2018
TA-60-EVAP-6	Water spray evaporator	SMI Evaporative Solutions SMI 420B	9360	24 gal per min/ 20 gal per min	2014	May 2019

A1501 Control Equipment – Evaporative Sprayers – Not Required

A1502 Emission Limits – Evaporative Sprayers

A. The permittee shall report actual ton per year (tpy) emissions of regulated air pollutants from the SERF evaporative sprayers as follows:

(1) Actual ton per year (tpy) emission rates from the SERF sprayers of individual and total hazardous air pollutants (HAPs) shall be determined and applied toward the facility-wide HAPs tpy emission limit caps in Table 106.B, shall be included in the semi-annual emissions inventory report required at A109.A, and shall be included in the annual emissions inventory reports required by 20.2.73 NMAC and Condition B110.H.

(2) Actual pph and tpy emission rates of particulate matter (PM), PM10, and PM2.5 shall be included in the annual emissions inventory reports required by 20.2.73 NMAC and Condition B110.H but are not applied toward the facility-wide emission limit caps for those pollutants in Table 106.B. Only emissions from stacks (point sources) of those pollutants count toward these PSD synthetic minor limits in Table 106.B.

~~B. The federally enforceable work practice standards in Conditions A1507.A and B establish the emissions allowable under the permit (20.2.70.7.H and I NMAC) since separate numerical pph and tpy emission limits for TSP, PM10, VOCs, and HAPs from the evaporators are not appropriate for this operating scenario. Hazardous air pollutants (HAPs) from the evaporative coolers are included in and subject to the individual and total HAP facility wide emission limits in Table 106.B.~~

A1503 Applicable Requirements – Evaporative Sprayers

A. There are no additional applicable requirements other than those listed for the entire facility in Table 103.A.

A1504 Operational Limitations– Evaporative Sprayers

A. This equipment is authorized for continuous operation.

A1505 Fuel Sulfur Requirements –Evaporative Sprayers– Not Required

A1506 20.2.61 NMAC Opacity –Evaporative Sprayers – Not Required

A1507 HAPs Calculations, Maintenance, and Repair – Evaporative Sprayers

A. ~~HAPs Calculations Operational Requirements~~ (Evaporative Sprayers)

Requirement: Compliance with the facility-wide allowable emission limits in Table 106.B shall be demonstrated by calculating the annual total HAPs emissions in tons per year. The emissions shall be calculated based on the most recent water analysis and hours of operation for the evaporative sprayers.

Monitoring: The permittee shall conduct an analysis of the basin water, including analytical results (water concentrations) for all HAPs and New Mexico TAPs, at the Sanitary Effluent Reclamation Facility (SERF) every two years beginning no later than calendar year 2018. The permittee shall monitor the hours of operation for each sprayer.

Recordkeeping: The permittee shall record a monthly rolling, 12-month total of HAPs emissions based on the sum of calculated actual emissions from all the evaporative sprayers. The emission factors for the HAPs shall be based on the values from the most recent water analysis.

Reporting: The permittee shall submit reports described in Section A109 and in accordance with Section B111. An electronic copy of the required water analysis including analytical results (water concentrations) for all HAPs, TAPs, and the total dissolved solids (TDS) shall be sent to AQB with the Semi-annual Monitoring Report specified in Condition A109.A for any year in which the water sampling is conducted.

B. Maintenance and Repair Requirements (Evaporative Sprayers)

Requirement: Compliance with the facility-wide allowable emission limits in Table 106.B shall be demonstrated by properly maintaining and repairing the units.

Monitoring: Maintenance and repair shall meet the minimum manufacturer's or permittee's recommended maintenance schedule. Activities that involve maintenance, adjustment, replacement, or repair of functional components with the potential to affect the operation of an emission unit shall be documented as they occur.

Recordkeeping: The permittee shall maintain records in accordance with Section B109, including records of maintenance and repairs activities and a copy of the manufacturer's or permittee's recommended maintenance schedule.

Reporting: The permittee shall submit reports described in Section A109 and maintain records in accordance with Section B109, including records of maintenance and repairs activities and a copy of the manufacturer's or permittee's recommended maintenance schedule.

MISCELLANEOUS EQUIPMENT

A1600 40 CFR 63, Subpart CCCCCC – Gasoline Dispensing Facilities (GDF)

A. 40 CFR 63, Subpart CCCCCC (Gasoline Dispensing Facilities – GDF)

Requirement: Applies to each GDF that is located at an area source of HAPs. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank. LANL has GDFs subject to 40 CFR 63, Subparts A and CCCCCC and since the GDF(s) will have a monthly throughput less than 10,000 gallons of gasoline, the permittee is subject at §63.11111(a) and §63.11111(b) and shall comply with the requirements

at §63.11116.
Monitoring: The permittee shall comply with all applicable monitoring requirements in 40 CFR 63, Subpart A and Subpart CCCCCC, including but not limited to §63.11116.
Recordkeeping: The permittee shall comply with all applicable recordkeeping requirements in 40 CFR 63, Subpart A and Subpart CCCCCC, including but not limited to §63.11116.
Reporting: The permittee shall comply with all applicable reporting and notification requirements in 40 CFR 63, Subpart A and Subpart CCCCCC, including but not limited to §63.11116.

PART B GENERAL CONDITIONS (Attached)

PART C MISCELLANEOUS: Supporting On-Line Documents; Definitions; Acronyms (Attached)

[DO NOT PRINT GENERAL CONDITIONS AND MISCELLANEOUS UNTIL YOU SUBMIT FINAL DOCUMENT FOR SIGNATURE.

FINAL DOCUMENT MUST HAVE PERMIT NUMBER IN HEADER FOR LEGAL REASONS AND IT MUST BE SINGLE SIDED LIKE THE PERMIT.]