

# Air Quality Bureau TITLE V OPERATING PERMIT

# **Issued under 20.2.70 NMAC**

Certified Mail No: xxxx xxxx xxxx xxxx xxxx Return Receipt Requested Operating Permit No: Acid Rain Permit No: Facility Name:	P127-R4 <i>DRAFT - PROPOSED</i> P127-AR4 (attached) El Paso Electric - Rio Grande Generating Station				
Facility Owner/Operator: Permittee Name: Mailing Address:	El Paso Electric Company PO Box 982 El Paso, TX 79960				
TEMPO/IDEA ID No: AIRS No:	122 - PRT20210001 350130002				
Permitting Action: Source Classification:	Title V & Title IV Renewals Major-TV and PSD Major without BACT				
Facility Location:  County:	UTM E 353520 m, UTM N 3519660 m, Zone 13, Datum: NAD27 Dona Ana				
Air Quality Bureau Contact Main AQB Phone No.	Urshula Bajracharya (505) 476-4300				
TV Permit Expiration Date: TV Renewal Application Due:					
Liz Bisbey-Kuehn Bureau Chief Air Quality Bureau	Date Template version: 06/28/2021				

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# 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. The function of the facility is to generate electric power using three dry bottom, wall-fired steam boilers each driving a turbine generator and one simple cycle turbine and generator. All units use natural gas fuel. The annual average electric power production of the facility is 340.3 MW.
- B. This facility is located in Sunland Park, Doña Ana County, New Mexico. (20.2.70.302.A(7) NMAC)
- C. This is a Title V renewal permit and no changes were made to the facility. Some conditions were updated to meet current Department monitoring protocol language. The description of this renewal is for informational purposes only and is not enforceable.
- D. 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	<b>Emissions (tons per year)</b>
Nitrogen Oxides (NOx)	3130.1
Carbon Monoxide (CO)	1108.1
Volatile Organic Compounds (VOC) <sup>1</sup>	78.6
Sulfur Dioxide (SO <sub>2</sub> )	1.7

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

Pollutant	Emissions (tons per year)
Particulate Matter (PM) <sup>2</sup>	186.2
Particulate Matter 10 microns or less (PM <sub>10</sub> )	111.4
Particulate Matter 2.5 microns or less (PM <sub>2.5</sub> )	86.4
Greenhouse Gas (GHG) as CO <sub>2</sub> e	1,826,503

<sup>1.</sup> VOC total includes emissions from Fugitives.

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

Pollutant	Emissions (tons per year)
Ammonia*	25.1
Chlorine	2.5
Total HAPs**	4.0

<sup>\*</sup> Toxic Air Pollutants (TAPs) from the facility.

# 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** 

Table 100.71. Applicable rectan ements		
Applicable Requirements	Federally Enforceable	Unit No.
<sup>1</sup> NSR Permit No: 1554-M1, M1R1, M1R2, M1R3 (Per 20.2.72 NMAC)	X	Entire Facility as applicable (including Units GT-9, CT-9, FUG-9, EPN-3 PM2.5 limits, EPN-1 NOx limits)
20.2.1 NMAC General Provisions	X	Entire Facility
20.2.7 NMAC Excess Emissions	X	Entire Facility
20.2.33 NMAC Gas Burning Equipment Nitrogen Dioxide	X	EPN-1, EPN-3, EPN-4
20.2.61 NMAC Smoke and Visible Emissions	X	EPN-1, EPN-3, EPN-4, GT- 9, EG-1, SE-1
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 Permit	X	Entire Facility as applicable (including Units GT-9, CT-9, FUG-9)

<sup>2.</sup> PM is a regulated new source review pollutant per Title V and per 20.2.74 NMAC Prevention of Significant Deterioration. No ambient air quality standards apply to TSP or PM.

<sup>\*\*</sup> The total HAP emissions may not a gree with the sum of individual HAPs because only individual HAPs greater than 1.0 tons per year are listed here.

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**Table 103.A: Applicable Requirements** 

Federally	Unit
Enforceable	No.
v	Entire Facility
Λ	Entire Facility
v	Entire Engility
Λ	Entire Facility
X	Units subject to 40 CFR 60
v	Units subject to 40 CED 62
Λ	Units subject to 40 CFR 63
X	EPN-1, EPN-3, EPN-4, GT-9
X	Entire Facility
X	Units subject to 40 CFR 60
X	EG-1, SE-1
X	GT-9
X	Units Subject to 40 CFR 63
X	EG-1, SE-1
X	EPN-1, EPN-3, EPN-4, GT-9
X	EPN-1, EPN-3, EPN-4
	Enforceable  X  X  X  X  X  X  X  X  X  X  X  X  X

<sup>1.</sup> Unit EPN-3 is subject to PM2.5 emissions limits in NSR permit 1554-M1 to net out of PSD and EPN-1 is subject to NOx emission limits in NSR permit 1554-M1 to comply with NOx National Ambient Air Quality Standards.

B. Table 103.B lists requirements that are <u>not</u> 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	Pursuant to 20.2.3.9 NMAC NMAAQS are not an applicable requirement in Title V.
20.2.75 NMAC Permit Fees		X	20.2.75 NMAC Construction Permit Fees do not apply to Title V.

<sup>1.</sup> Not Applicable for this Facility: No existing or planned operation/activity at this facility triggers the applicability of these requirements.

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 Permit 1554-M1.

<sup>2.</sup> 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.

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# A104 Facility: Regulated Sources

A. Table 104.A lists the emission units 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.

Table 104.A: Regulated Sources List

	104.A. Kegulateu	Source	5 1150				
Unit No.	Source Description	Make	Model	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Manufacturer Rated Capacity /Permitted Capacity
EPN-1	Unit #8 Boiler with DLN burner	Babcock & Wilcox	BW CNRB 298	22896	January 10, 1968, Burner Replaced 2003	N/A	1535/1534 MMBtu/hr 1345/1345 MMBtu/hr a nnual a verage
EPN-3	Unit #6 Boiler	Babcock & Wilcox	BW CNRB 465	19199	January 1, 1956	N/A	610/610 MMBtu/hr
EPN-4	Unit #7 Boiler	Babcock & Wilcox	BWCSN 9926	19680	January 1, 1958	N/A	590 / 590 MMBtu/hr
F-1	Cooling Tower 6	N/A	N/A	N/A	June 1956	N/A	33,600/33,600 gpm
F-1	Cooling Tower 7	N/A	N/A	N/A	January 1, 1958 N/A		24,000 / 24,000 gpm
F-1	Cooling Tower 8	N/A	N/A	N/A	January 10, 1968/ reconstructed 2004	Summer 2004	55,000 / 55,000 gpm
F-2	Piping fugitives Boilers 6, 7, 8	N/A	N/A	N/A	not reported	N/A	N/A
GT-9 <sup>1</sup>	Unit #9 Natural Gas Fired Turbine	GE	LMS 100 PA	Unit # 821340 / Combustion unit # 878- 168	August 2,2012	N/A	142,576 / 142,576 hp (95 MW, 826.2 MMBtu/hr)
CT-9 <sup>1</sup>	Cooling Tower 9	SPX	F434 A24 A4.002A	6021201	August 2, 2012	N/A	6900/6900 gpm
FUG-9 <sup>1</sup>	Piping Fugitives (Turbine 9)	N/A	N/A	N/A	August 2, 2012	N/A	N/A
EG-1	Emergency Diesel Generator	MTU	DS250D6S	375442	October 17, 2014	July 1,2014	418/418 hp
SE-1	Standby Diesel Engine	Cummins	QSB4.5	73882737	November 4, 2015	August 10, 2015	110/110 hp

<sup>1.</sup> The unit is permitted under P127-AR4 Acid rain program.

# A105 Facility: Control Equipment

A. Table 105. A lists 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.

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**Table 105.A: Control Equipment List:** 

Control Equipment Unit No.	•	Pollutant being controlled	Control for Unit
Boiler 8	Induced Flue Gas Recirculation (FGR) & Dry Low NOx Burners	NOx	EPN-1/Boiler8
Turbine 9	Selective Catalytic Reduction (SCR)	NOx	GT-9/Turbine
Turbine 9	Oxidation Catalyst	CO and VOCs (at low load)	GT-9/Turbine

<sup>1</sup> Control for unit number refers to a unit number from the Regulated Equipment List

# A106 <u>Facility: Allowable Emissions</u>

A. The following Section lists the emission units, and their allowable emission limits. (40 CFR 50; 40 CFR 60, Subparts A, IIII, and KKKK; 40 CFR 63, Subparts A and ZZZZ; Paragraphs 1, 7, and 8 of 20.2.70.302.A NMAC; 20.2.33 NMAC; and NSR Permits 1554-M1, M1R1, M1R2, M1R3).

Unit No.	<sup>1</sup> NO <sub>x</sub> pph	NO <sub>x</sub> tpy	CO pph	CO tpy	VOC pph	VOC tpy	<sup>4</sup> NH <sub>3</sub> pph	<sup>4</sup> NH <sub>3</sub> tpy	PM <sub>10</sub> pph	PM <sub>10</sub> tpy	PM <sub>2.5</sub> pph	PM <sub>2.5</sub> tpy
EPN-1	<sup>5</sup> 415.0 / 460.5	1514.0	1000.0	536.0	9.1	35.1	1	1	12.6	48.5	12.6	48.5
EPN-3	183.0	802.0	1400.0	243.0	3.6	15.9	-	-	5.0	22.0	5.0	2.0
EPN-4	177.0	775.0	1400.0	235.0	3.5	15.4	-	-	4.9	21.3	4.9	21.3
F-1	-	-	-	-	1	-	-	-	1.1	5.0	<	<
GT-9	22.9	39.1	30.3	94.1	2.3	9.2	6.0	24.4	3.6	14.48	3.6	14.48
CT-9	-	-	-	-	-	-	-	-	<	<	<	<

- Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO<sub>2</sub>.
- Title V annual fee assessments are based on the sum of allowable tons per year emission limits in Sections A106 and A107.
- "-" indicates the application represented emissions are not expected for this pollutant.
- "<" indicates that the application represented the uncontrolled mass emission rates are less than 1.0 pph or 1.0 tpy for this emissions unit and this air pollutant. Although modeled at the calculated value, the Department has determined compliance demonstrations of these very small calculated values are either technically or practically infeasible. For limits expressed as "<", actual emissions in excess of 1.0 pph and 1.0 tpy are excess emissions to be reported per General Condition B110.E.
- "\*" indicates hourly emission limits are not appropriate for this operating situation.
- 3 To report excess emissions for sources with no pound per hour and/or ton per year emission limits, see condition B110.E.
- 4 NH<sub>3</sub> means ammonia which is a New Mexico Toxic Air Pollutant (NM TAP).
- 5 See Condition A106.E.
- 6 Emission rates of SO2 are all less than 1 pph and 1 tpy and are from commercial natural gas fuel with a consistent sulfur content. The Department has determined that allowable numerical emission limits are not needed for this level of emissions.

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B. Boilers 6, 7, and 8 (EPN-3, EPN-4, EPN-1) nitrogen dioxide emissions shall not exceed 0.30 lb/MMBtu averaged over 3 hours. (20.2.33 NMAC and Consent Order D-101-CV-2008-02777 Paragraphs IV.19, IV.20, V.21.c, and V.21.d)

- C. Ammonia slip from Turbine GT-9 shall be limited to no more than 5.0 ppmvd at 15% oxygen on a dry basis. (NSR 1554-M1, Condition A106.B)
- D. Turbine GT-9, nitrogen dioxide emissions shall not exceed the limit specified in 40 CFR 60.4305(a) and the fuel burned shall not contain total potential sulfur in excess of the limits required in 40 CFR 60.4330(a). (40 CFR 60, Subpart KKKK)
- E. EPN-1 (Boiler 8) emission rate of 460.5 pph NOx is limited to no more than 7 hours per 24-hour period. Each 24-hour period starts at 12-midnight (NSR 1554-M1)
- F. Pursuant to 40 CFR 60, Subpart IIII, emergency and Standby Diesel Generator Engines, Units EG-1 and SE-1, are subject to emission standards at 40 CFR 60.4202(a)(2) which references emissions standards at 40 CFR 89.112 and 89.113 for all pollutants beginning in model year 2007.

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

A. Separate allowable startup, shutdown, and maintenance (SSM) emission limits are not required for this facility since the SSM emissions are predicted to be less than the limits established in Table 106.A. The permittee shall maintain records in accordance with Condition B109.E.

#### A108 Facility: Hours of Operation

A. This facility is authorized for continuous operation, except as required in Condition A403.B. Monitoring, recordkeeping, and reporting are not required to demonstrate compliance with continuous hours of operation.

# A109 <u>Facility: Reporting Schedules (20.2.70.302.E NMAC)</u>

- 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. 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 1<sup>st</sup> of each year.

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#### A110 Facility: Fuel and Fuel Sulfur Requirements

#### A. Fuel and Fuel Sulfur Requirements – Boilers 6, 7 and 8 (Units EPN-3, EPN-4 and EPN-1)

**Requirement:** Boiler emission units 6, 7, and 8 shall combust only natural gas containing no more than 1.25 grains of total sulfur per 100 dry standard cubic feet.

The permittee shall use actual sulfur content data in the fuel, in accordance with 40 CFR 75, Appendix D, to calculate SO<sub>2</sub> ton per year emissions for each Boiler. (Consent Decree D-101-CV-2008-02777 Paragraph I.C.4)

**Monitoring:** None. Compliance is demonstrated through records.

#### **Recordkeeping:**

- (1) The permittee shall demonstrate compliance with the natural gas 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 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) 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.
- (4) Records shall be kept of the ton per year SO<sub>2</sub> emissions for each boiler in accordance with Paragraph I.C.4 of Consent Decree D-101-CV-2008-02777 and with Condition B109.A.

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

#### B. Fuel and Fuel Sulfur Requirements – Turbine (Unit GT-9)

**Requirement:** Turbine GT-9 shall combust only natural gas containing no more than 0.25 grains of total sulfur per 100 dry standard cubic feet corresponding to the GT-9 Turbine manufacturer's PM10 emissions guarantee. This sulfur limit also shows compliance with SO<sub>2</sub> mass emission rates used to show compliance with ambient air quality standards. (NSR 1554-M1, Condition A401.F)

**Monitoring:** None. Compliance is demonstrated through records.

#### **Recordkeeping:**

- (1) The permittee shall demonstrate compliance with the natural gas 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 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) Alternatively, compliance shall be demonstrated by keeping a receipt or invoice from a

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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.

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

# A111 Facility: 20.2.61 NMAC Opacity

A. 20.2.61 NMAC Opacity Requirements Boilers 6, 7, 9 (Units EPN-3, EPA-4, EPN-1) and Turbine (Unit GT-9)

**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.

#### **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.

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

### A112 Alternative Operating Scenario – Not Required

### A113 Compliance Plan – Not Required

# A114 <u>Title IV Acid Deposition Control</u>

Title IV Acid Deposition Control – Boilers 6, 7, And 8 (EPN-3, EPN-4, EPN-1) and Turbine GT-9

**Requirement:** Boilers 6, 7, and 8 and Turbine GT-9 are subject to 20.2.84 NMAC and to the following Parts in 40 CFR:

40 CFR 72 Acid Rain Permits Regulation

40 CFR 73 Sulfur Dioxide Allowance System

40 CFR 75 Continuous Emissions Monitoring

40 CFR 77 Excess Emissions

The permittee shall meet all applicable permitting, operating, and other requirements in those parts.

**Monitoring:** The permittee shall meet all applicable NOx and SO<sub>2</sub> monitoring requirements in 40 CFR 75, Subparts B and E.

**Recordkeeping:** Applicable records shall be kept according to 40 CFR 75, Subparts D and F.

**Reporting:** The permittee shall meet all applicable reporting, notification, and submittal requirements in 40 CFR 72 Subparts A, D, and I; 40 CFR 73, Subpart F; 40 CFR 77.3, 77.4, and 77.6; 40 CFR 75, Subpart G.

The permittee shall also meet the reporting requirements in Section B110.

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#### **EQUIPMENT SPECIFIC REQUIREMENTS**

#### OIL AND GAS INDUSTRY

#### A200 Oil and Gas Industry – Not Required

#### **CONSTRUCTION INDUSTRY**

# A300 Construction Industry – Not Required

#### **POWER GENERATION INDUSTRY**

#### A400 Power Generation Industry – Not Required

A. This section has common equipment related to most Electric Service Operations (SIC-4911).

# A401 Turbines

A. Turbine GT-9 Emission Limits - At all times Turbine GT-9 is operating the permittee shall comply with the allowable emission limits in Table 106.A. Compliance with the allowable emission limits shall be determined with initial compliance tests, with the data from the facility's NOx and CO Continuous Emissions Monitoring (CEMS) systems, with the monitoring and recordkeeping required by this permit, and by meeting the control device and operational requirements of this permit. Compliance with NOx and CO emission limits demonstrates compliance with the VOC emission limits. (NSR 1554-M1, Condition A401.A)

# B. CO and VOC Control Oxidation Catalyst – Turbine (Unit GT-9)

**Requirement:** At all times Turbine (Unit GT-9) is operating CO and VOC exhaust stack emissions shall be routed to and reduced with a properly functioning oxidation catalyst, except during the first 7 minutes after GT-9 startup. During the first 7 minutes after GT-9 startup, the oxidation catalyst is not up to the temperature required to reduce CO and VOC emissions. Emissions during these periods are considered routine startup emissions and are included in the allowable limits.

During periods of catalyst maintenance, the permittee shall either shut down the turbine or replace the catalyst with a functionally equivalent spare.

Proper operation of the oxidation catalyst shall be with a programmable logic control (PLC) system.

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The permittee shall maintain the oxidation catalyst according to the manufacturer or supplier recommended maintenance and replacement schedule.

#### (NSR 1554-M1, Condition A401.B)

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 report according to Section B110.

#### C. NOx Control & NH3 Control Selective Catalytic Reduction – Turbine (Unit GT-9)

**Requirement:** At all times Turbine (Unit GT-9) is operating NOx exhaust stack emissions shall be routed to and reduced with a properly functioning selective catalytic reduction system (SCR) using a reductant of aqueous ammonia, except during the first 30 minutes after GT-9 startup. During the first 30 minutes after GT-9 startup, the SCR is not up to the temperature required to reduce NOx emissions. Emissions during these periods are considered routine startup emissions and are included in the allowable limits.

Compliance with the NH<sub>3</sub> emission limits in Table 106.A and Condition A106.C shall be met by operating the SCR system within temperature ranges and ammonia injection rates as recommended by the SCR manufacturer or supplier. The permittee shall also limit the concentration of aqueous ammonia stored and used at the facility to no more than 19%.

Proper operation of the SCR to control NOx and excess ammonia slip shall be with a programmable logic control (PLC) system.

The permittee shall maintain the SCR system according to manufacturer or supplier recommended maintenance and replacement schedule.

#### (NSR 1554-M1, Condition A401.C)

**Monitoring:** The permittee shall monitor the SCR catalyst operating temperature and ammonia injection rates.

**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 specifications required for limiting ammonia slip to the limit in Condition A106.C.

Records shall be kept of a current and valid purchase contract or receipts of purchase specifying the percent aqueous ammonia delivered to the facility.

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**Reporting:** The permittee shall report according to Section B110.

D. Continuous Emissions Monitoring System (CEMS) NOx and CO Emissions Monitoring – Turbine (Unit GT-9)

**Requirement:** To demonstrate compliance with the allowable NOx and CO emission limits in Table 106.A, Turbine GT-9's NOx and CO exhaust stack emissions shall be monitored and recorded with  $NO_x$ , and CO continuous emission monitoring systems (CEMS). The CEMS shall be installed and maintained according to manufacturer or supplier specifications, or equivalent, and to the regulatory requirements in this condition.

**NOx CEMS** - The NOx CEMS shall be designed, installed, certified, and audited in accordance with 40 CFR 75 - <u>Continuous Emissions Monitoring</u> (Title IV Acid Rain). Initial and subsequent semi-annual or annual Relative Accuracy Test Audits (RATA) required by 40 CFR 75, shall be completed according to Appendix B of that Part.

#### CO CEMS -

- Initial certification of the CO CEMS shall be performed according to the procedures in 40 CFR 60, Appendix B <u>Performance Specifications</u>.
- Periodic Cylinder Gas Audits (CGAs) of the CO CEMS shall be performed according to procedures in 40 CFR 60, Appendix F Quality Assurance Requirements for Continuous Emissions Monitoring Systems. The annual RATA test found in 40 CFR 60, Appendix F is not required.

#### (NSR 1554-M1, Condition A401.D)

**Monitoring:** Compliance is demonstrated through recordkeeping.

**Recordkeeping:** The reported output of NOx and CO CEMS data shall be in parts per million by volume dry (ppmvd) with NOx corrected to 15% oxygen and at standard conditions; and in lb/hr of NOx and CO. Additionally, the NOx and CO CEMS data shall be retained according to B109.B.

Using actual operating hours and lb/hr NOx and CO emission rates recorded by CEMS, the permittee shall record the ton per month NOx and CO emission rates and a monthly rolling 12-month total of ton per year NOx and CO emissions. Records shall be kept of the calculations used to determine the ton per month and ton per year emission rates.

The permittee shall maintain hard copy or electronic records of periods that the CEMS systems are inoperative, and of initial and periodic CEMS performance measurements and evaluations, calibration checks, adjustments, and maintenance.

The NOx CEMS shall comply with the recordkeeping requirements in 40 CFR 72.

**Reporting:** The permittee shall report according to Section B110.

E. 40 CFR 75 SO<sub>2</sub> Monitoring – Turbine GT-9

Requirement: SO<sub>2</sub> monitoring shall be completed on Turbine GT-9 according to the

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#### requirements of 40 CFR 75.

**Monitoring:** The permittee shall monitor SO<sub>2</sub> emissions according to 40 CFR 75.

**Recordkeeping:** Records shall be kept according to 40 CFR 75.

**Reporting:** The permittee shall report according to 40 CFR 75 and Section B110.

#### F. PM10 and PM2.5 Emission Limits - Turbine (Unit GT-9)

**Requirement:** The permittee shall meet the PM10 and PM2.5 (PM) emission limits in Table 106.A.

Compliance with these limits shall be determined with the lb/hr filterable and condensable particulate matter stack test results that were required by Condition A401.H in NSR Permit No. 1554-M1, and with heat rate monitoring data (MMBtu/time) and the PM emission factor (lb/MMBtu) determined through the PM stack testing.

Until an emission factor was determined through testing, the permittee was required to use 0.0040 lb/MMBtu to calculate PM tpy emissions. Once the emission factor was determined through testing, the permittee was required to re-calculate the tpy PM emissions starting at first fuel firing of the turbine using the emission factor developed through testing. This retroactive tpy calculation shall be compared with the PM emission limits to determine compliance.

#### (NSR 1554-M1, Condition A401.G, revised)

# **Monitoring:**

#### **Heat Rate**

The Turbine GT-9 heat rate per time (MMBtu/time) shall be monitored using a Continuous Emissions Monitoring System (CEMS).

# **Recordkeeping:**

#### **Monthly and Annual Heat Rate**

Records shall be kept of the total heat rate each month (MMBtu/mo) and of the total annual heat rate as a monthly rolling 12-month total (MMBtu/yr).

#### **PM Emission Factors**

- Pound per hour test results and the corresponding hourly heat rate (MMBtu/hr) from each valid test run required by Condition A401.H in NSR Permit No. 1554-M1 shall be averaged to determine final lb/hr and MMBtu/hr rates.
- These results shall be used to calculate actual PM10 and PM2.5 emission factors in lb/MMBtu using the following equation: lb/hr x hr/MMBtu = lb/MMBtu.
- Records shall be kept of the lb/hr rates for PM10 and PM2.5 emissions measured through the NSR Permit No. 1554-M1 stack testing; of the hourly MMBtu/hr rates recorded by the CEMS during testing; of the calculations used to determine the average lb/hr and MMBtu/hr rates; and of the calculations used to determine the actual PM10 and PM2.5 emission factors in lb/MMBtu.

#### **TPY PM Emission Rates**

• Records shall be kept of the total ton per month emission rates for PM10 and PM2.5 (PM)

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using the monthly heat rate data (MMBtu/mo) and the PM emission factors (lb/MMBtu) determined through stack testing in NSR Permit No. 1554-M1, Condition A401.H.

- The following equation shall be used to calculate actual ton/month PM emission rates: lb/MMBtu x MMBtu/mo x 1 ton/2000 lbs = ton/month PM.
- A monthly rolling 12-month total of PM10 and PM2.5 ton per year emission rates shall be determined using the calculated ton/month PM emission rates.

The permittee shall also comply with the recordkeeping requirements in Conditions B109.A and B.

**Reporting:** The permittee shall report according to Section B110.

#### G. 40 CFR 60, Subpart KKKK - Turbine (Unit GT-9)

**Requirement:** Turbine GT-9 is subject to 40 CFR 60, Subparts A and KKKK and the permittee shall comply with all applicable sections of those parts.

**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 report according to 40 CFR 60, Subpart KKKK, including but not limited to 40 CFR 60.4375, 60.4395, and 60.7.

#### A402 Boilers

A. Continuous Emissions Monitoring System (CEMS) NOx and CO Emissions Monitoring – Boilers 6, 7, and 8 (Units EPN-3, EPN-4, EPN-1)

**Requirement:** To demonstrate compliance with the allowable NOx and CO emission limits in Table 106.A, Boiler 6, 7, and 8 (Units EPN-3, EPN-4, EPN-1) NOx and CO exhaust stack emissions shall be monitored and recorded with NOx and CO continuous emission monitoring systems (CEMS). The CEMS shall be installed and maintained according to manufacturer or supplier specifications, or equivalent, and to the regulatory requirements in this condition.

The permittee shall conduct proper and efficient calibration of CEMS and install software to ensure that calibration periods are clearly indicated in the data recorded by the CEMS. (Consent Decree D-101-CV-2008-02777 Paragraph I.B.3)

NOx CEMS - The NOx CEMS shall be designed, installed, certified, and audited in accordance with 40 CFR 75 - Continuous Emissions Monitoring (Title IV Acid Rain). Initial and subsequent semi-annual or annual Relative Accuracy Test Audits (RATA) required by 40 CFR 75, shall be completed according to Appendix B of that Part.

CO CEMS – RATA tests shall be performed in accordance with 40 CFR 60, Appendix F except that the tests shall be completed at least once every three calendar years.

**Monitoring:** Compliance is demonstrated by recordkeeping.

**Recordkeeping:** The reported output of NOx and CO CEMS data shall be in parts per million

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by dry volume (ppmvd) of NOx corrected to diluent concentrations of CO<sub>2</sub> or O<sub>2</sub> at standard conditions; and in lb/hr of NOx and CO. CEMS output data shall also include each boiler's average hourly heat rate (MMBtu/hr) for each month and each year. Raw NOx and CO CEMS data shall be retained according to B109.B.

CEMS records shall clearly indicate CEMS calibration periods. (Consent Decree D-101-CV-2008-02777 Paragraph I.B.3)

Using actual operating hours and lb/hr NOx and CO emission rates recorded by CEMS, the permittee shall record the ton per month NOx and CO emission rates and a monthly, rolling 12-month total of ton per year NOx and CO emissions for each Boiler. Records shall be kept of the calculations used to determine the ton per month and ton per year emission rates.

The permittee shall maintain hard copy or electronic records of periods that the CEMS systems are inoperative, and of initial and periodic CEMS performance tests, measurements and evaluations, calibration checks, adjustments, and maintenance.

The permittee shall meet the NOx CEMS recordkeeping requirements in 40 CFR 72 and 40 CFR 75 and the recordkeeping requirements in Section B109.

**Reporting:** The permittee shall report according to Section B110.

B. Capacity Particulate Matter Limits - Boilers 6, 7, and 8 (Units EPN-3, EPN-4, EPN-1)

**Requirement:** To demonstrate compliance with the PM10 and PM2.5 emission limits in Table 106.A, Boilers 6, 7, and 8 shall be limited to the following annual average heat rates:

Boiler 6 (EPN-3) – 610 MMBtu/hr

Boiler 7 (EPN-4) – 590 MMBtu/hr

Boiler 8 (EPN-1) – 1345 MMBtu/hr

**Monitoring:** The heat rate (MMBtu/hr) shall be monitored using Continuous Emissions Monitoring Systems (CEMS).

**Recordkeeping:** Records shall be kept of the monthly rolling 12-month average of the heat rate per hour (MMBtu/hr) for each Boiler. The permittee shall also comply with the recordkeeping requirements in Conditions B109.A and B.

**Reporting:** The permittee shall report according to Section B110.

C. Induced Flue Gas Recirculation – Boiler 8 (Consent Decree D-101-Cf-2008-02777 Section II.A and Paragraph V.21.b)

**Requirement:** During normal operations, the Induced Flue Gas Recirculation System (FGR) shall be used during Boiler 8 operations to optimize NOx emissions reduction. The only operating modes that are not considered normal operations and when Boiler 8 may be operated without full NOx reduction by the FGR system, include the start-up boiler purge cycle, system maintenance, and adjustment of the fresh air intake when ambient temperatures are at or below 48 deg F. Regardless if the FGR system is operational, at no time shall the permittee exceed the Boiler 8 NOx emission limits specified in Section 106.

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**Monitoring:** During each annual tuning, the permittee shall conduct operational inspections, maintenance, and any necessary adjustments and repairs to ensure optimum NOx reduction by the FGR. Operational inspections and maintenance shall be performed according to manufacturer specifications and to the requirements of the Consent Decree.

During normal operations, the Distributed Control System (DCS) shall be used to monitor and control the FGR Control Damper to the parameters established during the most recent tuning. At times other than normal operations, the Control Damper may be adjusted manually. During normal operations, the operator shall verify the FGR Isolation Damper is fully open and the Fresh Air Damper is fully closed.

**Recordkeeping:** Records shall be kept of the dates, times, and reasons when Boiler 8 is operated without FGR NOx control and of the manufacturer's maintenance and tuning specifications. The permittee shall meet the recordkeeping requirements of the annual tuning and maintenance according to Conditions A402.D, B109.A, and B109.B.

**Reporting:** The permittee shall report according to Section B110.

D. Annual Tuning – Boilers 6, 7, and 8 (Units EPN-3, EPN-4, EPN-1) (Consent Decree D-101-CV-2008-02777 Section I.A and Paragraph V.21.a)

**Requirement:** The permittee shall tune Boilers 6, 7, and 8 at least once per calendar year. At a minimum, the tuning shall ensure that:

- the boilers and all associated equipment are set, operated, and maintained in accordance with manufacture's specifications to the maximum extent practical;
- combustion air and fuel ratios are properly maintained;
- the components of the draft system including the inlet vanes, shaft seals, and lubrication system are in proper working order;
- the air heater basket elements are in proper working order and the air heater seals are properly adjusted;
- the ductwork connecting the forced draft fan to the air heater and connecting the air heater to the boiler windbox is properly sealed;
- steam temperatures and pressures are maintained at or close to equipment design conditions;
- systems demand ramp (load raising) rates are properly controlled to maintain system stability throughout the load range;
- the burners, including the registers, gas guns, hoses, gaskets, throats, and support and alignment mechanisms, are in proper working order and the burners are set according to the manufacturer's specifications;
- the components of the combustion control system (including measurement devices and transmitters and data logging equipment and software) are in proper working order and properly calibrated; and
- NOx and CO generation is minimized.

Monitoring: Compliance is demonstrated through recordkeeping.

**Recordkeeping:** The permittee shall keep records describing the specific work conducted to meet the requirements of this Condition, of Consent Decree D101-CV-2008-02777, and Conditions B109.A and B.

**Reporting:** The permittee shall report according to Section B110.

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#### E. Pound Per Hour NOx Emission Limits – Boiler 8 (Unit EPN-1)

**Requirement:** EPN-1 (Boiler 8) shall meet the NOx pound per hour emission limits in Table 106A. These limits were used as assumptions in air dispersion modeling to determine compliance with the NO<sub>2</sub> Ambient Air Quality Standards and PSD Class II increment.

NOx emissions from Boiler 8 shall be limited to 415.0 pph, except for up to 7 hours of every 24-hour period. For 7 hours of every 24-hour period, NOx may be emitted up to 460.5 pph. At no time shall Boiler 8 NOx emissions exceed 460.5 pph. Each 24-hr period shall start at 12 Midnight.

#### (NSR 1554-M1, Condition A402.A)

**Monitoring:** NOx pph emissions shall be monitored with a CEMS.

**Recordkeeping:** Records shall be kept of the following Boiler 8 information:

- the CEMS NOx pph emissions during each hour of operation and
- the total number of hours during each 24-hour period of pph emission rates above 415.0 pph.

**Reporting:** The permittee shall report according to Section B110.

#### F. PM2.5 Emission Limits – Boiler 6 (Unit EPN-3)

**Requirement:** The deration of Boiler 6 and corresponding PM2.5 emission limit in Table 106.A became effective 30 days before first fuel firing of Turbine GT-9 and remains in effect for as long as Turbine GT-9 is in operation.

Compliance with the PM2.5 emission limit shall be determined with the heat rate monitoring data (MMBtu/time) and the PM2.5 emission factor (lb/MMBtu) determined through the PM2.5 filterable and condensable particulate matter stack testing that was required by Condition A402.C in NSR Permit No. 1554-M1.

Until an emission factor was determined through testing, the permittee was required to use 7.6 lb/MMScf to calculate PM2.5 tpy emissions. Once the emission factor was determined through testing, the permittee was required to re-calculate the tpy PM2.5 emissions starting 30 days before first fuel firing of the turbine using the emission factor developed through testing. This retroactive tpy calculation shall be compared with the PM2.5 emission limit to determine compliance.

#### (NSR 1554-M1, Condition A402.B, revised)

#### Monitoring:

#### Heat Rate

The Boiler 6 heat rate per time (MMBtu/time) shall be monitored using a Continuous Emissions Monitoring System (CEMS). The heat rate monitoring is effective and began at least 30 days before first fuel firing of Turbine GT-9.

### Recordkeeping:

## Monthly and Annual Heat Rate

Records shall be kept of the total heat rate each month (MMBtu/mo) and of the total annual heat rate as a monthly rolling 12-month total (MMBtu/yr). The heat rate recordkeeping is effective

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and began at least 30 days before first fuel firing of Turbine GT-9.

#### **PM Emission Factors**

- Pound per hour test results and the corresponding hourly heat rate (MMBtu/hr) from each valid test run required by Condition A402.C in NSR Permit No. 1554-M1 shall be averaged to determine final lb/hr and MMBtu/hr rates.
- These results shall be used to calculate an actual PM2.5 emission factor in lb/MMBtu using the following equation: lb/hr x hr/MMBtu = lb/MMBtu.
- Records shall be kept of the lb/hr rates for PM2.5 emissions measured through the NSR Permit No. 1554-M1 stack testing; of the hourly MMBtu/hr rates recorded by the CEMS during testing; of the calculations used to determine the average lb/hr and MMBtu/hr rates; and of the calculations used to determine the actual PM2.5 emission factor in lb/MMBtu.

#### **TPY PM Emission Rates**

- The TPY PM2.5 recordkeeping is effective and began at least 30 days before first fuel firing of Turbine GT-9.
- Records shall be kept of the total ton per month emission rate for PM2.5 using the monthly heat rate data (MMBtu/mo) and the PM2.5 emission factor (lb/MMBtu) determined through stack testing in NSR Permit No. 1554-M1, Condition A402.C.
- The following equation shall be used to calculate actual ton/month PM2.5 emission rates: lb/MMBtu x MMBtu/mo x 1 ton/2000 lbs = ton/month PM2.5.
- A monthly rolling 12-month total of PM2.5 ton per year emission rate shall be determined using the calculated ton/month PM2.5 emission rates.

The permittee shall also comply with the recordkeeping requirements in Conditions B109.A and B.

Reporting: The permittee shall report according to Section B110.

#### A403 Engines

# A. 20.2.61 NMAC Opacity Requirements - Units EG-1 and SE-1

**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:

- (1) 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.
- (2) Alternatively for any compression ignition engine, if visible emissions are observed during

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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:

- 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.
- 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:

If any visible emissions observations were conducted, the permittee shall keep records in accordance with the requirements of Section B109 and as follows:

- 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.
- 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.
- 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 report in accordance with Section B110.

#### B. Operating Hour Limits – Units EG-1 and SE-1

Requirement: The permittee shall limit operating hours of the standby emergency generators as follows:

- Unit EG-1 500 hrs/yr to meet the minor NSR exemption at 20.2.72.202.B(3) NMAC
- Unit SE-1 416 hrs/yr to meet the tpy emission rates used in PSD applicability determination

Monitoring: The permittee shall monitor operating hours of each generator engine.

**Recordkeeping:** During the first 12-months of monitoring, records shall be kept of the 12-month total operating hours for each unit.

After the first 12-months of monitoring, records shall be kept of the monthly rolling 12-month total operating hours.

**Reporting:** The permittee shall report according to Section B110.

### C. 40 CFR 60, Subpart IIII – Units EG-1 and SE-1

**Requirement:** Units EG-1 and SE-1 are subject to 40 CFR 60, Subparts A and IIII, including emissions standards cited in Condition A106.F. The permittee shall comply with all applicable

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#### requirements in Subparts A and IIII.

**Monitoring:** The permittee shall comply with all applicable monitoring and testing requirements in 40 CFR 60, Subpart A and Subpart IIII, including but not limited to 60.4211.

The permittee is not required to install a non-resettable hour meter on either unit since they meet non-emergency engine emissions standards (60.4209(a) and 60.4214(b)).

**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.

The units are not subject to the annual report at 60.4214.

#### D. 40 CFR 63, Subpart ZZZZ – Units EG-1 and SE-1

**Requirement:** Units EG-1 and SE-1 are subject to 40 CFR 63, Subpart ZZZZ and the permittee shall comply with all applicable requirements of Subpart A and Subpart ZZZZ.

These units must meet the definition of emergency stationary RICE in 63.6675 and the operating limitations in 63.6640(f) or they will be subject to Subpart ZZZZ as non-emergency engines.

Per 63.6590(c)(1), the units meet the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart IIII.

**Monitoring:** The permittee shall comply with all applicable monitoring requirements of 40 CFR 63, Subpart A and Subpart ZZZZ.

The permittee is not required to install a non-resettable hour meter on either unit since they are new units at an area HAP source (63.6625(d), (f) and 63.6655(f)).

**Recordkeeping:** The permittee shall comply with all applicable recordkeeping requirements of 40 CFR 63, Subpart A and Subpart ZZZZ, including but not limited to 63.6655 and 63.10.

**Reporting:** The permittee shall comply with all applicable reporting requirements of 40 CFR 63, Subpart A and ZZZZ, including but not limited to 63.6645, 63.6650, 63.9, and 63.10.

#### A404 Heaters - Not Required

# A405 Cooling Towers

#### A. Cooling Tower Requirements - F-1 (F-1 includes Cooling Towers 6, 7, and 8)

**Requirement:** The permittee shall demonstrate compliance with Cooling Tower allowable emissions designated under Unit F-1 in Table 106.A by the following.

- All cooling towers shall be equipped with a drift eliminator and designed, operated, and maintained according to manufacturer's specifications, or equivalent, so that the following drift rates are met:
  - o 0.005 lb H<sub>2</sub>O drift / 100 lb H<sub>2</sub>O Cooling Towers 6 and 7

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- o 0.002 lb H<sub>2</sub>O drift / 100 lb H<sub>2</sub>O Cooling Tower 8
- The total dissolved solids (TDS) in each Cooling Tower's water shall not exceed 9,000 ppmw.
- The circulation rate of each Cooling Tower's water pumps shall not exceed the following gallons per minute (gpm):
  - o 33,600 Cooling Tower 6
  - o 24,000 Cooling Tower 7
  - o 55,000 Cooling Tower 8

**Monitoring:** The permittee shall monitor the following parameters during Cooling Tower operation.

- At least once per month, inspect to verify that the drift eliminator is in place and in good repair.
- At least once per month, monitor the TDS of cooling tower water.
- At least once each calendar day, monitor the circulation rate of operating cooling water pumps.

**Recordkeeping:** Records shall be kept of the following:

- the monthly inspections of the drift eliminator including any repairs or maintenance;
- the manufacturer's design specifications, including the design specifications of the drift eliminators, and the manufacturer's recommended, or equivalent, maintenance procedures; and
- the monthly cooling water TDS.

Records shall also include the maximum circulation rate of the cooling water pumps each calendar day and the methods used to determine the cooling water pump circulation rates. Alternatively, to keeping records of the methods used to determine the cooling water pump circulation rates, the permittee shall keep records demonstrating that the pump design capacity does not exceed the maximum circulation rates required by this condition.

The permittee shall also meet the applicable recordkeeping requirements of Conditions B109.A and B.

**Reporting:** The permittee shall report according to Section B110.

# B. Cooling Tower Requirements – CT-9

**Requirement:** The permittee shall demonstrate compliance with Cooling Tower CT-9 allowable emissions in Table 106. A by the following.

- CT-9 shall be equipped with a drift eliminator and designed, operated, and maintained according to manufacture's specifications, or equivalent, so that the drift rate is 0.001% of the circulation rate or less.
- The total dissolved solids (TDS) in CT-9's water shall not exceed 9,000 ppmw.
- The circulation rate of CT-9's cooling water pumps shall not exceed 6,900 gallons per minute (gpm).

#### (NSR 1554-M1, Condition A405.A)

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**Monitoring:** The permittee shall monitor the following parameters during Cooling Tower CT-9 operation.

- At least once per month, inspect to verify that the drift eliminator is in place and in good repair.
- At least once per month, monitor the TDS of the cooling tower water.
- At least once each calendar day, monitor the circulation rate of the cooling water pumps.

# **Recordkeeping:** Records shall be kept of the following:

- the monthly inspections of the drift eliminator including any repairs or maintenance;
- the manufacturer's design specifications, including the design specifications of the drift eliminators, and manufacturer's recommended, or equivalent, maintenance procedures; and
- the monthly cooling water TDS.

Records shall also include the maximum circulation rate of the cooling water pumps each calendar day and the methods used to determine the cooling water pump circulation rates.

**Reporting:** The permittee shall report according to Section B110.

PART B GENERAL CONDITIONS (Attached)

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

# Air Quality Bureau TITLE V OPERATING PERMIT

# **Issued under 20.2.70 NMAC**

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#### PART B GENERAL CONDITIONS

#### **B100** Introduction

A. Not Applicable

#### B101 Legal

- A. Permit Terms and Conditions (20.2.70 sections 7, 201.B, 300, 301.B, 302, 405 NMAC)
  - (1) The permittee shall abide by all terms and conditions of this permit, except as allowed under Section 502(b)(10) of the Federal Act, and 20.2.70.302.H.1 NMAC. Any permit noncompliance is grounds for enforcement action, and significant or repetitious noncompliance may result in termination of this permit. Additionally, noncompliance with federally enforceable conditions of this permit constitutes a violation of the Federal Act. (20.2.70.302.A.2.a NMAC)
  - (2) Emissions trading within a facility (20.2.70.302.H.2 NMAC)
    - (a) The Department shall, if an applicant requests it, issue permits that contain terms and conditions allowing for the trading of emissions increases and decreases in the permitted facility solely for the purpose of complying with a federally enforceable emissions cap that is established in the permit in addition to any applicable requirements. Such terms and conditions shall include all terms and conditions required under 20.2.70.302 NMAC to determine compliance. If applicable requirements apply to the requested emissions trading, permit conditions shall be issued only to the extent that the applicable requirements provide for trading such increases and decreases without a case-by-case approval.
    - (b) The applicant shall include in the application proposed replicable procedures and permit terms that ensure the emissions trades are quantifiable and enforceable. The Department shall not include in the emissions trading provisions any emissions units for which emissions are not quantifiable or for which there are no replicable procedures to enforce the emissions trades. The permit shall require compliance with all applicable requirements.
  - (3) It shall not be a defense for the permittee in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (20.2.70.302.A.2.bNMAC)
  - (4) If the Department determines that cause exists to modify, reopen and revise, revoke and reissue, or terminate this permit, this shall be done in accordance with 20.2.70.405 NMAC. (20.2.70.302.A.2.c NMAC)
  - (5) The permittee shall furnish any information the Department requests in writing to determine if cause exists for reopening and revising, revoking and reissuing, or

- terminating the permit, or to determine compliance with the permit. This information shall be furnished within the time period specified by the Department. Additionally, the permittee shall furnish, upon request by the Department, copies of records required by the permit to be maintained by the permittee. (20.2.70.302.A.2.fNMAC)
- (6) A request by the permittee that this permit be modified, revoked and reissued, or terminated, or a notification by the permittee of planned changes or anticipated noncompliance, shall not stay any conditions of this permit. (20.2.70.302.A.2.d NMAC)
- (7) This permit does not convey property rights of any sort, or any exclusive privilege. (20.2.70.302.A.2.e NMAC)
- (8) In the case where an applicant or permittee has submitted information to the Department under a claim of confidentiality, the Department may also require the applicant or permittee to submit a copy of such information directly to the Administrator of the EPA. (20.2.70.301.B NMAC)
- (9) The issuance of this permit, or the filing or approval of a compliance plan, does not relieve the permittee from civil or criminal liability for failure to comply with the state or Federal Acts, or any applicable state or federal regulation or law. (20.2.70.302.A.6 NMAC and the New Mexico Air Quality Control Act NMSA 1978, Chapter 74, Article 2)
- (10) If any part of this permit is challenged or held invalid, the remainder of the permit terms and conditions are not affected and the permittee shall continue to abide by them. (20.2.70.302.A.1.d NMAC)
- (11) A responsible official (as defined in 20.2.70.7.AE NMAC) shall certify the accuracy, truth and completeness of every report and compliance certification submitted to the Department as required by this permit. These certifications shall be part of each document. (20.2.70.300.E NMAC)
- (12) Revocation or termination of this permit by the Department terminates the permittee's right to operate this facility. (20.2.70.201.B NMAC)
- (13) The permittee shall continue to comply with all applicable requirements. For applicable requirements that will become effective during the term of the permit, the permittee shall meet such requirements on a timely basis. (Sections 300.D.10.c and 302.G.3 of 20.2.70 NMAC)

#### B. Permit Shield (20.2.70.302.J NMAC)

(1) Compliance with the conditions of this permit shall be deemed to be compliance with any applicable requirements existing as of the date of permit issuance and identified in Table 103.A. The requirements in Table 103.A are applicable to this facility with specific requirements identified for individual emission units.

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- (2) The Department has determined that the requirements in Table 103.B as identified in the permit application are not applicable to this source, or they do not impose any conditions in this permit.
- (3) This permit shield does not extend to administrative amendments (Subsection A of 20.2.70.404 NMAC), to minor permit modifications (Subsection B of 20.2.70.404 NMAC), to changes made under Section 502(b)(10), changes under Paragraph 1 of subsection H of 20.2.70.302 of the Federal Act, or to permit terms for which notice has been given to reopen or revoke all or part under 20.2.70.405 and 20.2.70.302J(6).
- (4) This permit shall, for purposes of the permit shield, identify any requirement specifically identified in the permit application or significant permit modification that the department has determined is not applicable to the source, and state the basis for any such determination. (20.2.70.302.A.1.f NMAC)
- C. The owner or operator of a source having an excess emission shall, to the extent practicable, operate the source, including associated air pollution control equipment, in a manner consistent with good air pollutant control practices for minimizing emissions. (20.2.7.109 NMAC). The establishment of allowable malfunction emission limits does not supersede this requirement.

# **B102** Authority

- A. This permit is issued pursuant to the federal Clean Air Act ("Federal Act"), the New Mexico Air Quality Control Act ("State Act") and regulations adopted pursuant to the State and Federal Acts, including Title 20, New Mexico Administrative Code, Chapter 2, Part 70 (20.2.70 NMAC) Operating Permits.
- B. This permit authorizes the operation of this facility. This permit is valid only for the named permittee, owner, and operator. A permit modification is required to change any of those entities.
- C. The Department specifies with this permit, terms and conditions upon the operation of this facility to assure compliance with all applicable requirements, as defined in 20.2.70 NMAC at the time this permit is issued. (20.2.70.302.A.1 NMAC)
- D. Pursuant to the New Mexico Air Quality Control Act NMSA 1978, Chapter 74, Article 2, all terms and conditions in this permit, including any provisions designed to limit this facility's potential to emit, are enforceable by the Department. All terms and conditions are enforceable by the Administrator of the United States Environmental Protection Agency ("EPA") and citizens under the Federal Act, unless the term or condition is specifically designated in this permit as not being enforceable under the Federal Act. (20.2.70.302.A.5 NMAC)

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E. The Department is the Administrator for 40 CFR Parts 60, 61, and 63 pursuant to the Modification and Exceptions of Section 10 of 20.2.77 NMAC (NSPS), 20.2.78 NMAC (NESHAP), and 20.2.82 NMAC (MACT).

#### **B103** Annual Fee

A. The permittee shall pay Title V fees to the Department consistent with the fee schedule in 20.2.71 NMAC - Operating Permit Emission Fees. The fees will be assessed and invoiced separately from this permit. (20.2.70.302.A.1.e NMAC)

#### **B104** Appeal Procedures

(20.2.70.403.A NMAC)

A. Any person who participated in a permitting action before the Department and who is adversely affected by such permitting action, may file a petition for a hearing before the Environmental Improvement Board ("board"). The petition shall be made in writing to the board within thirty (30) days from the date notice is given of the Department's action and shall specify the portions of the permitting action to which the petitioner objects, certify that a copy of the petition has been mailed or hand-delivered, and attach a copy of the permitting action for which review is sought. Unless a timely request for a hearing is made, the decision of the Department shall be final. The petition shall be copied simultaneously to the Department upon receipt of the appeal notice. If the petitioner is not the applicant or permittee, the petitioner shall mail or hand-deliver a copy of the petition to the applicant or permittee. The Department shall certify the administrative record to the board. Petitions for a hearing shall be sent to:

For Mailing:

Administrator, New Mexico Environmental Improvement Board P.O. Box 5469 Santa Fe, NM 87502-5469

For Hand Delivery:

Administrator, New Mexico Environmental Improvement Board 1190 St. Francis Drive, Harold Runnels Bldg. Santa Fe, New Mexico 87505

#### **B105** Submittal of Reports and Certifications

- A. Stack Test Protocols and Stack Test Reports shall be submitted electronically to Stacktest. AQB@state.nm.us or as directed by the Department.
- B. Excess Emission Reports shall be submitted as directed by the Department. (20.2.7.110 NMAC)
- C. Compliance Certification Reports, Semi-Annual monitoring reports, compliance schedule progress reports, and any other compliance status information required by this permit shall

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be certified by the responsible official and submitted to the mailing address below, or as directed by the Department:

Manager, Compliance and Enforcement Section New Mexico Environment Department Air Quality Bureau 525 Camino de los Marquez Suite 1 Santa Fe, NM 87505-1816

D. Compliance Certification Reports shall also be submitted to the Administrator at the address below (20.2.70.302.E.3 NMAC):

Chief, Air Enforcement Section US EPA Region-6, R6 ECD-A 1201 Elm Street, Suite 500 Dallas, TX 75270

# B106 NSPS and/or MACT Startup, Shutdown, and Malfunction Operations

- A. If a facility is subject to a NSPS standard in 40 CFR 60, each owner or operator that installs and operates a continuous monitoring device required by a NSPS regulation shall comply with the excess emissions reporting requirements in accordance with 40 CFR 60.7(c).
- B. If a facility is subject to a NSPS standard in 40 CFR 60, then in accordance with 40 CFR 60.8(c), operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.
- C. If a facility is subject to a MACT standard in 40 CFR 63, then the facility is subject to the requirement for a Startup, Shutdown and Malfunction Plan (SSM) under 40 CFR 63.6(e)(3), unless specifically exempted in the applicable subpart. (20.2.70.302.A.1 and A.4 NMAC)

#### B107 Startup, Shutdown, and Maintenance Operations

A. The establishment of permitted startup, shutdown, and maintenance (SSM) emission limits does not supersede the requirements of 20.2.7.14.A NMAC. Except for operations or equipment subject to Condition B106, the permittee shall establish and implement a plan to minimize emissions during routine or predictable start up, shut down, and scheduled maintenance (SSM work practice plan) and shall operate in accordance with the procedures set forth in the plan. (20.2.7.14.A NMAC)

#### **B108** General Monitoring Requirements

(20.2.70.302.A and C NMAC)

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A. These requirements do not supersede or relax requirements of federal regulations.

- B. The following monitoring and/or testing requirements shall be used to determine compliance with applicable requirements and emission limits. Any sampling, whether by portable analyzer or EPA reference method, that measures an emission rate over the applicable averaging period greater than an emission limit in this permit constitutes noncompliance with this permit. The Department may require, at its discretion, additional tests pursuant to EPA Reference Methods at any time, including when sampling by portable analyzer measures an emission rate greater than an emission limit in this permit; but such requirement shall not be construed as a determination that the sampling by portable analyzer does not establish noncompliance with this permit and shall not stay enforcement of such noncompliance based on the sampling by portable analyzer.
- C. If the emission unit is shutdown at the time when periodic monitoring is due to be completed, the permittee is not required to restart the unit for the sole purpose of conducting the monitoring. Using electronic or written mail, the permittee shall notify the Department's Compliance and Enforcement Section of a delay in emission tests prior to the deadline for completing the tests. Upon recommencing operation, the permittee shall submit pre-test notification(s) to the Department's Compliance and Enforcement Section and shall complete the monitoring.
- D. The requirement for monitoring during any monitoring period is based on the percentage of time that the unit has operated. However, to invoke monitoring period exemptions at B108.D(2), hours of operation shall be monitored and recorded.
  - (1) If the emission unit has operated for more than 25% of a monitoring period, then the permittee shall conduct monitoring during that period.
  - (2) If the emission unit has operated for 25% or less of a monitoring period then the monitoring is not required. After two successive periods without monitoring, the permittee shall conduct monitoring during the next period regardless of the time operated during that period, except that for any monitoring period in which a unit has operated for less than 10% of the monitoring period, the period will not be considered as one of the two successive periods.
  - (3) If invoking the monitoring period exemption in B108.D(2), the actual operating time of a unit shall not exceed the monitoring period required by this permit before the required monitoring is performed. For example, if the monitoring period is annual, the operating hours of the unit shall not exceed 8760 hours before monitoring is conducted. Regardless of the time that a unit actually operates, a minimum of one of each type of monitoring activity shall be conducted during the five year term of this permit.
- E. For all periodic monitoring events, except when a federal or state regulation is more stringent, three test runs shall be conducted at 90% or greater of the unit's capacity as stated in this permit, or in the permit application if not in the permit, and at additional loads when requested by the Department. If the 90% capacity cannot be achieved, the monitoring will

be conducted at the maximum achievable load under prevailing operating conditions except when a federal or state regulation requires more restrictive test conditions. The load and the parameters used to calculate it shall be recorded to document operating conditions and shall be included with the monitoring report.

- F. When requested by the Department, the permittee shall provide schedules of testing and monitoring activities. Compliance tests from previous NSR and Title V permits may be reimposed if it is deemed necessary by the Department to determine whether the source is in compliance with applicable regulations or permit conditions.
- G. If monitoring is new or is in addition to monitoring imposed by an existing applicable requirement, it shall become effective 120 days after the date of permit issuance. For emission units that have not commenced operation, the associated new or additional monitoring shall not apply until 120 days after the units commence operation. All pre-existing monitoring requirements incorporated in this permit shall continue to apply from the date of permit issuance. All monitoring periods, unless stated otherwise in the specific permit condition or federal requirement, shall commence at the beginning of the 12 month reporting period as defined at condition A109.B.
- H. Unless otherwise indicated by Specific Conditions or regulatory requirements, all instrumentation used for monitoring in accordance with applicable requirements including emission limits, to measure parameters including but not limited to flow, temperature, pressure and chemical composition, or used to continuously monitor emission rates and/or other process operating parameters, shall be subject to the following requirements:
  - (1) The owner or operator shall install, calibrate, operate and maintain monitoring instrumentation (monitor) according to the manufacturer's procedures and specifications and the following requirements.
    - (a) The monitor shall be located in a position that provides a representative measurement of the parameter that is being monitored.
    - (b) At a minimum, the monitor shall complete one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
    - (c) At a minimum, the monitor shall be spanned to measure the normal range +/- 5% of the parameter that is being monitored.
    - (d) At least semi-annually, perform a visual inspection of all components of the monitor for physical and operational integrity and all electrical connections for oxidation and galvanic corrosion.
    - (e) Recalibrate the monitor in accordance with the manufacturer's procedures and specifications at the frequency specified by the manufacturer, or every two years, whichever is less.
  - (2) Except for malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments), the permittee shall operate and maintain all monitoring equipment at all times that the emissions unit or the associated process is operating.

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- (3) The monitor shall measure data for a minimum of 90 percent of the time that the emissions unit or the associated process is in operation, based on a calendar monthly average.
- (4) The owner or operator shall maintain records in accordance with Section B109 to demonstrate compliance with the requirements in B108H (1)-(3) above, as applicable.
- I. The permittee is not required to report a deviation for any monitoring or testing in a Specific Condition if the deviation was authorized in this General Condition B108.

# **B109** General Recordkeeping Requirements

(20.2.70.302.D NMAC)

- A. The permittee shall maintain records to assure and verify compliance with the terms and conditions of this permit and any applicable requirements that become effective during the term of this permit. The minimum information to be included in these records is as follows (20.2.70.302.D.1 NMAC):
  - (1) Records required for testing and sampling:
    - (a) equipment identification (include make, model and serial number for all tested equipment and emission controls)
    - (b) date(s) and time(s) of sampling or measurements
    - (c) date(s) analyses were performed
    - (d) the qualified entity that performed the analyses
    - (e) analytical or test methods used
    - (f) results of analyses or tests
    - (g) operating conditions existing at the time of sampling or measurement
  - (2) Records required for equipment inspections and/or maintenance required by this permit:
    - (a) equipment identification number (including make, model and serial number)
    - (b) date(s) and time(s) of inspection, maintenance, and/or repair
    - (c) date(s) any subsequent analyses were performed (if applicable)
    - (d) name of the person or qualified entity conducting the inspection, maintenance, and/or repair
    - (e) copy of the equipment manufacturer's or the owner or operator's maintenance or repair recommendations (if required to demonstrate compliance with a permit condition)
    - (f) description of maintenance or repair activities conducted

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(g)

- (h) a description of the physical condition of the equipment as found during any required inspection
- (i) results of required equipment inspections including a description of any condition which required adjustment to bring the equipment back into compliance and a description of the required adjustments
- B. The permittee shall keep records of all monitoring data, equipment calibration, maintenance, and inspections, Data Acquisition and Handling System (DAHS) if used, reports, and other supporting information required by this permit for at least five (5) years from the time the data was gathered or the reports written. Each record shall clearly identify the emissions unit and/or monitoring equipment, and the date the data was gathered. (20.2.70.302.D.2 NMAC)

all results of any required parameter readings

- C. If the permittee has applied and received approval for an alternative operating scenario, then the permittee shall maintain a log at the facility, which documents, contemporaneously with any change from one operating scenario to another, the scenario under which the facility is operating. (20.2.70.302.A.3 NMAC)
- D. The permittee shall keep a record describing off permit changes made at this source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes. (20.2.70.302.I.2 NMAC)
- E. Unless otherwise indicated by Specific Conditions, the permittee shall keep the following records for malfunction emissions and routine and predictable emissions during startup, shutdown, and scheduled maintenance (SSM):
  - (1) The owner or operator of a source subject to a permit, shall establish and implement a plan to minimize emissions during routine or predictable startup, shutdown, and scheduled maintenance through work practice standards and good air pollution control practices. This requirement shall not apply to any affected facility defined in and subject to an emissions standard and an equivalent plan under 40 CFR Part 60 (NSPS), 40 CFR Part 63 (MACT), or an equivalent plan under 20.2.72 NMAC Construction Permits, 20.2.70 NMAC Operating Permits, 20.2.74 NMAC Permits Prevention of Significant Deterioration (PSD), or 20.2.79 NMAC Permits Nonattainment Areas. (20.2.7.14.A NMAC) The permittee shall keep records of all sources subject to the plan to minimize emissions during routine or predictable SSM and shall record if the source is subject to an alternative plan and therefore, not subject to the plan requirements under 20.2.7.14.A NMAC.
  - (2) If the facility has allowable SSM emission limits in this permit, the permittee shall record all SSM events, including the date, the start time, the end time, a description of the event, and a description of the cause of the event. This record also shall include a copy of the manufacturer's, or equivalent, documentation showing that any maintenance qualified as scheduled. Scheduled maintenance is an activity that

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- occurs at an established frequency pursuant to a written protocol published by the manufacturer or other reliable source. The authorization of allowable SSM emissions does not supersede any applicable federal or state standard. The most stringent requirement applies.
- (3) If the facility has allowable malfunction emission limits in this permit, the permittee shall record all malfunction events to be applied against these limits. The permittee shall also include the date, the start time, the end time, and a description of the event. **Malfunction means** any sudden and unavoidable failure of air pollution control equipment or process equipment beyond the control of the owner or operator, including malfunction during startup or shutdown. A failure that is caused entirely or in part by poor maintenance, careless operation, or any other preventable equipment breakdown shall not be considered a malfunction. (20.2.7.7.E NMAC) The authorization of allowable malfunction emissions does not supersede any applicable federal or state standard. The most stringent requirement applies. This authorization only allows the permittee to avoid submitting reports under 20.2.7 NMAC for total annual emissions that are below the authorized malfunction emission limit.
- (4) The owner or operator of a source shall meet the operational plan defining the measures to be taken to mitigate source emissions during malfunction, startup or shutdown. (20.2.72.203.A(5) NMAC)

# **B110** General Reporting Requirements

(20.2.70.302.E NMAC)

- A. Reports of required monitoring activities for this facility shall be submitted to the Department on the schedule in section A109. Monitoring and recordkeeping requirements that are not required by a NSPS or MACT shall be maintained on-site or (for unmanned sites) at the nearest company office, and summarized in the semi-annual reports, unless alternative reporting requirements are specified in the equipment specific requirements section of this permit.
- B. Reports shall clearly identify the subject equipment showing the emission unit ID number according to this operating permit. In addition, all instances of deviations from permit requirements, including those that occur during emergencies, shall be clearly identified in the reports required by section A109. (20.2.70.302.E.1 NMAC)
- C. The permittee shall submit reports of all deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. These reports shall be submitted as follows:
  - (1) Deviations resulting in excess emissions as defined in 20.2.7.7 NMAC (including those classified as emergencies as defined in section B114.A) shall be reported in

- accordance with the timelines specified by 20.2.7.110 NMAC and in the semi-annual reports required in section A109. (20.2.70.302.E.2 NMAC)
- (2) All other deviations shall be reported in the semi-annual reports required in section A109. (20.2.70.302.E.2 NMAC).
- D. The permittee shall submit reports of excess emissions in accordance with 20.2.7.110.A NMAC.
- E. Allowable Emission Limits for Excess Emissions Reporting for Flares and Other Regulated Sources with No Pound per Hour (pph) and/or Ton per Year (tpy) Emission Limits.
  - (1) When a flare has no allowable pph and/or tpy emission limits in Sections A106 and/or A107, the authorized allowable emissions include only the combustion of pilot and/or purge gas. Compliance is demonstrated by limiting the gas stream to the flare to only pilot and/or purge gas.
  - (2) For excess emissions reporting as required by 20.2.7 NMAC, the allowable emission limits are 1.0 pph and 1.0 tpy for each regulated air pollutant (except for H2S) emitted by that source as follows:
    - (a) For flares, when there are no allowable emission limits in Sections A106 and/or A107.
    - (b) For regulated sources with emission limits in Sections A106 or A107 represented by the less than sign ("<").
    - (c) For regulated sources that normally would not emit any regulated air pollutants, including but not limited to vents, pressure relief devices, connectors, etc.
    - (3) For excess emissions reporting as required by 20.2.7 NMAC for H2S, the allowable limits are 0.1 pph and 0.44 tpy for each applicable scenario addressed in paragraph (2) above.
- F. Results of emission tests and monitoring for each pollutant (except opacity) shall be reported in pounds per hour (unless otherwise specified) and tons per year. Opacity shall be reported in percent. The number of significant figures corresponding to the full accuracy inherent in the testing instrument or Method test used to obtain the data shall be used to calculate and report test results in accordance with 20.2.1.116.B and C NMAC. Upon request by the Department, CEMS and other tabular data shall be submitted in editable, MS Excel format.
- G. At such time as new units are installed as authorized by the applicable NSR Permit, the permittee shall fulfill the notification requirements in the NSR permit.
- H. Periodic Emissions Test Reporting: The permittee shall report semi-annually a summary of the test results.

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I. The permittee shall submit an emissions inventory report for this facility in accordance with the schedule in subparagraph (5), provided one or more of the following criteria is met in subparagraphs (1) to (4): (20.2.73 NMAC)

- (1) The facility emits, or has the potential to emit, 5 tons per year or more of lead or lead compounds, or 100 tons per year or more of PM10, PM2.5, sulfur oxides, nitrogen oxides, carbon monoxide, or volatile organic compounds.
- (2) The facility is defined as a major source of hazardous air pollutants under 20.2.70 NMAC (Operating Permits).
- (3) The facility is located in an ozone nonattainment area and which emits, or has the potential to emit, 25 tons per year or more of nitrogen oxides or volatile organic compounds.
- (4) Upon request by the department.
- (5) The permittee shall submit the emissions inventory report by April 1 of each year, unless a different deadline is specified by the current operating permit.
- J. Emissions trading within a facility (20.2.70.302.H.2 NMAC)
  - (1) For each such change, the permittee shall provide written notification to the department and the administrator at least seven (7) days in advance of the proposed changes. Such notification shall state when the change will occur and shall describe the changes in emissions that will result and how these increases and decreases in emissions will comply with the terms and conditions of the permit.
  - (2) The permittee and department shall attach each such notice to their copy of the relevant permit.

#### **B111** General Testing Requirements

Unless otherwise indicated by Specific Conditions or regulatory requirements, the permittee shall conduct testing in accordance with the requirements in Sections B111A, B, C, D and E, as applicable.

## A. Initial Compliance Tests

The permittee shall conduct initial compliance tests in accordance with the following requirements:

- (1) Initial compliance test requirements from previous permits (if any) are still in effect, unless the tests have been satisfactorily completed. Compliance tests may be reimposed if it is deemed necessary by the Department to determine whether the source is in compliance with applicable regulations or permit conditions. (20.2.72 NMAC Sections 210.C and 213)
- (2) Initial compliance tests shall be conducted within sixty (60) days after the unit(s) achieve the maximum normal production rate. If the maximum normal production rate does not occur within one hundred twenty (120) days of source startup, then

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the tests must be conducted no later than one hundred eighty (180) days after initial startup of the source.

- (3) The default time period for each test run shall be at least 60 minutes and each performance test shall consist of three separate runs using the applicable test method. For the purpose of determining compliance with an applicable emission limit, the arithmetic mean of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Department approval, be determined using the arithmetic mean of the results of the two other runs.
- (4) Testing of emissions shall be conducted with the emissions unit operating at 90 to 100 percent of the maximum operating rate allowed by the permit. If it is not possible to test at that rate, the source may test at a lower operating rate.
- (5) Testing performed at less than 90 percent of permitted capacity will limit emission unit operation to 110 percent of the tested capacity until a new test is conducted.
- (6) If conditions change such that unit operation above 110 percent of tested capacity is possible, the source must submit a protocol to the Department within 30 days of such change to conduct a new emissions test.

#### B. EPA Reference Method Tests

The test methods in Section B111.B(1) shall be used for all initial compliance tests and all Relative Accuracy Test Audits (RATAs), and shall be used if a permittee chooses to use EPA test methods for periodic monitoring. Test methods that are not listed in Section B111.B(1) may be used in accordance with the requirements at Section B111.B(2).

- (1) All compliance tests required by this permit shall be conducted in accordance with the requirements of CFR Title 40, Part 60, Subpart A, General Provisions, and the following EPA Reference Methods as specified by CFR Title 40, Part 60, Appendix A:
  - (a) Methods 1 through 4 for stack gas flowrate
  - (b) Method 5 for particulate matter (PM)
  - (c) Method 6C for SO<sub>2</sub>
  - (d) Method 7E for  $NO_X$  (test results shall be expressed as nitrogen dioxide ( $NO_2$ ) using a molecular weight of 46 lb/lb-mol in all calculations (each ppm of  $NO/NO_2$  is equivalent to 1.194 x 10-7 lb/SCF)
  - (e) Method 9 for visual determination of opacity
  - (f) Method 10 for CO

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- (g) Method 19 for particulate, sulfur dioxide and nitrogen oxides emission rates. In addition, Method 19 may be used in lieu of Methods 1-4 for stack gas flowrate. The permittee shall provide a contemporaneous fuel gas analysis (preferably on the day of the test, but no earlier than three months prior to the test date) and a recent fuel flow meter calibration certificate (within the most recent quarter) with the final test report.
- (h) Method 7E or 20 for Turbines per §60.335 or §60.4400
- (i) Method 22 for visual determination of fugitive emissions from material sources and smoke emissions from flares
- (j) Method 25A for VOC reduction efficiency
- (k) Method 29 for Metals
- (l) Method 30B for Mercury from Coal-Fired Combustion Sources Using Carbon Sorbent Traps
- (m) Method 201A for filterable  $PM_{10}$  and  $PM_{2.5}$
- (n) Method 202 for condensable PM
- (o) Method 320 for organic Hazardous Air Pollutants (HAPs)
- (2) Permittees may propose test method(s) that are not listed in Section B111.B(1). These methods may be used if prior approval is received from the Department.
- C. Periodic Monitoring and Portable Analyzer Requirements for the Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters

Periodic emissions tests (periodic monitoring) shall be conducted in accordance with the following requirements:

- (1) Periodic emissions tests may be conducted in accordance with EPA Reference Methods or by utilizing a portable analyzer. Periodic monitoring utilizing a portable analyzer shall be conducted in accordance with the requirements of the current version of ASTM D 6522. However, if a facility has met a previously approved Department criterion for portable analyzers, the analyzer may be operated in accordance with that criterion until it is replaced.
- (2) The default time period for each test run shall be at least 20 minutes.
  - Each performance test shall consist of three separate runs. The arithmetic mean of results of the three runs shall be used to determine compliance with the applicable emission limit.
- (3) Testing of emissions shall be conducted in accordance with the requirements at Section B108.E.
- (4) During emissions tests, pollutant and diluent concentration shall be monitored and recorded. Fuel flow rate shall be monitored and recorded if stack gas flow rate is

determined utilizing Reference Method 19. This information shall be included with the test report furnished to the Department.

- (5) Stack gas flow rate shall be calculated in accordance with Reference Method 19 utilizing fuel flow rate (scf) determined by a dedicated fuel flow meter and fuel heating value (Btu/scf). The permittee shall provide a contemporaneous fuel gas analysis (preferably on the day of the test, but no earlier than three months prior to the test date) and a recent fuel flow meter calibration certificate (within the most recent quarter) with the final test report. Alternatively, stack gas flow rate may be determined by using EPA Reference Methods 1-4.
- (6) The permittee shall submit a notification and protocol for periodic emissions tests upon the request of the Department.

## D. Initial Compliance Test and RATA Procedures

Permittees required to conduct initial compliance tests and/or RATAs shall comply with the following requirements:

- (1) The permittee shall submit a notification and test protocol to the Department's Program Manager, Compliance and Enforcement Section, at least thirty (30) days before the test date and allow a representative of the Department to be present at the test. Proposals to use test method(s) that are not listed in Section B111.B(1) (if applicable) shall be included in this notification.
- (2) Contents of test notifications, protocols and test reports shall conform to the format specified by the Department's Universal Test Notification, Protocol and Report Form and Instructions. Current forms and instructions are posted to NMED's Air Quality web site under Compliance and Enforcement Testing.
- (3) The permittee shall provide (a) sampling ports adequate for the test methods applicable to the facility, (b) safe sampling platforms, (c) safe access to sampling platforms and (d) utilities for sampling and testing equipment.
- (4) Where necessary to prevent cyclonic flow in the stack, flow straighteners shall be installed

### E. General Compliance Test Procedures

The following requirements shall apply to all initial compliance and periodic emissions tests and all RATAs:

- (1) Equipment shall be tested in the "as found" condition. Equipment may not be adjusted or tuned prior to any test for the purpose of lowering emissions, and then returned to previous settings or operating conditions after the test is complete.
- (2) The stack shall be of sufficient height and diameter and the sample ports shall be located so that a representative test of the emissions can be performed in accordance with the requirements of EPA Reference Method 1 or the current version of ASTM D 6522, as applicable.

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(3) Test reports shall be submitted to the Department no later than 30 days after completion of the test.

## B112 Compliance

- A. The Department shall be given the right to enter the facility at all reasonable times to verify the terms and conditions of this permit. Required records shall be organized by date and subject matter and shall at all times be readily available for inspection. The permittee, upon verbal or written request from an authorized representative of the Department who appears at the facility, shall immediately produce for inspection or copying any records required to be maintained at the facility. Upon written request at other times, the permittee shall deliver to the Department paper or electronic copies of any and all required records maintained on site or at an off-site location. Requested records shall be copied and delivered at the permittee's expense within three business days from receipt of request unless the Department allows additional time. Required records may include records required by permit and other information necessary to demonstrate compliance with terms and conditions of this permit. (NMSA 1978, Section 74-2-13)
- B. A copy of the most recent permit(s) issued by the Department shall be kept at the permitted facility or (for unmanned sites) at the nearest company office and shall be made available to Department personnel for inspection upon request. (20.2.70.302.G.3 NMAC)
- C. Emissions limits associated with the energy input of a Unit, i.e. lb/MMBtu, shall apply at all times unless stated otherwise in a Specific Condition of this permit. The averaging time for each emissions limit, including those based on energy input of a Unit (i.e. lb/MMBtu) is one (1) hour unless stated otherwise in a Specific Condition of this permit or in the applicable requirement that establishes the limit. (20.2.70.302.A.1 and G.3 NMAC)
- D. The permittee shall submit compliance certification reports certifying the compliance status of this facility with respect to all permit terms and conditions, including applicable requirements. These reports shall be made on the pre-populated Compliance Certification Report Form that is provided to the permittee by the Department, and shall be submitted to the Department and to EPA at least every 12 months. For the most current form, please contact the Compliance Reports Group at: <a href="mailto:submittals.aqb@state.nm.us">submittals.aqb@state.nm.us</a>. For additional reporting guidance see <a href="https://www.env.nm.gov/air-quality/compliance-submittal-forms/">https://www.env.nm.gov/air-quality/compliance-submittal-forms/</a> (20.2.70.302.E.3 NMAC)
- E. The permittee shall allow representatives of the Department, upon presentation of credentials and other documents as may be required by law, to do the following (20.2.70.302.G.1 NMAC):
  - (1) enter the permittee's premises where a source or emission unit is located, or where records that are required by this permit to be maintained are kept;
  - (2) have access to and copy, at reasonable times, any records that are required by this permit to be maintained;

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(3) inspect any facilities, equipment (including monitoring and air pollution control equipment), work practices or operations regulated or required under this permit, and

(4) sample or monitor any substances or parameters for the purpose of assuring compliance with this permit or applicable requirements or as otherwise authorized by the Federal Act.

### **B113** Permit Reopening and Revocation

- A. This permit will be reopened and revised when any one of the following conditions occurs, and may be revoked and reissued when A(3) or A(4) occurs. (20.2.70.405.A.1 NMAC)
  - (1) Additional applicable requirements under the Federal Act become applicable to a major source three (3) or more years before the expiration date of this permit. If the effective date of the requirement is later than the expiration date of this permit, then the permit is not required to be reopened unless the original permit or any of its terms and conditions has been extended due to the Department's failure to take timely action on a request by the permittee to renew this permit.
  - (2) Additional requirements, including excess emissions requirements, become applicable to this source under Title IV of the Federal Act (the acid rain program). Upon approval by the Administrator, excess emissions offset plans will be incorporated into this permit.
  - (3) The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the terms and conditions of the permit.
  - (4) The Department or the Administrator determines that the permit must be revised or revoked and reissued to assure compliance with an applicable requirement.
- B. Proceedings to reopen or revoke this permit shall affect only those parts of this permit for which cause to reopen or revoke exists. Emissions units for which permit conditions have been revoked shall not be operated until new permit conditions have been issued for them. (20.2.70.405.A.2 NMAC)

# B114 Emergencies

(20.2.70.304 NMAC)

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

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- B. An emergency constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations contained in this permit if the permittee has demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - (1) An emergency occurred and that the permittee can identify the cause(s) of the emergency;
  - (2) This facility was at the time being properly operated;
  - (3) During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit; and
  - (4) The permittee submitted notice of the emergency to the Department within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice fulfills the requirement of 20.2.70.302.E.2 NMAC. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- C. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- D. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

# **B115** Stratospheric Ozone

 $(2\overline{0.2.70.302.A.1}\,\text{NMAC})$ 

- A. If this facility is subject to 40 CFR 82, Subpart F, the permittee shall comply with the following standards for recycling and emissions reductions:
  - (1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices, except for motor vehicle air conditioners (MVAC) and MVAC-like appliances. (40 CFR 82.156)
  - (2) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment. (40 CFR 82.158)
  - (3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program. (40 CFR 82.161)

## **B116** Acid Rain Sources

(20.2.70.302.A.9 NMAC)

A. If this facility is subject to the federal acid rain program under 40 CFR 72, this section applies.

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B. Where an applicable requirement of the Federal Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Federal Act, both provisions are incorporated into this permit and are federally enforceable.

- C. Emissions exceeding any allowances held by the permittee under Title IV of the Federal Act or the regulations promulgated thereunder are prohibited.
- D. No modification of this permit is required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit modification under any other applicable requirement.
- E. The permittee may not use allowances as a defense to noncompliance with any other applicable requirement.
- F. No limit is placed on the number of allowances held by the acid rain source. Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Federal Act.
- G. The acid rain permit is an enclosure of this operating permit.

## **B117** Risk Management Plan

(20.2.70.302.A.1 NMAC)

- A. If this facility is subject to the federal risk management program under 40 CFR 68, this section applies.
- B. The owner or operator shall certify annually that they have developed and implemented a RMP and are in compliance with 40 CFR 68.
- C. If the owner or operator of the facility has not developed and submitted a risk management plan according to 40 CFR 68.150, the owner or operator shall provide a compliance schedule for the development and implementation of the plan. The plan shall describe, in detail, procedures for assessing the accidental release hazard, preventing accidental releases, and developing an emergency response plan to an accidental release. The plan shall be submitted in a method and format to a central point as specified by EPA prior to the date specified in 40 CFR 68.150.b.

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### PART C MISCELLANEOUS

### **C100** Supporting On-Line Documents

A. Copies of the following documents can be downloaded from NMED's web site under Compliance and Enforcement or requested from the Bureau.

- (1) Excess Emission Form (for reporting deviations and emergencies)
- (2) Compliance Certification Report Form
- (3) Universal Stack Test Notification, Protocol and Report Form and Instructions

#### C101 Definitions

- A. "Daylight" is defined as the time period between sunrise and sunset, as defined by the Astronomical Applications Department of the U.S. Naval Observatory. (Data for one day or a table of sunrise/sunset for an entire year can be obtained at <a href="http://aa.usno.navy.mil/">http://aa.usno.navy.mil/</a>. Alternatively, these times can be obtained from a Farmers Almanac or from <a href="http://www.almanac.com/rise/">http://www.almanac.com/rise/</a>).
- B. "Decommission" and "Decommissioning" applies to units left on site (not removed) and is defined as the complete disconnecting of equipment, emission sources or activities from the process by disconnecting all connections necessary for operation (i.e. piping, electrical, controls, ductwork, etc.).
- C. **"Exempt Sources"** and **"Exempt Activities"** is defined as those sources or activities that are exempted in accordance with 20.2.72.202 NMAC. Note; exemptions are only valid for most 20.2.72 permitting action.
- D. **"Fugitive emission"** means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. (20.2.70.7M NMAC)
- E. "Insignificant Activities" means those activities which have been listed by the department and approved by the administrator as insignificant on the basis of size, emissions or production rate. (20.2.70.7Q NMAC)
- F. "Malfunction" for the requirements under 20.2.7 NMAC, means any sudden and unavoidable failure of air pollution control equipment or process equipment beyond the control of the owner or operator, including malfunction during startup or shutdown. A failure that is caused entirely or in part by poor maintenance, careless operation, or any other preventable equipment breakdown shall not be considered a malfunction.
- G. "Natural Gas" is defined as a naturally occurring fluid mixture of hydrocarbons that contains 20.0 grains or less of total sulfur per 100 standard cubic feet (SCF) and is either

- composed of at least 70% methane by volume or has a gross calorific value of between 950 and 1100 Btu per standard cubic foot. (40 CFR 60.331)
- H. "Natural Gas Liquids" means the hydrocarbons, such as ethane, propane, butane, and pentane, that are extracted from field gas. (40 CFR 60.631)
- I. "National Ambient Air Quality Standards" means the primary (health-based) and secondary (welfare-related) federal ambient air quality standards promulgated by the US EPA pursuant to Section 109 of the Federal Act. (20.2.72.7Q NMAC)
- J. "NO<sub>2</sub>" or "Nitrogen dioxide" means the chemical compound containing one atom of nitrogen and two atoms of oxygen, for the purposes of ambient determinations. The term "nitrogen dioxide," for the purposes of stack emissions monitoring, shall include nitrogen dioxide (the chemical compound containing one atom of nitrogen and two atoms of oxygen), nitric oxide (the chemical compound containing one atom of nitrogen and one atom of oxygen), and other oxides of nitrogen which may test as nitrogen dioxide and is sometimes referred to as NOx or NO<sub>2</sub>. (20.2.2.7U NMAC)
- K. "NOx" see  $NO_2$
- L. "Paved Road" is a road with a permanent solid surface that can be swept essentially free of dust or other material to reduce air re-entrainment of particulate matter. To the extent these surfaces remain solid and contiguous they qualify as paved roads: concrete, asphalt, chip seal, recycled asphalt and other surfaces approved by the Department in writing.
- M. "Potential Emission Rate" means the emission rate of a source at its maximum capacity to emit a regulated air contaminant under its physical and operational design, provided any physical or operational limitation on the capacity of the source to emit a regulated air contaminant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its physical and operational design only if the limitation or the effect it would have on emissions is enforceable by the department pursuant to the Air Quality Control Act or the Federal Act. (20.2.72.7Y NMAC)
- N. "Restricted Area-Non Military" is an area to which public entry is effectively precluded. Effective barriers include continuous fencing, continuous walls, or other continuous barriers approved by the Department, such as rugged physical terrain with a steep grade that would require special equipment to traverse. If a large property is completely enclosed by fencing, a restricted area within the property may be identified with signage only. Public roads cannot be part of a Restricted Area.
  - O. "Shutdown" for requirements under 20.2.72.7BB NMAC, means the cessation of operation of any air pollution control equipment, process equipment or process for any purpose, except routine phasing out of batch process units.

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- P. "SSM" for requirements under 20.2.7 NMAC, means routine or predictable startup, shutdown, or scheduled maintenance.
  - (1) "Shutdown" for requirements under 20.2.7.7H NMAC, means the cessation of operation of any air pollution control equipment or process equipment.
  - (2) "Startup" for requirements under 20.2.7.7I NMAC, means the setting into operation of any air pollution control equipment or process equipment.
- Q. "Startup" for requirements under 20.2.72.7DD NMAC, means the setting into operation of any air pollution control equipment, process equipment or process for any purpose, except routine phasing in of batch process units.

# C102 Acronyms 4SRB.......4-stroke rich burn AP-42 ......EPA Air Pollutant Emission Factors AQB......Air Quality Bureau AQCR ......Air Quality Control Region ASTM ...... American Society for Testing & Materials Btu ...... British thermal unit CEM.......continuous emissions monitoring cfh ...... cubic feet per hour cfm \_\_\_\_\_cubic feet per minute CI ......compression ignition CO ...... carbon monoxide COMS ..... continuous opacity monitoring system EPA...... United States Environmental Protection Agency gr/100 cf.....grains per one hundred cubic feet gr/dscf ...... grains per dry standard cubic foot HAP ...... hazardous air pollutant hp ......horsepower KW/hr .....kilowatts per hour lb/hr.....pounds per hour lb/MMBtu.....pounds per million British thermal unit MACT .......Maximum Achievable Control Technology

	million cubic feet per hour
	million standard cubic feet
N/A	not applicable
	National Ambient Air Quality Standards
	Emission Standards for Hazardous Air Pollutants
	natural gas
	natural gas liquids
	New Mexico Ambient Air Quality Standards
	New Mexico Administrative Code
	New Mexico Environment Department
	New Mexico Statues Annotated
	nitrogen oxides
	non-selective Catalytic Reduction
	New Source Performance Standard
	New Source Review
	parametric emissions monitoring
PM particulate matter	r (equivalent to TSP, total suspended particulate)
$PM_{10}$ pa	articulate matter 10 microns and less in diameter
	articulate matter 2.5 microns and less in diameter
	pounds per hour
ppmv	parts per million by volume
	Prevention of Significant Deterioration
	relative accuracy test assessment
	reciprocating internal combustion engine
1	revolutions per minute
	standard cubic feet per minute
	spark ignition
	sulfur dioxide
	up Shutdown Maintenance (see SSM definition)
	Toxic Air Pollutant
	to be determined
	total hydrocarbons
1 0	tons per year
	ultra-low sulfur diesel
	United States Environmental Protection Agency
	niversal Transverse Mercator Coordinate System
	Universal Transverse Mercator Horizontal
	volatile hazardous air pollutant
VOC	volatile organic compounds